

The London School of Economics and Political Science

***Postpartum Care in Thailand: Experience, Practice
and Policy***

Wiraporn Pothisiri

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Declaration

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Abstract

In developing countries, hundreds of thousands of women still die shortly after giving birth and thousands who make it to survive suffer with short-term or long-term health problems related to pregnancy and childbirth that impact their quality of life. However, empirical evidence shows that the majority of these women did not receive any care after delivery. Unlike antenatal and obstetric care, relatively little is known about the factors that explain levels of postpartum care use. This thesis examines the utilisation of postpartum care services in the context of Thailand, which is best known among the developing countries for its success on maternal and child healthcare improvement. Thailand's maternal mortality rate is low (12 deaths per 100,000 live births) and 92 per cent of women have at least four antenatal visits and 97 per cent of women deliver in hospitals. However, rates of postpartum service use remain low at 61.2 per cent. The thesis considers the explanations for low levels of postpartum service use observed in Thailand from a range of perspectives: women, health providers, policy actors and interrelationships among them. Using sequential mixed methods, the study first examines quantitatively the contemporary context of postpartum services and the individual-level factors influencing the use of postpartum services. This is followed by a qualitative analysis which explores the attitudes and perceptions of women, health providers and policy actors towards postpartum care services. Analyses reveal interacting influences that facilitate and impede women's use of postpartum care service. Whilst the quantitative study reveals several demographic, socio-economic and motivating factors, the qualitative study shows that women's perception of the content of postpartum care services and healthcare systems, as well as their experience of encounters with health providers, have significant impact on decisions whether to use postpartum services. The health service delivery system has some significant negative impacts on women's use of postpartum services. Although Thailand has had postpartum care policies in place since the 1960s, the significance of postpartum care for the mother's health has been neglected. The study finds that there is a complex array of individual, health system-related and political factors that influence the utilisation of postpartum care services. Unless adequate attention is given to these factors and their interrelation, it is unlikely that women's use of postpartum care services will be improved.

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Chapter 1

Introduction

1.1 Introduction

Improving maternal health has been of global concern for more than thirty years, yet the empirical evidence suggests that much work still needs to be done. Estimates of maternal mortality show that every day more than a thousand of women worldwide still die from complications related to pregnancy and childbirth (2007), although wide variations in rates of maternal mortality can be observed in different parts of the world. Of the estimated 536,000 maternal deaths annually, 99 per cent occur in developing countries, and more than one-third in South Asia (188,000). Developing countries have a maternal mortality rate (MMR) of about 450 deaths per 100,000 live births, in stark contrast to 8-9 deaths per 100,000 live births in developed countries (Ronsmans, Graham et al. 2006; WHO 2007).

Despite this substantial variation, the timing of maternal mortality follows a similar pattern in both developing and developed countries, in that in most cases it occurs soon after delivery (WHO 1990; Koblinsky, Tinker et al. 1994; Li, Fortney et al. 1996; WHO 1998). Li *et al.* (1996) observed that 71.9 per cent of maternal deaths in the USA and 60.6 per cent in five selected developing countries occurred in the postpartum period, conventionally defined as beginning immediately after childbirth and lasting for 42 days after delivery. In both situations, the mother's risk of death is highest during the first few days, when the onset of obstetric complications can develop into serious illnesses, such as haemorrhage and sepsis. The risk of death declines sharply thereafter. These figures suggest that a mother remains at an elevated risk of death for the first 42 days after delivery (WHO 1992; Li, Fortney et

al. 1996). However, many recent studies have extended the observation time of maternal mortality beyond 42 days after delivery, and these have revealed increasing evidence of an elevated risk of death for up to three to six months after delivery (Pradhan, West Jr et al. 2002; Høj, Silva et al. 2003; Vallely, Ahmed et al. 2005; Borders 2006; Ronsmans, Graham et al. 2006; Patra, Singh et al. 2008).

While the immediate postpartum period remains a critical time, it is also a strong indicator of longer-term trends in a mother's health and well-being (Bick, Bastos et al. 2008). Evidence from studies conducted in a variety of settings shows that many postpartum women suffer one or more symptoms of physical or psychological morbidity up to one year postpartum (Glazener, Abdalla et al. 1995; Bhatia and Cleland 1996; Waterstone, Wolfe et al. 2003; Vallely, Ahmed et al. 2005; Cheng, Fowles et al. 2006; Thung and Norwitz 2010). Morbidities commonly reported by postpartum women include anaemia, bladder problems, backache, constipation, frequent headaches, pelvic and perineal pain, as well as dyspareunia, urinary tract problems, and emotional disorders such as maternity blues and depression. While some of these morbidities may be short lived, or may respond to simple treatment, others can become severe if not identified or treated effectively and promptly, leading to long-term impairment, disability, ill-health or death.

Postpartum care services seek to decrease these deaths and morbidities (WHO 1998; Ahmad 2000; Nabukera, Witte et al. 2006; Sines, Syed et al. 2007) by assessing physical and mental well-being, and by offering immunisation (if required) and advice and counselling on health-related matters such as breastfeeding, family planning, nutrition, and newborn care. The WHO and the Safe Motherhood Initiative (2002) emphasise the importance of women receiving such care within the first six hours after delivery, and then at six days, six weeks, and six months (WHO 1998: 4). Care may be home-based or facility-based, and any health problems identified should be treated or referred for specialist care.

While 90 per cent of women in the developed world receive such postpartum care services (WHO 1998; CDC 2004), many women in developing countries do not receive any postpartum care, especially in the two regions with the highest incidence of maternal mortality: sub-Saharan Africa and South Asia. Using data from Demographic and Health Surveys (DHS) between 1999 and 2004, it is estimated that

seven out of ten women in 30 countries did not receive any postpartum care. Ethiopia has the highest percentage of women without postpartum care (90 per cent), followed by Bangladesh (73 per cent) and Rwanda (71 per cent) (Fort, Kothari et al. 2006). According to the 2008 report *Countdown to 2015*, only two per cent of Chadian women received any postpartum care service (UNICEF 2008). In the Middle East, the coverage of postpartum care varies widely; about 88 per cent of women in Saudi Arabia received postpartum care (Baldo, Al-Mazrou et al. 1995), in contrast to 23 per cent in Lebanon and 39 per cent of Palestinian mothers in the West Bank (Dhaher, Mikolajczyk et al. 2008; UNICEF 2008). In East and South East Asia, there is less variation in the levels of postpartum service coverage. Excluding Indonesia, where the coverage of postpartum care is exceptionally high at 89.3 per cent (Fort, Kothari et al. 2006), the coverage rates in East and South East Asia range between 53 and 66 per cent (Division of Reproductive Health 2006; Liu, Rao et al. 2008; UNICEF 2008). Since about one-third of developing countries lack national data on postpartum care coverage, the extent of the utilisation of postpartum care in many developing countries is unclear (WHO 1998; Albers 2000; Cheng, Fowles et al. 2006; Kabakian-Khasholian, Jurdi et al. 2006; Nabukera, Witte et al. 2006).

In comparison with studies on the utilisation of antenatal and obstetric care, there has been little research focusing on the low utilisation of postpartum care services, suggesting that postpartum care is of little concern to academics and policymakers relative to other episodes of maternal healthcare. Further, the available research is highly skewed in terms of geographical distribution. Most research has been carried out in developed countries and in Bangladesh and India, with recent studies focusing on specific countries in Africa and the Middle East (Kabakian-Khasholian, Jurdi et al. 2006; Dhaher, Mikolajczyk et al. 2008; Mrisho, Obrist et al. 2009). Very little work exists on the provision and use of postpartum services in East and South East Asia or Latin America.

1.2 Thailand: The Study Context

Thailand is one of the very few developing countries where maternal mortality has declined substantially, and the MMR was recently estimated at 12 deaths per

100,000 live births (UNICEF 2009).¹ This level is very close to the MMR levels of higher income countries, where the rate is between 8 and 11 per 100,000 live births (UNDP 2005). This success may be attributed to a powerful, synergistic mix of several factors, including rapid economic growth, public reforms in social services, and improvement of the formal education system. It would, however, have been impossible if the government had not shown a strong commitment to improving maternal health (SEARO 2004; UNDP 2005).

In Thailand, provision of maternal and child health (MCH) care services has been documented since 1926 (Thailand Health Profile 1999), when HRH Prince Mahidol of Songkla modified a hospital in Bangkok into a large maternity hospital (Thailand Health Profile 1999). Over the next few decades services became more widely available, although only in hospitals in Bangkok and in other urban areas (Hemachudha, Asavasena et al. 1972; Thailand Health Profile 1999). A formal health policy was developed in the 1950s alongside Thailand's rapid transformation from an agrarian-based society into a modern industrialised economy. This prompted the Thai government to request the National Economic Development Board (NEDB) to submit recommendations, and with the World Bank's advice the board's recommendations were translated into the inaugural National Economic Development Plan (1961–1966). This plan had specific sub-sections for healthcare and health development.

In 1960, Thailand established a health record and death registration system, and maternal and infant mortality rates have been reported since 1962. At that time, the MMR was substantial, at 374.3 per 100,000 live births, while the infant mortality rate (IMR) was 83.4 per 1,000 live births (Thailand Health Profile 1999). These figures led the government to initiate the National Maternal and Child Health Board (NMCHB) in 1964, to formulate plans and policy recommendations for improving survival rates. In the early 1970s, the first concrete target was incorporated into the

¹ The MMR estimates presented by UNICEF were obtained from two national authorities: the Bureau of Health Promotion and the Bureau of Health Policy and Strategy. These estimates differ somewhat from the WHO's figures, and are based on a different methodology. See Chandoevmit *et al.* (2007) for further discussion on statistical variations for MMR in Thailand.

country's Third National Health Development Plan (1972–1976), and further targets have continued to appear in subsequent plans including the current Tenth Plan (2007–2011), even though the overall MMR is already low. Of particular note is that MMRs among minorities such as the hill tribes and in southern Muslim-majority provinces remain relatively high (overall, 36 per 100,000 live births). The Tenth Plan incorporates targets to reduce this figure by 50 per cent by 2011.

Significant steps taken by the government to increase the survival rates of mothers have included the national implementation of the Safe Motherhood Project in 1990. This was introduced to expand MCH services in rural areas, where the majority of maternal deaths occur. There has also been investment in the health infrastructure and in human resources, with new medical and nursing schools, and increased efficiency through training programmes for health providers and traditional birth attendants (Chongsuvivatwong, Bucharkorn et al. 1991; Boonnam, Noi-wattana et al. 2001). Following the adoption of the WHO's Alma Ata Declaration on Primary Health Care in 1987, the MCH service was integrated into community-level primary healthcare units to provide basic care services: these consisted of antenatal and postpartum check-ups, family planning advice and immunisation (for mothers, newborns, and children) (Bureau of Policy and Strategy 2006).

Thailand now has good maternity care service coverage with near-universal use of antenatal care: 98.8 per cent of Thai women received at least one antenatal check-up during pregnancy (National Statistics Office 2007). A total of 92.2 per cent of pregnant women are reported to have completed four antenatal clinic attendances, as recommended by the Ministry of Public Health (Division of Reproductive Health 2006).² The coverage of obstetric care, that is, childbirth attended by a skilled attendant, is also high, with 97 per cent of pregnant Thai women assisted in delivery by a health professional, and 96.7 per cent delivering at a health facility.

² In Thailand, four antenatal visits are recommended by the government. The first visit is in the first 27 weeks of gestation. The second visit is between 28 and 31 weeks. The third and fourth visits are between 32 and 35 weeks and at 36 weeks. See *Manual of Primary Health Care Unit Standard Evaluation and Quality Assurance* (2003)

In contrast, postpartum care services are under-utilised, and rates are a fraction of those for antenatal and obstetric care. For Thai women, two postpartum care visits are recommended, one within one to two weeks of delivery and the other within four to six weeks (Bureau of Health Service System Development 2003). However, in 2003 the Ministry of Public Health's records revealed that 43.2 per cent of Thai women had not had two postpartum visits. By 2006, this incompleteness rate had dropped; the Division of Reproductive Health (2006) reported an improved figure of 38.7 per cent, while the 2006 Reproductive Health Survey by the National Statistics Office (NSO) calculated a figure of close to 37 per cent (National Statistics Office 2007). The NSO (2007) also recorded that 30.2 per cent of Thai women did not receive any postpartum care.

Given the relatively low levels of maternal mortality in Thailand, does this mean that the utilisation of postpartum care services is insignificant in terms of maternal morbidity and mortality? Studies of postpartum morbidities show that postpartum services are associated with improved physical and mental health outcomes. As well as missed advice and immunisations, non-receipt of postpartum care means a missed opportunity to receive screenings for potentially serious medical problems not readily apparent. Low rates of postpartum service use make it more difficult to assess the extent to which health problems arise following delivery. Further, when problems become apparent only at the late postpartum stage, any links with maternity-related causes may be overlooked. This in turn distorts the perception of health providers and policymakers, who consequently assume that women's postpartum health is of low priority. Low rates of use of postpartum care rarely feature in public discussions about maternity care.

The gap between usage of maternity services before and during birth and usage postpartum also raises other interesting questions. It clearly indicates lack of continuity in the use of maternity care services, and shows that the low usage of postpartum care is not a consequence of a low usage of antenatal care. The disparity in antenatal and postpartum care use suggests that interventions to improve maternal health might not be as effective as they could be. High rates of use of antenatal and obstetric care services suggests that Thai women are aware of maternity services, the contrasting low percentage of postpartum care usage suggests

that there might be specific factors influencing women's decisions about whether or not to use these services. The problem might not exist only on the demand side; from the perspective of the healthcare system there might be organisational or quality problems relating to the provision of services, resulting in dissatisfaction and demotivating women from using them.

In common with many other developing countries, there is little research focusing on postpartum health, postpartum care and postpartum service utilisation in Thailand. All of the existing work is concentrated in the fields of biomedical, clinical, and cultural studies, in which the low usage of postpartum care services is addressed only indirectly. This research into postpartum care provision and the determinants of its use fills an important gap in the scholarship and provides evidence that might be applicable to other low-income settings.

1.3 Aim and Research Questions

The aim of this study is to examine why the utilisation rate for postpartum care services in Thailand is so low. Three core research questions are addressed:

- (1) *What are the reasons why Thai women do not use postpartum care services?*
- (2) *Is the low rate of utilisation due to the current postpartum service system? In particular, has the healthcare system, including service providers, created any barriers to women's utilisation of available services?*
- (3) *Have policies relating to postpartum care affected the provision and utilisation of postpartum care in Thailand? If so, how and to what extent?*

These questions are considered from multiple perspectives, including:

- (1) Women, both users and non-users of postpartum care services
- (2) the healthcare system;

- (3) postpartum care service providers;
- (4) the policies which regulate and monitor the postpartum care services and healthcare system.

The thesis also takes into account the relationships between these factors.

1.4 Structure of the Thesis

The thesis is divided into eight chapters, including this introductory Chapter One. Chapter Two reviews studies on postpartum health and care services, including studies of models and timing of service delivery, and particular services provided. It also considers studies of postpartum care service utilisation in low resource settings in general and in Thailand in particular. This literature review provides the context in which the thesis's framework and research questions are located, formulated, and discussed. Chapter Three offers the political context of postpartum care services in Thailand, which is imperative to subsequent discussions of the study's findings. The mandates of postpartum policies and other policies related to the healthcare utilisation and provision are explored to see their inceptions, effects and implications. Chapter Four explains the research design and methodology, as well as its limitations. In particular, it explains and illustrates how qualitative research was undertaken by adopting a prospective design.

Chapters Five to Seven present and analyse the research findings. Chapter Five considers the national levels and patterns of maternal health service utilisation, based on secondary quantitative data analyses, while the chapters following identify barriers to and facilitators of the utilisation of postpartum care services. Chapter Six examines the perspectives of women, in order to identify users' experiences. Chapter Chapter Seven investigates the perspectives of service providers and policy actors. It examines how the postpartum service delivery system works and its effects on utilisation, as well as how the low level of postpartum service use in Thailand is perceived by policy actors. The concluding Chapter Eight draws together the findings and discussions, and avenues for future research.

Chapter 2

Postpartum Care: Contexts, Services, and Service Utilisation

2.1 Introduction

This chapter critically reviews the literature on postpartum health, postpartum care services and postpartum care service utilisation, outlining the context in which the thesis's research questions are situated and guided. It begins with an account of the methods used for the literature review, and a brief discussion of both Thai and non-Thai postpartum literature (Section 2.2). Next, it explores the context of postpartum health, to emphasise why the postpartum period is of significance to a woman's health (Section 2.3). This is followed by a discussion of postpartum care service provision, in terms of care delivery models and the elements and timing of postpartum care services (Section 2.4). Determinants of postpartum care utilisation identified in the literature are investigated and presented, and gaps and uncertainties in the research are identified (Section 2.5). Following that, postpartum care and postpartum care service use in the study context (Thailand) are reviewed and discussed. This includes discussions of Thai customs and beliefs relating to postpartum care and of traditional Thai postpartum practices (Section 2.6). In the final section, the chapter details the thesis's research questions derived from this overview (Section 2.7).

2.2 Literature Review: Methods

A literature review is a fundamental scientific activity (Mulrow 1994), employing critical exploration, evaluation, and synthesis to critical and salient studies that are worthy of reflection (1994: 597), and also identifying “what is unknown or unrealised or misinterpreted” (Watson 1987: 29). Aveyard (2007) asserts that without undertaking a literature review, the real impact of research cannot be assessed. In this study, the literature review aims not only to locate, justify, and refine the thesis framework, but also to develop a fuller picture of healthcare services and their use in the postpartum period, through a gathering together of fragmented (and occasionally unmanageable) information (Aveyard 2007).

“Postpartum” means the period starting shortly after the delivery of the placenta (WHO 1998). The study of the postpartum is multidisciplinary and includes bioscience, cultural studies, demography, human studies, medical anthropology, public health, public policy and sociology. Information was gathered from various sources, including academic papers, published and unpublished reports, policy statements, and technical guidance and protocol documents. The most frequently consulted sources were academic papers, obtained through the standard electronic journal databases.³ Thai literature, which is for the most part unavailable electronically, was hand-searched via university databases and the archives of government agencies dealing with maternal healthcare. Keywords in both Thai and English were used in the searches. Terms related to postpartum care⁴ were searched individually and combined with other terms related to service use.⁵

³ These were the Cochrane Library, International Bibliography of the Social Sciences (IBSS), JSTOR, Ovid EMBASE, PubMed, Science Direct, Social Science Information Gateway (SOSIG), Web of Knowledge, SAGE, and Swetswise

⁴ For example: “postpartum care”, “postnatal care”, “puerperium care”, and “*Doo lae laŋg kloŋ*”; and “mother’s care”, “maternal care”, and “*Doo lae mae*”.

⁵ For example: “health service utilisation”, “accessibility”, and “*gaan kao teŋng*”; and “barrier to service use”, “*ubpà-sàk, chái bor-rí-gaan*”.

Each document was assessed for its relevance to the research topic, for its research methodology, and for the adequacy of its arguments in relation to evidence provided (Aveyard 2007). A document's general applicability was also considered. Excel was used to generate a data extraction form to record details about the documents, particularly for studies concerning the utilisation of postpartum care services. The form noted general information, results, suggestions made by the articles' author(s), and comments and remarks made by the researcher (Simkhada, Teijlingen et al. 2008). Similar study topics were grouped into categories, and particular documents could belong to more than one category if appropriate. Consistent and contradictory study results were identified, summarised, and discussed.

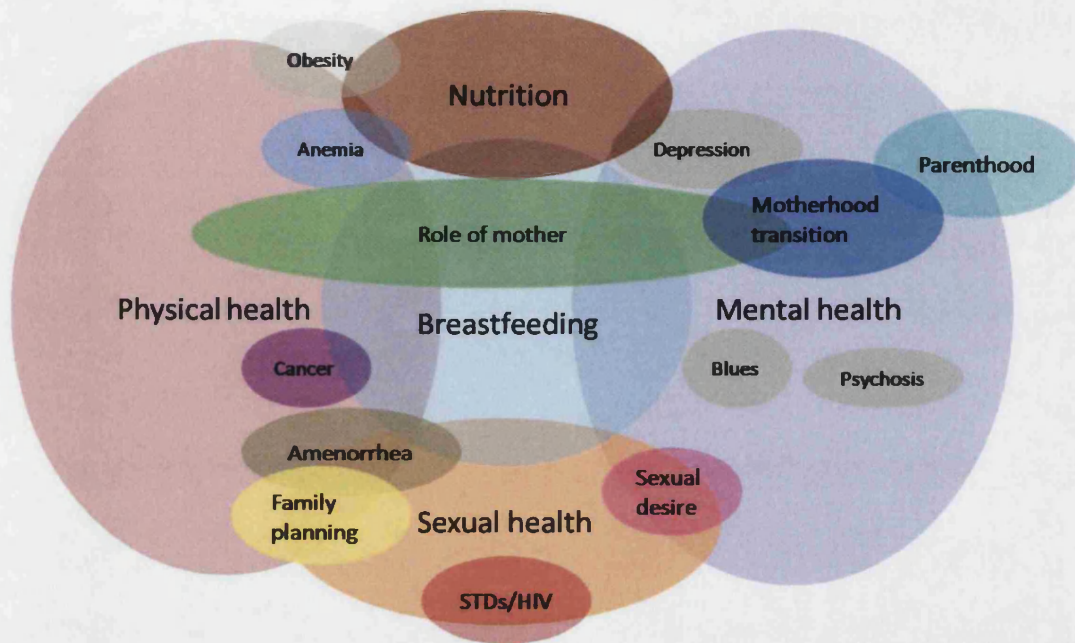
2.3 What Matters to the Health of Postpartum Women?

As Rubin (1977) notes, even though childbirth is regarded as a climactic moment at which the lives of both the mother and baby hang by a thread, this is obviously not the end of the story, and the period after childbirth is of no less importance than preceding events. This section summarises and discusses the literature relating to women's health after childbirth. It provides a context for understanding why the postpartum period matters significantly to women's health. Five broad themes are identified in the literature: (1) postpartum psychological health; (2) postpartum physical health; (3) maternal sexual health; (4) maternal health and breastfeeding; and (5) maternal nutrition. These themes are highly interrelated and combined, and they capture the complexity of the issue (See Figure 2-1).

2.3.1 Postpartum Psychological Health

The birth of a baby also has "a dark side" (WHO 1998: 21). During the first few days, or even for several weeks, following delivery a woman's body often feels painful and uncomfortable, requiring extra care and rest. Yet, with the birth of her child, a woman assumes new duties and the new role of motherhood. The regular care of an infant usually involves uncertain (and unpredicted) tasks, and this

Figure 2-1 Aspects of maternal health in the postpartum period



inevitably disturbs her sleep and affects the process of her recuperation. Many women have to relinquish their personal freedom, autonomy, capacity to generate income, and social activities in order to care for the infant. For multiparous women, a birth of a new child may increase the difficulties of an already-complex situation; an older child or children may be jealous of the shift of attention (Killien 1977; Chapman, Macey et al. 1985; Merilo 1988), while a lack of desire for intimacy or sex can put a strain on a mother's relationship with her partner (Judicibus and McCabe 2002; Haugen, Schmutzer et al. 2004; Gjerdingen and Center 2005). With all the adaptations, changes, and demands placed on the woman, the postpartum period is seen as a highly vulnerable time for women in terms of developing emotional and psychological disorders (WHO 2009: 15).

Unlike other postpartum health problems, postpartum mental disorders have been universally conceptualised into three main conditions of differing severity, ranging from a transient experience of postpartum blues, to severe postpartum depression, to the most severe puerperal psychosis (WHO 2009). Postpartum or maternity blues typically occur within two to seven days of delivery and improve spontaneously

within two to six weeks (Koshchavtsev, Mul'tanovskaya et al. 2008). Symptoms include anxiety, crying without reason, exaggerated cheerfulness, irritability, mild confusion, restlessness, sensitivity, and tension (WHO 1998; Thangappah, Asokan et al. 2005). Postpartum depression (PPD) can occur later on, and is a more prolonged and serious psychological disorder requiring timely and effective diagnosis and treatment. It usually presents within the first five weeks postpartum (O'Hara and Swain 1996; WHO 2009) and includes both emotional symptoms (e.g. feeling depressed, gloomy, or worthless, as well as feeling a lack of pleasure) and physical symptoms (e.g. insomnia, lack of appetite, loss of libido, poor functioning). Another significant co-existing symptom is suicidal ideation (The American Psychiatric Association 1994: cited in Logsdon, Wisner et al. 2003: 277). Many studies have reported that PPD not only impairs women's ability to resume routine activities, but also jeopardises the psychological and health functioning of infants, due to a mother's reluctance to breastfeed and her fear she might harm her baby (Affonso, De et al. 1999; Sobey 2002; Logsdon, Wisner et al. 2003; Shaw and Kaczorowski 2007). Postpartum psychosis is the gravest condition in the group, but occurs rarely (2 per 1,000 deliveries in the US and 3.2 per 1,000 in Tanzania) (WHO 2009). Postpartum psychosis usually develops within the first month postpartum, and is characterised by acute symptoms of mania and elation, as well as sadness, thought disorder, delusions, and hallucinations (WHO 2009). These symptoms, as well as the woman's reactive behaviour, can be dangerous to the woman and her infant. A UK study has shown that not only does the illness have a negative impact on the formation of mother-infant attachment; a child reared by a parent with a psychotic illness is at increased risk of neglect and developing mental-ill health (Rutter and Quinton 1984: cited in Howard 2000).

The study of women's mental health after delivery is extensive and has been well-established since the 1960s (WHO 2009). Most early studies assessed and defined the context of a mother's concerns and worries as being in relation to infant care (Chapman *et al.* 1985; Fillmore and Taylor 1976; Killien 1977; Harrison and Hicks 1983; Genevie and Margolies 1987; Smith 1989), rather than in relation to mental illness, although there was much research that referenced the incidence of mental ill-health after childbirth. However, a number of studies and theories have since been put forward to explain the aetiology of maternal mental problems and to prove that

the emotional imbalance occurring after childbirth is distinct from that found during other phases of the life cycle. A range of factors contributing to maternal emotional disorders were examined: biological factors (e.g. changes in hormones), obstetric factors (e.g. method and place of delivery), and a range of psychosocial factors, such as women's individual characteristics, employment status, history of childhood separation, pregnancy intention, abortion experience, and use of the contraceptive pill (Mabray 1979; Paykel, Emms et al. 1980; Playfair and Gower 1981; Vessey, McPherson et al. 1985; O'Hara and Swain 1996; Rubertsson, Waldenström et al. 2005; Özbaşaran, Çoban et al. 2010). Despite a number of studies, the World Health Organization (WHO) (2009) noted that evidence of the contribution of these factors to the incidence of postpartum mental ill-health was inconsistent and inconclusive, and that they provided insufficient information on which to base the development of effective strategies for prevention and treatment (2009: 15).

Postpartum mental-ill health is acknowledged to be an urgent global concern (Sobey 2002; WHO 2009). However, the magnitude of the problem globally is as yet unknown. Some scholars believe that widely-cited statistics for the prevalence of postpartum blues and postpartum depression (30–80 per cent and 10–15 per cent respectively) are not representative and not applicable worldwide (Halbreich and Karkun 2006). Studies also point out that a lack of evidence from developing countries means that the extent of the problem is unclear (WHO 2009). Further, the nature and accuracy of the evidence that is available is a further problem; Halbreich and Karkun (2006) note that it is very difficult to compare the incidence and prevalence of postpartum psychological disorders internationally or regionally, because of different definitions, diagnoses, measurements, and timeframes. This is given as the reason for evident variations in the prevalence of postpartum mental-illness between countries and between groups of studied populations. In the US, the range of reported PPD rates from 22 studies varies widely, from 3.7 per cent to almost 36 per cent (Heilemann, Coffey-Love et al. 2004; Halbreich and Karkun 2006). Similar ranges are reported for Turkey, where PPD from seven studies ranges from 9.8 per cent to 40.4 per cent (Halbreich and Karkun 2006).

In addition, the incidence and prevalence of mental health problems among postpartum women are likely to be under-reported. This is because not all postpartum

women are offered screening for psychological problems (Section 2.4.4). Sobey (2002) found that in the US, many indicative symptoms of psychological disorders, such as anxiety, fatigue, and irritability, were often dismissed by health providers as an effect of infant care. Further, postpartum women themselves tend not to report their feelings, assuming them to be due to hormonal changes caused by childbirth (Vesga-López, Blanco et al. 2008). There is also a serious stigma attached to admitting to psychological problems (Robinson and Young 1982; Fraser and Cullen 2006); Fraser and Cullen (2006) reported in their UK study that some women try to hide their feeling of unhappiness and so suppress their guilt at not enjoying motherhood. In India, women with PPD also experience a high level of stigma (Thara and Srinivasan 2000).

2.3.2 Postpartum Physiological Health

Childbirth can prompt physical as well as emotional effects, and bodily changes such as weight gain are features of postpartum transition (Williamson, Madans et al. 1994; cited in Devine, Bove et al. 2000: 567). A few studies have addressed the potential impact of such physical changes on postpartum mental well-being, noting distress and reduction of self-esteem, which in turn may lead to negative reactions such as eating disorders (Genevie and Margolies 1987; Jenkin and Triggemann 1997). The retention of pregnancy-related weight, elevated further by weight gained in the early postpartum period, can then develop into obesity, which means that women are also exposed to the risk of developing chronic diseases such as cardiovascular disease, diabetes, and hypertension (Walker 2007; Huang, Wang et al. 2010).

Physical morbidity after childbirth is not uncommon. Postpartum women in a wide range of settings have reported at least one or more symptoms of physical morbidity after childbirth (de Graft-Johnson 1994; Glazener, Abdalla et al. 1995; Bhatia and Cleland 1996; Baker, Taylor et al. 1997; Chama, El Nafaty et al. 2000; Carroli, Rooney et al. 2001; Turner, Boyle et al. 2003; Bang, Bang et al. 2004; Valley, Ahmed et al. 2005; Valley, Ahmed et al. 2005; Nicholson, Setse et al. 2006; Pinheiro, Magalhães et al. 2006; Patra, Singh et al. 2008). Commonly reported maternal morbidities include anaemia, backache, breast problems (whether lactating

or not), bladder problems, constipation, fatigue, frequent headaches, haemorrhoids, infection, pelvic pain and perineal pain. The incidence of postpartum morbidity reported by mothers within the first few months after childbirth varies considerably across countries. In India, 23 per cent of women indicated problems (Bhatia and Cleland 1996), whereas in Pakistan, 53 per cent reportedly suffered from at least one symptom and 19 per cent had more than two symptoms (Fikree, Ali et al. 2004). A particularly high incidence of 79 per cent was observed among Bangladeshi women living in Dhaka slums (Uzma, Underwood et al. 1999). Using a similar measurement, Glazener *et al.* (1995) reported that in the UK, the incidence of density of health problems per postpartum woman was 2.13 in the first 13 days and 2.5 in the first eight weeks, whereas Patra *et al.* (2008) indicated a slightly lower incidence of 1.75 per woman in India in the first six weeks postpartum.

Some postpartum symptoms are mild and can disappear after a short time, or can be resolved through self-care, such as resting and changing diet; others are more severe or chronic and require professional care. Puerperal sepsis is one of the leading causes of postpartum hospital readmission within the first six weeks after delivery. In Zambia, a hospital-based survey by Vallely *et al.* (2005) revealed that sepsis accounted for one third of hospital care seeking within six months postpartum. Shakuntala *et al.* (2006)'s Indian study showed that sepsis accounted for more than 50 per cent of hospital readmissions during the first month after delivery.

There is also a common incidence of postpartum morbidity in relation to sexuality. Evidence shows that a woman's sexual functioning changes after delivery and that many women experience discomfort and pain after sexual intercourse (Brown *et al.* 2006; Glazener 1997; Barrett *et al.* 2000; Hollander 2004; Abdool, Thakar, *et al.* 2009). In a Scottish survey, 53 per cent of postpartum women who had already resumed sexual intercourse with their partner within the first eight weeks reported some physical problems, mostly perineal pain (Glazener 1997). A study in London reported that 55 per cent of respondents suffered from painful penetration and 44 per cent lacked vaginal lubrication (Barrett, Pendry et al. 2000). Psychologically, the pain and discomfort experienced during intercourse causes sexual activity to become less satisfying, and discourages women from desiring or having sex on subsequent occasions (Judicibus and McCabe 2002; Hollander 2004).

Compared to studies of postpartum mental health, relatively little work has been undertaken on women's physical changes and health problems. Studies prior to the 1990s were carried out with the limited purpose of determining the extent of postpartum morbidities, rather than aiming to determine causes, diagnosis, or prevention (WHO 1989). In addition, many studies on postpartum morbidities cannot be generalised to a broader population because they are based on specific sample groups in health facilities (WHO 1989: 3). Bhatia and Cleland (1996) observed that these studies concentrated on biomedical and pathogenic factors, and that socio-economic and behavioural factors were by comparison ignored. The reliability of the research methods used to investigate postpartum morbidity has also been questioned (Shaw and Kaczorowski 2007). Few studies have employed a prospective design, which has been found to be more suitable for studies of the aetiology of diseases and disorders in humans than retrospective studies based on single interviews (WHO 1989; Bhatia and Cleland 2000).

It was not until the mid-1990s that research attention was focused on the determinants of maternal physical health in the postpartum period. A number of risk factors have since been extensively investigated in various settings around the world, taking account of women's demographic and socio-economic contexts, obstetric-related factors (i.e. delivery method and obstetric complications), and patterns of healthcare use during pregnancy (e.g. the uptake and frequency of antenatal care utilisation) (Kogan, Leary et al. 1990; Gjerdingen, Froberg et al. 1993; Waters and Lee 1996; York, Grant et al. 1999; Alexander and Bouvier-Colle 2001; Lydon-Rochelle, Holt et al. 2001; Pollack, Nordenstam et al. 2004; Fronczak, Antelman et al. 2005; Mazouni, Bretelle et al. 2005; Valley, Ahmed et al. 2005; Brown, Lumley et al. 2006). The factors differ between developed and developing countries. For example, household economic status is one of the most common factors attributed to postpartum morbidities in most studies concerning developing countries. This is closely associated with the accessibility of general and pregnancy-related healthcare services, which in turn are associated with particular delivery methods and obstetric complications. In contrast, fewer studies of developed countries have examined the association between low economic status and postpartum morbidity. Instead, most work has concentrated on how delivery methods relate to maternal morbidity (Sword and Watt 2005).

Despite the evidence of higher rates of postpartum morbidities in developing countries, the vast majority of these studies are concentrated on only a few countries in South Asian, East Asian and Middle East regions. There is little research on Latin America and Africa. This uneven geographical focus may lead to a distorted perception of the incidence of postpartum morbidity, both globally and regionally (WHO 1989, 1998).

2.3.3 Maternal Sexual Health

Childbirth and the transition to motherhood and parenthood, along with other factors, have a great impact on postpartum sexuality, an issue that has received comparatively close attention from scholars over the last two decades (Abdool, Thakar, and Sultan 2009; Fischman *et al.* 1986; Ahlborg and Strandmark 2006; Olsson *et al.* 2009). The context of postpartum sexuality overlaps with physical and psychological postpartum health, but there are two specific sexual-related aspects that have a significant impact on women's postpartum health: birth spacing and for some women an increased risk of sexually transmitted infections (STIs) or HIV/AIDS (Awusabo-Asarea and Anarfi 1997; Ali and Cleland 2001).

2.3.3.1 Birth Spacing

For more than twenty years, evidence has suggested a significant link between birth timing and spacing and maternal health. Anandalakshmy *et al.* (1993) used a case-control approach to investigate maternal death in India and showed that a short birth interval of less than two years is associated with maternal death. Women with shorter inter-pregnancy intervals show higher incidence of anaemia (Lazović and Pocekovac 1996; cited in Conde-Agudelo and Belizan 2000), while evidence from Uruguay suggests a strong likelihood of third-trimester bleeding, premature rupture of membranes, puerperal endometritis and maternal death (Conde-Agudelo and Belizan 2000). Compared with women with an inter-pregnancy interval of 18–24 months, women with a birth interval of 15 months have significantly greater risk of maternal death (2.5 times greater), as well as a 30 per cent increased risk of puerperal

endometritis and anaemia (Conde-Agudelo and Belizan 2000). Work by Razzaque *et al.* (2005) conducted in Matlab, Bangladesh, showed that eclampsia and high blood pressure are more likely to be found among women with less than a six month birth spacing. Despite differences of demographic and geographic settings, these two studies share a similar conclusion; that birth intervals of less than 15 months are associated with critical risks to women's health (Norton 2005).

Studies have shown that postpartum women themselves wish to avoid pregnancy (Ross and Winfrey 2001; USAID 2005). In a systematic review of postpartum family planning programmes across 24 countries, Thapa *et al.* (1992) showed that at least 80 per cent of postpartum women in 13 countries wished to stop childbearing or to space their next birth by an average of 24 months (Ross and Winfrey 2001). According to Ross and Winfrey's (2001) survey on Demographic Health Survey (DHS) studies, between 92 per cent and 97 per cent of women did not want another child within two years, but 35 per cent in fact spaced childbirth at less than two years. Forty per cent of these women had intended to use a birth control method to prevent pregnancy but did not do so. A study of US teenage postpartum women (15–19 years) found in that 66 per cent of these young mothers unintentionally became pregnant again within two years (Boardman, Allsworth *et al.* 2006).

Unintended or mistimed pregnancies may end in abortion. A study by Vikat *et al.* (2002) revealed that the shorter the interval between pregnancies, the more likely women were to terminate the pregnancy. Specifically, the study found that Finnish women who became pregnant within eight months of delivery were more likely to end the pregnancy in abortion than those whose pregnancies began later than eight months. In addition, the abortion risk was elevated among teenagers. Similar findings regarding postpartum abortion among young mothers were also reported in US studies (Polit and Kahn 1986; Rigsby, Macones *et al.* 1998). There is no research on postpartum abortion and its consequences for maternal health, but we can deduce from studies of women's health risks in relation to abortion generally that in cases complicated by the effects of a previous recent childbirth, these women may have greater risks to their physical and psychological health. Health risk increases if the abortion is not carried out by health professionals.

2.3.3.2 Sexually Transmitted Infections

Sexual activity may not be as easy or comfortable as before delivery, and there may be a loss of sexual desire and interest. Women may refuse to have sex with their partner, which may lead to their partners having sex with other partners and so increasing the risk of sexually transmitted infections (STIs), including HIV/AIDS, when sexual activities resume. In two US studies, Mahon *et al.* (2002) found infections with *Chlamydia trachomatis* and *Neisseria gonorrhoeae* among postpartum women within three months of delivery. Of a total of 7,197 women who received STI testing at a three-month postpartum clinic, 2.6 per cent had positive test results for *Chlamydia trachomatis*, and 1.3 per cent tested positive for *Neisseria gonorrhoeae*. Ickovics *et al.* (2003) followed a group of pregnant adolescents and found that the incidence of both infections together was 7.9 per cent at a three-month follow-up test, 7.1 per cent at a six-month follow-up test, and that the figure doubled to 14.3 per cent at a twelve-month follow-up test. Elsewhere, Bentsi *et al.* (1985) reported that 7.7 per cent of postpartum Ghanaian women were infected with *Chlamydia trachomatis* and 3.4 per cent had *Neisseria gonorrhoeae*. In Kenya, 538 women were tested on the thirtieth day after delivery, and 6.7 per cent and 20.8 per cent were found to be infected with *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, respectively (Plummer *et al.* 1987: cited in Lagro, Liche *et al.* 2006).

Studies report various risk factors for postpartum STIs and HIV/AIDS. In relation to Africa, studies found male partners having unprotected sex with other women due to postpartum women's sexual abstinence (Awusabo-Asarea and Anarfi 1997; Ali and Cleland 2001). The US study noted two partner-specific factors as the strongest predictors of postpartum STIs: changing to a new partner and the number of partners during the postpartum period. Ickovics *et al.* (2003) found that US teenage mothers with new partners in the postpartum period were 6.3 times more likely to have postpartum STIs, and that those with a greater number of partners in one year postpartum were 3.0 times more likely to have postpartum STIs.

2.3.4 Maternal Health and Breastfeeding

Usually, the fate of a newborn is closely associated with the health and the behaviour of the mother. The mother is the primary decision-maker for the baby in many critical matters, including decisions about medical treatment and food (Teeraworn 2002). Breast milk is widely acknowledged as the best food for newborns. Evidence of its benefits in terms of nutrition, immunology, behaviour, and economics is overwhelming and indisputable (Yimin, Wei et al. 1997). Since only mothers can produce breast milk, they have been strongly encouraged to breastfeed their infants for as long as possible (Habicht, Davanzo et al. 1986; Yimyam, Morrow et al. 1999; Kaewsarn and Moyle 2000), and this may be an explanation for why there is so much research on breastfeeding in relation to a mother's postpartum health (Fewtrell 2004; Marshall, Godfrey et al. 2007).

In 1906 it was discovered that the hormone oxytocin, released during breastfeeding, can cause the uterus to contract. Over half a century later, this hormone began to be used medically to promote the involution of the uterus to its pre-pregnancy size (Lee, Macbeth et al. 2009). Since the contraction of the uterus helps to expel the placenta, breastfeeding is associated with a reduction in the likelihood of postpartum haemorrhage (McNeilly, Robinson et al. 1983; Geller, Adams et al. 2006). Breastfeeding also helps a mother to return to her pre-pregnancy weight (Yimyam 1997: 10; AHRQ 2007); specifically, it governs the mechanism of the glucose and lipid metabolism, which in turn helps reduce the risk of postpartum obesity (AHRQ 2007: 11), diabetes, and heart disease (Lenz, Kiihl et al. 1981; Kjos, Henry et al. 1993).

Another profound effect of breastfeeding is the absence of menstruation. Milk production stimulates various hormones such as prolactin, which in turn inhibits ovarian activity and ovulation; thus the mother becomes temporarily infertile (Chao 1987; WHO 1998). Studies on postpartum amenorrhoea are abundant, but many of their findings are controversial, particularly for papers from before the 1990s. Findings on the effectiveness of breastfeeding as a postpartum birth control method were inconsistent; the Lactation Amenorrhoea Method (LAM) has been widely investigated by researchers from various perspectives, including biomedicine, clinical practice, communications, education, health, and social science. In 1988, a

conference held in Bellagio, Italy, reported a consensus that a woman who does not use any other birth control method, but fully or nearly fully breastfeeds, and who remains amenorrhoeic after the 56th day postpartum, is likely to be 98 per cent protected from becoming pregnant in the first six months postpartum (Kennedy, Labbok et al. 1996; WHO 1998). Indirect benefits of LAM are also evident: since lactation contributes to birth spacing, the mother also has a certain period in which to recover her overall health (Heinig and Dewey 1997), and the temporary absence of menstruation means that iron reserves can also be restored, alleviating the likelihood of iron deficiency and subsequent postpartum anaemia (WHO 1994: cited in Yimyam 1997: 10-11).

Beyond the benefits during the postpartum period, breastfeeding is reported to reduce the risk of breast, ovarian, and endometrial cancers in later life (Heinig and Dewey 1997). A *Lancet* report (2002) has revealed that the relative risk of breast cancer decreases by 4.3 per cent for every 12 months of breastfeeding, in addition to a decrease of 7.0 per cent for each birth. Since breastfeeding suppresses ovulation, it also decreases gonadotropin levels (McNeilly 2001), and this can protect a woman from ovarian cancer (Danforth, Tworoger et al. 2007).

In psychological terms, successful breastfeeding provides many women with a sense of pride and achievement because it gives the infant food, and they are the only ones who can provide it (Yimyam 1997: 11; Flacking, Ewald et al. 2006). Although the mother-child relationship does not automatically develop at childbirth, many mothers report experiencing a deep sense of intimacy with the infant through providing warmth and breastfeeding (Ludington-Hoe 1977; Locklin 1995). However, breastfeeding can have negative effects and it can be a source of stress and tension. In many societies, where breastfeeding is seen as a key maternal role, a mother who is unable or chooses not to breastfeed may be questioned, leading to feelings of disappointment, incapability, guilt, or pressure (Lawrence and Lawrence 2005; Buckley and Charles 2006; Johnston-Robledo, Wares et al. 2007; Marshall, Godfrey et al. 2007; Rudman, El-Khoury et al. 2008).

2.3.5 Maternal Health and Nutrition

Breastfeeding can have a significant negative impact on nutrition, with a depletion of energy, protein, and other nutrients, such as vitamin A. It is vital to both mother and baby that the mother receives sufficient nutrients to sustain her own health and well-being.⁶ According to the WHO's *Practical Guide for Postpartum Care* published in 1998, women's are advised to increase their dietary intake to cover the energy cost of lactation, by about 10 per cent for physically inactive mothers, and 20 per cent for moderately or very active mothers (WHO 1998: 23). The United Nations Children's Fund (UNICEF) recommends that the daily consumption of breastfeeding mothers should be 500 calories more than when they are pregnant.⁷

Evidence suggests that many women of reproductive age in many parts of the world are at risk of dietary inadequacy, particularly during the postpartum period. In developing regions, studies show that women's dietary intake after childbirth is sometimes culturally restricted to certain types of food, implying that this may be one reason for the nutritional inadequacy that can negatively influence postpartum health (Supachareon and Chai-anake 2000; Winichagoon 2002; Raven, Chen et al. 2007; Liu, Mao et al. 2009). Liu *et al.* (2006) reported that during the first month after delivery, about 75.5 per cent of Chinese women did not consume fruit or milk, and 18 per cent ate no vegetables. Similar types of restricted food intake is reported in a Mexican study by Santos-Torres and Vásquez-Garibay (2003) and a Malaysian study by Poh *et al.* (2005). In developed countries, Shah *et al.* (2010) found from their US study that low-income women had a low consumption of fruits, vegetables, and whole grains, and a high consumption of solid-fats and sugar-added foods for between one and four months after delivery.

The causes of this inadequate dietary intake differ by context. In some countries, the postpartum period is usually marked by particular beliefs and cultural practices. Food taboos are prevalent due to the beliefs that certain types of food can be harmful to the

⁶ See UNICEF in Action: The Breastfeeding Initiatives Exchange. <http://www.unicef.org/programme/breastfeeding/related.htm>, Accessed on 15/09/09.

⁷ *Ibid*, 6

health of the mother, and, through lactation, to that of the baby (Liu, Mao et al. 2006; Piperata 2008). Among the global Chinese population, the postpartum diet aims to restore a *yin-yang*, or cold-hot balance, and so hot foods are consumed to regain strength lost during childbirth, and cold foods avoided because they are perceived to trigger health problems. Vegetables and fruits are regarded as cold foods and are believed to cause postpartum women health problems such as headaches and backaches in the months and years following delivery (Poh, Wong et al. 2005; Liu, Mao et al. 2006).

Insufficient dietary consumption in developed countries had been found to relate to infant care and psychosocial factors. Devine *et al.* (2000) have shown that insufficient and unhealthy food consumption during the postpartum period may arise as women adapt to the maternal role and face increased demands on their time, and this finding was confirmed in relation to low-income postpartum women by Hershey *et al.* (2001) (Cited in Shah, Freeland-Graves et al. 2010: 274). George (2005) associates insufficient consumption of healthy foods with negligence over self-care, weight-related distress, negative body image and depressive symptoms.

Various postpartum morbidities are reported in relation to this. Anaemia is commonly found to occur in association with insufficient consumption of iron- and folate-rich foods (e.g. liver or leafy green vegetables) (WHO 1998). In the US, about 13 per cent of women during the first six months after delivery have an iron deficiency, and 10 per cent of these women become anaemic (Bodnar, Cogswell et al. 2005). In less-developed countries, there is no data for the magnitude of postpartum iron-deficiency anaemia, although the WHO reported that 35 to 75 per cent of pregnant women in developing countries were at a particularly high risk and assumed that the rate during the postpartum period would not be much different (Huertas 2006). In addition to anaemia, a lack of folate and iron, in conjunction with deficiencies in vitamin B-12, calcium, selenium, zinc, and n-3 fatty acids is reported to contribute to postpartum depression (Browne, Scott et al. 2006; Freeman 2006; Leung and Kaplan 2009). Constipation and haemorrhoids are associated significantly with the decreased intake of fruit and vegetables during the postpartum period. An unhealthy dietary intake during the postpartum period can also have a significant long-term impact; a long-term study of Swedish postpartum women found that

weight retention at the end of the first year of delivery was associated with weight issues 15 years later (Linne, Dye et al. 2004)

2.3.6 Summary

During the period following childbirth, a woman's actions are not the only determining factor in relation to her health, which is affected by a great variety of complex influences relating to her baby, her partner and her family. The brief discussion of the breastfeeding literature also reveals how postpartum women are cast in a social context. The literature review sheds light on several research gaps and on the skewed geographical distribution of existing research, in relation to differences between resource-rich and resource-poor settings, and to variations within resource-poor areas.

2.4 Postpartum Care

This section considers the concept and provision of postpartum care. It seeks to describe what women around the world actually receive as postpartum care following the delivery of an infant, and when and how care is provided.

2.4.1 Defining Postpartum Care

“Postpartum” means the period starting shortly after the delivery of the placenta (WHO 1998), while the element of “care” has two components. First, it refers to the context in which the subject of interest (in this case, the postpartum woman) is viewed, and in which support and management are provided. The second concerns the context of knowledge of, and respect for, other people. By combining the definitions of these two terms, “postpartum care” means the provision of acceptance, guidance, and support to a mother after childbirth (Marchant 2006).

Unlike antenatal or obstetric care, postpartum care has no end-point defined by a physical event. Customarily, the postpartum period is considered to last for the first six weeks after childbirth (WHO 1998: 2). Some scholars believe that this length is an arbitrary tradition, noting that in some countries the first 40 to 42 days after birth are commonly regarded as a time for convalescence (Van Esterik 1992; Blenning and Paladine 2005; Koblinsky 2005; Piperata 2008). Others, however, consider that it reflects a medically-informed viewpoint covering the involution of the uterus, the return of menstruation among non-breastfeeding women, and the resumption of sexual activity (Winikoff and Mensch 1991; Noble 1993; Cunningham, MacDonald et al. 1997; Visness, Kennedy et al. 1997; Jill 2002; Speroff and Mishell Jr 2008). Based on a review of obstetric textbooks, Speroff and Mishell (2008) concluded that the six-week postpartum period may have been defined during an era in which there was a high prevalence of postpartum infection, and prior to the availability of modern methods of birth control (2008: 90). Over the past decade, the length of the postpartum period has been defined more extensively by midwives and by scholars from various fields. Instead of limiting the period to six weeks, Midwife Lang uses personal experience of postpartum women to suggest that “as long as the baby is still in diapers and you’re up in the night, you’re postpartum” (Jill 2002: online). Jill (2002) proposes that the postpartum period should be viewed as the fourth trimester of pregnancy, lasting for three months.

A substantial amount of epidemiological evidence on maternal morbidities following childbirth supports the case for a more extensive perspective. For example, Amino *et al.* (2002) examined evidence of thyroid dysfunction among Japanese women who were three to eight months postpartum and concluded that even the three-month postpartum period was insufficient. Following a survey, two social scientists, Ross and Winfery (2001), have suggested that the definition should be extended to one year, to cover the “interplay of contraceptive use, intention to use and unmet need” (Ross and Winfrey 2001: 20). A period of one year is also suggested by Mottola (2002), in her study of postpartum exercise. She argues that it is more suitable than the six-week definition, because breastfeeding and physiological changes such as weight gain usually continue for up to around one year. The WHO (2009) also agrees, and in a recent global review suggests one year in relation to the study of postpartum maternal mental health and maternal mortality (2009: 30).

2.4.2 Timing and Number of Postpartum Care Service Deliveries

Despite scholarly calls for the length of the postpartum period to be reconsidered (Bick and MacArthur 1995: 73; Amino, Izumi et al. 2002; Levitt, Shaw et al. 2004; Cheng, Fowles et al. 2006), no definitive length has been agreed and the optimum provision of postpartum care in terms of timing and number remains a subject of fierce debate. Currently, there is one international-level practical guideline for postpartum care service provision, produced by the WHO in 1998 and formulated on the evidence and research available at that time from developed and developing countries.⁸ The WHO suggests a loose time-scale for postpartum care service provision, and that women should be offered care at six hours, six days, six weeks and six months after delivery (See Table 2-1). In terms of the number of postpartum care visits (either at home or at a facility), the guidelines advise that all women must receive care whenever they need it and this is more much important than to specify a rigid schedule of postpartum service provision (WHO 1998: 4).

The WHO's guideline has been widely criticised by health practitioners for being too focused on women's health needs in the first six-week postpartum period only, and for lacking in service specificity. This is now considered to be far from ideal, as evidence suggests that the duration and process of recovery differs from individual to individual (Marchant 2006). However, the guideline is still of some worth, especially in relation to developing countries where many women still do not receive any care

⁸ The WHO's 1998 *Practical Guide on Postpartum Care of the Mother and Newborn* is also notable as the second global-level effort to address the issue of postpartum care. In 1986, the WHO convened a special symposium in Trieste, which brought together academics, epidemiologists, health officials and international organisations. The conference was held by the WHO regional offices for Europe and the USA and did not include delegates from, or research about, other areas. The 50 recommendations to improve postpartum health and care service were consequently made based on limited information. In 1997, with increasing evidence and studies of postpartum mortality and morbidity from resource-poor contexts, the WHO assembled a Technical Working Group (TWG) on the Postpartum Care of the Mother and Newborn to redress the global need of postpartum care and to offer the best possible resolutions for postpartum service provision.

Table 2-1 Key elements of postpartum care by length of time following childbirth recommended by WHO

6–12 hours postpartum	3–6 days postpartum	6 weeks postpartum	6 months postpartum
Blood loss	Breast care	Recovery	General health
Pain	Fever	Anaemia	Contraception
Blood pressure	Infection	Contraception	Continuing morbidity
Advice	Lochia	Libido	
Warning signs	Mood		

Source: “Postpartum Care of the Mother and Newborn: A Practical Guide”. 1998. In *Report of a Technical Working Group*. Geneva: Safe Motherhood Unit, Division of Reproductive Health, World Health Organization.

after childbirth. The guidelines offer directions for the establishment of care services, as well as acting as a benchmark.

Whilst debates over the length of the postpartum period and timing and content of postpartum services continue, the evidence suggests that a postpartum period of six weeks is still the norm worldwide, and that this forms the basis for the formulation of routine postpartum care services. In developing and developed countries where postpartum care services are available, women are recommended to have at least one postpartum contact during the first six weeks after delivery, and there could be up to six (Lomoro, Ehiri et al. 2002; Levitt, Shaw et al. 2004; Koblinsky 2005). In practice, differences between countries in health systems and availability of resources has resulted in different models of postpartum service delivery. The following section reviews the way postpartum care services are organised.

2.4.3 Models of Postpartum Care Service Delivery

Broadly speaking, there are two dominant models of postpartum care delivery. One is home-based care, in which the mother and the baby receive at least one home visit after childbirth. The other is health facility-based postpartum care, often in the form

of a sixth-week postpartum clinic (Kabakian-Khasholian, Jurdi et al. 2006). This section reviews and discusses the nature and application of these models.

2.4.3.1 Home-based Postpartum Care

The home-based care model is prevalent both in resource-poor settings, where the majority of deliveries still take place at home, and in developed countries, where the majority of deliveries occur in health facilities.

In a literature survey focusing on developing countries, Koblinsky (2005) identifies three forms of home-based care, including (1) home visits by professional healthcare providers; (2) home visits by community workers; and (3) home visits by community workers with referral or health facility support. The first model is found in Egypt, Indonesia, and Zimbabwe, where national programmes of outreach services are established. Counselling and referral of postpartum women to health facilities if any abnormality is observed are key features of this model. The second model, in contrast, has little or no referral link to health facilities and postpartum care is provided by community workers, usually non-professionals. This model is adopted widely in India and Ghana, and its key purposes are to reduce neonatal mortality and to promote breastfeeding, rather than to provide healthcare for the mother. The third model, found mostly in Latin America, is a combination of the two. It is characterised by community workers making household visits with referral links to health facilities and providers, usually aiming to reduce maternal mortality only.

Koblinsky (2005) suggests that the first of these models is best at reducing all possible deaths, although it is less feasible for countries with limited resources and lacking service infrastructure. In Egypt, according to the government's universal postpartum follow-up programme, each Egyptian woman should be offered six scheduled visits on days 2, 4, 6, 14, 21 and 40 at home. However, statistics from an unpublished survey revealed that each woman in reality received less than one home visit per birth (0.7 visits per birth). In order to meet the national guidelines, Koblinsky estimates that one nurse in an urban health centre would have to make between 27 and 54 visits per day (Koblinsky 2005:29). The third model, of home

visits by community workers with referral or health facility support, is regarded by Koblinsky as the second-best model. However, Danel and Rivera (2003) have reported in their Honduras study that the referral link could be the weakest point of this home-based model, and that the lack of health centres staffed by health professionals in remote and difficult-to-access areas contributes significantly to the failure to reduce maternal deaths. The second model, home visits by community workers, is considered by Koblinsky to be the weakest, hampered by the limited ability of community workers to identify postpartum health risks, due to insufficient education and expertise. A survey of the literature on the effectiveness of traditional midwives' training suggests that this model can be especially problematic if the objective is to provide curative, rather than preventive, care (Sibley and Sipe 2004). Although there have been many attempts to overcome these limitations by establishing training programmes for community workers, especially traditional midwives, Sibley and Sipe (2004) show that training for traditional midwives has had an insignificant impact on improved maternal mortality, levels of maternal health knowledge and behaviour with positive health outcomes.

In a DHS comparative study of 30 developing countries, Fort *et al.* (2006) found that in the 29 countries for which timing data was available, only eight per cent of women delivering at home had a postpartum care check-up within 24 hours of delivery. Indonesia was the exception, where up to 36 per cent of home births received postpartum care within 24 hours and 62 per cent within two days after delivery. The average time of the first home-based postpartum check-up is three days after childbirth, in contrast to the WHO's recommendation of first contact within six hours of delivery (Fort, Kothari *et al.* 2006).

Home-based postpartum care is also prevalent in developed countries. Although the majority of deliveries take place in health facilities, because of economic pressures beginning in the 1980s, the length of hospital stay after delivery has been reduced from three or four days to 48 hours for an uncomplicated vaginal birth (Keppler and Roudebush 1999). In the view of Keppler and Roudebush, this shortened length of hospital stay has become a 'speed bump' in the road of postpartum care (Keppler and Roudebush 1999: 1). However, the detrimental effect of this shortened postpartum stay is evident in that the rate of hospital readmissions for mothers and newborns has

increased (Declercq and Simmes 1997; Gagnon, Dougherty et al. 2002) and that mothers are more likely to experience infection and disruption of episiotomy or caesarean incision (Braveman, Egerter et al. 1995; Gözüm and Kiliç 2005).

Over the past two decades, medical professionals have struggled to find innovative ways to alleviate the negative health outcomes of the shortened hospital stay, and to compensate with bedside care and education. This, as a result, has led to home visitation becoming increasingly important and widely adopted in developed countries (Barrett 1982; Braveman, Egerter et al. 1995; Braveman, Miller et al. 1996; Grullon and Grimes 1997; Keppler and Roudebush 1999; Escobar, Braveman et al. 2001; Sword, Watt et al. 2004). In the UK, for example, the country's national reform of maternity practice in 1993 has integrated postpartum home visits into routine postpartum care as standard (Declercq and Simmes 1997). A community midwife is required to make postpartum visits for a minimum of 10 and up to a maximum of 28 days, after which the postpartum care is passed to the sixth-week routine postpartum clinic check-up (Bick and MacArthur 1995). In Minnesota, USA, state legislation enacted in 1996 requires coverage for at least one home visit within four days by a registered nurse for a mother and baby who voluntarily leave the hospital before the mandated minimum stay of 48 hours (Madlon-Kay and DeFor 2005).

A wide range of home visitation outcomes have been measured and reported, including a reduction of hospital readmissions and an improvement of maternal health and breastfeeding duration (Lieu, Braveman et al. 2000; Jirojwong, Rossi et al. 2005; Nooritajer and Ravandi 2007). Further studies have indicated that home visits increase women's satisfaction with postpartum care (Moore, Ballinger et al. 1974; Gazmararian and Solomon 1997; Lieu, Braveman et al. 2000; Jirojwong, Rossi et al. 2005; Sword, Krueger et al. 2006; Ogbuanu, Jones et al. 2009), which subsequently increases their likelihood of seeking healthcare at a postpartum clinic (Kogan, Leary, and Schaetzel 1990; Ghilarducci and McCool 1993). Home visits are also reported to help reduce postpartum domestic violence from partners (Sharps, Campbell et al. 2008). Quinlivan *et al.* (2003) found in their study of Australian postpartum teenagers that five visits by nurse-midwives can result in increased knowledge about, and use of, contraception. Sword and Watt (2005) suggest that an

unspecified but adequate number of home visits can reduce costly and unnecessary non-routine healthcare visits. However, these outcomes are inconclusive: a randomised-trial study by Steel O'Connor *et al.* (2003) indicates that there is no significant difference between Canadian women who received and those who did not receive postpartum visits, in terms of their maternal confidence, the incidence of infant health problems and breastfeeding duration. The total costs of health services were reported to be higher for the home-visit group (Steel O'Connor, Mowat *et al.* 2003). It was also found in the Australian study of Quinlivan *et al.* (2003) that postpartum follow-ups at home did not improve the mothers' knowledge of infant vaccination or breastfeeding, or the duration of breastfeeding. Thus, postpartum home visits among low-risk mothers may be unnecessary (Steel O'Connor, Mowat *et al.* 2003).

2.4.3.2 Health Facility-based Care

The second model of postpartum care service delivery is hospital-based or clinic-based care, which is prevalent in settings where health facilities are the predominant locations for delivery. Although it may be unusual from the perspective of non-Western scholars, in the West the postpartum clinic is usually referred to as the traditional approach to postpartum service provision (Martell 2000; Kabakian-Khasholian, Jurdi *et al.* 2006). This is probably because the establishment of the first hospital as the place for postpartum care occurred nearly two centuries ago (1830s), parallel to urban development (Martell 2000: 65). However, even though facility-based postpartum care is the traditional source of postpartum care in some settings, very little has been written about its inception and organisation, nor has it been examined in terms of its effectiveness in service provision. Information can be obtained only from comparative work exploring the effectiveness of postpartum home-based care, in which the postpartum clinic was used as a baseline for evaluation (Liu, Wen *et al.* 2000; Escobar, Braveman *et al.* 2001).

Postpartum clinics are generally organised within the grounds of a hospital and run by professional nurses. The clinic appointment, if any, is usually provided as a part of the hospital discharge process (Keppler and Roudebush 1999; Phillips 2003;

Kabakian-Khasholian and Campbell 2005). Unlike the home environment, hospital-based clinics can offer a wider range of supporting services, such as breastfeeding centres and laboratories, located in close proximity to the clinics. Also, medical equipment is in place and ready to be used. Physicians' and nurses' offices are located nearby, facilitating timely medical attention if there is any problem arising or detected during the clinic visit. In the medical environment, cleanliness and lighting ensure that health providers are able to assess the mother's postpartum condition (Keppler and Roudebush 1999).

In most countries where postpartum care is systematically provided at a health facility, women are recommended to have one visit, usually scheduled in the sixth week after delivery (Kogan, Leary et al. 1990; Makumbe 2001; Lomoro, Ehiri et al. 2002; Annet 2004; Kabakian-Khasholian, Jurdi et al. 2006; Dhaher, Mikolajczyk et al. 2008; El-Gilany and Hammad 2008; Vernon 2009). In Kenya, Lesotho, Swaziland, Thailand, and Zambia, two postpartum visits within six weeks of delivery are recommended (Bureau of Health Service System Development 2003; Lagro *et al.* 2006; Warren *et al.* 2010).

Research compares facility-based services with home-based services. In US studies, Lieu *et al.* (2000) and Escobar *et al.* (2001) found that there was no significant difference between mothers who received home visits by nurses and those who visited postpartum clinics as regards the number of urgent maternal clinic visits and maternal re-hospitalisations, the rate of breastfeeding discontinuation, and maternal depressive symptoms. However, the facility-based care model does have key advantages: services can be provided at a lower cost, and the work of health providers can be achieved more efficiently (Lugina, Johansson et al. 2002). Studies conducted in the US and Canada similarly reported that the cost of running a postpartum clinic was much less than the cost of home visits, particularly among low-risk mothers (Kogan, Leary et al. 1990; Gagnon, Dougherty et al. 2002). The other two US studies, by Keppler and Roudebush (1999) and Escobar *et al.* (2001), have also indicated that the productivity of nurses working at postpartum clinics is higher than for those providing postpartum services at home. These findings are supported by evidence from the UK that on an average whole day, midwives can manage around eight home visits, whereas it is possible to see at least seven women

during a half-day postpartum clinic (Walker 2006). In terms of women's satisfaction, Wilyman-Bugter and her midwifery teams carried out a small-scale survey with women in Bradford, UK and found differing views of postpartum visits. While some women were still relatively vulnerable and required support at home, many reportedly resented waiting for midwives, particularly on the day ten visit (Wilyman-Bugter 2008).

2.4.3.3 Assessing the Best Model for Providing Postpartum Care Services

Campbell and MacFarlane suggest that the debate over postpartum care models is due to the trend towards early hospital discharge, exacerbated by a prevailing assumption that hospitalisation for the postpartum period is desirable for women and providers (Campbell and MacFarlane 1994: cited in Declercq and Simmes 1997; Martell 2000). Levitt *et al.* (2004) note that there is no universally optimal model of postpartum care for all contexts; both home-based and clinical models have advantages and disadvantages. McLachlan *et al.* (2008) recommend that the adoption of any model of postpartum care should take several factors into account, including economic situation, culture, and the availability of resources, and that the number of care deliveries should be assessed for cost-effectiveness. Rather than comparing models to identify one best form, Bryant *et al.* (2006) point out that contact with a health provider via any approach after childbirth is substantially meaningful for the mother and the baby, and better than no contact at all. Home-based and clinic-based approaches both offer similar opportunities to identify health problems, provide treatment and improve health outcomes.

2.4.4 Content of Postpartum Care Services Provided at Health Facilities

This section provides an overview of the actual content of postpartum care services routinely offered to women. Since there is no detailed evidence concerning postpartum care services provided at home, the content of postpartum care services discussed below focuses on those offered at health facilities and during the sixth-week postpartum visit.

The content of midwifery postpartum care offered at postpartum clinics generally comprises of routine observations and examinations, as well as counselling and education, to promote and monitor the health of the mother (MacArthur 1999). The services commonly reported include temperature and blood pressure checks, blood and urine tests, examinations of abdomen, breast, and vagina, cervical cancer screening test (Pap test), immunisation (if required), psychological examination, and counselling and education (MacArthur 1999; Albers and Williams 2002; Gilmour and Twining 2002; Kabakian-Khasholian, Jurdi et al. 2006). Table 2-2 summaries

Table 2-2 Content of postpartum care services reported by postpartum clinic attendants in 5 countries (per cent offered)

Content of services reported	UK (1995) n=1076	Zimbabwe (2001) n = 60	Uganda (2004) n =192	Lebanon (2006) n = 439	Kenya* (2010) n =86		
Temperature check	-	}	}	-	1		
Breast examination	0.6			35	18	32	34
Abdominal examination**	93			-	-	-	35
Blood pressure check	84	51	-	57	34		
Blood test	16	-	-	-	-		
Urine test	37	-	-	-	-		
Internal examinations	70	-	-	42–62	-		
Pap test	7.5	12	-	-	-		
Counselling and education***	-	40–73	3–8	69–83	2–32		
Family planning and contraception	-	73	8	69	12–32		
Immunisation	-	-	-	-	-		
Asking about feelings	-	-	-	84	-		

Note: *Content of postpartum care services provided prior to a training programme for health providers implemented as a result of the study.

** No information on method of examination (palpation or sonography).

*** Variations depend upon counselling topics.

Sources: UK (Bick and MacArthur 1995), Zimbabwe (Makumbe 2001), Uganda (Annet 2004), Lebanon (Kabakian-Khasholian, Jurdi et al. 2006), Kenya (Warren, Mwangi et al. 2010)

the content of postpartum care services reported by clinic attendants from five countries: Kenya, Lebanon, Uganda, UK, and Zimbabwe. In the following subsections, the nature of each service is briefly discussed, along with its contribution to women's postpartum health.

2.4.4.1 Temperature Checks

The measurement of body temperature can be either a screening test, checking for pathology before symptom manifestation, or a diagnostic test, for use when a patient presents with illness. During the postpartum period, it is widely considered that a temperature check is one of the best indicators of uterine infection, and it is strongly advised for all women, particularly in the first week following delivery (WHO 1998; Gilmour and Twining 2002). It can be seen from Table 2-2 that temperature checks are relatively common in African settings. In the UK, there is no statutory requirement for midwives to measure maternal temperature, and the practice thus depends on midwives' judgement (Takahashi 1998). Takahashi's (1998) UK study is the only research to have assessed the value of temperature checks on postpartum women's health, and she found that it was not significant. Even when women were not given temperature checks, midwives did not fail to notice mothers who were sick. Takahashi observed that it is more important to consider how midwives understand the significance of temperature, as they have different levels of knowledge and different definitions of abnormal body temperature, with the result that women's conditions may be evaluated differently.

2.4.4.2 Blood Pressure Checks

Blood pressure is one of the most common examinations provided at postpartum visits (Bick and MacArthur 1995; Makumbe 2001; Lomoro, Ehiri et al. 2002; Kabakian-Khasholian, Jurdi et al. 2006), and is widely used to screen for hypertension, eclampsia, and stroke. Postpartum women with a history of high blood pressure are also advised to be constantly monitored during pregnancy, as they are at greater risk of health problems (WHO 1998), and in the past five years postpartum

blood pressure has increasingly received research attention. A few studies in the US reported increasing rates of late postpartum eclampsia, occurring later than 48 hours after delivery and up to 52 days after delivery (Lakshmi *et al.* 2007; Johnson 2002; Chames *et al.* 2002; Minnerup *et al.* 2010). The director of a maternal–foetal medicine unit in a US hospital interviewed by Johnson (2002) stated that many postpartum women who attended a postpartum clinic during the first to second week after delivery had at least one or two symptoms of eclampsia, such as severe headache and visual changes, nausea, vomiting, and epigastric pain. Chames *et al.* (2002) and Johnson (2002) have stressed that late postpartum eclampsia is preventable if health providers are encouraged to provide proper screening and evaluation of symptoms during postpartum clinic visits.

2.4.4.3 Blood and Urine Tests

Blood tests and urine tests at postpartum check-ups are less documented in studies, and perhaps are less common in practice. In general, a blood test is performed when there are some indicative signs of postpartum haemorrhage, anaemia, or thyroiditis, or symptoms such as rapid heartbeat, extreme fatigue and tiredness, and paleness. Recently, blood tests have been suggested as a significant indicator of postpartum mental health; a research group in the USA found that a blood sample can be used to predict the occurrence of postpartum depression in 75 per cent of cases (Arehart-Treichel 2009).

In addition to a blood test, some women may also be offered a urine test. This is more common during the prenatal period, and it is offered during postpartum visits for women with indications of a kidney problem during pregnancy or a urinary tract infection, for example an unusual odour or difficulties in passing urine. The test is also used to screen for sexually transmitted infections. Bacteria in the urine indicates infection, and the protein level, together with blood pressure, is used to identify postpartum eclampsia (Munjuluri, Lipman *et al.* 2005).

2.4.4.4 Abdominal Examinations

An abdominal examination is a fairly common assessment, as shown among the countries listed Table 2-2, except Lebanon. Abdominal examination is generally performed for two purposes: (1) an incision check for women who have had a caesarean section, and (2) a uterus examination to evaluate firmness and height of the fundus, indicating the progress of uterus involution. Examination for uterus involution via the abdomen can be performed via abdominal sonography or by palpating the abdomen, and both methods have been questioned. Examination through sonography is relatively costly but offers a visual result, and De Vries *et al.* (2000) reported a positive predictive value of 68 per cent in searching for retained placenta. Shaamash *et al.* (2007) found that it can also predict the occurrence of delayed heavy postpartum haemorrhage in 61.3 per cent of cases. Shalev *et al.* (2002) compared the efficiency of the two methods and found that the palpation method can offer an 80 per cent accurate result of uterine involution for women with vaginal delivery. Since uterine length was found to be greater after caesarean section than after vaginal delivery, the palpation method could offer only a 25 per cent accurate result for caesarean section. For women having had a caesarean section, Shalev *et al.* (2002) thus suggested that they should undergo both uterine sonographic scanning and manual palpation to evaluate involution.

2.4.4.5 Breast and Nipple Examinations

Breast and nipple examination covers nipple problems such as cracking, localised pain, bleeding, redness, and other related symptoms such as, warmth, fever, and malaise (Blenning and Paladine 2005). Along with breast advice it is regarded as necessary for all postpartum women, whether or not they are nursing the infant or have ceased breastfeeding, and is advised to be provided routinely at each postpartum visit (Kearney, Cronenwett *et al.* 1990; WHO 1998); Table 2-2 shows that breast examination is less common in the UK, compared to Lebanon and three other African countries. Only 7 out of 1,158 UK women had breast examinations at postpartum clinics.

In the past ten years, many postpartum women in the US who sought postpartum care at clinics have increasingly been offered breast cancer screening tests, including mammogram and ultrasound. The natural tenderness and engorgement of the breasts of postpartum women are found to hinder the detection of discrete masses, and, consequently, the early diagnosis of breast cancer. Because of this delay, cancers are typically detected at a later time than for the non-postpartum population. In 1999, the US National Cancer Institute advised the inclusion of breast cancer examination as part of routine postpartum care (The US National Cancer Institute 1999).

2.4.4.6 Vaginal Examinations

The original purpose of providing a vaginal examination is believed to have been the prevailing idea that there might be retained placenta fragments inside the vagina (Bowes and Katz 2002; cited in Fenwick, Butt et al. 2010: 2491), but in the late 1980s the value of this examination was increasingly queried. A study by Mabray (1979) on postpartum army wives indicates that the resumption of coitus as early as the second postpartum week did not cause any significant complication, and so the necessity of vaginal examination should be re-evaluated. In many following studies, vaginal examination was judged to be a pointless practice and there were calls for it to be abandoned (Bowers 1985; Noble 1993; Sharif and Hammadih 1993; Bick and MacArthur 1995). Swaffield (1983) reported that even though women considered vaginal examination to be important, it was seen as a “necessary evil, rather than a helpful experience” (Swaffield 1983; cited in Noble 1993: 698).

MacArthur (1999) suggests that questions over the real value of a postpartum vaginal examination have arisen because there is a lack of information about its clinical importance. Despite this ambiguity, evidence continues to show that vaginal examination is not uncommon during sixth-week postpartum check-ups (Borders 2006; Kabakian-Khasholian, Jurdi et al. 2006; Olsson, Robertson et al. 2009; Fenwick, Butt et al. 2010). Gunn *et al.* (1998) found that many Australian obstetricians still placed a value on routine vaginal examination, as did some of the studied women. Even though the authors agree that vaginal examination provides little health gain to women, they suggest that physicians should also pay attention to

peripheral benefits, such as the opportunity to spend time talking with women and to explain what is required at a postpartum check-up and why (Gunn, Lumley et al. 1998: 996). Bick and MacArthur (1995) reported that 70 per cent of UK women who attended the sixth-week postpartum clinic were offered a vaginal examination. It is less common in Lebanon, where 42.4 per cent of sixth-week postpartum clinic attendants were reported to have received the service (Makumbe 2001; Kabakian-Khasholian, Jurdi et al. 2006). In the Swedish setting, where vaginal examination is not obligatory, the examination is widely practiced and regarded favourably by health providers as an opportune moment to ask the women if they have tried to have intercourse, which in turn can lead to the offering of advice about contraception (Olsson, Robertson et al. 2009).

2.4.4.7 Postpartum Pap Smear

A postpartum Pap smear is a much less common practice than vaginal examination. In a UK study, 7.5 per cent of postpartum clinic attendants had a Pap smear (Bick and MacArthur 1995). A higher percentage is reported in a Zimbabwean study, where 12.1 per cent of postpartum women are reported to have had a smear test (Makumbe 2001), and evidence from other parts of the world, such as the US and Thailand, shows rates of more than 60 per cent (Boonmongkon, Nichter et al. 1998; Albers and Williams 2002; Bureau of Health Service System Development 2003).

Like the vaginal examination, the provision of a Pap smear as part of the routine postpartum examination is a fiercely debated issue in relation to its health benefits. The postpartum Pap smear was found to provide only a higher yield of endocervical cells and a better prediction of dysplasia than a pregnancy Pap smear (Londo, Bjelland et al. 1994; Michael 1999). Levitt *et al.* (2004) suggest that the postpartum Pap smear is simply an opportune time for cervical screening due to multiple contact with health providers, and there are no discernible health benefits specific to postpartum women. Indeed, cervical inflammation caused by childbirth may be exacerbated by the Pap smear (Michael 1999), and some studies have shown that inflammation creates a high probability of abnormal Pap smear results. These studies suggest that postpartum Pap smears should not be performed until at least six or even

eight weeks after delivery (Rarick and Tchabo 1994; Michael 1999; Levitt, Shaw et al. 2004).

2.4.4.8 Immunisation

The tetanus toxoid vaccine provides pregnant women with protection against maternal death from tetanus. According to the WHO (2006), five per cent of maternal deaths are caused by tetanus, and for pregnant women who do not have written proof of previous vaccination with a vaccine such as DTP or DT, three staged doses are advised. The first dose should be given at the woman's first contact with an antenatal clinic or at early as possible in pregnancy. The second dose should be one month later, and the third dose six months after that. Since many women, particularly in developing countries, initiate late antenatal care (that is, after the first trimester), the third dose of tetanus vaccine has to be provided during the postpartum period (WHO 2006). However, there is currently no evidence that the tetanus vaccine is being offered to postpartum women, and there are no completion records for pregnant women.

2.4.4.9 Psychological Screenings

Mental health screening at postpartum visits is uncommon. As shown in Table 2-2, among the five countries listed there, it is recorded only in Lebanon, where 84 per cent of postpartum clinic attendants reported being asked by their health provider about their feelings, in order to measure their mental well-being (Kabakian-Khasholian, Jurdi et al. 2006). Reports of postpartum women receiving routine screening for mental health problem are mostly from the USA, although a literature survey by Gjerdingen and Yawn (2007) found that only half the postpartum women were screened for mental ill-health at the clinic.

While there is an increasing amount of evidence for psychological morbidities following childbirth, there is some controversy as to whether psychological screening should be offered to every postpartum woman, and what the potential benefits may

be of providing such mass screening. To many scholars, postpartum psychological screenings are viewed as unnecessary, as psychological problems occurring after childbirth are not distinct from those occurring at other periods of life (Cox, Murray et al. 1993; Harris 1994; Cooper and Murray 1995). So far, no study has been undertaken with large, representative population bases to assess the impact of psychological screening, or to identify a valid, efficient postpartum screening tool (Gjerdingen and Yawn 2007).

2.4.4.10 Counselling and Health Education

Counselling is regarded as a significant opportunity to disseminate information and knowledge about self-care and infant care; key topics recommended in studies include personal hygiene care, breastfeeding, nutrition, sexuality, family planning, exercise, and infant immunisation (Lomoro, Ehiri et al. 2002; Kabakian-Khasholian, Jurdi et al. 2006; Warren, Mwangi et al. 2010). A counselling session can be also used to screen for and treat postpartum psychological problems and other problems that a health provider might have overlooked, and it provides an opportunity for the health provider to discuss women's concerns (Toole *et al.* 2006; Awusabo-Asare and Anarfi 1997; Gamble and Creedy 2009).

Family planning counselling has received particular research attention. The literature acknowledges its value to postpartum women, noting its role in reducing maternal mortality and morbidity, and in preventing unwanted pregnancies and the transmission of HIV and other sexually-transmitted diseases. However, despite these advantages, the evidence suggests that much of the need for this service remains unmet globally (Ross and Winfrey 2001; USAID 2005; Vernon 2009). Several reasons have been reported for this, and a key factor is low postpartum clinic attendance, particularly among women who intended to space their next birth or to have no further pregnancies (USAID 2005; Vernon 2009).

2.4.4.11 Summary

As many scholars have noted (Levitt, Shaw et al. 2004; Kabakian-Khasholian, Jurdi et al. 2006; Schmied, Cooke et al. 2008), the literature shows that postpartum care services lack standardised content. Table 2-2 shows that the services offered focus primarily on physical and gynaecological screening and family planning counselling (Albers and Williams 2002; Cheng, Fowles et al. 2006), but there are substantial variations in what is offered, both between and within countries. In particular, there is usually no consideration of psycho-social problems, although, as discussed above, there is an unmet need for these to be taken into account.

Winikoff and Mensch (1991) point out that there is a lack of clarity about whether postpartum care should be orientated in relation to individual women, such as breastfeeding or the resumption of sexual activity, or to a constellation of services offered by a particular healthcare system or programme, such as a postpartum family planning programme. There is little research on the efficacy and value of services offered (MacArthur 1999; Gilmour and Twining 2002), and the majority of postpartum services are based on assumptions (Blenning and Paladine 2005) rather than evidence (Kabakian-Khasholian, Jurdi et al. 2006; Fenwick, Butt et al. 2010). Kabakian-Khasholian *et al.* (2006) suggest that research on country-level postpartum services, especially in low-to-middle resource countries, is needed to assemble evidence about what is effective.

2.5 Influences on Postpartum Care Service Utilisation

The two previous sections have described women's health challenges and postpartum services. In this section, we seek to review the conceptual frameworks and models widely adopted in health research to explain an individual's health behaviour, healthcare utilisation, and healthcare-seeking behaviour, in general and in particular to postpartum care services.

2.5.1 Conceptual Models to Examine Factors Predicting the Use of Postpartum Health Services

Conceptual models that seek to explain what facilitates or impedes the use of health services, and what motivates individuals to undertake different courses of action concerning their health can be categorised into two groups (MacKian, 1995).. The first group consists of frameworks/models that emphasise the individual and the processes of how individuals react to or respond to illness. The second group consists of models that focus on the integration of wide-ranging factors underlying the decision to seek healthcare services, taking account of individual, family, community, social relational and institutional factors (Tipping and Segall 1995; cited in MacKian 1995: 4).

2.5.1.1 Individual Health Behaviour Frameworks

The first group of models is rooted in a psychological perspective, generally analysing health-seeking behaviours by drawing out the factors which either enable individuals to make 'healthy choices' or prevent them from doing so, and focusing on lifestyles or the use of medical care (MacKian 1995: 7). Two models in this group that have been widely applied in health research are the Health Belief Model (HBM) and the Theory of Planned Behaviour (TPB). The first model, the HBM, was developed in 1958 by three social psychologists (Hochbaum, Rosenstock, and Kegels) to investigate the failure of a free tuberculosis (TB) health screening programme (Rosenstock 1974). The model is characterised by a focus on the attitudes and beliefs of individuals and their implications for the likelihood of particular health-related actions. Initially, four typologies representing an individual's beliefs were constructed: (1) perceived severity (belief about the seriousness of a health problem); (2) perceived threat (belief about one's susceptibility to an illness); (3) perceived benefit (belief about whether changing behaviour will reduce the threat of an illness); and (4) perceived barrier (belief about obstacles to changing behaviour). In 1998, Rosenstock added (5) the concept of self efficacy, representing the belief that one has the ability to change one's behaviour, to explain habitual unhealthy behaviours such as smoking and over-eating (Glanz,

Rimer et al. 2002). Chew *et al.* (2002) draw on the HBM to conclude that one will seek healthcare when the readiness to act (i.e. there is perceived susceptibility and perceived seriousness) exists simultaneously with sense that the recommended response will be efficacious (i.e. perceived benefits outweigh perceived barriers) (2002: 181).

The HBM has been utilised in relation to studies of a large range of health promotion behaviours, such as the acceptance of immunisations, the utilisation of preventive health services and disease screenings, and compliance with medical advice (Chew, Palmer et al. 2002). In relation to postpartum services, Makumbe (2001) uses the HBM to explore the factors influencing Zimbabwean women's decisions about whether to attend a sixth week postpartum clinic. The service is in place and free, and it is therefore reasoned that failure to attend must be due to women's attitudes and beliefs. HBM therefore appears to be appropriate in the author's study context, which was one particular clinic at a hospital, but it might not be so useful in other settings, where the service is absent or not free.

However, the HBM has limitations. Poss (2001) points out that since the HBM is a psychosocial model, it can account for variances in health behaviours only so far as they can be explained by attitudes and beliefs that are obvious to, and consciously evaluated by, particular individuals (2001: 3). Other factors which may also play a role in influencing behaviour, such as personality and social support, are virtually ignored (Hausmann-Muela, Ribera et al. 2003; Bowles, Coleman et al. 2005). According to Sheeran and Abarham (2005), the application of the HBM to major contemporary health issues, such as sexual behaviour, has failed to offer any insights. Chinn and Kramer (1991) judge the HBM to be a "reality" model which fails to offer "a theory that links concepts in such a way as to be able to describe, explain, predict or control a phenomenon" (cited in Cohen 1997: 91).

The second type of model identifies a relationship between the ability to control health and health behaviour. One of the best-known frameworks in this group is the Theory of Planned Behaviour (TPB), which is an expanded version of the Theory of Reasoned Actions first proposed by Ajzen and Fishbein in 1975 (Ajzen 2002). The framework considers that an individual's behaviour can be deliberated and planned, and that health behaviour is mainly due to an individual's intention (Ajzen 2002).

The TPB suggests that intention is formed through the norms, beliefs, and attitudes of each individual, and is influenced by perceived behavioural control, defined as the perceived ease or difficulty of performing a specific behaviour (Jemmott, Jemmott et al. 2001). Unlike the HBM, relatively little research has utilised the TPB to examine either health behaviour in general, or postpartum care service utilisation in particular. However, a large amount of research has employed the TPB to study postpartum women in relation to breastfeeding, comparing women's prenatal intention to breastfeed with their actual behaviour postpartum (Dodgson, Henly et al. 2003; Moore and Coty 2006; Sauls 2007). Like the HMB, however, the TPB has limitations, and it has been widely criticised due to the time interval between an individual's intention and actual behaviour. The longer the time interval, the less likely one is to perceive any urgency in acting on an intention (Godin and Kok 1996; Paton 2003). In the TPB, each individual is assumed to be a rational decision maker, whose intention is formed through a systematic review of available information. This assumption is regarded as a pitfall by Conner and Norman (1996), who argue that it has failed to provide a full understanding of an individual's decision-making process.

The HBM and the TPB share the same problem when it comes to quantifying accurately each of the model components; Matsuda complains that the tools used to measure the HBM components have been neither refined nor standardised (Matsuda 2002: 12), while the TPB has been criticised because the definition of the perceived behavioural control is ambiguous and therefore too unclear to quantify (Kaiser, Hübner et al. 2005; Kraft, Rise et al. 2005).

2.5.1.2 Group Models for Health Behaviour

The second group of conceptual frameworks consists of those which attempt to analyse health behaviour in relation to a complex variety of variables, including sex, age, socio-economic status, type of illness, access to service, and perceived quality of care (Glanz, Rimer et al. 2002). Ahmed *et al.* (2001) observe that these studies tend to have a specific focus on the act of seeking formal healthcare services, and that their desired objective is commonly to encourage women to seek such services. However

information gathered also includes non-formal healthcare, such as self-medication and traditional care.

Kroeger (1983) and MacKain (1995) identify two broad trends in research using this type of framework. First, there are studies focusing on the kinds of barriers or determinants between users and healthcare services. With this approach, even though there are as many categorisations and variations in terminology as there are studies, the barriers and determinants identified tend to fall into five categories, consisting of geographical, social, economic, cultural, and organisational factors (see Table 2-3). Among the pioneer works listed in Table 2-3, the Initial Behaviour Model, introduced by Anderson and Newman, has been used most often in healthcare utilisation research (Baris, Sanchez et al. 2000), and more recently in the study of postpartum care service utilisation (Chakraborty, Islam et al. 2003; Annet 2004; Bryant, Haas et al. 2006; Smith, Shao et al. 2009). Elements of the Initial Behaviour Model have been revised to include several important factors, including the wider healthcare system and external factors such as political and economic context (Andersen 1995).

However, despite its comprehensiveness, the latest version of the Initial Behaviour Model is still criticised for being too complicated, and because it is too difficult to quantify its explanatory factors. Its use as a model to explain the utilisation of health services in developing countries has been of concern to scholars; Unschuld (1975) argued that developing countries are characterised by transitional societies, in which the network of interacting explanatory variables for the use of health services appears to be more complicated than in the case of developed countries. Transitional economic factors, communication gaps, and structural and conceptual differences are significant determinants of health seeking behaviour (Kroeger 1983: 148). Responding to Unschuld's analysis, Kroeger identified new explanatory variables for the use and non-use of health services in the context of developing countries, taking account of continuing processes of cultural change, including: changing concepts of illness and health behaviour; family size; status in a household; characteristics of particular disorders and their perception (chronic or acute, severe or trivial); social networks; and choice of providers (Kroeger 1983).

There have also been attempts to categorise the processes leading to the use of healthcare services. One of the most widely-used conceptual models is the pathway model developed by Suchman (1965) to illustrate the process of decision-making in relation to care service utilisation. Described as a logical sequence of steps, the process begins with the perception and evaluation of symptoms and concludes with the non-use of different healthcare facilities (Kroeger 1983). The model has been applied and revised by several scholars such as Fabrega (1972) and Chrisman (Chrisman 1977), in which cultural and social factors were added to explain health behaviour and care utilisation. Compared with 'determinant'-type models, the pathway model has received relatively little interest from health scholars, and with the exception of a study by Young (1981), all of the existing studies employing the pathway model are qualitative and observational. In relation to postpartum women, the pathway model was used by Thaddeus and Maine (1994) to identify social, cultural, and health service impediments and their consequences for maternal

Table 2-3 Categories of healthcare-seeking factors from selected studies

Authors	Geographic	Social	Economic	Cultural	Organisation
Penchansky (1997) (cited in Rickette and Goldsmith 2005)	Accessibility		Affordability		Availability, accommodation, and acceptability
Kloos (1990)	Location of facilities	Socio-economic status of women/ cost of transportation/type of illness			Referral system and special program
Leslie and Gupta (1998; Annet 2004)		User factors (i.e. age, parity, education, information, income, competing time demands, and socio-cultural and attitudinal factors)			Service factors (i.e. accessibility, costs, quality of care, availability of supplies, and competence and attitude of personnel)
Yesudian (1988) (cited in MacKian 1995: 4)		Demographic	Economic	Cultural	Organisation
Anderson (1970s-1995)	External factors	Predisposing characteristics and enabling resources			Healthcare system

Source: Adapted from MacKain (1995)

morbidity and mortality. The two scholars have formulated a pathway model which identifies three delays in health-seeking behaviour, and this has been further developed in other studies, such as Koblinsky (1996), Fikree *et al.* (2004) and Koenig *et al.* (2007). These examine the effect of a newly-developed intervention (behaviour change communication) on the use of obstetric and postpartum care services.

Each healthcare-seeking behaviour model has advantages and disadvantages in explaining the utilisation of healthcare services, although a single model might not be sufficient in any one context (Sword 2003) and some models may be more suitable than others in particular circumstances. The process of seeking healthcare can involve multiple steps, and as the locus of healthcare-seeking has shifted from curative care to preventive care (Kabakian-Khasholian, Jurdi *et al.* 2006), some models may be too narrow to fully analyse women's health-seeking behaviour. Most conceptual models focus only on illness-response behaviour; the policies and political factors that possibly affect health and social inequality, and which in turn influence care-seeking behaviour, are rarely addressed and investigated.

2.5.2 Factors Influencing the Utilisation of Postpartum Care Services

Articles (n=89) that make reference to postpartum care service use were reviewed, and highlight a range of factors that have a significant influence on women's care-seeking behaviour during the postpartum period.⁹ These factors can be categorised into two broad themes; those relating to the individual and social contexts of women, and those relating to healthcare systems. The scope of the review covers determinants evident in both resource-poor and resource-rich countries, and it does not seek to distinguish between determinants in relation to the two aspects of healthcare utilisation, namely curative care and preventive care. A review that considered only one of these aspects might omit possible determinants, and its insights into the processes through which the determinants work would be limited. It

⁹ All were read but not all are cited in this chapter.

will be shown in the following sub-sections that the utilisation of preventive and curative healthcare share many similar determinants, but that they act in different ways and have differential impact on the use of postpartum care services.

2.5.2.1 Individual and Social Contexts

Women's use of postpartum care services is usually associated with factors relating to women themselves, in connection both to their surrounding environment and to the occurrence of health problems. These factors are here grouped into three categories: demographic and socio-cultural factors, perceived need for and benefit of care services, and service accessibility.

2.5.2.1.1 Demographic and Socio-cultural Factors

Maternal age, socio-economic circumstances, and educational attainment are frequently reported in the literature as influences on the use of postpartum care services, with women who are younger, better educated, and who have fewer children more likely to use such services (Kogan, Leary et al. 1990; Obermeyer 1993; Uzma, Underwood et al. 1999; Hulse, Laken et al. 2000; Sibanda, Saungweme et al. 2001; Lu and Prentice 2002; Annet 2004; Kabakian-Khasholian and Campbell 2005). However, age is also related to marital status: studies of Bangladesh and the West Bank found that women who marry at young ages are less likely to use the postpartum services (Chakraborty, Islam et al. 2002; Dhaher, Mikolajczyk et al. 2008), while unmarried women may be discriminated against by their health provider, making them feel guilty and ashamed to seek formal antenatal and postpartum care services (Atuyambe, Mirembe et al. 2009).

Differentials in ethnicity or race are considered by a few studies, in which their influence is closely linked to other factors, such as socio-economic status, location of residence, and language barriers. However, the results are inconsistent. Between 1986 and 1987, Kogan *et al.* (1990) found that black American women were less likely to visit a postpartum clinic than non-black women. Black women typically had

a low income, resided in low-income areas, and relied on the Medicaid programme to pay for healthcare; this last factor was problematic as many postpartum clinics in poor areas at this time did not accept Medicaid. Other studies based in Guatemala and Nepal, as well as the US, took account of ethnicity/race, but found no significant association with use of postpartum care services (Bryant *et al.* 2006; De Broe 2005; Dhakal *et al.* 2007).

Religion is another factor often linked to women's attitudes, beliefs, and perceptions about health and the use of healthcare services. There has been so far only one quantitative study that included religion. Hove *et al.* (1999) found from their Zimbabwean study that women who belonged to Apostolic sects were 2.7 times more likely not to utilise postpartum care services than respondents who belonged to other religious groups, attributed to their belief in faith healing rather than modern healthcare providers. However, Hove *et al.* (1999) also noted that Apostolic women were more likely to attend the postpartum clinic if it was for the purpose of getting medication. This suggests that while religion may deter women from using preventive postpartum care, its effect is less apparent for curative postpartum care.

Qualitative research in northern Nigeria, China, and India, reveals beliefs that to leave a house or premises before 40 days after delivery could be harmful to their health, and this may hinder many women from seeking healthcare (Pillsbury 1978; Holroyd, Katie *et al.* 1997; Holroyd, Twinn *et al.* 2004; Iliyasu, Kabir *et al.* 2006). The impact of cultural belief seems to be particularly significant in Saudi Arabia, where beliefs about the supernatural power of the evil eye mean that no one, except family or trustworthy person, is allowed to see a new mother or her baby. El-Gilany and Hammad (2008) found that it was very unlikely for Saudi Arabian women practising this belief to seek postpartum care services or even to accept services from health providers who visited them. These studies show that some cultural beliefs may have an adverse impact on the utilisation of postpartum services, not only in relation to missing appointments for preventive care, but also in cases where emergency care is needed.

Women residing in an extended family are assumed to receive help and support from family members; this might increase the likelihood that they would use a postpartum care service, but it has also been suggested that living within an extended family

could also deter women, if the family has traditional views against modern care or the woman does not perceive any benefit (Anson 2004). Relatively few studies include details about women's families' attitudes, and findings are not consistent. In Nepal, Matsumura and Gubhaju (2001) found that a larger extended family was positively associated with the use of postpartum services, but this association was not detected in Dhakal *et al.*'s (2007) study, nor in a US study by Bryant (2006). In China, the situation of women living with their in-laws is often suggested as a strong predictor for fertility and healthy behaviour. Anson (2004) found a positive association between living with in-laws and the use of a postpartum care service; however, after statistical adjustments to take account of age, education, and socio-economic circumstances, the association was no longer significant.

Women's status within the household is often used to measure their autonomy, financial dependence, and decision-making power with respect to healthcare use. In many societies, a woman cannot make her own decision to seek postpartum care. Decisions are usually made by the family and particularly by the husband, as he might have access to vehicles and financial resources, for example (Uzma, Underwood *et al.* 1999; Telfer, Rowley *et al.* 2002; Mesko, Osrin *et al.* 2003; Fort, Kothari *et al.* 2006). In Uganda, Annet (2004) found that some women reported that their reason for non-use of postpartum care services was because the 'husband refuses me' (2004: 47). In a Pakistan study, Fikree *et al.* (2004) found that husbands' dominating decisions had a negative influence on the use of postpartum care, particularly for preventive care-seeking. While 85.3 per cent of Pakistani women reported that they could make their own decision to visit a clinic when ill, 64.8 per cent needed to seek their husband's permission if a clinic visit was for preventive reasons. However, other studies suggest women's education and exposure to mass media may mitigate this limitation (Fort, Kothari *et al.* 2006; Dhakal, Chapman *et al.* 2007).

2.5.2.1.2 Perceived Need and Benefit

This second category consists of factors influencing a woman's perception of how postpartum care services would be of benefit, in turn influencing the decision to seek

care. According to Gabrysch and Campbell (2009), women's perceptions are shaped by a general awareness of the postpartum complications, and by knowledge of, and attitudes towards, services available at health facilities.

2.5.2.1.2.1 Role of Complications

Medical complications during the postpartum period are a primary factor affecting women's decision to seek postpartum care services (El-Mouelhy, El-Helw et al. 1994; Glazener, Abdalla et al. 1995; Goodburn, Gazi et al. 1995; Bhatia and Cleland 1996; Fikree, Ali et al. 2004; Sibley, Caleb-Varkey et al. 2005; Bryant, Haas et al. 2006; Koenig, Jamil et al. 2007; Moran, Winch et al. 2007; Patra, Singh et al. 2008). However, the decision to seek postpartum care depends on how women perceive the type and severity of a complication; whether it is considered normal or abnormal, as well as whether or not or how it can be resolved. Decision-making tends to be highly correlated with a woman's education and health knowledge. Among Pakistani women, a high fever with chills was regarded as 'dangerous' and necessitated immediate referral to see a health provider. In contrast, backache was viewed as a normal occurrence during the postpartum period, something that was 'nothing to worry about' and 'not necessary to tell anyone' (Fikree, Ali et al. 2004: 688 (authors' original emphasis)). In many of these studies (Fikree, Ali et al. 2004; Shakuntala, Poonam Varma et al. 2006; Koenig, Jamil et al. 2007; Moran, Winch et al. 2007), when a complication was considered life-threatening, care-seeking was considered an emergency and the need to seek treatment overrode factors such as cost concerns, distance, and transportation barriers. This shows that the presence of complications can be an important effect modifier for other barriers (Gabrysch and Campbell 2009).

Relatively few studies based on preventive care have examined the effect of postpartum health problems on postpartum healthcare seeking. Studies in Nepal, the US and Zimbabwe reported a significant association between having postpartum complications and a woman's postpartum clinic visit (Hove, Siziya et al. 1999; Bryant, Haas et al. 2006; Dhakal, Chapman et al. 2007). In contrast, in Lebanon, Kabakian-Khasholian and Campbell (2005) found no association after statistical

adjustments for socio-economic and health service-related factors such as appointments and recorded information about maternal health problems.

2.5.2.1.2.2 Maternal Knowledge

While recognition of postpartum danger signs and knowledge about interventions increase the likelihood that emergency care will be used, Gabrysch and Campbell (2009) suggest that rates of preventive care-seeking can be increased by specific knowledge about the risks of health morbidity and the benefits of receiving healthcare services. Having access to information can improve a woman's knowledge about health risks and the availability of care services; in Lebanon, Kabakian-Khasholian and Campbell (2005) found that receiving information on maternal health significantly increased the likelihood of a postpartum clinic visit. Studies cited as key sources of postpartum information are: exposure to radio and television; reading maternal booklets; and receiving antenatal and obstetric care from health professionals (Hove, Siziya et al. 1999; Makumbe 2001; Kabakian-Khasholian and Campbell 2005; Bryant, Haas et al. 2006; Fort, Kothari et al. 2006; Dhaher, Mikolajczyk et al. 2008). Fort *et al.* (2006) found that in Burkina Faso and Indonesia, watching television and reading newspapers were positively associated with the use of postpartum care services, provided by both health professionals and non-professionals. No such association was reported in Egypt. However, the positive effect of exposure to media is found to be relatively small and depends largely on how widespread the media is (Fort, Kothari et al. 2006), how the message is channelled (Kabakian-Khasholian and Campbell 2005), and the language used (Makumbe 2001).

Receiving antenatal care is considered to increase the likelihood of postpartum care service use (Kogan, Leary et al. 1990; Chakraborty, Islam et al. 2002; Lu and Prentice 2002). With adequate antenatal care, information received is thought to sufficiently influence a woman's behaviour in relation to subsequent use of maternity services, including postpartum care services (Fort, Kothari et al. 2006; Dhakal, Chapman et al. 2007). Most studies have based the adequacy of antenatal care on the number of antenatal visits (Kogan, Leary et al. 1990; York, Grant et al. 1999; Fort,

Kothari et al. 2006; Dhafer, Mikolajczyk et al. 2008), and their findings are mixed. The association appears in some settings (Kogan, Leary et al. 1990) but not in others. In a study of Palestinian women in the West Bank, Dhafer *et al.* (2008) found that the number of antenatal visits has no association with women's use of the postpartum care service. Similarly, a comparative study of four cities in Latin America by Belizan *et al.* (1995) found that health education during antenatal home visits did not improve healthcare-seeking behaviour or the utilisation of maternity services, including postpartum care, at health facilities. It does not play a significant role in relation to curative care-seeking, either; Chakraborty *et al.* (2002) found a slight difference between Bangladeshi women with serious complications who had received antenatal visits (3.6 per cent) and those who had not (2.5 per cent).

Having a delivery at a health facility or with the assistance of a health professional is also thought to provide another opportunity for the health provider to disseminate knowledge about the benefits of postpartum care services and to encourage women's use of them (Belizan, Barros *et al.* 1995; Ransjo-Arvidson, Chintu *et al.* 1998). Dhafer *et al.* (2008) found that it was not always the case. Fifteen per cent of Palestinian West Bank women having hospital delivery were not informed by health providers about postpartum care services. However, Dhafer *et al.*'s study found that delivery at a hospital was one of the strongest predictors of use of postpartum care services, and other studies of developing countries concur (Baldo, Al-Mazrou et al. 1995; Hove, Siziya et al. 1999; Sibanda, Saungweme et al. 2001; Nabukera, Witte et al. 2006; Dhafer, Mikolajczyk et al. 2008). In some settings where home birth is still prevalent, the type of antenatal care provider is also significant. Fort *et al.* (2006) found that in three developing countries (Haiti, Indonesia, and Nepal), even though women had a home delivery, if they had antenatal care with a health professional they were more likely to seek postpartum care services with a health professional or at a health facility than those who received antenatal care from a traditional birth attendant.

2.5.2.1.2.3 Maternal Perceptions about Postpartum Care

Women's attitudes and feelings towards postpartum care are also strong indicators of the likelihood of using these services. Women are more likely to use postpartum services if they perceive that they will be beneficial (Makumbe 2001). In Uganda, Annet (2004) and Nabukera *et al.* (2006) attributed the low use of postpartum care services to the women's perceptions that the postpartum check-up was unnecessary and only for sick mothers. Similar findings are reported in many other settings, including India (Sibley, Caleb-Varkey *et al.* 2005), Pakistan (Fikree, Ali *et al.* 2004), Saudi Arabia (Baldo, Al-Mazrou *et al.* 1995), the West Bank (Dhaher, Mikolajczyk *et al.* 2008) and Zimbabwe (Hove, Siziya *et al.* 1999). In two studies, the effect of women's attitudes is found to be modified by other factors, such as the distance to the health facility, transportation and financial barriers, and the opinions of other women. Mishero *et al.* (2009) reported that while women generally have positive attitudes towards postpartum services, those who were a long distance from a health facility and lacking transportation and money were hindered from seeking postpartum services. This is similar to a Zambian study, where women perceived the benefit of postpartum care services but did not seek care since they believed that women who had their delivery at home would not be welcomed at postpartum clinics (Lagro, Liche *et al.* 2006). There was no association between positive attitudes and the use of postpartum care services in Zimbabwe (Makumbe 2001).

Women's preferences for, and choice of, treatments and care providers have implications for the utilisation of formal postpartum services. The majority of research carried out in developing countries has focused on non-formal health providers as the key and preferred sources of care: traditional healers, families, relatives, and religious specialists (Bhatia and Cleland 1996; Thaddeus and Nangalia 2004; Koenig, Jamil *et al.* 2007; Moran, Winch *et al.* 2007). A sequential pattern of postpartum care-seeking behaviour has been illustrated in many studies. The studies of Patra *et al.* (2008) (India), Sibley *et al.* (2005) (Bangladesh), Fikree *et al.* (2004) (Pakistan) and Mesko *et al.* (2003) (Nepal) show similar patterns of postpartum care-seeking behaviour, in that the first course of treatment is home-based care or traditional care, followed by professional care only if the first remedies fail (Koenig, Jamil *et al.* 2007).

Women's feelings about postpartum care services they have encountered following previous deliveries are another significant factor (Makumbe 2001; Lomoro *et al.* 2002; Hove *et al.* 1999), as their experiences influence both their own decisions and the advice they give other women. Women's feelings of satisfaction are often used as a proxy for perceived quality of care. Since this factor greatly involves the healthcare system, it is regarded in this thesis as an influence derived from the healthcare system, which is discussed in detail in Section 2.5.2.2 below.

2.5.2.1.3 Service Accessibility

Two aspects related to postpartum service accessibility, i.e., economic accessibility and physical accessibility have been widely examined in studies. Economic accessibility refers to the relationship between the capability of the family or the community and the costs of receiving the service, including transportation costs, whereas physical accessibility refers to the location of residence, distance to the health facility and condition of the transportation system (Gabrysch and Campbell 2009).

2.5.2.1.3.1 Economic Accessibility

Studies have examined the relationships between postpartum service utilisation and economic factors, based on the general assumption that a high cost will affect women's decisions to seek postpartum care services. Women's employment and occupation, the husband's occupation, and the ability to pay are often used to measure economic accessibility. Women who work and earn money are thought to be likely to access and to decide to use postpartum care services (Chakraborty, Islam *et al.* 2002; Annet 2004; Amin, Shah *et al.* 2010). Women's particular occupations are closely linked with other aspects of socio-economic status, such as education, household wealth, and decision-making power within the household. These factors can complicate the relationship between women's employment and postpartum care service use.

Compared to other economic variables, relatively few studies have examined the effect of a mother's employment and occupation on postpartum service use, yet the results are quite consistent (Fort, Kothari et al. 2006; Dhakal, Chapman et al. 2007). Fort *et al.* (2006) found that there was no association between women's employment and the use of a postpartum care service in 30 studied developing countries, except in Peru where women's employment was related to an increased likelihood of receiving postpartum care from health professionals if delivery takes place at home. In Nepal and China, it was found that women's employment had a negative impact on the use of postpartum care services (Anson 2004; Dhakal, Chapman et al. 2007). In relation to types of occupation, Fort *et al.* (2006) found that postpartum women who worked were mostly in the agricultural sectors, and of poor socio-economic status, and were less likely to use postpartum care services. Likewise, Dhakal (2007) found that women agricultural workers, who have less education, were unable to find work in the formal sector and had limited say in the family's decisions about healthcare, and were less likely to use postpartum care services than other women.

The husband's occupation is often used to represent family income, as well as social status, and these are associated with the ability to pay for postpartum services. In Uganda, Annet (2004) found a higher use of postpartum services among the wives of employed husbands, with wives of self-employed or government employees being highly likely to use postpartum care services. Similar findings were reported in the Nepalese study by Dhakal *et al.* (2007). In Bangladesh, Chakraborty *et al.* (2002) reported the impact of husbands' occupations on curative care-seeking. Women whose husbands worked in business were 1.9 times more likely than those whose husbands were employed in other professions to seek treatment for high-risk complications.

The ability to pay for healthcare services depends on the ability to pay both the direct costs (such as medical fees, medical supplies, and transportation costs), and the opportunity costs (that is, time and money) that the care user (and any accompanying person) forgoes in order to use the service. A number of studies based on resource-poor settings reported lack of money as an influential factor affecting women's decisions to seek postpartum care services (Uzma, Underwood et al. 1999; Nabukera, Witte et al. 2006; Koenig, Jamil et al. 2007; Moran, Winch et al. 2007; El-Gilany and

Hammad 2008; Mrisho, Obrist et al. 2009; Vernon 2009). In a qualitative study by Uzma *et al.* (1999) of Bangladeshi slum areas, lack of money emerged as the central theme, determining whether or not and where women sought care and treatment when they were ill. Koenig *et al.* (2007) reported that, despite severe financial limitations, 61.8 per cent of women reporting serious complications sought some form of healthcare from both qualified and unqualified health providers. In contrast, only 11 per cent of those without complications reportedly sought postpartum check-ups (Koenig, Jamil et al. 2007). As with the significance of complications discussed about, this shows that financial limitations have less of an impact on curative care-seeking than on preventive care-seeking. In other studies, the effect of financial limitations on women's use of postpartum care services is complicated by women's concern over infant health; Bulat and Turan (1995) and Salway and Nurani (1998: cited in Vernon 2009: 240) found that many women in Istanbul and Dhaka had to choose between their own or their child's health, and that they chose to visit the child clinic rather than the sixth-week postpartum clinic.

Insurance is a financial intervention to increase accessibility to formal healthcare, particularly among a low-income population. Very few studies on postpartum care service use have included women's insurance status, and those that have are all quantitative and based on US contexts and from a preventive care perspective. Kogan *et al.* (1990) examined the different payment sources available in the US, including self-pay, Medicaid, commercial insurances, and the Health Start programme, and found that women with the Health Start programme were more likely to use postpartum care services than any other type of insurance. Interestingly, women who were not covered by any insurance were more likely to use postpartum care services than those who were covered by the Medicaid programme. However, such an association was not detected in another US study, by Bryant *et al.* (2006).

2.5.2.1.3.2 Physical Accessibility

The physical dimension to accessing healthcare services has been extensively identified as an obstacle to seeking postpartum care in studies based mainly in developing countries. It was found to limit not only women's ability to seek

healthcare, but also their willingness. Residency in either urban or rural area affects the uptake of postpartum care use in many countries, but many others show no such correlation. Fort *et al.* (2006) reported that the effect of urban–rural residence was generally moderate in all Asian countries and most North African and Latin countries. In sub-Saharan countries, however, the gap in postpartum service use between rural and urban residence was significant. In Eritrea, Ethiopia, and Rwanda, urban women are three to seven times more likely to receive postpartum care than rural women. Residency in particular regions is also significant in a number of countries.

Differences in rural and urban residence are also linked to women's socio-economic status, her ability to pay, the availability of health services and medical personnel, economic accessibility (Moran *et al.* 2007; Anson 2004; Rogan and Olveña 2004; Dhaher, Mikolajczyk *et al.* 2008; Atuyambe, Mirembe *et al.* 2009), and, to a larger extent, the country's development and processes of reform (Anson 2004). Moran *et al.* (2007) found that the utilisation of postpartum care services was in Bangladesh highest among women residing in the Beanibazar sub-district, which is known as an urban residence for affluent and educated people. In China, Anson (2004) found that the availability of maternal and child health workers at village level as a result of the government's healthcare decentralisation significantly reduced the impact of the urban-rural differential on maternity service use. It was found that having MCH workers in a village increased the likelihood of having a postpartum visit at a health facility by 1.23 times.

Being a long distance from a health facility is another inhibiting factor frequently cited in studies (Uzma, Underwood *et al.* 1999; Sibanda, Saungweme *et al.* 2001; Anson 2004; Fikree, Ali *et al.* 2004; Mrisho, Armstrong Schellenberg *et al.* 2008; Atuyambe, Mirembe *et al.* 2009). Anson (2004) found from his Chinese study that village women residing a short distance from a health facility meant a higher likelihood of seeking a postpartum check-up. However, a study in Bangladesh found no such association when women experienced serious life-threatening complications (Chakraborty, Islam *et al.* 2002). This suggests that the distance to a health facility may be less of an inhibitor in the case of curative care-seeking for severe complications.

The negative effect of distance from health facilities can become stronger when combined with a lack of a transportation system, poor road conditions, and difficult terrain (Gabrysch and Campbell 2009). Women in rural southern Tanzania reported encountering wild animals on the way to the clinic, making them reluctant to seek antenatal and postpartum services from health facilities (Mrisho, Armstrong Schellenberg et al. 2008). In Bangladesh and Zambia, the lack of transportation and the poor condition of the roads are given as the key factors for women not seeking postpartum care services (Lagro, Liche et al. 2006; Koenig, Jamil et al. 2007), and in the US, travel problems are reported as a key reason for women's failure to visit the sixth-week postpartum clinic. Women without a travel problem had a 0.59 greater likelihood of seeking postpartum check-ups (Bryant, Haas et al. 2006).

Residential mobility during pregnancy also has a negative effect on women's accessibility to maternal care services. Frequent mobility indicates unstable housing and is found to be associated with women's economic status, socio-economic circumstances, and ethnicity (Canfield, Ramadhani et al. 2006; Hooven, Jaddoe et al. 2009). There is only one study that included residential mobility; this was Bryant's (2006) US study, which showed that house-moving during pregnancy was reported to decrease a woman's likelihood of returning to a postpartum clinic. Having more than two house moves during pregnancy decreased the likelihood of a postpartum clinical visit by 0.35 times.

2.5.2.2 Healthcare Systems

Several issues related to the nature of postpartum care provision and organisation have been suggested as possible influences on the low level of postpartum service utilisation (Bhatia and Cleland 1996; Chakraborty, Islam et al. 2002; Thaddeus and Nangalia 2004; Koblinsky 2005; Nabukera, Witte et al. 2006; Moran, Winch et al. 2007; Rudman and Waldenstrom 2007). Although very few studies (Lomoro, Ehiri et al. 2002; McLachlan, Forster et al. 2008; Warren, Mwangi et al. 2010) have explicitly examined the effect of healthcare services on women's use of postpartum care services, the quality of postpartum care services and users' relationship with health providers are often highlighted as key determinants for postpartum service

under-use (Makumbe 2001; Chakraborty, Islam et al. 2002; Nabukera, Witte et al. 2006; Shakuntala, Poonam Varma et al. 2006). In this section, three issues often cited in the literature as both undermining and enhancing the use of postpartum care are reviewed. These are the quality of postpartum care services, the postpartum appointment system, and home visit programmes.

2.5.2.2.1 The Quality of Postpartum Care Services

Several dimensions to service quality have been identified in studies as adversely affecting women's utilisation of postpartum care services. Dimensions include: a poor relationship between women and health providers; the characteristics of the health providers; long waiting times; inadequate provision of information; and unmet needs from the service (Murray, Ryan et al. 2000; Makumbe 2001; Lomoro, Ehiri et al. 2002; McLachlan, Forster et al. 2008). Glazener *et al.* (1995) reported that the impact of women's feelings of dissatisfaction with health providers and sense that they were ineffectual discouraged women's use of postpartum services in the UK. Many clinic attendants in both resource-rich and resource-poor settings have commented unfavourably about a lack of support from health providers, or about being ignored or denied services (Winikoff and Mensch 1991; El-Mouelhy, El-Helw et al. 1994; Goodburn, Gazi et al. 1995; Uzma, Underwood et al. 1999; Ellberg, Högberg et al. 2008). Another possible factor in under-utilisation noted by scholars is professional health providers demonstrating inadequate knowledge or skill (Bhatia and Cleland (1996)Thaddeus and Nangalia (2004)Linberg *et al.* (2005). A further indirect impact may be due to how health providers perceive their role in postpartum service provision, which is often reflected in their care practice (Lugina, Johansson et al. 2002).

The likelihood of a woman visiting a postpartum clinic is related to the length of the waiting time for the service (Kogan, Leary et al. 1990; Annet 2004; Sibley, Caleb-Varkey et al. 2005), with longer waits correlating with a lower likelihood of a visit. Commonly, long waits have been found to be due to low staffing levels at facilities (Kogan, Leary et al. 1990; Sibley, Caleb-Varkey et al. 2005). Interestingly, Kogan *et al.* (1990) discovered that the problem in many clinics in the US was rooted in the

provider's payment system, causing internal conflict within the organisation and the subsequent resignations of many doctors.

In South India, Bhatia and Cleland (1995) found that even though there was a free postpartum service, many women were willing to pay for higher quality care. This suggests that quality can be perceived as more important than cost. In Uganda, Annet (2004) found that while the service was not free of charge, a lack of medical personnel at postpartum clinics and a shortage of medicine led to it being viewed as not worthwhile to attend.

In many settings, postpartum services were reported to consist of internal examinations, such as a pelvic examination and a cervical cancer Pap test (Makumbe 2001; Kabakian-Khasholian and Campbell 2005; Holland-Barkis, Forjuoh et al. 2006). The literature on these examinations reveals a positive association between a health provider's gender and a woman's decision to seek health services; Fennema *et al.* (1990) indicate that for preventive services there is a preference for a woman physician, and that this affects the likelihood of service use. Similar findings were reported in the study of Lurie *et al.* (1993), which showed that women were more likely to accept Pap test if they saw female rather than male physicians. However, inconsistent results were reported in other studies (Elstad 1994; Curtis 2001; Howell, Gardiner et al. 2002; Vasilenko, Schnuth et al. 2003). There has been only one study in the USA relating a health provider's gender with postpartum services; Howell *et al.* (2002) found that 34 per cent of postpartum patients preferred a female obstetrician, 7 per cent preferred a male obstetrician, and 58 per cent expressed no gender preference

2.5.2.2.2 Postpartum Appointment System

A study by Miller *et al.* (1999) at Mt Sinai Hospital in Chicago identified the lack of an effective medical database as another reason why there was a low rate of postpartum service use. The authors, who worked at the hospital, initiated the Sinai Health System (SHS) to create systematic appointments for the mothers prior to their hospital discharge and to monitor the return of mothers to the postpartum clinic. A

remarkable improvement was reported; 80 per cent of the postpartum women returned to the postpartum clinic within four months of delivery, compared to 46 per cent before the introduction of the SHS (Miller, Greenspan et al. 1999: abstract). In Lebanon, Kabakian-Khasholian and Campbell (2005) undertook a single-blind randomised controlled trial; they provided a study group with information in a specially prepared booklet that included a postpartum check-up appointment, while the control group was given two government leaflets on home safety. As with the USA, a positive effect was reported; Lebanese women with a postpartum appointment were 6.8 times more likely than those without one to seek postpartum care services. In another US study, Bryant *et al.* (2006) reported that the use of a reminder from the health provider's office was positively associated with the increased likelihood of attendance at the sixth-week postpartum clinic visit.

2.5.2.2.3 Home Visit Programme

Home visits by health providers have a positive association with the use of preventive postpartum care services (Moore, Ballinger et al. 1974; Kogan, Leary et al. 1990; Ghilarducci and McCool 1993; CDPHC 2003; Sharma, Sawangdee et al. 2007). In a US-based study, Ghilarduccu and McCool (1993) found that while 58 per cent of women who did not receive home visits kept their sixth-week clinic appointment, 74 per cent of home-visited women attended. Even though this differential was not regarded as significant, it was found that home-visited women who missed their clinic appointment were significantly more likely to reschedule their appointment. In a Palestinian case-control study, the intervention group of women who received a second home visit on day 30–38 of delivery, in addition to a home visit in the first few days after delivery, were more likely to visit the postpartum clinic on day 40 (CDPHC 2003).

2.5.2.3 Reflections

A range of factors influencing postpartum care service use is considered in the literature. Each factor has its own mechanism of action, in that it may act on its own

to affect the women's use of the postpartum care service or it may impede or modify the effect of the other factors. Gabrysch and Campbell (2009) suggest that some factors overlap with more than one concept, and some concepts are difficult to measure precisely. This may create difficulties in quantitative studies using multivariate analysis to formulate precise interpretations of how important each factor is in a constructed model of postpartum service use.

It should be noted that the majority of research based in developing countries is carried out in settings where childbirth usually takes place at home, and which therefore tends to offer more insight into curative than preventive care. More work on preventive care is found in developed countries, where delivery occurs in hospitals and postpartum care is almost universally available at a health facility. Since this review has covered literature on both curative care and preventive care, we can see that even though women seek or decline postpartum care services for different reasons, the factors driving their decisions may be the same. What is noticeably different is the relative importance of the specific factors.

It is also important to note that the majority of the existing research is quantitative, using data obtained from survey questionnaires, structured interviews and health records. Relatively few studies have used a qualitative or mixed method approach to examine postpartum women's situated experiences and how these influence women's behaviour, and the studies that do exist are concerned with curative care (Fikree, Ali et al. 2004; Moran, Winch et al. 2007; Atuyambe, Mirembe et al. 2009; Mrisho, Obrist et al. 2009). For the most part, studies have examined individual and household characteristics. As Stephenson and Tsui (2002) observe, relatively few have explicitly explored how the characteristics of health services available may be significant, even though it is acknowledged that problems might arise within a healthcare system (Bick, Bastos et al. 2008; McLachlan, Forster et al. 2008). No studies have been made of policies either directly or indirectly related to postpartum care services, and Gabrysch and Campbell (2009) suggest that an incomplete consideration of all the relevant factors means that invalid conclusions might be drawn. Consequently, the blame for low use of healthcare is placed on healthcare services and policies.

2.6 Postpartum Care and Postpartum Care Service Use in Thailand

This section focuses on postpartum care in Thailand, providing an overview of the care that Thai women have received both in traditional and in contemporary societies. It includes a review of literature relating to the utilisation of postpartum care services, identifying both what is known and what is not known in the context of Thailand. The purpose of this country-specific review was to provide guidance as to appropriate concepts, research questions, and methodology, as well as highlighting potential problems and areas that might otherwise have been unnecessarily replicated (Polit and Hungler 1990; cited in Makumbe 2001: 10).

2.6.1 Thai Women's Views Relating to the Postpartum Uterus

Davis-Floyd observes that after childbirth '[t]he female body is viewed as an abnormal, unpredictable and inherently defective machine' (Davis-Floyd 1994: 1127). Thai women described feeling 'not normal' inside their bodies, particularly in relation to complaints of the uterus (*mód loôk*) caused by pushing too hard during delivery, or from having a medical operation during childbirth. Women believe that the postpartum uterus is vulnerable and prone to trigger a variety of gynaecological illnesses and a general breakdown of the body (Boonmongkon, Nichter et al. 1998).

While in some cultures, the loss of menstrual blood is an unwanted occurrence, in others it is believed be beneficial and vital to health and well-being. Thai women commonly view menstruation as positive and beneficial in cleansing the uterus, with a regular menstruation cycle denoting a healthy uterus and thus a healthy body (Chirawatkul 1992; Punyahotra and Dennerstein 1997; Whittaker 2000; Boonmongkon, Nichter et al. 2001). Women with irregular menstruation believe that their bodies still contain menstrual blood, which may become polluting and harmful to their health (Punyahotra and Dennerstein 1997). Postpartum *mód loôk* is therefore believed to be associated with polluting blood retained during the nine months of pregnancy, and is thus a matter of great concern to women. The retention of polluting blood inside the body is thought to induce a 'hot' body state. Headaches, fever, and symptoms of high blood pressure are regarded as indicative signs of attack by

polluting blood.¹⁰ Polluting blood is also believed to move upwards to the head, which if not corrected by ‘bringing the blood down’ will induce long-term health problems or death (Whittaker 2004: 131 (authors' original emphasis)). Postpartum bleeding is therefore viewed positively as a therapeutic process rather than as a postpartum complication that needs medical treatment.

Lochia is another vaginal discharge that is also believed potentially to poison a woman's body. Due to its characteristic smell, lochia is called in Thai *nám kao bplaa*, meaning “fishy-smelling fluid”. As with menstruation, the attitude towards lochia is that its release is viewed favourably for reasons of health, cleansing the womb in a therapeutic process. Women's general perception is that the larger the amount of lochia expelled, the healthier the postpartum uterus (Chirawatkul 1996; Liamputtong 2007).

In addition to the belief that postpartum *mód loók* is due to polluting blood, Thai women commonly believe that the postpartum uterus needs to return to its pre-pregnancy position. The idiom of *mód loók kao òo* is often used in Thai traditional medical literature to describe a process of the uterus returning to the pre-pregnancy stage. *Òo*, which means “dock” in English, signifies a pelvic cavity as a platform accommodating the uterus. It is believed that while pregnant, the enlargement of the uterus makes it leave this platform. At some point after the pregnancy ends, the uterus returns to its platform, not ‘floating’ elsewhere (Sabchareon and Tangsookruethai 2000). A flattened lower pelvis/abdomen is generally regarded as an indicative sign of complete involution, while gynaecological post-delivery symptoms such as a foul smell, yellow mucus, and a feeling of having a lump inside the vagina are viewed as indicating the sub-involution of the uterus (Thipnui 2005).

In north-eastern areas, medical operations involving the uterus are believed by Thai women to cause cervical cancer and long-term health problem (Whittaker 1999; Boonmongkon, Nichter et al. 2001). Whittaker (1999) reported that women who underwent caesarean section believed that it would prevent them from performing a

¹⁰ Being attacked by blood was used to explain the condition the women referred to as ‘*Luet tam*’ (made by blood).

Thai traditional recovery practice of lying by a fire (*yuu-fai*, see below), since this would make the surgical scar become infected, and the incision would become unstitched due to the heat of the fire. Women who had undergone the procedure reported that they felt worried about their future health because they were unable to correct properly the cold imbalance in their bodies, nor fully cleanse their uterus of polluting blood and lochia (Whittaker 1999). Boonmongkon *et al.* (2001) similarly found that many women believed that postpartum sterilisation would result in their uterus deteriorating, and that this would culminate in cervical cancer.

2.6.1.1 Traditional Thai Beliefs and Practices Regarding Postpartum Care and Postpartum Women

Anthropological and cultural studies have recorded how childbirth is associated with many traditional beliefs and practices. In the past, many deliveries ended with the death of the mother, and the cause of death was often attributed to attacks by spirits (Yimyam 1997; Poulsen 2007). A mother who survived delivery was encouraged to carry a knife soon after delivery in order to protect herself from any spritis (Poulsen 2007).

In Thai culture, the suffering of a mother in childbirth is regarded as a great sacrifice for her infant and deserving of great care in return (Kerdbangnorn 1998). The observance of a period of confinement has been culturally prescribed to help the recovery of the mother, along with various dietary practices. Not all beliefs and practices, however, facilitate recovery, as discussed below.

2.6.1.1.1 Observance of a Period of Confinement: *Yuu-fai*

In Thailand, as in many other Asian societies (Furth 1987; Laderman 1987; White 1996; Kim-Godwin 2003; Raven, Chen *et al.* 2007; Zumsteg and Weckerle 2007), childbirth is traditionally seen to be associated with a need to restore the balance of *Yin* and *Yang* (cold and hot). Childbirth is regarded as leaving a woman in a cold and wet condition (Kaewsarn, Moyle *et al.* 2003). Thermal therapies are prescribed to

warm the woman's body and to dry out her insides (Phongphit and Hewison 1990; Kaewsarn, Moyle et al. 2003).

Yuu-fai, or lying by the fire, is a traditional Thai practice which is believed to warm the uterus and prevent blood from clotting inside it.¹¹ It is believed that if a woman rests near the fire, her uterus will return to its pre-pregnancy state faster. In addition to healing the uterus, *yuu-fai* is also said to ensure good skin in old age, to promote overall health, energy, and well-being, to prevent aches and health problems, and to stimulate the supply of breast milk (Phongphit and Hewison 1990; Whittaker 1999; Kaewsarn and Moyle 2000). *Yuu-fai* is also treated as a family event, bringing everyone together for the celebration of a newborn. Throughout the confinement period, the mother lies by the fire, while the family and relatives tend the bonfire day and night and take care of the mother, who is not allowed to leave the premises.

There is no definitive rule for how long women should observe *yuu-fai*. In general, the practice is seen to last from three to fifteen days (Yimyam 1997). In some societies, the number of appropriate days is believed to be an odd number, and to be dependent on the number of the indexed birth. In north-eastern areas, it was believed that women must be confined for the longest time for the first child, and for fewer days for subsequent children. The decreasing number of days means that younger siblings will respect elder ones (Poulsen 2007). During the *yuu-fai* period, women are advised to rest and to be relieved of all household chores, and to focus on breastfeeding. In some areas, such as Chiangmai Province, women had to rest at home for a month following delivery, and this extended period following *yuu-fai* is called *yuu-duan*, or “staying in for a month” (Liamputtong, Yimyam et al. 2005).

¹¹ This is the general term for lying by a fire, and it is often used in the central area of Thailand. In the north-eastern area, lying by a fire is referred to as '*Yuu-kam*', where '*kam*' is equivalent to *karma*. Different scholars gave different meanings to '*Yuu-kam*'. Poulsen (1983) defines '*kam*' as 'trouble', while Mougne suggests it means 'the observation of restrictions'. Keyes (1986) defines the period of *yuu-kam* as living in relation to *karma*, and as marking the symbolic attainment of full maturity for women (Whittaker 1996).

2.6.1.1.2 Dietary Practices

Along with *yuu-fai*, Thai women are also encouraged to keep their insides warm by drinking and bathing with hot water during the first month after delivery (Liamputtong 2004; Poulsen 2007). As with other Asian and some African societies, their diet is restricted to certain types of food, fruit, and desserts (Poh, Wong et al. 2005; Liu, Mao et al. 2006; Piperata 2008). Prohibited foods are believed to poison the mother, and indirectly the infant through breastfeeding. Food restrictions are also associated with a desire to ensure breast milk production. Boiled water and banana blossom are well known among Thai women to stimulate breast milk (Kaewsarn, Moyle et al. 2003). Different types of food restriction across the regions are evident. Table 2-4 summarises the types of food that Thai women are encouraged to consume and to avoid in the four regions.

2.6.1.1.3 Decoctions and Emmenagogues

Many women are also prescribed a decoction or emmenagogue to make the uterus warm, assist the flow of the lochia, hasten the involution process, promote a good

Table 2-4 Food-related practices during postpartum period, by region

Foods	North	North-east	Central	South
Recommended	Rice with salt	Rice with salt	Rice	Pepper
	Dried food	Roasted chicken	Salt	Dried shrimp
	Banana	Lemon	Roasted fish	Dried fish
		Ginger	Ginger	
		Banana blossom	Salty fish	
Not recommended	Egg	All kinds of meat	All kinds of meat	Bamboo shoot
	Fish	Seafood	Seafood	Onion
	Chilli	Vegetables	Egg	Banana
	Pickled food	Fruits	Fish with scales	Acacia Pennata
			Acacia Pennata	Fish without scales

Sources: Winichagoon (2002), Maiteemitr (2005), and Poulsen (2007)

supply of breast milk, and prevent pregnancy (Poulsen 2007). In Poulsen's (1983) study, decoctions were made from herbs and plants by a village herbalist, with one decoction for drinking during *yuu-fai* and another to prevent a pregnancy too soon. In other parts of Thailand, Whittaker (2000) found that many women had taken an emmenagogue after childbirth to help drain away the lochia and dry out the uterus. Women who did not perform *yuu-fai* were also found to drink an emmenagogue, since they believed that as a 'hot' medicine it could be a substitute.

2.6.1.2 Thai Traditional Postpartum Care in Modern Society

Several studies have postulated that *yuu-fai* and other traditional practices will die out in Thailand due to modernisation, the dominance of Western medicine, and their inconvenience (Muecke 1976; Chirawatkul 1992). Whittaker (1996) suggests that a decrease in traditional birth attendants and traditional healers, who are the key providers of traditional rituals, combined with an increase in hospital deliveries, might also lead to a demise of postpartum *yuu-fai*. Yimyam (1997) and Kaewsarn and Moyle (2000) argue that since relatively few women now die in childbirth, people believe less in traditional rites, so that their practice will no longer be viewed beneficially and will eventually disappear. Kaewsarn and Moyle (2000) found in their study that most women who followed traditional practices were young, less educated, and worked in unskilled jobs. They tended not to know the disadvantages of traditional postpartum practices, particularly *yuu-fai*.

Traditional postpartum practices can conflict with contemporary care advice. During traditional *yuu-fai*, women should lie down and take as much rest as possible. In contrast, women who have a hospital-delivery are encouraged to walk soon after delivery. The food provided in hospital is reported to be avoided by some women as it does not accord with traditional postpartum diets. However, the consumption of a decoction or an emmenagogue is viewed by professional health providers as causing excessive bleeding (Liamputtong, Yimyam et al. 2005), and traditional practices are discouraged. Whittaker (1996) found that health providers attempt to monitor women's traditional practices and dietary intake during the postpartum period, and a study undertaken by Kaewsarn, a professional nurse, includes the complaint that

cultural knowledge and traditional postpartum practices act as a barrier to contemporary care (Kaewsarn, Moyle et al. 2003).

While some studies assume that traditional postpartum practices will disappear from contemporary Thailand, others present contrasting evidence that *yuu-fai* practices and other traditions are still observed in many areas of Thailand, including northern and north-eastern villages (Liamputtong, Yimyam et al. 2005; Poulsen 2007), and southern Muslim villages (Oonchomchan 2003; Prachuabmoh 2007). Despite the increasing prevalence of hospital delivery causing many women to forego traditional practices, some studies report that women remain concerned about the consequences of this for their health (Boonmongkon, Nichter et al. 2001; Liamputtong 2007). Boonmongkon *et al.* (2001) found that 25 per cent of women seeking treatment for gynaecological problems believed that the problem was the result of an inadequate period of postpartum confinement and due to not practicing *yuu-fai*. Similar findings are reported in other studies (Liamputtong and Naksook 2003; Whittaker 2004).

2.6.2 Previous Studies on Postpartum Care and Postpartum Service Utilisation in Thailand

Very little research has been done on the causes of the under-utilisation of postpartum care services in Thailand. The best research among the limited material available is a study conducted by an anthropologist, Whittaker (1999), which explores birthing and postpartum practices among rural Thai women living in the north-eastern (*Isan*) area. The author suggests that Thai childbirth and the postpartum period are regarded as belonging to two spatial healthcare domains: hospital and home. In hospital, childbirth is a medical event controlled by doctors and nurses (Muecke 1976: 381; cited in Whittaker 1999: 225). However, when the women return home, they adhere to traditions and customs. Whittaker suggests that the use of traditional postpartum care by rural Thai women is resistance to biomedical advice and an affirmation of their ethnic and feminine identity within the modern Thai state. Whilst the study did not consider, *per se*, reasons for the low use of postpartum care services, it provides a strong sense of the cultural and social influences on postpartum women.

Only one other study explores the causes of low postpartum care service use among Thai women. A registered nurse in Satun Province, Doi-pila, suggested that the low rate of attendance at a sixth-week postpartum clinic was due to the failure of the referral network for maternity services (antenatal, delivery, and postpartum services) between the hospital where she worked and health centres in the hospital catchment area (Doi-pila 1992). The author proposed self-referral as an alternative; women should become the key decision-makers, referring themselves to their preferred health facilities. Doi-pila's proposed scheme was expanded by a group of Public Health Technical Officers (expert level) from the Ministry of Public Health, in which a self-referral system was designed and piloted among postpartum women in eight provinces (Suebwongpate, Rue-pitak et al. 1997). By using a quasi-experimental study, a group of 242 selected mothers received postpartum cards before their hospital discharge, in which they were asked to fill in certain information and to mail the cards to the nearest health centres within seven days. It was expected that the providers would receive the information within these seven days. In the follow-up survey, it was found that the self-referral system was viewed positively by the health providers, in that it kept them informed of new postpartum women in their responsible areas. Nonetheless, the report did not mention any improvement of postpartum service attendance.

Focused research on postpartum service use is not the only area that is lacking, and statistics on postpartum morbidities are also scarce. The available studies are specific to only a few specific morbidities, for example sexual health (Woranitat and Taneepanichskul 2007) and postpartum mental illness (Piyasil 1998; Wongvisetsirikul, Luecha et al. 2000; Vittayanont, Liabsuetrakul et al. 2006; Liabsuetrakul, Peeyananjarassri et al. 2007; Pitanupong, Liabsuetrakul et al. 2007). All of these studies rely on clinic-based surveys, where some morbidities were, no doubt, diagnosed during the routine postpartum check-up. Hence, the available records of morbidities cover only those women who attended postpartum clinics, suggesting the possibility that the prevalence of postpartum morbidities is under-reported.

More work related to postpartum women and care is found in the field of HIV/AIDS. Most of these studies are clinically randomised trials to test the efficiency of medical

interventions (Ketkaew, Greethakul et al. 2000; Kilmarx, Supawitkul et al. 2000; Taneepanichskul and Tanprasertkul 2001; Koetsawang, Lix et al. 2004; Lallemand, Jourdain et al. 2004; Cressey, Van Dyke et al. 2009). Taneepanichskul and Tanprasertkul (2001), for instance, tested the efficiency of the Norplant implant and found that it is safe and well-tolerated in asymptomatic HIV-1-positive postpartum women when inserted immediately postpartum. Relatively few studies have examined the social context of postpartum HIV mothers, such as role adaption, self-esteem and quality of life (Bennetts, Shaffer et al. 1999; Jirapaet 2000; Ketkaew, Greethakul et al. 2000). None has explicitly examined HIV-positive postpartum women in relation to use behaviour of healthcare services following childbirth.

2.6.3 Summary

The literature clearly shows the significance of postpartum care services to women's health and well-being after delivery, and the failure to receive such services is therefore a missed opportunity for these women to receive various health screenings. This not only puts these women at increased risk of a variety of health problems, but also puts an extra burden on society due to increased costs caused by long-term health problems that could have been avoided. Literature concerned with various contexts and populations reveals several possible reasons for the low use of postpartum care services, and further investigation is needed in areas where evidence is currently lacking (WHO 1998; Kabakian-Khasholian, Jurdi *et al.* 2006; Shaw and Kaczorowski 2007). One such area is Thailand, and this lack of attention means that the government may not be aware of the need to improve utilisation rates; this lack of information may have adverse outcomes for postpartum women. The topics researched and analysed in this thesis therefore fill an important gap in the scholarship. This thesis investigates not only postpartum women in relation to the healthcare system, but also policies and policy actors' points of view on postpartum care, which no prior studies have considered. The merit of constellating these possible influencing factors is to provide a full and broad-based picture for understanding why Thailand has low utilisation of postpartum care services.

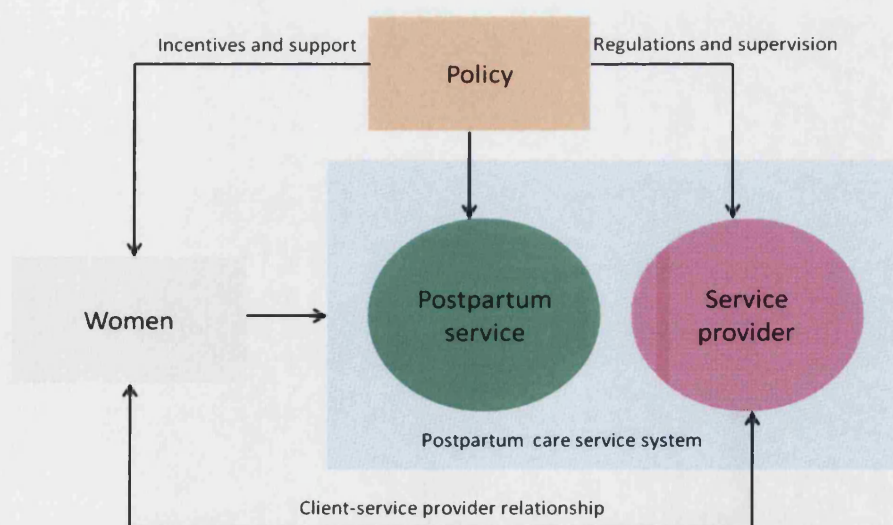
2.7 Research Questions

The extensive literature review has revealed four key elements which have a significant influence on the utilisation of postpartum care services. These are: (1) women who utilise postpartum care services; (2) postpartum services themselves; (3) the health providers who provide the services; and (4) the policies which regulate and monitor postpartum care services. Figure 2-2 illustrates the relationships between the four elements. The postpartum services and service providers are grouped to represent the postpartum care service system.

The research aim—to examine the causes of low use of postpartum care services in Thailand—generate three core research questions:

- (1) *What are the reasons why Thai women do not use postpartum care services?*
- (2) *Is the low rate of utilisation due to the current postpartum service system? In particular, has the healthcare system, including service*

Figure 2-2 Key elements and their relationships in the utilisation of postpartum care services



providers, created any barriers to women's utilisation of available services?

(3) Have policies relating to postpartum care affected the provision and utilisation of postpartum care in Thailand? If so, how and to what extent?

In order to address the core research questions thoroughly, auxiliary questions (Box 2-1) were formulated to ensure that the investigation covers all relevant aspects and the most valid findings were reached.

Box 2-1 Auxiliary research questions

Client-related questions

- What are the healthcare-seeking behaviours of women during the postpartum period?
- What are the attitudes and perceptions of women towards postpartum care and the hospital-based postpartum service?

Service-related questions

- What are the components of the postpartum service system in Thailand?
- What are the ways in which the components of the postpartum service system might contribute to the low utilisation of services?
- What are the perceptions of health care providers towards postpartum care?

Policy-related questions

- How has Thai policy with respect to postpartum care been developed? How have patterns of postpartum care use changed over time, and to what extent can these be linked with changes in policy?
- What perceptions are held about postpartum care provision and utilisation by a wide range of policy actors, including: international organisations and national and local agencies, both government and non-governmental?

Chapter 3

Policy Context for Postpartum Care in Thailand

3.1 Introduction

In this chapter, we seek to address the policy context of postpartum care in Thailand. The content of this chapter consists of two main parts. The first part presents the investigation of past and present postpartum policies (Section 3.2). It traces how the issue of postpartum health entered into the health policy regime. The investigation concerns the rationale behind the policy origins and inception, its organisation and impacts on the health and healthcare use of postpartum women. This is followed by examination of other policies with respect to the maternity care services and the healthcare system to see how, and to what extent, the enactment of these policies and programmes stimulates or hinders the utilisation and the provision of the country's maternal and postpartum care services (Section 3.3).

3.2 Past and Present Postpartum Policies

This section aims to present two postpartum policies, namely Postpartum Family Planning and the CARE programme. The two policies are described in their process of initiation and development through to the stage of national implementation. It draws on the interviews with healthcare providers and policy actors to show the policies' impact on the women's use of postpartum care services.

3.2.1 Postpartum Family Planning Policy: 1960s–1970s

In Thailand, postpartum women had been first recognised in the area of health policy due to the government's initial concerns about economic development. In the 1950s, rapid population growth was perceived as an urgent global problem (Ehrlich and Brower 1970; "When Paul's Said and Done" 2004). The World Bank report in 1958 suggested that the high population growth rate in Thailand of approximately 3 per cent would create negative consequences for its economic development (Krannich and Krannich 1980). This perspective was in contrast to the Thai Government, which had paid little attention to population growth since a large population was considered favourable for the country's strong defence (Krannich and Krannich 1980). In 1963, prompted by key academics, medical practitioners and officials, the first National Population Seminar was held. This seminar was held under the auspices of the Population Council of New York and the National Research Council of Thailand, and initiated the establishment of the National Committee on Family and the country's first health research programme on family planning, *Potharam* (Hemachudha, Asavasena et al. 1972; Krannich and Krannich 1980; Whittaker 2004). A baseline survey carried out under the *Potharam* project revealed the surprising result that 70 per cent of women sampled did not want additional children and only 5 per cent were using contraception (Vimuktanon and Rosenfield 1971). During the same period, the Population Council of New York revealed findings from a comparative study that showed that pregnancy and postpartum were the best times to motivate the women to adopt contraception (Zatuchni and Ross 1967; Ministry of Public Health 1971; Sivin 1971; Neumanna, Ofosu-Amaaha et al. 1976). In response to these findings and recommendations, the Thai Government opened a limited number of family planning clinics in hospitals and became a member of the 1966 International Postpartum Programme, at that point the world's largest family planning programme (Rosenfield, Hemachudha et al. 1971; Sivin 1971: 248).

As an outcome of participation, the first postpartum programme in Thailand was 'quietly' launched in 1966. Features of the postpartum programme were similar to the international blueprint; that is, to provide a hospital-based family planning service, particularly in the context of obstetric care (Sivin 1971; Wright 1972; Castadot, Sivin et al. 1975: 1). The programme had neither new health resources nor

public information activities.¹² The postpartum family planning service was simply built up on the existing health infrastructure. Women were motivated to initiate the use of family planning in labour rooms and postpartum wards (Ministry of Public Health 1971). Immediate IUD insertion and postpartum sterilisation were offered, and usually conducted two to four days postpartum (Hemachudha and Rosenfield 1975). Initially, there were only four hospitals that participated in the programme, all were public hospitals and located in Bangkok (Zatuchni and Ross 1967). In 1968, eleven hospitals outside Bangkok were requested to adopt the programme due to the expected increase in the number of postpartum service acceptors (Alers, Asavasena et al. 1973; Hemachudha and Rosenfield 1975).¹³ The Ministry of Public Health became directly involved in providing family planning services and trained healthcare providers to deliver services.

In 1971, the first three-year evaluation of the postpartum programme (1968–1970) revealed that the number of acceptors who had obtained IUDs and female sterilisation through the programme was 65,598, accounting for 20 per cent of all acceptors nationally (Hemachudha, Asavasena et al. 1972). Among the participating hospitals, 40 per cent to 85 per cent of the postpartum women had reportedly agreed to accept contraception (Rosenfield, Hemachudha et al. 1971). The outstanding record was also reported internationally. The first international follow-up study on the international postpartum programme revealed that Thailand had contributed a surprising 37 per cent of all acceptors among the eleven participating countries (Castadot, Sivin et al. 1975; Koetsawang and Kornkasem 1980; Krannich and Krannich 1980). In relation to the IUDs, Thailand was also the leader in the insertion of IUDs in the immediate postpartum period and had been responsible for over 70 per cent of all immediate postpartum insertions reported in the international programme (Hemachudha and Rosenfield 1975). The success prompted the Thai Government to officially integrate the family planning service as part of the routine

¹² Public information activities were prohibited at that time. They were officially approved by the Government in 1971.

¹³ The claim has no statistical proof. The official reporting system was not established until the middle of 1968.

hospital obstetric care in another 90 hospitals across the country by 1975 (Hemachudha and Rosenfield 1975: 866).

Despite the notable success and the fact that 10 additional countries had participated with more than 1.1 million women being served with family planning during the eight years of the programme's operation, the international programme encountered many challenges, including poor administration, lack of interagency links and financial instability, causing the international postpartum programme to officially end in 1974 (Brady and Winikoff 1992; Bruce 1992). For Thailand, despite the Ministry of Public Health's obvious enthusiasm for population control, Rosenfield and Min (2007) noted that the long-standing opposition from the pro-natalist military leaders was still apparent. The military leaders and military officials still did not believe that Thailand had a serious population problem and were opposed to encouraging family planning. This caused the Thai Government to never have announced any 'official' national target for the national family planning programme or postpartum programme.¹⁴ The situation was aggravated by increasing public doubt over the cost-effectiveness of the postpartum policy. The nationwide postpartum programme needed massive financial resources as well as skilled health personnel, especially for IUD insertion and tubal ligation (Satyapan, Varakamin et al. 1983). Moreover, postpartum temporary infecundity due to lactation raised the question of whether the women really needed an early initiation of birth control if they could benefit from a period of postpartum amenorrhea. These arguments were supported by evidence from an unpublished Government survey stating that that the expulsion rates for IUDs were highest during the immediate postpartum period (Rosenfield, Hemachudha et al. 1971; Hemachudha, Asavasena et al. 1972; Hemachudha and Rosenfield 1975).

Nonetheless, Banharnsupawat and Rosenfield (1971) found that the expulsion rate of IUD insertion at the sixth week postpartum visit was quite high too. And because a large number of Thai women failed to return to the sixth week postpartum clinic, the

¹⁴ Between the 1950s and 1970s, Thailand had gone through many governments, *coups d'état* and revisions of constitutions. The country's ruling had been dominated by military and bureaucratic polities.

authors argued that the immediate postpartum period was an ideal time to initiate the use of birth control. In addition, Dr Chitt Hemachudha, one of the key figures in the family planning movement and the Permanent Secretary of the Ministry of Public Health at that time, contended that the national implementation of the postpartum policy was still worthwhile because more than 75 per cent of the women who participated in the postpartum programme had shown a 12-month continuation rate and the majority of women who expelled the IUD had come back for a reinsertion (Hemachudha, Asavasena et al. 1972; Hemachudha and Rosenfield 1975).¹⁵

In addition to the politics and public criticisms, the postpartum programme was faced with another challenge, that over eighty-five per cent of Thai women at that time still delivered their babies at home (Hemachudha, Asavasena et al. 1972; Hemachudha and Rosenfield 1975; Kanchanasinith, Piyapinyo et al. 1990). This showed that the majority of women lacked access to the postpartum programme. In 1973, two years after public information activities were allowed, the Government employed the media to promote contraception, especially in rural areas where messages to educate and promote the use of family planning were broadcast using mobile loudspeaker systems (Suvanavejth and Donaldson 1974; Rosenfield and Min 2007). Another key strategy was to increase the supply side, particularly in terms of the number of service providers. Between 1970 and 1981, with technical advice and funding from foreign donors (e.g. Population Council of New York, UNFPA, the USA via USAID and IDRC of Canada) several projects were initiated to examine the feasibility of non-medical practitioners providing family planning services. Successful project results were then translated into policies. In 1971 the Government ruled that all nurses and auxiliary midwives were capable of prescribing oral contraceptive pills (Hemachudha and Rosenfield 1975; Rosenfield and Min 2007) and in 1972 nurses were allowed to insert IUDs. Two years later, the Cabinet approved training programmes for traditional midwives, who were identified as having a pivotal role to help motivate mothers to adopt contraception during the postpartum period (IDRC 1976; Sujpluem and Kanchanasinith 1979; Sujpluem, Kanchanasinith et al. 1981). In 1979, as a result of the country's adoption of the Alma-Ata Declaration on Primary

¹⁵ Likewise, this claim on IUD reinsertion has no statistical proof.

Table 3-1 Chronological summary of postpartum family planning policy development between 1958 and 1979

Year	Key features
1958	The World Bank issued a report on negative impact of Thai population growth on economic development
1963	The first National Population Seminar was held
1964	The first demographic and family planning research project, namely <i>Potharam</i> , was launched in Potharam District, Ratchaburi Province
1966	Thailand had adopted the International Postpartum Programme
1968	Thailand signed the initiations' World Leaders' Declaration on Population The Cabinet approved that the family planning services be extended to married women with children throughout the Kingdom
1971	The first evaluation of postpartum family planning programme Nurses and auxiliary midwives were allowed to prescribe oral contraceptive The Government lowered cost of sterilisation from between 500-1000 Baht (GBP10-20) to 188 Baht (GBP3.8)
1972	Nurses were allowed to insert postpartum IUDs
1973	Free postpartum sterilisation policy
1974	The International Postpartum Programme was officially ended The Cabinet approved a training program for traditional midwives
1975	Postpartum family planning service was officially integrated into routine obstetric care
1979	Village health volunteers were allowed to distribute contraceptive pills A pilot study was carried out to evaluate the performance of nurse-midwives with operating-room experience to provide postpartum tubal ligation

Healthcare, village health volunteers were permitted to distribute contraceptive pills (Janowitz, Kanchanasinith et al. 1994). Table 3-1 summarises the development of postpartum family planning policy in chronological order.

3.2.1.1 Effects and Implications

It is apparent from the literature that Thailand's first postpartum policy concerned only immediate postpartum family planning. And this clearly indicates that the significance of postpartum women was seen only in terms of their potential 'demographic impact' (Brady and Winikoff 1992: 8) on the country's population growth rate. However, by looking at the policy's inception, this is not surprising. Attention given to the postpartum issue in Thailand was stimulated by Western concern on population growth and its participation in the International Postpartum Convention.

The development of Thailand's family planning in general and postpartum policy in particular shows two remarkable lessons. Although the country had imported the foreign blueprint for the postpartum programme at the beginning, it is apparent that the country had later transformed the blueprint to fit the local setting. The case of home delivery can be taken to illustrate this point. On the basis of policy formulation, Thailand's postpartum programme is, therefore, neither original nor simply a copy of the international postpartum programme. Another lesson is the importance of the key influential figures in rallying support for a family planning cause. It is apparent that even though the postpartum programme was doubted in its effectiveness, the Ministry of Public Health, under the leadership of Dr Hemachudha, did not halt, but continued the expansion of postpartum family planning services all over the country. Also, to a larger extent, despite the opposition from the military delaying the Government's decision to approve the family planning project, it was found that in 1968 the Ministry of Public Health had launched a national three-year Family Health Project without waiting for official approval from the Government (Hemachudha, Asavasena et al. 1972).

Like Winikoff and Mensch (1991), who observed in other countries after the ending of the International Postpartum Programme, in Thailand since the country integrated the postpartum programme into the routine obstetric care in 1975, research interest in the postpartum issue appeared to be waning, as observed from its disappearance as a topic from Thai literature. However, despite the decrease of research attention, the impact of postpartum family planning to the postpartum women had not disappeared. More than a decade later, studies showed that more than 80 per cent of Thai

postpartum women had initiated the use of family planning immediately after childbirth, reflecting that the provision of family planning services with obstetric care still went well and that immediate birth control after delivery was greatly acceptable among Thai women (Knodel and Kamnuansilpa 1988; Knodel, Chayovan et al. 1990).

The implications of the postpartum family planning policy need to be considered in terms of their implications for maternity services. The literature suggests that while the Government had attempted to promote the utilisation of delivery care with health professionals, the postpartum policy helped to motivate the pregnant women to seek delivery services from hospitals. Hemachudha *et al.* (1972) were the first to note that many Thai women sought hospital delivery, partly because they wanted to obtain postpartum sterilisation. Consistent results were reported in other studies (Suvanavejh and Donaldson 1974; Whittaker 1999; Rosenfield, Maine et al. 2006). Rosenfield *et al.* (2006) revealed that in 1973 the mandate for free postpartum sterilisation and IUDs led to a massive demand for postpartum sterilisation, encouraging rural women to seek delivery services at provincial hospitals. Whittaker (1999) suggested that the significant impact of the postpartum policy was to change Thailand's cultural birthing pattern. The author claimed that women's preference for free postpartum sterilisation had led to the demise of home delivery and traditional midwives (Whittaker 1999). In terms of postpartum care service use, the effect of postpartum sterilisation is anticipated to motivate the acceptors to return to the health facility for a postpartum check-up (Kanchanasinith, Piyapinyo et al. 1990). However, a study on postpartum sterilisation in 1980 revealed that only about half of the sterilised women (49.2 per cent) returned for a check-up, usually scheduled between two to four weeks after hospital discharge (Satyapan, Varakamin et al. 1983).

3.2.2 The CARE Programme for HIV-Infected Postpartum Mothers: 2004–Present

Although in the early stages of the HIV epidemic men had higher infection rates than women, as the epidemic progressed, this distribution changed (Surasiengsunk et al. 1998 cited in Whittaker 2004: 22). In 1991 the prevalence of HIV-infection among

pregnant women had been reported at 0.8 per cent, rising to 2.35 per cent four years later (AIDSTHAI 2003; Kanchana 2003). Moreover, in 1999 the Ministry of Public Health revealed from the sentinel surveillance data that 4–5 per cent of women who attended antenatal clinics in the north-eastern region were HIV-infected and about 2 per cent nationwide, a trend that was expected to escalate (Weniger, Limpakarnjanarat et al. 1991; Kilmarx, Limpakarnjanarat et al. 1998; Nopkesorn, Mock et al. 1998; Gray and Punpuing 1999; Whittaker 2004).

Because the majority of HIV-positive women were of reproductive age, this had implications for the delivery of reproductive health services, including maternity services. In 1989, HIV prevention was integrated into the government family planning and maternal programmes. A pioneer antenatal clinic was launched at Siriraj Hospital to provide a selective screening test only for pregnant women with a history of HIV risk.¹⁶ Two years later, the Government integrated the HIV screening test into antenatal clinics in all public hospitals across country, in which all pregnant women were encouraged to receive the HIV screening test. In 2000, nearly all Thai pregnant women (95%) received the screening test for HIV (Kanshana 2007). The remarkable success rate was proclaimed to be due to the Government's aggressive public campaigns (e.g. '100 per cent condom' programme) and activities against AIDS, including the broadcast of anti-AIDS messages every hour through the country's 488 radio stations and six television networks, as well as the enforcement of consistent condom use in all commercial sex brothels and massage parlours. It was argued that this led women to change their attitude to consider early diagnosis of HIV infection as beneficial for them and their babies (Koetsawang and Auamkul 1997; Whittaker 2004; Bureau of Policy and Strategy 2006). Another implicit factor contributing to the uptake of antenatal HIV screening could have been a termination of the repressive mandate of the hospitals that required the names and addresses of people living with the HIV patients (The World Bank 2000).

In the early 1990s, the vertical transmission of HIV from mothers to children had become one of the urgent HIV issues among developed countries (WHO 1998).

¹⁶ The selective testing was provided based on the provider's risk assessment. Details of risk assessment were not given.

Various studies have suggested that the transmissions might take place during pregnancy, particularly during labour, and in the postpartum period through breastfeeding (Newell and Peckham 1993; Leroy, Newell et al. 1998). The transmission rates of HIV to children *in utero* were reported to be up to 30 per cent in Europe and the US (WHO 1998), while the risk of transmission through breastfeeding was found to be around 14 per cent among mothers with two years of breastfeeding practice (Dunn, Newell et al. 1992). According to undated WHO statistics, breastfeeding accounted for one-third of all cases of infected infants globally (Mofenson 1997; Talawat, Dore et al. 2002).

In Thailand, Koetsawang and Auamkul (1997) reported the transmission rate of 24 per cent for pregnancy, delivery and the postpartum period during 1991–1994 at Siriraj Hospital, whereas Kanchana (2003) found the transmission rate to be up to 30 per cent nationwide. Substantial measures to prevent HIV transmission had been established. In 1996, the Ministry of Public Health instigated a random-trial study to provide short-course AZT (zidovudine) to prevent mother-to-child HIV transmission in Bangkok. This pioneer study reported that AZT could reduce the mother-to-child transmission of HIV by 50 per cent. Based on the study's finding, the pilot programmes were initiated in many other provinces across the country. The similar success of these programmes provoked a call from medical doctors for short-course AZT support (Kanabus and Fredriksson 2009). In 1999, AZT was distributed in most of the public hospitals and guidelines and procedures for pregnant and postpartum women had been developed, in particular, breastfeeding was discouraged through the provision of breast-milk substitutes for infant feeding (Kanshana and Simonds 2002). One year later, the Government issued the National Prevention of Mother-to-Child Transmission (PMTCT) programme, providing the first-ever comprehensive routine care guidelines for HIV mothers and newborns (Kanshana and Simonds 2002).

The period after childbirth is as important as that before childbirth, since HIV-positive mothers are very likely to face several economic, health and social problems. Apart from their own health difficulties, these mothers may encounter a reduction in income, as well as separation/illness and/or death of partners and stigma (Brown, Trujillo et al. 2001; Nguyen, Oosterhoff et al. 2009). In a prospective survey with 129 HIV-positive women, Manopaiboon *et al.* (1998) found that during

postpartum interviews (18–24 months after delivery) 30 per cent had reduced income and 10 per cent suffered the death of their partner. The typical period of 18–24 months for conclusive HIV viral diagnosis for infants could also cause the mothers considerable stress (Whittaker 2004; Shannon and Lee 2008). Many studies have similarly reported the associations between the HIV-related concerns and the depressive symptoms among pregnant women and indicated a high possibility of these symptoms continuing throughout the postpartum period (Bennetts, Shaffer et al. 1999; Ross and Srisaeng 2006; Ross, Sawatphanit et al. 2007). Tanabe (1999) revealed in his study that a group of women residing in Doi Saket, Chiangmai were all widows, HIV-infected themselves and facing stigmas and difficulties in childbearing. Similar results were presented in another study of seropositive women residing in Bangkok, in which 58 per cent of the studied women said they would attend an HIV support group if one was available (Bennetts, Shaffer et al. 1999).

In response to these research findings and recommendations, in 2001 the Government launched a pilot project, *Enhancing HIV-related Care and Treatment* (ECAT), aiming to provide care and psychological assistance to HIV-positive mothers and their families (Amornvichet, Singkowin et al. 2002). The project's key features included integrative care for HIV-positive mothers (i.e. the postpartum provision of anti-retroviral drugs, contraceptives, the first and the sixth week postpartum check-ups, 6-monthly CD4 tests and counselling), the provision of counselling for HIV-infected women's family members and relatives to be able to provide proper assistance and care, and the strengthening of collaboration between the governmental agencies, community-based NGOs and networks to develop community activities for HIV mothers and children (Amornvichet, Singkowin et al. 2002). With support from the Global fund, the ECAT project was launched nationwide and later changed its title to the 'CARE' postpartum programme in 2004 (Kanchana 2008).¹⁷

The origin and nature of the CARE postpartum programme are different from those of the postpartum family planning policy in two aspects. First, the rationale behind

¹⁷ The Thai Government was granted funding of more than US\$ 16 million, from the Global Fund to continue the anti-AIDS missions. Half of the funding was allocated to the ECAT project.

the initiation of the CARE programme reflected the Government's broader perspective to optimise reproductive health and the needs of a minority group of women. Second, instead of relying on the Western guidelines as before, the review of the CARE programme development highlighted the country's advancement in adopting the evidence-based policy making (EBPM) model, which has been widely used in the developed countries. However, the consolidation of scientific findings and the policy process is no less important than the policy-making model the country has adopted. As noted by Béhague and Storeng (2005), communication difficulties between researchers and policy makers can impede policy formulation as the researchers' action and recommendation might slow down the process by emphasising the uncertainty of research findings. The potential for conflict seems to have been minimised in the case of Thailand, where the key figures of HIV activists, policy actors and researchers were the same individuals who, in turn, empowered a rapid translation of the research outcomes to policies and to actions.

3.2.2.1 The Performances and Future

For the four years since the inception of the CARE programme in 2004, it is evident that there had been many HIV-infected postpartum mothers who did not receive any continuing care after hospital discharge. Table 3-2 summarises the performance of the National Prevention of Mother-to-Child Transmission (PMTCT) programme from 2004 to 2007 and highlights that there was a huge gap between the receipt of antenatal care and postpartum care among the HIV mothers. Nonetheless, the statistics show a positive trend that the percentage of HIV mothers receiving continuing care had increased.

It is apparent that not all postpartum HIV mothers participated in the CARE programme. Kanchana (2008) revealed that between 2004 and 2006 there were 10,264 HIV-infected pregnant women having voluntarily registered with the CARE programme after being informed about their HIV-positive result. This figure accounts for only two-thirds (60.3%) of the total number of pregnant HIV-positive women. In the postpartum period, unpublished surveillance data by the Ministry of Public Health revealed that more than 50 per cent of the CARE programme

Table 3-2 The performance of the PMTCT programme: 2004–2007

	2004	2005	2006	2007
Total number of pregnant women	697,989	694,049	587,888	794,406
Antenatal care				
Percentage of women having ANC and HIV test	98.7	99.5	99.6	99.7
Number of women having HIV infection	6,772	6,252	5,021	6,263
Percentage of HIV infection among pregnant women	1.0	0.9	0.85	0.78
Percentage of HIV+ women took antiretrovirals	86.1	89.6	91.8	93.8
Number of newborns by HIV+ mothers	6,676	5,490	4,854	6,137
Postpartum Care				
Percentage of newborns by HIV+ mothers receiving baby formula prior to hospital discharge	85.7	91.7	90.4	93.5
Percentage of newborns by HIV+ mothers receiving antiretrovirals	99.0	91.7	100	99.5
Percentage of HIV+ mothers receiving continuing care	30	45	60	65

Source: The 2008 PMTCT report. Department of Health. Thailand Ministry of Public Health.

participants did not return to the hospital for a postpartum examination, blood testing or free baby formula collection.¹⁸

In 2007, the low compliance of postpartum care by HIV-infected mothers was publicly addressed by the Government's representatives in the National HIV/AIDS Networks Seminar.¹⁹ Fear of being expelled from their family and community as

¹⁸ 'Half of HIV-infected women missed meds appointment,' *Manager*, 25 July 2007 (in Thai).

¹⁹ 'Half of HIV-infected women missed meds appointment,' *Manager*, 25 July 2007 (in Thai).

well as being discriminated against by healthcare providers was concluded by the Government to be the major contributing factor to the low return of HIV postpartum women to health services.²⁰

In 2008, due to the smaller numbers of HIV postpartum cases, the CARE programme in two hospitals observed in the current study had been quietly discontinued. The HIV-positive mothers and infected infants were referred to receive care from another clinic for general HIV patients under the *National Access to Antiretroviral Programs for People who have AIDS* (NAPHA) project. While the Government still attempts to promote the HIV-infected women's participation in the CARE project, the withdrawal of the CARE programme is expected in other hospitals across the country. Of the two pioneer hospitals in Kanchanaburi province, only one ever functioned as the main contact unit for the provincial CARE programme. With the official revision of the HIV project planned for 2025, together with the evidence for increases in husband-to-wife HIV transmission and HIV prevalence among indirect sex workers (Peerapatanapokin 2008), the termination of the CARE programme in other hospitals will have a substantial negative impact on HIV-infected mothers.

3.3 Policy Environment of the Utilisation of Postpartum Care

At present, there is no policy that explicitly addresses increasing the use of postpartum services in Thailand. In this section, we explore other policies that may have impacted on service utilisation and provision. Three policies are identified as key to affecting the utilisation and provision of postpartum care services. They include the policy related to health care insurance as well as the provider's payment method, the policy on traditional medicine and the Family Bonding project. Each of these policies and programmes will be described briefly, together with its impact for postpartum service use.

²⁰ 'Half of HIV-infected women missed meds appointment,' *Manager*, 25 July 2007 (in Thai).

3.3.1 Healthcare Insurance Schemes

Economic inaccessibility is one of the most significant factors contributing to low use of maternal health services (Thaddeus and Maine 1994; Griffiths and Stephenson 2001; Lubbock and Stephenson 2008). Various forms of financial protection, such as voluntary healthcare insurance with premium payment and free-of-charge services, have been initiated to remove this barrier. The success of these financial tools to increase the use of maternity services has been extensively reported in studies from various settings (Tangcharoensathien, Harnvoravongchai et al. 2000; Tangcharoensathien, Tantivess et al. 2002; Winfrey, Dougherty et al. 2004; Ensor and Ronoh 2005; Huntingdon, Yunguo et al. 2008; Smith and Sulzbach 2008). In particular relating to postpartum care services, Kogan *et al.* (1990) found that the elimination of financial barriers can increase the chance of women returning for a postpartum visit.

In Thailand, prior to 2002, there were four major health insurance schemes in Thailand (see Table 3-3 for a summary of Thailand's five health insurance schemes). Maternity services including antenatal, delivery, postpartum care, and family planning, are covered in all of these four schemes. For women included in the Civil Service scheme, all services at government health facilities can be fully reimbursed. Mothers who are covered by the Social Security Scheme by themselves or through spouses appeared to receive the least maternity benefit. A maximum of 12,000 baht (approximately GBP200) is granted for the reimbursement of antenatal, delivery, postpartum, infant and self care, family planning, transportation and other expenses, subject to the condition that the beneficiaries must have been employed for at least seven months prior to pregnancy (or in the 15 months before the expected date of childbirth) (Tangcharoensathien, Supachutikul et al. 1999). Women on the Social Security Scheme can choose the place to receive the services as well as the methods of delivery (Pannarunothai, Srithamrongsawat et al. 2000; Supakankunti 2000).

In 2002, the Thai Government launched a Universal Healthcare Insurance (UC) policy, aiming to benefit all Thai citizens, but especially the 12 million without any medical insurance (Banchuin 2002; Vapattanawong, Hogan et al. 2007). In addition to coverage of these non-insured individuals, the UC incorporated beneficiaries from the Low Income Card and the Voluntary Health Card schemes. Initially, UC

Table 3-3 Thailand's health insurance schemes

Health insurance	Beneficiaries	Source of finance	Provider payment method
Civil Servants Medical Benefit scheme (CSMBS) (since 1960s)	Civil servants and their dependants (parents, spouses and up to three children under 18 years old)	General Tax	Fee for service
Low Income Card Scheme (LIC) (since 1976)	Poor people and eligible disabled	General tax	Global budget
Voluntary Health Card Scheme (VHC) (since 1983)	Predominantly for people who were not eligible for the Low Income Card Scheme (i.e. personal income > 2,000 baht (GBP40)/month)	General tax 1,000 baht (GBP20 and Household 500 baht (GBP10)	Proportional reimbursement among 1st, 2nd, and 3rd care level
Social Security Scheme (SSS) (since 1993)	Workers and their spouses only. The scheme is mandatory for all private firms with more than one employee	Payroll tax tripartite contributions	Capitation
Universal Coverage Health Insurance (UC) (since 2002)	Rest of people who are uninsured for any type of insurance	General tax	Capitation

Sources: Supakankunti (2000) and Towse *et al.* (2004)

beneficiaries were required to pay 30 baht (GBP0.60) per admission/visit to health facilities registered under the scheme, either public or private (National Health Security Office 2003). In 2006, due to the heated political atmosphere, the interim civilian government waived the 30-baht payment, meaning that all health services, including MCH and family planning, were free-of-charge at point of service (NHSO 2007).

The effect of the Government health insurance on the utilisation of maternity services had never been examined until 2000 after the country experienced a severe financial crisis in 1997. Tangchareonsathien *et al.* (2000) reported in-depth results from two delivery censuses carried out by the Health System Research Unit of the Ministry of Public Health. The study found that urban poor women, who were uninsured, experienced the most severe impact from the economic crisis. Nineteen per cent of these uninsured women, who delivered at the provincial government

hospitals, had never received any prior antenatal care. In another study, Chayovan *et al.* (2000) found that the impact of economic difficulties on women's use of maternity services was minimal since the majority of the sampled women were government-insured.

The Universal Coverage Health Insurance policy was intended to redress the impact of the economic problems. However, another unpublished survey conducted by the Department of Health, Ministry of Public Health, has revealed that after the introduction of the UC, there were approximately 30 per cent of female beneficiaries who still had to pay for family planning services. Tangchareonsathien *et al.* (2002) found that some of these women failed to declare themselves as the beneficiaries while the others were unaware of their entitlement. However, the authors have contended the positive effect of the UC on the use of maternity services, especially groups with high awareness, need of health service and without any prior health insurance. In the absence of any evidence of the impact of UC on postpartum service use, we can refer to the experiences of antenatal care, for which positive impacts are reported by two studies. Stitt and Soonthronchai (2006: 115-116) found that UC increased the use of antenatal care in three hospitals inside and outside Bangkok. Thato *et al.* (2007) reported the UC as the positive confounding factor in the association between pregnant adolescents and antenatal care access. It could be speculated that a similar impact may be found in the case of postpartum care services. Nonetheless, there is a specific feature of the UC policy which possibly creates the negative impact to the use of antenatal, obstetric and postpartum care services. Unlike other health insurance schemes where there is no limitation on the number of deliveries women were entitled to have covered, the UC policy mandates the restriction of two deliveries per woman. This means that the beneficiaries with their third or higher-order deliveries have to pay out-of-pocket for antenatal, delivery and postpartum care services. Tangcharoensathien *et al.* (2002) believed that the limitation of two deliveries when the country's total fertility rate was already below two (about 1.86 in 2001: Chayovan and Tsuya 2003) was to push the country's fertility rate to be low over time. Nonetheless, this certainly has a negative implication on the use of maternity services, including postpartum care services, among the women with more than two pregnancies.

The introduction of health insurance is usually intended not only to reduce the financial barriers to healthcare utilisation, but also to improve the efficiency of health resource allocation and use (Supakankunti 2000). Prior to the introduction of the UC in 2002, four major health insurance schemes had different financing systems and implications on the healthcare providers' behaviours. The Civil Servants Medical Benefit scheme is perceived as the most expensive, yet the most generous system. This scheme employed a fee-for-service reimbursement model, which was likely to tempt the medical personnel to provide more unnecessary services to their patients in order to generate more income. The Low Income Card scheme for the poor and the disabled, which had been financed by the Government's tax revenue, was identified by many studies with the problems of under-funding and subsequent poor quality of service (Pannarunothai, Srithamrongsawat et al. 2000; Tangcharoensathien, Harnvoravongchai et al. 2000; Tangcharoensathien, Tantivess et al. 2002). As for the Voluntary Health Card scheme, covering those who were not eligible for the Low Income Card scheme, the scheme suffered from risk selection—the sick people tended to join whereas the healthy people tended to leave. Despite the Government's financial support for more than 50 per cent of the total cost, the scheme was reportedly unable to finance itself (Tangcharoensathien, Tantivess et al. 2002). The last scheme is the Social Security scheme, in which the capitation contract model is employed. Even though this model has been recognised for its cost containment and higher efficiency compared with the fee-for-service approach, its feature has also been found to increase the risk of adverse selection, that is the providers tend to maximise their list of patients, but to minimise the expenditure by selecting only the healthy workers (Pannarunothai, Patmasiriwat et al. 2004).

Even though the UC was originally intended to adopt a single-payer system, the Government had made the decision to delay merging all the existing public insurance schemes, leading the UC to depend on 'a patchwork of the new and old schemes' (Hughes and Leethongdee 2007: 1001). This had led both the Civil Servants Medical Benefit scheme and the Social Security scheme to remain in place, along with the UC. The UC scheme's main financial resources are the public revenues allocated to the local contracting units based on the population distribution. Like the Social Security Scheme, the capitation contract funding model has been employed with the Government's optimistic view that it does not only control cost but also provides an

indirect incentive for the healthcare providers to focus more on preventive healthcare. However, even though there has, thus far, been no evidence of the effect of the UC implementation on the provision of maternal and child healthcare, it could be implied from the experience of the Social Security scheme that the capitation contract had substantially created a negative practice among the healthcare providers to limit expensive—although necessary—services (Mills, Bennett et al. 2000; Tangcharoensathien, Tantivess et al. 2002). Without any doubt, this has resulted in low patient satisfaction and poor quality of care and may subsequently lead to low use of postpartum care services.

3.3.2 Traditional Medicines

Thailand has had a long history of traditional medicine (TTM). The Thai traditional medicine had been the country's mainstream healthcare since the Sukhothai era (13th-14th Century AD). In 1698, during the reign of King Narai, Thailand had adopted the western medicine. This was followed by the repeal of the Thai traditional medicine from public health system in 1916 (Subcharoen, Kietinum et al. 1999; Subcharoen 2001; Chokevivat and Chuthaputti 2005).

TTM was neglected for over 60 years until 1978, when the Thai Government has adopted the WHO's Alma Ata Declaration on Primary Health Care as key strategy for health development. The outgrowth policy had therefore integrated the TTM and medicinal plants with expectation to enhance people's awareness and greater use of medicinal plants for primary health care. Ever since, the status TTM has been gradually developed on its own way through the supports of academics and implicit forces of the Asian financial crisis in 1997 and inadequate health personnel to provide health services. Chokevivat and Chuthaputti (2005) ascertained the importance of international forces; that the success of China and India in integrating traditional knowledge with modern medicine in their national health system serving better solutions and producing gain to people increased in the country's confidence to incorporate TTM into the mainstream health system (Chokevivat and Chuthaputti 2005: 8).

Nonetheless, Chokevivat and Chuthaputti (2005) remarked that it was not easy to do so amidst the political and social oppositions from biomedical healthcare providers. Despite this, it was seen that the Government had still moved towards the integration of Thai traditional medicine into the national health system. The most recent proof was the Cabinet's approval for the promulgation of 'the National Strategic Plan on the Development of 'Tai' Wisdom, 'Tai' Ways of Health, B.E. 2550–2554 (2007–2011), aiming to determine the directions and roles of indigenous medicine, Thai traditional medicine and to promote participation from other sectors to implement the plan (Chuthaputti 2008).

Traditional midwifery is identified as part of the arts and practices of Thai traditional medicine (Bureau of Policy and Strategy 2006; Chuthaputti 2008).²¹ Traditional thermal therapies, e.g. hot herbal baths, compresses, and steaming—which are widely adopted among postpartum mothers and viewed against by some modern healthcare providers—have been promoted through government health facilities (Chokevivat and Chuthaputti 2005: 8). This was evident in three of our observed hospitals, where traditional medicine centres are established and offer traditional postpartum services. Interestingly, the services for postpartum mothers (e.g. hot bathing, steaming and massage) were marketed under the name of postpartum *yuu-fai*, even though there was no traditional *yuu-fai* available. In discussions with a manager of a traditional medicine centre, it became apparent that the postpartum *yuu-fai* services interestingly helped to promote the utilisation of medical postpartum care services because practices involving high temperatures might be harmful or create discomfort rather than comfort. As such, the women were required to have already sought a postpartum check-up with healthcare providers. As the manager elaborated, that at the check-in interview:

[f]irst, we would ask about their health and method of delivery and if they saw the doctor. If not, we strictly refused to give them service ... we stressed that they needed to see the doctor and then came back [Manager of traditional medicine centre, Hospital Site 6].

²¹ 'Tai' Wisdom means knowledge, technology, practice and biodiversity existing in Thailand that covers the context of Thai traditional medicine, Thai indigenous medicine and alternative medicine. 'Tai' Ways of Health are referred to as pathways that lead to health and allow people to be free from sickness, unhappiness, and all kinds of stress (see Chuthaputti, 2008).

3.3.3 Family-bonding Project

Thailand has promoted breastfeeding since the 1980s due to the prior downward trend of breastfeeding duration (Knodel, Chayovan et al. 1990). The decline of breastfeeding duration was seen among both urban and rural women, but particularly among educated, non-farmer mothers (Knodel and Debavalya 1980; "Thai Mothers" 1986). Knodel and his colleagues (1980, 1990) underlined the increasing level of women's education, urbanisation and labour force activities outside the agricultural sector as the key determinants. The duration of exclusive breastfeeding for Thai mothers lasted only 4–6 postpartum weeks nationwide and less than one week in many urban areas (Tontisirin, Dhanamitta et al. 1983; Family Health Division 1994; Durongdej 1997; Hangchaovanich and Voramongkol 2006). However, the topic of exclusive breastfeeding had barely attracted the Government's interest until 1992 when the Government decided to initiate the National Breastfeeding Project aiming to 'empower all women to breastfeed their children exclusively for the first 4–6 months and to continue breastfeeding with supplementary food well into the second year and beyond' (Hangchaovanich and Voramongkol 2006:S174). The most important outcome of the project was the adoption of the WHO–UNICEF Baby-Friendly Hospital Initiative (BFHI) in 1995, in which its Ten Steps to Successful Breastfeeding was utilised as the best practice standard for mother and newborn care in hospitals participating in the project. Within two years, ninety-five per cent of government and university hospitals were designated with the BFHI. Within these hospitals, lactation clinics were established in order to foster the prolongation of exclusive breastfeeding in accordance with the Ten-Step guidelines.

In 2005, the Government initiated another project called the Family Bonding Club to encourage Thai women to breastfeed their babies exclusively for six months. In this programme's plan, a postpartum mothers' club was set up in order to provide a 24-hour support service and information exchange on breastfeeding advice among the mothers. The club's meetings were intended to take place monthly following hospital discharge, and all women who had delivered at government hospitals were encouraged to join the clubs. In early 2007, the MoPH enacted the concept of 'integrated care' by combining all key features of existing maternal and child health

programmes, including the Family Bonding Club, into one collective project, *Family Bonding Hospital* (FBH). The postpartum clubs were therefore integrated into the FBH which was projected to be accomplished by 80 per cent of all the 1,081 provincial government hospitals by the end of 2009. In September 2009, more than 896 government and private hospitals had passed the Ministry of Public Health's standard evaluation to be a Family Bonding Hospital. Even though it may be difficult to determine the effect of the family bonding programme on the women's use of postpartum care services, it is not unrealistic to expect that meetings of postpartum mothers in their early postpartum period could offer an opportunity to motivate the women to use postpartum care services.

3.4 Summary

Even though their primary focus is not women, the initiation of the two postpartum programmes, i.e. the postpartum family planning programme and the CARE programme for HIV infected mothers, demonstrates the Thai Government's interests in maternal health beyond the point of delivery. The two postpartum policies have had diverse effects and implications. The postpartum family planning programme not only decreased the demographic impact of the postpartum women, but also contributed to the change in the birthing pattern of Thailand from home birth to institutionalised birth. The impact of the postpartum family planning programme on the utilisation of postpartum services was indeterminate. Sterilisation, requiring incision wound check-up, was seen to promote the opportunity for contact and future postpartum visits. However, the evidence suggested that many sterilised women did not return for the check-up.

The recent CARE programme had a specific aim to promote the longevity of HIV-infected mothers in order to reduce early child orphanhood. Even though many studies have revealed the need for postpartum services among HIV-infected mothers, evidence suggests a depressing fact – that about half of the postpartum women with HIV infection did not receive postpartum care services. Causes of the low utilisation of the HIV postpartum services are multiple. These included several individual-level factors, such as the women's preference to change the locations of services to keep

their confidentiality and the fear of being discriminated against by the healthcare providers, and programme-related factors claiming that mothers have received less focus and that the no-show of HIV-infected mothers was assumed to be due to the women's preference to change health facilities to maintain their confidentiality. While there was no clear resolution taken by the respective government agencies, the CARE programme was found to be withdrawn from the public health facilities.

Three health policies and programmes have been identified to potentially promote and impede the provision and the utilisation of postpartum services. The Universal Healthcare Insurance scheme, where maternity services, including postpartum services, are free of charge, removes the financial barriers, thereby increasing women's accessibility to postpartum care services. However, under the scheme's capitation payment system, it is possible that the healthcare providers may limit necessary maternal services to reduce costs, which inevitably affect quality of care. The revival of Thai Traditional Medicine, in which traditional postpartum services are now being offered in the campus of the hospital, removes the cultural barrier to healthcare service use. To receive traditional postpartum care from a hospital-based facility, women are required to have prior postpartum medical check-ups. Under the nationwide implementation of the *Family-bonding* project, the women's likelihood of using the postpartum services may increase if they participate in a postpartum club under the government's maternal and child.

Nonetheless, the most important challenge is none other than the policy actors' viewpoint that can greatly influence the country's direction of reproductive healthcare services and affect the provision and utilisation of postpartum services (Barker 1996: 27; Kabakian-Khasholian, Kaddour et al. 2007). This warrants the necessity of the interviews with policy actors.

Chapter 4

Research Design and Methods

4.1 Introduction

This chapter presents the research methods adopted for the study as well as the approaches and tools used for data collection and analysis. The contents of this chapter consist of three main parts. The first part describes the research design, concept and rationales (Section 4.2). The second part details the selected research methods as they were employed to address the study's objectives/research questions (Section 4.3 and Section 4.4). In the final part, issues related to data collection, data analysis and the ethics of the study are discussed. Challenges arising during the fieldwork are also highlighted. The reliability and validity of the study as well as the limitations of the research method are addressed (Section 4.5 and Section 4.6).

4.2 Research Design

Research design shows the logical consequence that connect the empirical data to the study's initial questions and ultimately to its conclusions (Yin 1999: 19; cited in Asante 2006: 105). In developing a research design, the researcher needs to consider which methods are suitable to answer the study questions since each method brings with it a set of advantages and disadvantages.

Research methods can be classified in many ways, the most common distinction being quantitative or qualitative (Myer 1997). Quantitative research methods are based on positivism (Sale, Lohfeld et al. 2002) and were originally developed in the

field of natural sciences while qualitative research methods are based on interpretivism (Kuzel and Like 1991; Altheide and Johnson 1994; Secker, Wimbush et al. 1995) and constructivism (Denzin and Lincoln 1994; Sale, Lohfeld et al. 2002), and have been predominately developed in the social sciences to enable researchers to study social and cultural phenomena (Boudreau, Gefen et al. 2004).

The objectives and outputs of the two approaches differ. Quantitative methods attempt to quantify variables, to analyse casual relationships between variables and to draw inferences upon a phenomenon within a value-free framework (Holman 1993; Denzin and Lincoln 1994; Sale, Lohfeld et al. 2002). Conversely, qualitative research emphasises the subjective meanings that individuals attach to their experiences and attempts to understand the world in which those individuals live and work, “to grasp the meanings of a person’s behaviour” by “seeing things through eyes of people who are being studied” (Bogdan and Taylor 1975; cited in Bryman 1993: 13-14). Qualitative research produces deep, rich and descriptive findings, based on people’s own written or spoken words and observed behaviours (Taylor and Bogdan 1998). Qualitative research can also produce data in a quantified form, although the analysis itself is still qualitative (Strauss and Corbin 1990). Although both of the two methods have strengths and weaknesses, the choices between them have been a heated issue for academic debate over the last few decades (Bryman 1993; Patton 2002; Asante 2006).

Although the combination of two or more research methods in a single study is not new in practice, the mixed methods approach is a new movement, discourse and research paradigm that has emerged during the last ten to fifteen years in response to the currents of quantitative research and qualitative research (Johnson, Onwuegbuzie et al. 2007). Mixed methods approaches have gained momentum, becoming the third methodological paradigm and the one widely used in health and social science research (McMillan and Schumacher 2006; Cameron and Miller 2007; Nagy Hesse-Biber and Leavy 2008; Cameron 2009). The merits of adopting a mixed method approach are that it not only enables the researchers to gain a clearer view of variables or activities that compose the phenomena (Reichardt and Rallis 1994; Tashakkori and Teddlie 1998; Kinn and Curzio 2005), but also allows these researchers “to base knowledge claims on pragmatic grounds” (Creswell 2003: 18).

Pragmatism has been recognised as the most popular philosophical partner of mixed methods research (Tashakkori and Teddlie 2003; Johnson, Onwuegbuzie et al. 2007). For pragmatists, the truth of doing research is “what works” (Robson 2003: 43). It allows the use of quantitative methods and qualitative methods simultaneously and contends that it is feasible to employ both methods side by side. There are some opponents (e.g. John Smith and Lous Heshusius (1986) and Joanna Sale (2002)) who doubt whether it is appropriate to integrate the two strands because of the differences in philosophical and theoretical positions. However, pragmatists argue that the fundamental values of qualitative approaches and quantitative approaches share the same ultimate goals of understanding the phenomenon or the world we live in and disseminating knowledge for practical use (Haase and Myers 1988; Harvey 1990; Sale, Lohfeld et al. 2002; Johnson, Onwuegbuzie et al. 2007). Thus, in the mixed methods inquiry, it can be said that it is not the research method that is the primary focus. Rather it is the research issue that is most important. As such, it is feasible for the researcher to apply different research methods in order to gain as much insight and understanding as possible into the issue under investigation.

This study design uses a mixed-methods approach. To adopt both qualitative and quantitative methods, a clear articulation of the reasons for integration of methods needs to be addressed in order to strengthen the reliability of research (Creswell, Fetters et al. 2004: 8). The reasons for the adoption of a mixed-methods approach for this study include the core research objective and the nature of the research questions, as well as the knowledge gaps identified in both Thai and non-Thai literature. Most studies that focus on women’s use of health services tend to use one approach and just measure the extent of individual-level factors. The current study seeks also to explore women’s attitudes, beliefs and perceptions as well as their lived experiences that potentially influenced decisions to seek healthcare services after delivery. Moreover, since little is known about non-individual factors related to postpartum service utilisation, the study also explores the healthcare system, providers’ practices and viewpoints and healthcare policies, to see if these factors act as obstacles to, or facilitators of, women’s use of postpartum health services. Many of those potential factors may not be quantified or understood thoroughly without a qualitative enquiry. Table 4-1 summarises the research approaches adopted in the current study with respect to the three components of the core research objective.

Table 4-1 The schematic description of the study design

Research question	Approach	Study design/data collection methods
What are the reasons why Thai women do not use postpartum care services?	Quantitative	Secondary data: The National Survey Economic Crisis, Demographic Dynamics and Family in Thailand
	Qualitative	Prospective, qualitative study Case studies <ul style="list-style-type: none"> • Interviews with women • Direct observations of practice and environment • Document reviews
Is the low rate of utilisation due to the current postpartum service system?	Qualitative	Qualitative study Case studies <ul style="list-style-type: none"> • Interviews with healthcare providers • Direct observations of practice and environment • Document reviews
Have policies relating to postpartum care affected the provision and utilisation of postpartum care in Thailand? If so, how and to what extent?	Qualitative	Qualitative study <ul style="list-style-type: none"> • Interviews with policy actors • Policy reviews

A typology of six different models of the mixed-methods approach has been identified (Tashakkori and Teddlie 2003: 223). In designing the implementation process of the current study, two major strategies of design, namely concurrent strategy and sequential strategy were first considered. A concurrent strategy is characterised by a data collection phase in which both quantitative and qualitative data are collected at the same time, and are brought together in the analysis phase or interpretation phase. This strategy requires a shorter period of data collection and less resource, and provides validation of findings (through triangulation between the results from two different methods). However, the major difficulty in adopting this strategy is the fact that the strategy requires an established scheme of data collection,

data analysis and data integration, as well as resolutions of how discrepancies arising from using different methods would be dealt with. In doing so, the phenomenon being studied has to be well-researched to some extent in order to guide the researcher sufficiently through the process of data collection and analysis (Creswell 2003).

The sequential approach has a more straightforward nature of design and is easy to implement because the steps fall into clear separate stages (Creswell, Fetters et al. 2004). The approach is characterised by a two-phased data collection and analysis where the collection and analysis of data in the first phase contribute to the data

Table 4-2 Six designs of mixed-methods approach

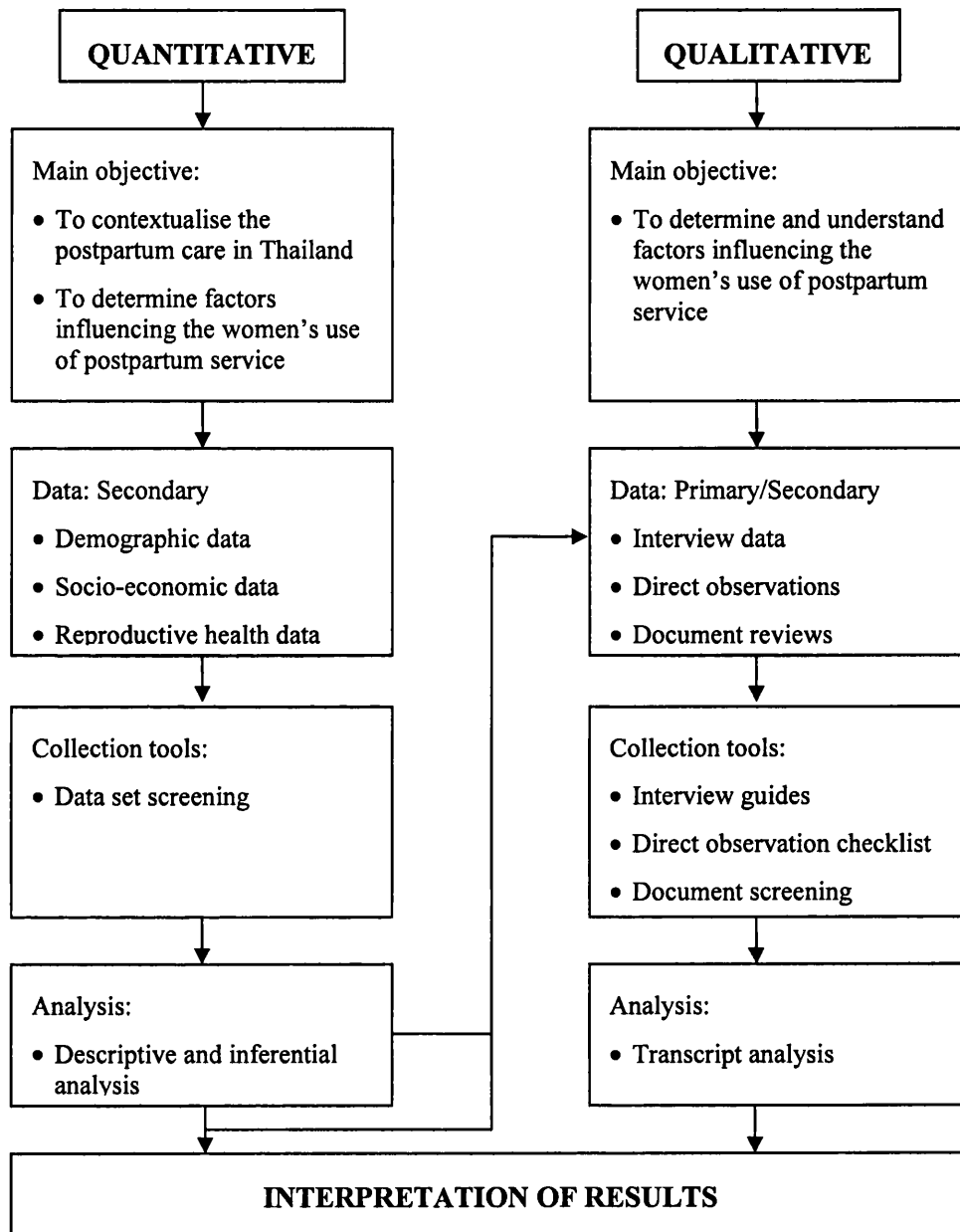
Design type	Implementation	Priority	Stage of integration
Sequential strategy			
Sequential explanatory	Quantitative followed by qualitative	Usually quantitative, can be qualitative or equal	Interpretation phase
Sequential exploratory	Qualitative followed by qualitative	Usually quantitative, can be qualitative or equal	
Sequential transformative	Either quantitative followed by qualitative or qualitative followed by qualitative	Quantitative, qualitative or equal	
Concurrent strategy			
Concurrent triangulation		Preferably equal; can be quantitative or qualitative	Interpretation phase or analysis phase
Concurrent nested	Concurrent collection of quantitative and qualitative data	Quantitative or qualitative	Analysis phase
Concurrent transformative		Quantitative, qualitative or equal	Usually analysis phase; can be during interpretation phase

Source: Tashakkori and Teddlie (2003)

collected and analysed in the second phase (Tashakkori and Teddlie 2003). As shown in Table 4-2, there are three variants of sequential models, namely sequential explanatory, sequential exploratory, and sequential transformative. The difference between these three models lies only in whether the quantitative or the qualitative method is being used first. In the sequential explanatory model, priority is given to the quantitative method, where the collection and analysis of quantitative data is done first, followed by the collection and analysis of qualitative data. The two methods are then integrated at the interpretation phase (Tashakkori and Teddlie 2003; Creswell, Fetters et al. 2004; Driscoll, Appiah-Yeboah et al. 2007). In the sequential exploratory model, priority is given to the qualitative method, and in the sequential transformative, priority can be given to either the quantitative or the qualitative method.

The sequential explanatory model is the most straightforward design among the three models (Tashakkori and Teddlie 2003), and was found attractive and appropriate for guiding the current study. The main advantage of this approach is the use of the initial quantitative phase of the study to characterise the phenomenon of interest related to the research questions. These quantitative results can then be used to guide the sampling design and procedure of the primary qualitative study (Creswell 2003). With the paucity of evidence and research related to postpartum healthcare in Thailand, an initial phase of quantitative secondary data analysis was identified useful in providing a broad statistical context of maternal healthcare and postpartum care service use as well as serving as a platform for augmenting further knowledge in the qualitative study. Figure 4-1 illustrates the sequence of the mixed-methods approach employed in this study.

Figure 4-1 The overview of the study's sequential mixed-method approach



4.2.1 The Prospective Design

The research incorporated a prospective design into the in-depth interviews with the women, in which each woman was interviewed twice. The first interview was carried out when the woman was pregnant, while the second was completed during the postpartum period.²² The rationale behind the adoption of the prospective design lies in its strength in allowing the researcher to record the women's thoughts, attitudes, intentions and perceptions towards postpartum care, health, and service use through pregnancy and the early postpartum period (Devine, Bove et al. 2000: 569). A few studies using a prospective design (Devine, Bove et al. 2000; Gulseren, Erol et al. 2006; Moore and Coty 2006; Gilliam, Davis et al. 2008) suggested that the mother's prenatal intentions relating to a range of outcomes (e.g. to breastfeed, to reduce weight, to be sterilised), can be modified through diverse and complex delivery and postpartum experiences, which influence them to act differently from their intentions during pregnancy. By adding a prospective dimension into our examination of postpartum service use, we expected to gain further insights into how women regarded their postpartum health and healthcare at pregnancy. With subsequent interviews during the postpartum period, the patterns of changes and continuity between intended and actual behaviours related to postpartum service use, and the influences on any such changes could be observed. The barriers and facilitators women encountered in real life in the use of postpartum care services could be identified.

4.2.2 Data Collection Processes

The process of gathering data was divided into three stages; familiarisation, exploration and collection. The first stage, familiarisation (September 2006 to December 2006), was primarily aimed at secondary analysis of the quantitative data in order to develop the necessary contextual information, valuable for developing the subsequent qualitative research. Researching the geographical location of the areas

²² See Section 4.4.3.2.1, In-depth interviews with the KDSS pregnant women.

for the qualitative study was also conducted during this stage. This was to create familiarity as well as to explore the general way of life and the environment of the study setting. Important documentary processes, including application for research ethics approval and correspondence to gain access to the study's key informants, were also carried out at this stage.

The second stage (December 2006 to July 2007), was an exploratory survey. A small sample of women ($n = 10$), who were as similar as possible to the proposed target population, were randomly selected from the study areas and interviewed twice in order to pre-test or "try out" the research instruments (i.e., interview guides and observation guides) (Baker 1994: 182-183; cited in Teijlingen and Hundley 2001) as well as to run a small-scale version in preparation for the main data collection in the following stage (Polit, Beck et al. 2001). The exploratory survey not only improved the validity of the research tools, but also increased the researcher's organisational and research skills (Teijlingen and Hundley 2001; Peat, Mellis et al. 2002). Practical problems, such as difficulty in locating the study villages and unexpected topics of conversation, were also identified during the pilot study, and guidelines to deal with them were prepared. Evaluation of the exploratory survey offered the researcher a chance to develop the recruitment criteria and the qualitative research tools (see Section 4.4.3.2 for details of the recruitment criteria and the development of the interview guides) and, more importantly, to carry out the fieldwork with more confidence. Exploratory studies are likely to be "under-discussed, underused and underreported" (Teijlingen and Hundley 2001). Instead, they suggest that researchers should be encouraged to report the issues arising from all parts of a study, including the pilot phase, in order to make the best use of the research experience. In this study, the actual improvement made to the study design and the research process will be discussed along with the presentation of the research method. The most prominent improvements are highlighted in Section 4.4.3.2.4, reflections on the in-depth interviews.

The final stage of the data-gathering process is the main data collection (September 2007 to March 2008). In the first one and a half months of this stage, respondent recruitment and logistical arrangements were carried out. Within the same period, many tasks related to data preparation and analysis were completed, including

recruitment and training of transcribers (Section 4.4.4.1.1), the construction of the SPSS data file to assist the qualitative data analysis (see Section 4.4.4.1.2), and the translation into Thai and production of the interview guides. The main data collection itself commenced in the middle of October 2007. The following section presents the quantitative part of the study in which specific objectives of the quantitative data analysis are addressed, followed by the quantitative data collection and management, variable descriptions and statistical analysis procedure.

4.3 Addressing the Quantitative Objectives

The quantitative component contextualises postpartum health service use in Thailand. The literature review revealed discontinuity in maternity service use, and the quantitative component seeks to explore the pattern of maternity service use in order to uncover whether there are any links between the three different types of maternity care – i.e., antenatal, intrapartum and postpartum. More specifically, the analyses determine whether the continuity between antenatal and obstetric care with health professionals is associated with the characteristics of postpartum care use.

4.3.1 Secondary Data Collection and Management

The data for the quantitative study were drawn from a large cross-sectional survey of the Economic Crisis, Demographic Dynamics and Family in Thailand (ECODDF) dataset, which was conducted in 2001 by the College of Population Studies (CPS), Chulalongkorn University. The ECODDF sample was a nationally representative sample which used the 2000 population census as its sampling frame and adopted a multiple stratified sampling technique to identify the households to be interviewed. The sampling started with the stratification of five regions of the country in order to select provinces, which were subsequently divided into urban and rural areas using the country's local administration classification. At the next stage, the sample blocks as well as households within each block were randomly selected. One female and one male aged 15 to 49 were then randomly selected from each household for a face-

to-face interview. The data were weighted to ensure the representativeness of the reproductive-age female and male population of Thailand. 12,400 households (6,000 rural, 2,100 provincial urban and 4,300 Bangkok Metropolitan Area) were selected for the survey and 7,466 were successfully interviewed. These sampled households were contained in 184 sampling units (64 blocks and 120 villages) in 69 districts of 21 provinces. The sample consisted of 5063 women and 2925 men (Chayovan, Bangkaew et al. 2003: 150-154).

In 2006, when this study was initiated, the ECODDF was the only available dataset containing comprehensive and up-to-date demographic, socio-economic, and health data for Thailand.²³ The ECODDF dataset is not intended for commercial use and under copyright law, the CPS is not permitted to give out raw data to researchers without approval from the funder (Keio University, Japan). This study was granted special access to the dataset. Variables identified as relevant for examining maternal and postpartum service utilisation, along with a letter of intention, were submitted to the CPS, which generated the data for analyses.

Canchola *et al.* (2003) and Chapman (2005) suggest that one of the most crucial things that should not be overlooked before beginning the process of data analysis, once the data are obtained, is to screen and edit the data. Data screening offers the researcher not only a better understanding of the “behaviours” of variables and to make informed decisions in organising the data (e.g. arrangement of variable categories), but also helps assure the quality of data and improves the clarity of presentation of results and analyses. The ECODDF special data set was generated in the SPSS format. Although it was claimed to be free of error, the researcher re-checked all variables before performing the statistical analysis to save time in re-running the statistical models if error was found at a later stage. Following the guidelines for editing data developed by Canchola *et al.* (2003), all variables were

²³ In December 2006, the Thailand National Statistic Office (NSO) released the 2006 Reproductive Health Survey data. However, this survey data was collected as part of a larger survey project on employment and the labour force, and many key variables suggested in the literature to have significant influence on the utilisation of postpartum care (e.g. living arrangements and prenatal intention) were unavailable. Despite this, the 2006 data regarding the use of antenatal, obstetric and postpartum care services were used in the current study as references where appropriate.

primarily analysed using descriptive statistics to examine (1) out of range values, (2) logically inconsistent values, (3) data sparseness and outliers, and (4) skewness. The maximum and minimum values, means and missing values of each variable were carefully reviewed in accordance with the questionnaire and the coding guide. Variables which were logically suspected were further examined by using the frequency and/or histogram analyses. A cell containing zero or expected counts of less than five, which can lead to improper solutions in the logistic regression models, was cautiously reviewed. In such cases, the variable was modified by merging or dropping such a category/cell.

4.3.2 Content of Quantitative Analysis

In order to investigate postpartum care service use among Thai women, the study focused on retrospective reports from women who ever had birth experience. Any female respondents who reported to have given birth at least once in the five years before the ECODDF survey (1996–2000) were included in the analyses. Women who were pregnant at the time of the survey were excluded. Of the total female respondents (3,448), the sample for our secondary analysis included 1,289 women.

In light of the objectives of our study, two sub-questions were posed to guide the analysis:

1. Which groups of women are likely to use postpartum services?
2. What factors affect the likelihood of postpartum service utilisation?

In the following sub-section, dependent or outcome variables and independent or explanatory variables, as well as the measurement methods, are described in detail.

4.3.3 Dependent Variables

The analyses focus on a binary variable outcome indicating the utilisation of postpartum care service, indexed by ECODDF survey item (no. 3048), asking the

respondents the question: “*After your last birth, did you go for (or did someone come to give) a postpartum exam?*” The variable was coded 1 if the respondent reported the receipt of postpartum care services and 0 otherwise.²⁴

4.3.4 Explanatory Variables

Building on the literature review of factors associated with the use of maternal and postpartum healthcare services (Chapter 2), explanatory variables were identified. To account for the influence of women’s individual characteristics, the theoretically potential variables included maternal age, level of education, marital status, parity, ethnicity, place of residence (urban or rural), working status, household income and type of insurance coverage. In addition to the women’s personal characteristics, variables that were expected by, or reported in, the literature to be important in predicting maternal and postpartum service use were incorporated into the initial variable list to see if they were captured by any question in the ECODDF questionnaire. These variables are; intention of getting pregnant, use of antenatal service, mode of delivery and place of delivery, quality of delivery care received, and women’s autonomy in family. The rationale behind the inclusion of each variable is discussed in Chapter 5.

4.3.5 Quantitative Analysis Methods and Procedures

The Statistical Package for the Social Sciences (SPSS) version 13.0 for Windows was used. The analyses included descriptive statistics to examine the levels and determinants of postpartum care utilisation, binary logistic regression to determine which factors increase the likelihood of women to seek postpartum services, and multi-nominal logistic regression to examine if the continuity of the maternity service use had any significant impact on the timing of postpartum care.

²⁴ See the original English-language ECODDF questionnaire in Chayovan *et al.* (2003).

To perform the binary logistic regression, the method of model creation must first be identified. There are several approaches to create a concise model that includes all independent variables that are useful for predicting the response variable, including the full-model fits, data reduction and stepwise variable selection (Harrell 2001: 58). In the current study, the stepwise variable selection method was adopted, following the suggestion of Menard (2001) that the stepwise approach is more suitable for exploratory research, with no *a priori* assumption regarding the relationships between variables, than for theory testing with certain prior assumptions. Since the current study aims to discover the relationships between the different variables involved in postpartum service use, the stepwise selection was considered the most appropriate method to be adopted. There are three variations in the implementation of the stepwise variable selection method, namely enter, backward and forward. Austin and Tu (2004) have described that the enter model includes all variables in the logistic regression regardless of whether they are statistically significant. Conversely, the backward stepwise begins with a full model consisting of all candidate predictor variables, which are sequentially eliminated from the model until a pre-specified stopping rule is satisfied; that is, all remaining variables in the model are significant at the pre-specified significance level. Unlike the backward stepwise, the forward stepwise begins with an empty model, into which the candidate variables are added sequentially until a pre-defined stopping rule is satisfied (2004: 139).

In our study, all three methods were employed to run the logistic regression. The procedure of logistic regression analysis in this study followed the standard procedure developed by Hosmer and Lemeshow (2000) and Fikretoglu *et al.* (2007). The list of all theoretically meaningful potential variables was first created, followed by the bivariate tests (chi-squares) to examine if there was any association between each of the predictor variables and the outcome variable. In creating our model, only the candidate variables that showed significant relationships with the outcome variable were included. The model created by the backward stepwise method using the Likelihood Ratio (LR) test was selected to present in this study. As noted in the studies of Menard (2001) and Fikretoglu *et al.* (2007), our study similarly found that the backward and forward stepwise methods produce the same results (i.e. significant predictors, variance explanation and classification rates). However, the backward elimination model offered higher Hosmer and Lemeshow goodness-of-fit statistics

and significance levels compared with the other two models, indicating the best model-fit with the data (Fikretoglu et al. 2007: 106).

4.4 Addressing the Qualitative Objectives

The qualitative component of the study is intended to address the core research objective of identifying what factors influenced the use of postpartum service among Thai women. The data required to fulfil this objective are obtained from various sources and several groups of people of interest (women, healthcare providers and policy actors). Unlike the quantitative component in which secondary analysis was employed, the qualitative study was based on primary data collected by the researcher. The research setting where the primary data collection was conducted, the key informants and the selection techniques employed, the data gathering methods as well as ethical considerations, are presented in detail in Sections 4.4.1 to 4.4.3. Section 4.4.4 discusses the qualitative analysis methods and procedures that have been employed.

4.4.1 Research Setting

The single case study approach was adopted for the qualitative study, an empirical enquiry that investigates a contemporary phenomenon within its real-life context (Yin 2003: 13). The case study approach was appropriate for this study as it focuses on a number of instances in a context of interest with a view to providing in-depth details of events, relationships, experiences or processes (Feagin, Orum et al. 1991; Ragin 1994). The holistic design (Yin 2003) and multi-perspective analysis are further advantages of the case study approach. The holistic design allows the researcher to study the environment of the targeted phenomenon in the selected area thoroughly, whereas the multi-perspective analysis enables the researcher to consider not only the voice and perspective of the actors, but also of the relevant groups of actors and the interactions among them (Tellis 1997).

Kanchanaburi Province was purposely selected as the case study for this thesis work based on the availability of the Kanchanaburi Demographic Surveillance System (KDSS) and permission to access the KDSS population sample.²⁵ The merit of KDSS lies not only in its established sampling frame, which helped the researcher to minimise difficulties and expenses involved in developing my own sampling frame, but also in its contextual information about the sample population (i.e., demographic, socioeconomic and reproductive health information) that guided the research planning and the development of the interview guide.

There were several other considerations behind the researcher's decision to adopt Kanchanaburi Province as a single case study. Kanchanaburi province is relatively close to Bangkok (approximately 200 kilometres). In terms of practicality, this allowed the researcher to conduct data collection concurrently in Bangkok (i.e., interviews with policy actors) and Kanchanaburi province. Since the primary data collection methods employed in the current study (i.e., in-depth interview and observation of postpartum women's activities) are ethnographic in nature, requiring the researcher to spend extended time in each study area, personal safety is thus an important issue. The KDSS project has an established on-site research station and fieldwork guideline to facilitate researchers, students and visitors. Thus, the researcher's safety at the site was adequately guaranteed. Also, in addition to permission to access the KDSS data and population sample, the researcher also had the benefit of an introductory training course to prepare herself and become acquainted with the political and social circumstances within the fieldwork areas.²⁶

4.4.1.1 Kanchanaburi Province

Kanchanaburi province is located in the Central region, and is the third largest province in Thailand, consisting of 13 districts with distinctive geographical features,

²⁵ The KDSS dataset is the outcome of a longitudinal demographic study (2000–2004) produced by Mahidol University, Bangkok, funded by the Wellcome Trust.

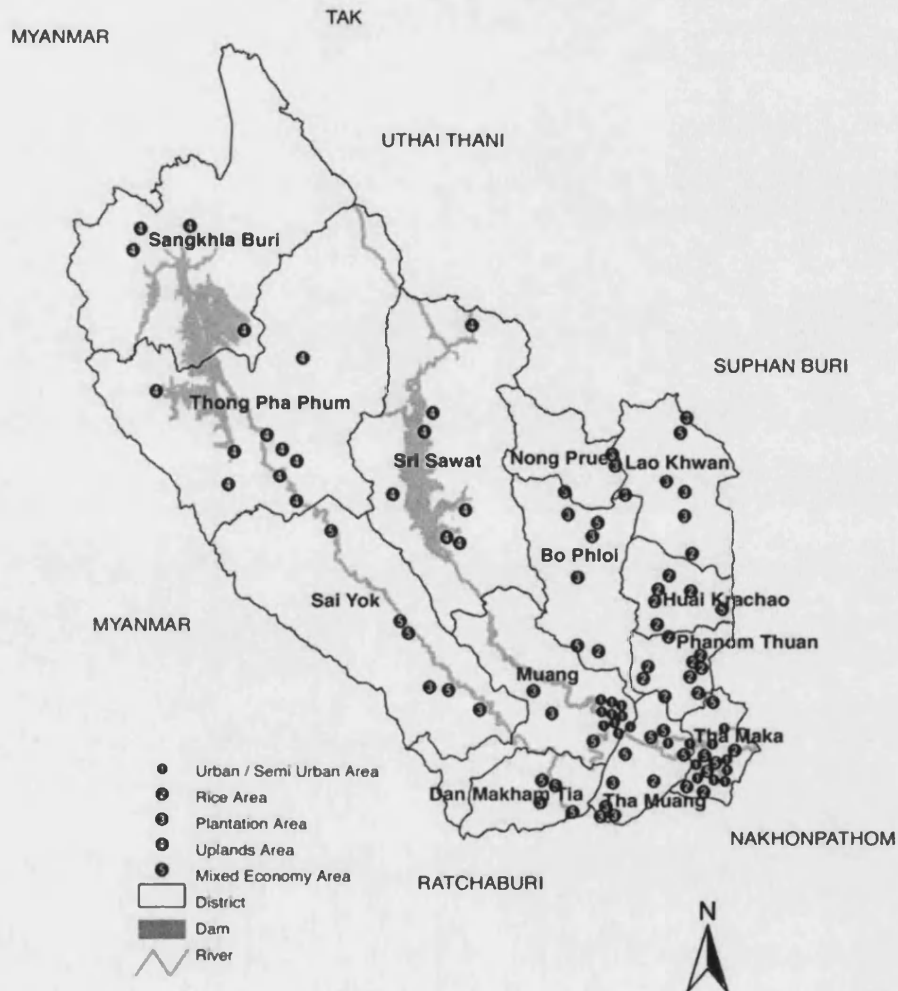
²⁶ The training took place on 8–10 November 2006 at the KDSS research station, Sai Yok, Kanchanaburi Province.

such as upland and forest. Kanchanaburi province shares a border with Myanmar in the form of the Tanaowasi Range. Kanchanaburi province contains a mix of ethnic groups including Mon, Karen, Shan and Burmese (IPSR 2001: 1). As it is the borderland, there are several migration access points, both legal and illegal, in the province.

In 2001, nearly all deliveries in Kanchanaburi province occurred in hospital settings, and 74.88 per cent of postpartum mothers had completed two postpartum visits as recommended by the government.²⁷ In 2003, an unpublished survey among Kanchanaburi women by Vong-ek *et al.* (2006) reported that a little over half (50.7%) of women who had given birth in the preceding two years (2000–2001) had received postpartum care service. Even though the two figures are reported based on different units and cannot be compared directly, the variation is large. One possible explanation for this variation may be due to the coverage of the targeted population, where the government statistics included only the women who had antenatal care at public facilities, upon which the statistics of obstetric care and postpartum care are built.

²⁷ Health Promotion Centre Region 4, Ratchaburi, Department of Health, Ministry of Public Health.

Figure 4-2 Map of Kanchanaburi province and 100 KDSS study villages



Source: The KDSS Project, IPSR (2005).

4.4.2 Ethical Considerations

Five risks to participants – i.e., anxiety and distress, exploitation, misrepresentation, identification of the participants by self or others, and inconvenience and opportunity cost – were taken into account during the research design, fieldwork practice and data analysis and presentation (Richards and Schwartz 2002: 136-137). Ethical issues are a core concern for this study, not least because “potential human subjects needed to be protected from being used as ‘guinea pigs’ in scientific research (Trochim

2006)” Formal ethical approval was sought and granted from the Ethical Review Committee for Research in Human Subjects of the Thailand Ministry of Public Health prior to data collection. The permission granted included the investigations of all three targeted groups and specified health facilities. (See a copy of letter of approval in Appendix 4-1).

During the fieldwork, all key informants were informed about the study’s objectives, the nature of the research, the participant’s rights, and the potential benefit for the country’s body of knowledge and other women. The researcher emphasised that participation was voluntary and the interview could be terminated at any time by the participant. All key informants were asked for permission to record the conversations in advance of the interview. To maintain their identity and confidentiality, key informants were informed clearly at the start that they would be asked about personal matters but that their names would not appear anywhere. The key informants were assured of this by the written introduction document, and informed consent forms (in Thai) were presented to the participants and signed by them (see Appendix 4-2). All the key informants signed the informed consent form, although there were many requests from interviewed women to accept their oral consent instead, as they expressed that they were uncomfortable reading the document. The researcher read the content of the informed consent as well as an explanation of how important their signatures were. This strategy was useful to make the women feel that the interview was not too formal or official and to put them at their ease. All of these respondents signed the form.

Every effort was made to hold interviews under conditions of privacy. This was due to the researcher’s experience from the exploratory survey that interviews were often interrupted if they were carried out while their mothers were around and trying to participate in the conversations. In addition, there were some highly personal topics, such as abortion and marriage dissolution, that required privacy.

Care was taken to ensure that no information collected was accessed by anyone other than the researcher and her supervisors and no information was disclosed to anyone else. To present the results, quotes extracted from the transcripts are indicated by case number, two letters, age and time of interview. The first letter (P or M) indicates whether the studied woman is primiparous or multiparous, while the second letter (U

or R) represents whether the woman resides in an urban or a rural area. For instance, “Case1: PR18, postpartum interview” represents the first woman studied, who was 18 years old, a first-time rural mother and whose quote was extracted from the postpartum interview.

Recording of direct observations was carried out under ethical conditions. Even though the current research was granted ethical approval, it was conditional that further official requests for conducting direct observations and taking photographs had to be made to individual women or the directors/heads of the health facilities being observed. The decision to take part in the observational study was voluntary and even during the course of the observation, the women and the healthcare provider could ask the researcher to suspend or terminate the observation at any time. Likewise, all of the information observed as well as visual images were kept strictly confidential and carefully presented in an appropriate manner to protect the identity of the persons observed.

4.4.3 Data Collection Methods

The selection of the data collection methods depends on the research questions and types of data required (Robson 2003). The methods in this study were chosen after reviewing existing studies and the advantages and disadvantages of each method, and considering the most effective ways of application to maximise the benefits and minimise the limitations of each approach (Yimyam 1997: 95). In the previous sections, we have briefly discussed the use of qualitative methods. In this section, we discuss the individual methods employed in this study with regard to their concept, rationale and process of use, including the techniques adopted to select samples (i.e., key informants and observation sites). Challenges arising during the fieldwork are also highlighted, making the researcher’s process of data collection not just about the method but rather the “process of inquiry” (1990).

4.4.3.1 Document Reviews

Documentary data can generally provide good official evidence of past occurrences. The study used document review not only as a source of references, but as a key means for gathering data. Document review is seen as an ongoing process of data collection – rather than a single undertaking – that has been carried out since the initiation of this study. To address our research questions, a wide range of materials from various sources were searched for and examined. These included government documents, meeting notes and speeches, either published or unpublished, and care standards to guide and monitor the practice of healthcare providers. The investigation also included statistical reports, survey reports regarding maternal and child health, international agencies' reports as well as press clippings from newspapers. We registered with electronic databases of journal articles (PubMed, Social Science Citation Index, International Bibliography of the Social Science, JSTOR, SAGE Journal Online) for e-mail alert of new material.

Even though documentation offers stable and unobtrusive evidence, there can still be a problem of reporting bias threatening the strength and validity of research findings (Bryman and Burgess 1994; Taylor and Bogdan 1998; Connell, Lynch et al. 2001; Yin 2003). To minimise such bias, each document was screened for its authenticity, credibility, representativeness and meaning (2003: 220). In dealing with the conflicting information contained in different documents – for example, different statistics on maternal deaths – the researcher tried to seek other reliable sources of information for triangulation. If available, the original statistics, rather than the replicated or the cited ones, were used.

4.4.3.2 In-depth Interviews

The in-depth interview technique is demanding in terms of skill requirement and time consumption (Bowen 2005). Nonetheless, it is a favoured digging tool among social researchers (Klave 1996; Taylor and Bogdan 1998) to learn new insights from strangers (Weiss 1995). In-depth interviews were used in this study to elicit invaluable insights and perceptions from three different groups of people involved in

postpartum services; pregnant women, postpartum service providers and policy actors.

A series of in-depth interviews was conducted using different themes for each of the three groups of key informants, corresponding to the research questions. In order to maintain a consistent line of enquiry, an issue-based questioning technique was adopted to develop the interview guides; that is, only the issues concerning the postpartum care services and the women's utilisation were focused upon and questions posed about them. The questions posed were predominantly open-ended and semi-structured as we intended to gather a wide range of information which could be used to analyse how each postpartum issue was originally perceived without any bias.

All the interviews were carried out in accordance with the interview guides to ensure that the discussion between the researcher and the key informant completely addressed all of the issues under investigation. The first set of interview guides was developed and tested during the exploratory study (December 2006–July 2007) and revised in August 2008 for the main data collection (September 2007–March 2008). The flow of questions in the interview guides followed what Stewart and Shamdasani (1990: 61) called a “funnel” approach. Even though the technique was proposed for focus-group discussions, it was found also to work well with the in-depth interview in the current study. Based on the funnel approach, the questions in our interview guides were sequenced to start from the more general or broader to the more specific or narrower topics. This technique was also applied to personal questions, such as resumption of sexual activity with husband, which were designated to be posed at a later stage of the interview.

All of the in-depth interviews were conducted by the researcher to assure the consistency and reliability of data and the data collection process. In terms of the language used, even though Kanchanaburi Province is not far from Bangkok and within the same region, the local people speak Thai-Lao dialect or Thai with a Lao accent. The dialect was sometimes problematic to the researcher who is a native speaker of the Thai central language. Since this problem had been identified during the exploratory survey, words in Thai-Lao dialect that the researcher found unclear were studied with assistance from local informants. To express the researcher's

gratitude for their invaluable assistance, each woman studied was presented with a set of towels after the prenatal interview, and a box of cookies after the postpartum interview. Also, a box of cookies was presented to each of the healthcare providers and policy actors upon the completion of the interview.

The following sections describe in detail the in-depth interviews with each group of key informants. The process involved in the interview with each individual group is illustrated, including the criteria and the methods employed to recruit the key informants, the number of key informants actually interviewed the arrangement of interviews and the development of the interview guides.

4.4.3.2.1 The KDSS Pregnant Women

The primary objective of interviewing the KDSS women is to investigate the women's knowledge and perceptions towards postpartum care, their self-reported health status and symptoms of gynaecological morbidity, their patterns of healthcare seeking behaviour, and the factors influencing the utilisation of postpartum healthcare services. Issues of breastfeeding, dietary intake and sexual resumption are also included in the investigation as their significance on the physical and psychological health of postpartum women is widely reported in the literature.

4.4.3.2.1.1 The Criteria and Methods for Recruitment

The first group of key informants is women residing in the KDSS study areas who were pregnant in their second or third trimester stage (16 weeks gestation +) at the time of recruitment (September-October 2007).²⁸ The latest round of the KDSS

²⁸ The recruitment criteria were set up based on the observations during the exploratory survey and the practical consideration of the PhD timeline. It was commonly found during the pilot survey that, in their first trimester of pregnancy, the pregnant women, either first-time or in subsequent pregnancies, barely responded to the researcher on their attitudes and perspectives towards postpartum care. Women in their first trimester tended not to have thought about or planned ahead with regards to

Census in 2004 was the initial sampling frame. The sampling frame covered 100 villages and 12,462 households from diverse social, economic and ecological conditions (Figure 4-2). Due to the possibility of migration during the three-year gap (2004–2007), any household settled within the KDSS study areas after 28 August 2004 was referred to as a new household and included into the current study's sampling frame. At the individual level, the study had included new household members who were reported to have resided continuously in the KDSS household (sharing food and living arrangements) for at least one month before the initiation of the recruitment period (September 2007).²⁹

The identification of women who could potentially be studied involved two key steps. The list of 100 KDSS villages was used to identify health facilities within or near KDSS villages. These health facilities were contacted to request a list of pregnant women. All the women who matched the above sample criteria were included in the study. Nearly all of the studied women (94.6%) were located through this approach.

Even though the KDSS sampling frame is well-constructed and comprehensive, it has some limitations when adopted for the current study. The list of the pregnant women generated from the health facilities was limited to those who had received antenatal check-ups at the government health outlets. In other words, it excluded the women who sought antenatal care from private health facilities, as well as those who did not seek any antenatal care. This under-coverage may affect the sample representativeness of the current study. To overcome this limitation, a further step taken by the researcher was to also contact the District Administration Office for names and contacts of the community/village heads, who helped provide the information about pregnant women in the areas for which they were responsible.

postpartum care and behaviour unless the antenatal check-up had been sought or the pregnancy had been confirmed. In addition, with respect to the prospective design that the follow-up postpartum interview was to be conducted 7-8 weeks after delivery, to interview with women in their first few months of pregnancy the length of time for re-interviewing was beyond the timeline of this PhD study.

²⁹ The recruitment concept was developed based on the KDSS definitions for household and household membership (KDSS Report of Baseline Survey Round 5 (2004) (in Thai), IPSR, Mahidol University, December 2005).

This approach was helpful not only to increase the coverage of pregnant women residing in the study areas, but also to offer the researcher another appropriate opportunity to introduce herself and her research project to the heads before entering into the villages under their responsibility (Kauffman and Myers 1997). Three KDSS pregnant women who sought antenatal care from private clinics were identified by the village heads.

Likewise, the approach also has some limitations. Due to the “gatekeeper syndrome” (Wilmot 2005), it is likely that only the pregnancies known to the community/village heads might be reported to the researcher. In addition, the information received from the community/village heads might be biased in terms of the names they provided as they might be unwilling to provide information about others.

4.4.3.2.1.2 Interview Guides

The interview guide for women included both closed and open-ended semi-structured questions. The closed questions included individual characteristics as well as their pregnancy history, whereas the open-ended questions were employed to elicit the women’s attitudes and perceptions regarding postpartum care. Although all of the questions were pre-specified, the researcher was able to probe further beyond this set of questions to obtain more accurate meanings for individual answers.

Since the study had a prospective design, the interview guide contained two sets of questions: one for the prenatal and one for the postpartum interview. The discussion topics for both sets of question were designed to maintain the consistency of the information obtained during the two periods. For example, the set of questions for the pregnant women regarding their attitudes, knowledge and perceptions towards postpartum healthcare and their intended actions for postpartum healthcare was aligned with the set of questions for the postpartum women in which their actual actions were underlined along with reflections (barriers/facilitators) on their actions and the causes of changes.

The development of the interview guide was based on published documents, examples drawn from the literature, and feedback and responses from the exploratory

survey. The guide was developed in English and translated into Thai by the researcher herself. In the process of back translation, government documents and Thai studies involving maternal health and healthcare services were used as references to increase the accuracy of translation. To formulate the questions regarding the women's background, the KDSS individual questionnaire survey (Round 5/2004) was reviewed. To elicit women's attitudes, intentions, norms and perceptions, the questions were developed through an extensive literature review on the examination and the measurement of individual's health perception and behaviour (Ware 1976; Downs and Hausenblas 2004; Bowen 2005; Moore and Coty 2006). (See the guides for interview with women in Appendix 4-3).

4.4.3.2.1.3 Descriptions of the Interviews

The first round of interviews with pregnant women was conducted during October-November 2007, while the second round of the follow-up interviews was completed during January-March 2008. At the beginning of recruitment period, fifty-six (56) pregnant women residing in 24 KDSS villages of 8 districts were identified and all of them were approached for interviews.³⁰ Forty-eight (48) agreed to participate in the current study, the majority of whom were in the thirtieth week of pregnancy.³¹ The prenatal interviews were arranged at the women's convenience. The duration of prenatal interviews varied, ranging from 30 to 75 minutes (with an average of 50 minutes).

³⁰ The researcher did not collect the total number of KDSS women who were pregnant during the time of recruitment. As such, the percentage of the studied women relative to the total number of KDSS pregnant women could not be calculated.

³¹ The remaining eight women did not participate in this research project due to three reasons: (1) the women were not at home at points of visit (at least three consecutive visits had been made) (5 cases); (2) the women moved out to other provinces during pregnancy (2 cases); and (3) the women refused to give an interview (1 case). In a brief conversation over the telephone, the woman spontaneously spoke of her miscarriage which had occurred two weeks ago. This woman refused to give a further interview because she was running an election campaign as she was a political candidate for the district election.

For the follow-up or postpartum interviews, only forty-three (43) women were re-approached. Five (5) studied women were excluded from the study due to their seventh-week postpartum occurring after March 2008. The arrangements for postpartum interviews were initially planned based upon the most up-to-date expected delivery date given by the women during the prenatal interviews. The interview appointments were modified later by additional information obtained through the regular telephone contact (if a number was provided) and the women's preferred interview time. Initially, the follow-up interviews were scheduled to take place within 7-8 weeks postpartum. However, many of the interviews were carried out between 8 and 13 weeks after the actual delivery date. There were four women for whom the postpartum interviews were carried out after thirteen weeks. One of these four women had a pre-term delivery (seven months), in which the follow-up interview was conducted in the nineteenth week after delivery. The other three women had moved to stay outside Kanchanaburi Province and returned later. With the researcher's attempt to cover all respondents, the number of interview visits ranged from one to five. Likewise, the duration of the postpartum interviews also varied from about 25 minutes to 75 minutes (with an average of 58 minutes).

4.4.3.2.2 Healthcare Providers

Interviews with healthcare providers aimed to draw evidence and facts as well as feedback and perceptions on topics relating to postpartum care, including the available types of postpartum services, postpartum service delivery, women's use of postpartum service and the provider's perceived role in postpartum care.

4.4.3.2.2.1 Criteria and Methods for Recruitment

The second group of key informants in this study comprises various types of healthcare providers, including obstetricians, registered nurses, health technicians and community health staff. Regardless of their settings and types, any health facilities (antenatal, obstetric, postpartum) referred to in interviews with pregnant

women were included in the sampling frame. For the sake of practicality, one health facility located outside Kanchanaburi Province was excluded.

Key informants were purposively drawn from the staff of selected health facilities, based upon their current or most recent responsibility involving, both directly and indirectly, postpartum women. In a few cases where more than two staffs were identified as involved with postpartum services for one facility, an interview was requested with each of them. Otherwise, two staffs were selected by primarily focusing upon one senior-level staff member and another operational-level staff member.

4.4.3.2.2 Interview Guides

The interview guide for the healthcare providers included closed and open-ended questions. Questions included their background and qualification, the types of postpartum services they provided and the health system of which they were a part. Because providers were responsible for postpartum services, interviews also asked them about their perspectives towards the postpartum service and system, women's behaviours during the postpartum period including perceived causes of low use of postpartum services, and their perceived role in relation to postpartum care.

Extant surveys and studies were used to guide the formulation of questions, including three survey questionnaires from the DHS surveys on Service Provision Assessment (SPA) for maternal and child healthcare services³², Thailand's care standards for primary, secondary and tertiary care (Bureau of Health Service System Development 2003)^{33,34}, and service guidelines for HIV/AIDS postpartum women (Kanshana

³² See further details of the three DHS surveys at the Demographic and Health Survey website.

http://www.measuredhs.com/aboutsurveys/search/search_survey_main.cfm?SrvyTp=type&listtypes=3
Accessed on 17 August 2007 and 14 July 2009.

³³ The Hospital Care Standard, 2006 (in Thai).

<http://hospital.moph.go.th/nongkhai/doc/HAHPHStandardF8.pdf>, Accessed 18 August 2007 and 14 October 2008.

2007)³⁵ were used to develop questions on interviewees' experience and training, type of services available in the health facility, and service quality. In terms of the roles of postpartum care providers, concepts behind question design were obtained from the relevant literature (Lugina, Lindmark et al. 2001; 2002; Simbar, Dibazari et al. 2005; Skocir and Hundley 2006). (Guides for healthcare provider interviews in Appendix 4-4).

4.4.3.2.3 Description of the Interviews

Twenty-four (24) health facilities located in Kanchanaburi Province were referred to in the prenatal and postpartum interviews with women. They included one provincial hospital, seven district hospitals, thirteen community health centres, two private clinics and one private hospital. Twenty-eight (28) healthcare providers were initially identified as involved with antenatal and postpartum services in these facilities. All, except one male obstetrician, agreed to an interview with the researcher. Table 4-3 summarises the details of the healthcare providers interviewed with respect to their professional titles and types of health facility.

All interviews with the healthcare providers, except two, were carried out at health facilities in Kanchanaburi Province, mainly during the interim period between the prenatal and postpartum interviews with the women.³⁶ One exception was an interview with a female obstetrician, which was carried out in the labour room while she was supervising an emergency caesarean section performed by another

³⁴ The Care Standard for Promotional Hospitals (in Thai).

<http://advisor.anamai.moph.go.th/hph/eva/eva2.html>, Accessed on 17 August 2007 and 15 October 2009.

³⁵ The protocol for CARE Project, 2005 (in Thai). <http://www.sk-hospital.com/~ob/article/care.htm>, Accessed on 17 August 2007 and 15 October 2009.

³⁶ Although the interviews carried out after the second (postpartum) interview with women might have offered the researcher an opportunity to validate some of the obtained information, they had followed the interview guide with pre-specified questions to avoid any biases.

Table 4-3 Summary of the healthcare providers interviewed, by professions and types of health facility

Professionals/types of facility	Government outlet		Private hospital	Total
	Hospital	Health centres		
Obstetricians	2	-	1	3
Registered nurses	10	3	-	13
Public health technical staff	1	8	-	9
Community health officer	-	2	-	-
Total	13	13	1	27

physician.³⁷ The other was an interview with a registered nurse carried out in Bangkok during the interviewee's holiday. In general, the duration of interviews ranged from 45 minutes to 70 minutes.

4.4.3.2.3 Policy Actors

The purpose of the interviews with the policy actors is to include accounts of the political aspects regarding maternal healthcare which were unlikely to be available in published documents. It also enabled us to see how concerned the policy actors felt about postpartum healthcare as well as the low rates of postpartum service use. By interviewing the professionals, as Barker (1996) suggested, the researcher also

³⁷ The venue of the interview was actually the obstetrician's office. However, during the progress of the interview there was an emergency call from a nurse, and the obstetrician had to rush to the labour room to supervise the labour for a junior physician (the decision for caesarean section was made later due to the woman's high blood pressure). The researcher was asked by the obstetrician to follow her to the labour room. While in there, the researcher did not interrupt her supervision and the interview only continued when the obstetrician initiated the conversation first.

gained the technical assessment of the country's current health policies as well as several significant points of view that could be used as grounds to consider future policy directions.

4.4.3.2.3.1 Criteria and Methods for Recruitment

This group of key informants predominately consists of policy actors from different governmental agencies and levels, both top-ranking policy planners and top-to-middle ranking policy implementers. In order to obtain more inclusive information as well as a balanced view concerning our issue of interest, representatives of international organisations based in Thailand as well as academic professionals, experts and researchers (AERs) were also interviewed.

The procedures of sample selection were designed following the characteristics of key informants (i.e., their affiliations). To obtain the key actors from the Ministry of Public Health (MoPH), a list of agencies within the MoPH, along with the names of officials who were the top administrators in each agency, was created based on the agencies' and individuals' current involvement with maternal and postpartum healthcare. A list of international agencies was created to identify relevant agencies and units, along with the corresponding officials. For practical reasons, only those agencies and units based in Thailand were included. As for the selection of AERs, two means were used to identify key informants. The first was to identify authors of literature with topics including "postpartum care", "maternal health", "maternal health policy" and/or "Thailand", both in Thai and English. The investigation was undertaken using Google's scholar search engine and the Chulalongkorn University database system, which includes Thai documents and dissertations. The other means used was the list of Thai experts on health research included on the WHO's Thailand website.³⁸

³⁸ <http://w3.who-thai.org/qn/healthlisting.asp>, Accessed 17 August 2007.

4.4.3.2.3.2 Interview Guides

Unlike the two previous interview guides, the interview guide for policy actors and AERs was relatively unstructured. Flexibility and variation in the interview guide was needed, dependent on the interviewee's affiliation and current responsibility as well as the extent of involvement with maternal health. While the researcher anticipated firm and established points of view involving postpartum issues as they were our current focus, the interview was kept open to other issues that might be introduced by the interviewees.

A pilot test of the interview guide for policy actors was not applicable for the current study because it would reduce the pool of potential interviewees. The development of the first interview guide was initially based on existing studies with examples of interview questions with policy actors and the interview guide was modified based on responses and feedback obtained from the previous one. For example, some topics that were deemed overly detailed for the very senior key informants—i.e. the General Secretariats, who were better at providing an overview—were discarded. (Guides for policy actors interviews in Appendix 4-5).

4.4.3.2.3.3 Description of the Interviews

All interviews with the policy actors and AERs, except two, were held in Bangkok. The first series of interviews were carried out during December 2006–March 2007. The second round of interviews was completed during January–March 2008.³⁹ The duration of the interviews ranged from 20 minutes to 50 minutes. Table 4-4 summarises the interviews with the policy actors and AERs with respect to their organisations and levels. One key informant was firstly identified and approached as

³⁹ Since the two rounds of interviews were almost a year apart, three policy actors at the national and provincial levels who had been interviewed during the first round (December 2006–March 2007) were informally re-visited to ask whether they would like to share any more ideas or information on the postpartum issues.

Table 4-4 Summary of the policy actors interviewed, by organisations and levels

Organisations/levels	National	Provincial	District	Total
Representatives of international agencies (UNFPA&UNICEF)	2	-	-	2
Bureaucrats (Ministry of Public Health)	5	2	-	7
Local officers	-	1	1	2
Academics/experts/researchers	1	-	-	1
Total	8	3	1	12

an AER. At the time of interview, however, this key informant was appointed as the representative of UNFPA in Thailand.

4.4.3.2.4 Reflections: Strange Intimacies

The researcher found that the in-depth interviews with women were not only essential to help achieve the study’s goal but also offered new and invaluable first-hand experience. The in-depth interviews established a variety of relationships with the respondents, ranging from fairly formal interactions to close ones. Prior to the fieldwork, the researcher had questioned herself several times of how close she, as a stranger, needed to be with the respondents in order to retrieve in-depth, either personal or impersonal, information. However, the researcher later discovered herself to arrive at “the sociologically constructed category of strange intimacy” (Strauss 1987; Rance 2003) during the pilot interviews with three pregnant women who were seeking abortion, which is illegal in the country (Whittaker 2004).

Strange intimacies occur in the relationship between a study investigator and a respondent, where the discussion of personal issues is no longer a matter of embarrassment (Rance 2003: 58) (1987). For example, during the pilot interviews, some instances were judged by the researcher and recorded into the field notes as an

over-personalised action or topic. In some narratives, for example “[s]ister, you are the only one who knows that I did this [abortion method]”, the researcher sensed that she had become close to the respondents even though she came from outside and had no link to the women’s society. This however allowed her to talk openly with the researcher. An outcome of this experience was the need to develop research guidelines for the main study in terms of how to deal with the issue of abortion (Appendix 4-6).

Several incidents during the main data collection can also be identified as strange intimacies. For instance, at the beginning of each interview, women were asked about their marital status. For some respondents who were experiencing some troubles with their marriage relationship, the question of marital status was as sensitive as the question regarding sexual behaviour. Likewise, there were many instances of over-personalised information given by a few women about their marital infidelity and dissolution. It was awkward for the researcher to handle questions from women as to how they should manage their relationships, insisting that the researcher was the only one who knew their secret. The researcher attempted to avoid answering such questions and to turn their attention to answer the interview questions. Even though the core duty of the researcher in the fieldwork was mainly to investigate fact and evidence, moral concerns come into play when the person right in front of the researcher is experiencing problems that might jeopardise her health and well-being. Once the interview had been completed, the researcher discussed with these women whether there was anyone else they could trust to talk to. Usually, the researcher sat with these interviewees for a certain amount of time longer to ease them from tension and stress.

4.4.3.3 Direct Observations

Direct observation techniques were used to obtain non-verbal and non-text data from specific events and places of interest. The observation focuses on four components – i.e., the setting of event, the activities that occurred, the people involved, and the meaning of what was observed. In general, there are two main types of observation; direct and participatory observations. The distinction between the two methods is

that direct observation allows the researcher only to watch the activity or event without any intrusion, while participatory observation allows the researcher to take part in the event being observed.

In this study, planned direct observations were based initially on the literature review. The setting of most women's postpartum period is mainly their home, surrounded by their family. This environment can affect women's healthcare behaviour as well as their decision to use postpartum services. Based on the literature review, the postpartum period involves traditional beliefs and practices, which have significant effects on postpartum service use. Little is known about postpartum traditions in the contemporary context. Being able to observe the traditional practices is therefore crucial for understanding women's postpartum behaviour. In addition, in order to assess the relationship between the healthcare providers and the postpartum women and its impact on the use of postpartum services, it is very important to conduct the observation in contexts where the interactions of service receiver-provider are actually taking place, in part to help validate the information obtained from women and healthcare providers. Two main sites for direct observations were the homes of the interviewed women and the health facilities referred to by them.

4.4.3.3.1 Direct Observation in Women's Homes

The key objective of the direct observation at the women's residences was to see the natural behaviour, activities and way of life of the women who had recently delivered their babies, which enabled the researcher to learn more about the postpartum environment as well as matters that might be missed or omitted by the women or that they were unwilling to talk about during the interview.

The initial selection of postpartum women to observe was random, and four cases were additionally selected due to the researcher's particular interests, which were (1) clinical identification of antenatal health problems that possibly affected postpartum health, (2) a history of home birth, (3) a history of missed antenatal care appointments, and (4) reported intention to perform traditional practice (*Yuu-fai*), and to seek healthcare from traditional birth attendants after childbirth.

Direct observations were conducted in accordance with an observation guideline that had been developed in advance by the researcher (See the observation guideline in Appendix 4-7). The country's maternity care guideline and the primary care unit (PCU) standard care developed in 2002 as well as information obtained during the pilot study were used in the development of the observation guidelines. Bearing in mind the limitation of the method, that the observer might influence the observees' actions, repeated observations were conducted. Each woman was visited two or three times at different periods (i.e., seven days and six weeks after delivery) and times of day (i.e., in the morning or afternoon), depending on the amount of information collected upon each visit. The observation visits were initially planned based upon the expected delivery date, and were later modified based upon updated information obtained through telephone contact.

From the 48 women studied, ten were first selected and asked whether they were willing to participate in our observational study. Among the selected ten women, seven were visited within the second week after delivery while the remaining three women were excluded from the observational study since one had pre-term delivery, in which the observation period was already over, while the others were not at home at the time of the first visit. Seven women were re-visited during their sixth to seventh postpartum week. The duration of the observation sessions ranged from fifteen minutes to three hours, depending upon the activities the women were engaged in and the amount of information provided.

4.4.3.3.2 Direct Observation at Health Facilities

Direct observation at health facilities was aimed primarily at examining the care services available for postpartum women and whether healthcare providers adhered to standard care guidelines in providing postpartum check-ups and non-verbal actions, as well as interactions between healthcare providers and postpartum women.

The selection of health facilities for observation was based upon the women's information and opinions about the health facilities where they reported having received antenatal, delivery and postpartum care services. These included the

facilities the women referred to as providing good and skilful services as well as those providing poor services. Five government hospitals and five health centres were observed. No private facility was included in the observational study.⁴⁰ Prior to the observation, permission was sought from the head of the health promotion division at each of the selected facilities. The visiting dates – usually scheduled based on the timing of postpartum clinics – were notified in advance, without giving the specific time of visit.

Observations at health facilities followed a pre-determined guideline. The topics to be observed incorporated the essential elements of postpartum care service listed in care guidelines and standards, both nationally and internationally—i.e., the WHO (1998) practical guide, Thailand's maternity care guideline, the primary care unit (PCU) standard care (2002), the secondary and tertiary standard care (2007), the national mental health standard care (2006) and the Ministry of Public Health questionnaire of customer satisfaction evaluation on health services (2006). The observation guide consisted of two main parts. The first part involved physical observation of the facility (e.g. the waiting area, privacy of the examination room). The second part was about the observation during the postpartum clinical examination and counselling session. Permission was sought from four postpartum women who used postpartum services at the observed health facilities to allow the researcher's presence at or near the postpartum examination. (See the observation guideline in Appendix 4-8)

In addition to the structured observation, unstructured observation was also carried out. For example, we observed the interactions between the providers and the women who sought family planning services. Four observation sessions were conducted during breaks between the interview with busy healthcare providers and recorded in the researcher's field notes.

⁴⁰ The two private clinics referred to by women in the sample were owned by the same obstetricians, who were also working in the observed government hospitals. One obstetrician, who was interviewed, had politely declined the researcher's request to visit her clinic with reasons that the place was busy, small and had nothing to see. The other clinic was run by a male obstetrician, with whom the researcher was unable to arrange an interview due to his busy schedule.

The issues concerning the limitations and trustworthiness of the observation data are noted herein. The first issue is the use of the observation data to identify the providers' routine practices. These data are subject to the "reflectivity" bias (Spano 2005) that the observed providers' practices may be influenced by the presence of the researcher. However, because the observations were conducted at various sites and triangulated with the information obtained from the interviews with the postpartum women combined with a few exit interviews, the potential for bias should be minimised. The second issue is related to the observer herself. There is a possibility that the researcher, as an observer, became sympathetic towards the observed individuals and thereby lost her objectivity (Gans 1982; Adler and Adler 1987; Spano 2005), a situation that can be regarded as "over-rapport" (Miller 1952: 98). Following the recommendation of Miller (1952), prior to any observation the point of closeness to the observed person(s) in the current study was roughly calculated in mind, as was the activity or situation to be observed. Rapport with the observed women was developed to a certain point, to observe them express their feelings (e.g. fear, embarrassment, etc.) for insightful analysis.

4.4.3.4 Recording Techniques

Several recording techniques are available for use in a research study. In the current study, we use audio recordings, field notes and photographs as the means for collecting the qualitative data. Tape recording allows one to gain a full and the most accurate record of the interview (Yimyam 1997: 99). We found, as Yimyam (1997) noted in her study, that the audio recorder helped to enhance the rapport between the interviewer and the respondent by permitting a more natural conversation as well as enabling the interviewer to be an attentive and thoughtful listener.

Along with recording the interview conversation, notes were also taken to remark key points that were skipped or needed to be further explored (without interruption of the current topic), as well as the interviewees' actions and gestures during the interview (i.e., facial and physical expressions) in addition to their tone of voice that could be extracted from the audio records. After the completion of each interview, the researcher would register her fresh opinion on the information obtained as well as

issues arising while entering or leaving the women's premises or villages, including the methodological and ethical issues, in the front of the individual interview guide. Two separate field notebooks were also used, mainly to record the conversations and observations with non-targeted individuals, the trip journals as well as the hand-drawn maps of women's villages, as such detailed maps were usually absent from the official maps.

Although it rarely happened in this study, there were still a few occasions when the researcher decided to suspend note-taking and audio-recording. These included a discussion with a healthcare provider who spoke of corruption within his workplace with reference to another person, and a discussion with a woman who talked in detail about her partner's infidelity.

4.4.4 Qualitative Analysis

In this section, the preparation of qualitative data as well as the analysis techniques and process are presented.

4.4.4.1 Preparation of Data for Analysis

Data preparation is required to ensure that the "data collected is complete and in a format that facilitates the manipulation for good results" (Wilms and Johnson 1993: 72; cited in Yimyam 1997: 105). This process was actually done following the period of data collection (Yimyam 1997; Patton 2002; Asante 2006). Before leaving the field, the researcher carefully checked for any missing data that were noted in the interview guides. All interviews were recorded in MP3 format. They were listened to immediately after each interview to ensure that the audio machine had functioned properly and that the recorded conversation was audible. The audio files of the interviews were copied onto a computer notebook and a portable USB drive. An individual folder was created for each interview, containing the audio recording, transcript and photographs. The master copy was stored in a safe place, while additional copies were created for verbatim transcribing.

Box 4-1 Research assistants' training content and process

- To read and discuss the proposal (in Thai) in order to gain a better understanding of the objectives of the research project;
- To read and discuss the interview guides to understand the nature of the qualitative interview, and the types and sequence of questions;
- To practise by listening to a few pilot interviews and transcribe the interviews together with the researcher;
- To explain how to note the captured sound expressions, e.g., laughing, sobbing, sound of relief, as well as the surrounding noises, e.g. baby crying;
- To explain the impact of the transcribing environment on the quality of transcription and the significance of confidentiality and identity protection of the interviewees.

4.4.4.1.1 Transcribing Interview Records, Research Assistants and Their Training

Transcribing is an interpretive act rather than simply a technical procedure. Adequate training or briefing is required for a transcriber (Bailey 2008). Two research assistants at Chulalongkorn University were hired to transcribe interviews. The two assistants were trained by the researcher although one of them had previous experience of transcribing work. This was to ensure the quality of data used in the subsequent analysis. The contents and procedures of training are presented in Box 4-1. Regular meetings with the two assistants were arranged to enable the researcher to offer support and advice to them on a continuous basis. Seventy per cent of the prenatal interview records with the studied women were transcribed by the two research assistant, while the remaining interview records were transcribed by the researcher herself. Regardless of the transcribers, all the transcriptions were re-checked as well as cross-checked with the information obtained from other sources (e.g. the maternal and child booklet, photographs and field notebooks), to ensure the accuracy and quality of data. This process was very helpful in the sense that it enhanced the researcher's familiarity with the data as well as allowing her to see any emerging patterns.

4.4.4.1.2 Supplementary Quantitative Techniques

The records of the prospective qualitative interviews with 43 women were transformed into 86 transcripts. Some of the data which could be quantified were inputted into SPSS format for the purposes of systematic data storage. Even though this technique consumed a certain amount of time to construct the SPSS file and to enter the information at the beginning, it proved very useful to save time during the analysis and offered a quick quantitative overview of the data in the form of descriptive statistics.

4.4.4.2 Analytical Procedures

Most of the qualitative analysis was conducted manually (using memos) for each group of key informants. There has been thus far no universal rule for analysing this type of data (Asante 2006: 131), Miles and Huberman (1984) suggest that “we have few agreed-on canons for qualitative data analysis, in the sense of shared ground rules for drawing conclusions and verifying their sturdiness” (1984: 16: cited in Asante 2006: 131).

A transcript analysis approach was adopted as it focuses on documents and transcripts as well as the nature of exploratory qualitative methodology that usually begins with no prior theoretical framework, allowing the deductive process to be carried out through text analysis (Garrison, Cleveland-Innes et al. 2006). Like general qualitative analysis practices, the transcript analysis procedure involved four stages; familiarisation, coding and categorising data, identifying themes and interpretation (Bryman and Burgess 1994; Ritchie and Spencer 1994; Bauer and Gaskell 2000; Garrison, Cleveland-Innes et al. 2006).

At the beginning stage of the analysis, all the qualitative data were examined and reviewed thoroughly to gain a complete overview (Tesch 1990; Dey 1993; Ritchie and Spencer 1994; Maxwell 1996). There are no established guidelines on the exact number of times one needs to scrutinise the data in order to be able to extract the

required information accurately, adequately and meaningfully (Heaton 2004). What the literature has often recommended is simply that “the more familiar the analysts are with the data, the more they will extract from it” (Hayes 1997: 47). While the analysis process could sometimes be daunting and time-consuming, the primary data were also used for another issue of interest, forcing the researcher to re-examine the data and consequently increasing her level of familiarity with the data.

Along with the data review process, the researcher also started coding, indexing and comparing the transcripts, after which the coded and indexed data were organised into categories. Attention was given to the issues of convergence and divergence, which Guba (1978), Patton (2002) and Asante (2006) emphasise as challenges for qualitative analysis. Convergence refers to the extent to which the data belonging to a certain category fit together, whereas divergence represents ‘fleshing out’ patterns or categories. A regular review of data (Asante 2006), as well as careful and thoughtful examination of the datasets that do not seem to fit (Patton 2002), were employed to overcome the challenges. Following the suggestion by Lugina *et al.* (2002), the categories were initially labelled using the key informants’ words. This was very helpful not only to understand the meaning of the words expressed by the key informants, but also to prevent loss of meaning during the analysis if the labels were described by the researcher’s own terms.

Coding of interview transcripts was carried out in two stages, in which an interim period was taken to investigate another issue of interest as previously mentioned. After switching back to the qualitative analysis, we found—as Hayes (1997) suggested—that the re-examination of the coded transcripts enabled us to derive new categories as it refreshed ideas and perspectives. Furthermore, the review of the coded transcripts revealed previously unnoticed information and allowed the researcher to re-examine the divergent data that did not fit with any of the developed categories to ensure that their exclusion from the analysis would not have a negative impact on the results.

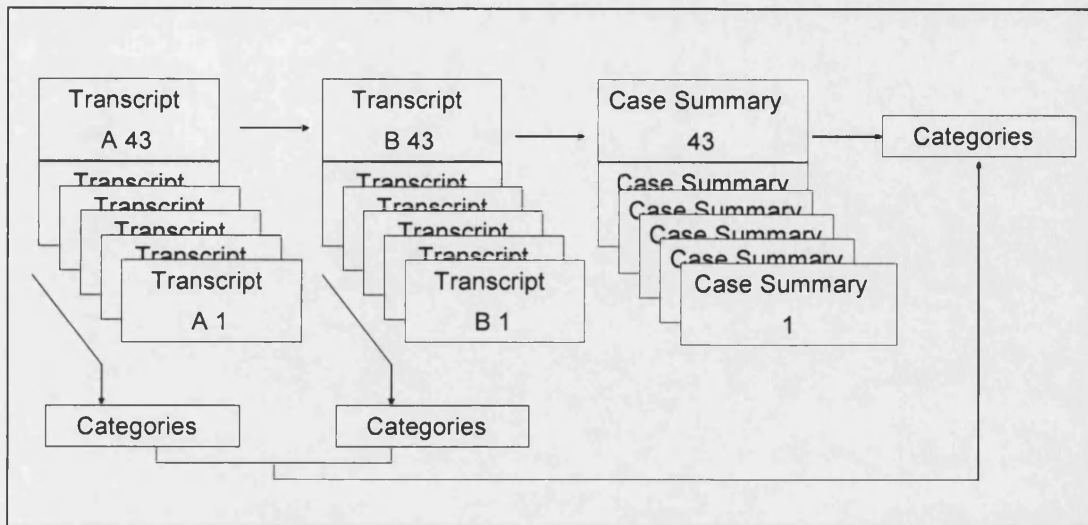
In the final stage, emerging categories were reviewed to identify themes and patterns of interrelationships between the themes (Ritchie and Spencer 1994; Maxwell 1996). The themes were not pre-determined, but allowed to emerge from the data. During this stage, the researcher also established explanations for the factors that emerged as

influential on women's use of postpartum services in which the researcher's perspective and understanding of the women's use of postpartum services were compared with the existing studies in order to make sense of the findings. Consistent explanations as well as counter-arguments were put forward to bring meaning to bear on the findings.

4.4.4.2.1 Prospective Transcript Analysis

As the study also incorporated a prospective design, analytical procedures had to be developed to deal with the volume of data associated with a time series. Devine *et al.* (2000) employed a prospective study design and adopted two strategies for data analysis; the "continuous" strategy, in which the prenatal and the follow-up transcripts were read and re-read "chronologically" and the "interactive" strategy, in which emerging categories were developed on both participant-based and concept-based approaches (Miles and Huberman 1994:cited in Devine et al. 2000). The analytical process for the current study comprises three steps. The first step was to read and re-read the prenatal and postpartum transcripts for each woman "separately" and to organise the data into categories. This allowed us to see the prenatal and postnatal concepts and how the two concepts differed from each other. In the second step, both the prenatal and postpartum transcripts for each woman were read chronologically and the data were organised into categories to develop concepts with respect to "time". For the final step, the data were case-based and summarised for each woman in the areas of interest. In identifying the coherent central themes that accounted for women's behaviour and linked the categories together, an "interactive" strategy was adopted by reviewing the themes coherently emerging from the concept-based with the case-based summaries. The merit of the interactive strategy was to enable us to see variations in the data or exceptional or unfitted cases (Devine, Bove et al. 2000). Box 4-2 illustrates the analytical process developed in this study for prospective transcript analysis.

Box 4-2 Analytical process for prospective transcript analysis



4.5 Reliability and Validity of the Study

Reliability and validity are critical issues in conducting research. While reliability refers to the extent to which the results are consistent over time, validity determines whether the research truly measures that which it was intended to or how correct the answers or findings are (Golafshani 2003: 598-599). In this study, the researcher undertook several approaches to research design through the data collection and analysis to ensure the reliability and validity of the study.

In terms of the research design, to be able to triangulate the information from various sources is a strength of the mixed-method approach. It allows for a validity cross-check through different modes of inquiry because different types of inquiry produce “different real-world nuances” (Patton 2002: 248). Inconsistencies across data from different sources do not reduce the credibility of the study findings. Rather, they needed to be examined closely in an effort to understand such differences and this is the most significant attribution to a higher level of validity (2002: 556). The triangulation of data for the current study is ensured through the adoption of a wide array of data sources and data collection methods, including quantitative national-level data, documentation of statistics and government and non-government

documents, in-depth interviews with various groups of people involved in the issue of interest, and observation of the health facilities and women's residences. The information obtained was compared to build a coherent justification.

During the process of qualitative data collection, many debriefings with relatively impartial persons were also considered to help strengthen the validity of the study (Yimyam 1997: 103). Lincoln and Guba (1985) have noted that debriefing provides an opportunity to develop and initially test the next steps in the emerging methodology design (1985: 308-309). In this study, the debriefings were carried out with the researcher's first and second supervisors, who commented on and questioned the development of the research design, the instruments and the bases used for data interpretation in order to minimise the researcher's bias and misinterpretation. The reliability of the data collection was also ensured by testing the pilot interview guides during the exploratory survey, which enabled the researcher to be more confident that the questions posed would yield the anticipated outcomes. Throughout the exploratory survey, the interview guides were revised and elaborated to obtain more meaningful responses.

To improve the trustworthiness of the data analysis, several steps were taken by the researcher, including the verification of the developed categories and the concepts emerged from an interview group by consistently linking the emerging categories with the data/information received from the other two groups of key informants and the related documents (e.g. the Pink MCH booklet, brochures and leaflets). These categories were also linked to quotes from the research key informants to ensure the reliability of the study, as suggested by Moore and Coty (2006). For the prospective analysis, the two strategies adopted – the continuous strategy and the interactive strategy – helped to enhance the reliability and validity of the data analysis.

4.6 Methodological issues

In this section, the summary of the methodological issues is presented in order to illustrate the limitations of the research methods. Even though no single method can completely satisfy all the objectives of a research study, the use of more than one

method is also subject to limitations. As noted by Asante (2006), the application of the mixed-method approach generally involves extensive data collection and time-intensive analysis of textual and numerical data, as well as adequate effort, expertise, and will of the researcher to undertake the research to reach the objective of the study. The researcher was well aware of these difficulties and attempted to address them fully.

The second limitation is due to the adoption of the single-case study approach to the qualitative study, which may affect the external validity of the study in terms of the generalisation of the results from one case to another or from a few cases to the whole country (Yin 2003). It would have been better if more than one province had been investigated in order to increase the credibility of the results. However, it was not possible due to several limitations of time and resources. Furthermore, due to the small number of the studied women, the results of this qualitative study cannot be generalised for Kanchanaburi Province. However, the framework of the current study can be used as a case example for future research in other provinces or other developing countries that have similar settings.

This study used a prospective design because of its overwhelming advantages for the research questions. There are, however, limitations to a prospective design. Loss to follow-up is the first potential source of systematic bias in any prospective study (Rimington, Mallik et al. 2009). Due to the current study's small sample size, the loss to follow-up of five studied women (10%) could possibly lead to the over- or under-estimation of postpartum service use and might affect the generalisability of the conclusions drawn from the interviews. Selective bias is also noted by Zasler *et al.* (2007) to occur due to the loss to follow-up the sample. Two of the sampled women whom the study failed to reach for the postpartum interview represented the urban group in the sample. However, the impact might be minimal since these two women, as well as the other three women, were found to share similar individual characteristics and prenatal behaviour with the majority of the studied women.

It has been observed that in any prospective study individual narratives might be modified by the very process of being re-interviewed (Patra, Singh et al. 2008). Issues of misreporting are also relevant. For example, in the prenatal interview, attitudes towards and intentions to use the service might be over-reported due to a

“social desirability bias” (Dhaher, Mikolajczyk et al. 2008), with women wanting to be viewed favourably by the researcher or feeling obliged to report that they intended to use the service. In the follow-up interview, the issue of censorship is also important. Since many of the postpartum interviews were undertaken in the seventh or eighth week postpartum, there was still a chance that the use of postpartum service might occur after the interviews, probably due to unanticipated events. Likewise, there is some likelihood of misreporting the actual care seeking behaviour due to recall problems which could not be triangulated using other sources of information. For example, most women did not record their postpartum visits in the maternal and child booklets, in which the page was left blank, meaning that the data presented here are almost wholly reliant on individual women’s accounts and reported behaviour. Nonetheless, despite the short timescale of this prospective study, the chance of misreporting due to the recall bias is still minimal compared with that potentially caused by a retrospective study design (Janson 1996: 15; Hess 2004: 1174). This is the strongest reason why the current study adopts the prospective study design to investigate the women’s behaviour regarding healthcare.

Chapter 5

Maternity and Postpartum Care in Thailand: Patterns and Determinants

5.1 Introduction

This chapter presents secondary analyses of the Economic Crisis, Demographic Dynamics and Family (ECODDF) survey data, in which the primary aims are to understand maternity service utilisation in the Thai context and to examine the determinants of postpartum service utilisation among Thai women. The content of this chapter consists of two main parts. The first part presents a demographic and socio-economic description of the sampled women in the survey, and the patterns of antenatal and obstetric care service utilisation (Section 5.2 and Section 5.3). The second part, provides the analyses of the pattern and the determinants of postpartum service use (Section 5.4).

5.2 Sample Characteristics

From the total of 3,448 female respondents, there were 1,289 women, who had had at least one child birth in the past five years (1996–2000) prior to the ECODDF survey. Just under half (48.6%) of were aged 20 to 29 and the mean age of the sample women was 29.3 years (SD = 6.07). The education level was pre-grouped by the ECODDF, based on the current schooling system, and over half had completed junior high school. The majority of women were Buddhist (93.0%) and currently working (84.3%). Most of them resided in rural areas (71.9%) and within families

Table 5-1 Description of demographic and socio-economic characteristics of 1,289 ECODDF women

Characteristics	Categories	Sample size	Per cent
Age	15–19	54	4.2
	20–29	624	48.6
	30–39	534	41.6
	40–49	73	5.7
Education level	< 6 years	279	21.7
	6–9 years	752	58.4
	10–15 years	190	14.7
	16 year and higher	67	5.2
Marital status	Married	1194	92.7
	Separated	71	5.5
	Widowed	24	1.9
Religion	Buddhist	1199	93.0
	Muslim	43	3.4
	Christian/others	47	3.6
Number of children	1 or 2	1026	79.6
	3 and more	262	20.4
Working status	Not working	202	15.7
	Working	1087	84.3
Place of residence	Urban	362	28.1
	Rural	927	71.9
Monthly household income (bahts)	<10,000	789	61.2
	10,000–19,999	275	21.7
	20,000 and more	205	16.2

Source: ECODDF Survey Data

with poor household income (less than 20,000 baht per month, GBP363).⁴¹ In terms of parity, the majority of the sampled women (79.6%) had one or two children.⁴²

⁴¹ The definition of 'poor household' was obtained from the National Economic and Social Development Board. See NESDB. 2008. The Study on Saving Promotion for Employed Persons

5.3 The Patterns of Antenatal and Obstetric Care

This section aims to provide an overview of the maternal health services in Thailand. Patterns of healthcare during pregnancy and intrapartum period are discussed. Because there have been several surveys and studies revealing the difference between the rural and the urban areas in terms of the women's health-care-seeking behaviour, health infrastructure and manpower (Bhatia and Cleland 1995; National Statistical Office 2001; Thailand Health Profile 2005 and 2008), to be able to compare the study's findings with those of the existing surveys and studies, the author investigates the patterns of antenatal and obstetric care service utilisation by the location of residence, i.e. urban or rural areas, instead of the geographic regions. Another and more important reason is related to the design of the current study (the sequential mixed method), in which the quantitative analysis is carried out first in order to gain the contextual information to guide the subsequent qualitative study. Examining the healthcare pattern by the location of residence in this quantitative analysis is thus appropriated and corresponds to the characteristics of the Kanchanaburi Demographic Surveillance System (KDSS) sample population, in which 80 per cent of the people resided in rural areas (Sethaput 2005).

5.3.1 Antenatal Care

The level of coverage for pregnancy examination, drawn from the ECODDF, is slightly higher than that obtained from the Demographic Health Survey in 1987 (89%) (Raghupathy 1996: 461) (Table 5-2). Nearly all of the ECODDF women (95.6%), both in the urban and the rural areas, reported to ever having had a

Group. In Research Report under the Umbrella Project 'A Study of Implementation of Moving Forward on the Strategic Development in the tenth National Economic and Social Development Plan'. Bangkok: The National Economic and Social Development Board and Chula Unisearch, Chulalongkorn University.

⁴² Total Fertility Rate from ECODDF survey data is 1.86, slightly below the replacement level. See further information in Chayovan *et al.* (2003).

pregnancy examination with healthcare providers. The vast majority of antenatal examinations occurred during the first trimester of pregnancy with an average of 9.8 weeks gestation (SD = 4.61). The proportion of women seeking pregnancy check-ups later than the first trimester is relatively small at only 15 per cent.

Of women who received antenatal care, nearly all of them (95.6%) reported having regular pregnancy examinations. The mean of the number of antenatal visits is 8.9 (SD = 3.65), which is fairly close to the Ministry of Public Health's antenatal care standard of nine antenatal visits for a normal pregnancy (Bureau of Health Service System Development 2003).⁴³ The proportion of women who had four to nine antenatal visits is significantly higher in the rural area, however, for the urban area a larger proportion of women had antenatal visits more than 9 times ($\chi^2 = 18.85$, $p < 0.001$). Nine out of ten women, both in the urban and the rural areas, reported receiving tetanus vaccine and medicine⁴⁴ while visiting the antenatal clinics.

⁴³ The first antenatal visit is advised to take place within twelve weeks of pregnancy commencing. This is followed by regular monthly visits until 28 weeks of pregnancy, after which the women must visit the antenatal clinics once every two weeks until delivery (36 weeks gestation). A weekly visit is required if the pregnancy continues after 36 weeks.

⁴⁴ No specific question about type of medicine available in the questionnaire.

Table 5-2 Health care during pregnancy by residence

	Urban		Rural		Total		X ²
	No.	Per cent	No.	Per cent	No.	Per cent	
Had pregnancy examination	343	95.3	884	95.7	1284	95.6	0.94
Timing of first visit							
First trimester	290	84.5	752	85.3	1042	85.1	
Second trimester	53	15.5	129	14.6	182	14.9	0.52
Third trimester	0	0	1	0.1	1	0.1	
Had regular antenatal examination	348	96.1	884	95.4	1232	95.6	0.37
No. of antenatal visits							
Less than 4	20	5.8	45	4.8	62	5.3	
4–9	147	42.5	496	56.1	643	52.3	18.85***
More than 9	179	51.7	343	38.8	522	42.4	
Received tetanus toxoid during pregnancy	339	93.9	870	94.2	1285	99.7	0.03
Took medicine prescribed by health care providers	332	89.2	795	85.9	1286	99.7	2.40
Total number of women	362		927		1289		

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

5.3.2 Obstetric Care

Institutional delivery is common in Thailand. More than ninety per cent of women delivered their babies in hospitals, confirming the medicalisation of childbirth in Thailand (Muecke 1976; Liamputtong 2007: 15) and indicates the country's success in improving the provision of delivery care services.

The proportion of women who had formal obstetric care in hospitals increased from 64 per cent in 1987 (Knodel, Chayovan et al. 1990; Raghupathy 1996) to 94.2 per cent in 2001. The majority of women (81.4%) used government facilities for childbirth (66.5% urban; 87.2% rural) (Table 5-3). Women in urban areas were much more likely to prefer private over public facilities for childbirth compared with those in the rural area. A similar pattern in the choice of delivery places has been reported in other Thai and Western studies (Bhatia and Cleland 1995; Hanvoravongchai, Letiendumrong et al. 2000; Brugha and Pritze-Aliassime 2003; Anson 2004; Liamputtong 2004). The difference in the place of delivery between the women in the urban area and those in the rural area is statistically significant ($\chi^2 = 143.80$, $p < 0.001$).

Despite its small proportion (5.8%), home birth is still evident, more in the rural area compared with the urban area. The majority of home births in rural areas were facilitated by traditional midwives, whereas about half of the home deliveries for women in urban areas were reported as not being assisted by anyone. This variation between the urban and the rural areas is statistically significant ($\chi^2 = 16.39$, $p < 0.001$). Women who reported having no assistant during delivery, both in urban and the rural areas, were further analysed using the available data. The initial investigation was based on the literature's finding that home delivery is associated with the utilisation of antenatal care. The women without prior pregnancy care were less likely to receive health education, and thus were inclined to choose home delivery (Bhatia and Cleland 1995; Nuwaha and Amooti-kaguna 1999; Wagle, Sabroe et al. 2004; Ciceklioglu, Soyer et al. 2005). Conversely, for the current study it is found that all of the women with home deliveries had at least one antenatal visit and 75 per cent reported having four or more antenatal visits. This suggests the possibility that the occurrence of home delivery might be due to some unintentional reasons. As observed by the recent study of More *et al.* (2009), among Indian women, unintentional home birth happened due to the rapid progress of labour and where there was nobody available to accompany the women to the health facility (More, Alcock et al. 2009).

Table 5-3 Healthcare during the intrapartum period by residence

	Urban		Rural		Total		X ²
	No.	Per cent	No.	Per cent	No.	Per cent	
Place of delivery							143.80***
Home	11	3.0	64	6.9	75	5.8	
Government Facility	240	66.5	804	87.2	1046	81.4	
Private facility	110	30.5	54	5.8	164	12.8	
Person assisted (home)							16.39***
No one	5	45.5	4	6.3	9	12.2	
Traditional midwife	3	27.3	47	74.6	50	67.6	
Relatives	3	27.3	9	14.3	12	16.2	
Neighbour/friend	0	0	3	4.8	3	4.1	
Mode of delivery							46.01***
Vaginal	260	71.8	810	87.6	1070	83.1	
C-section	102	28.2	115	12.4	217	16.9	
Total number of women	362		927		1289		

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

Four out of five women had vaginal delivery, and the overall percentage of caesarean section in ECODDF is 16.9, slightly higher than the WHO's recommended level of 15 per cent (WHO 1985). In comparison to other studies, however, this figure is still relatively low. Tangcharoensathien *et al.* (1998) have revealed the statistics from an unpublished delivery census in 1996 that the C-section rate in Thailand was 22.4 per cent, rising sharply from 15.2 per cent in 1990. Another two studies carried out in Songklanagarind Hospital, the largest university hospital in the Southern Region, exhibit a very high C-section rate of 36.8 per cent in 2000 (Suwanrath-Kengpol, Pinjaroen *et al.* 2004; Chittithavorn, Pinjaroen *et al.* 2006), whereas a study conducted in the Thammasart University Hospital located in the vicinity of Bangkok has shown somewhat lower, though still high, levels of C-section at 27.3 per cent,

27.9 per cent and 29.3 per cent in 2003, 2004 and 2005, respectively (Chanthasenanont, Pongrojpaew et al. 2007: abstract).

With respect to the location of residence, the current study found that the proportion of women having caesarean sections was significantly higher in the urban area than that in the rural area (28.2% versus 12.4%, $\chi^2 = 46.01$, $p < 0.001$). A similar pattern is reported in other studies. Hanvoravongchai *et al.* (2000) found that nearly all of their studied samples with caesarean births were urban women. Building upon the previous findings from Husrst and Summey (1984)'s study on birth and social class, Liamputtong (2005) described the urban–rural differential of Thai childbirth is that the rural women, who are usually poor, have fewer choices of where they can give birth, the type of doctors they can see, and the hospitals that cater for their needs. As such, they are not the physician's target of the caesarean sections as compared to the urban, middle-class women (Liamputtong 2005: 262).

5.4 Postpartum Care

This section comprises two sub-sections. The first sub-section presents the pattern of postpartum care with respect to women's location of residence. The second sub-section focuses on the results of the determinant analysis of postpartum care utilisation.

5.4.1 The Pattern of Postpartum Care

While the level of antenatal care utilisation reported by the ECODDF is high, the use of postpartum care is less common. Approximately one-fifth of women in urban areas and about one-third of women in rural areas did not have any postpartum examination with healthcare providers (Table 5-4). The variation of the women's residential areas is statistically significant ($\chi^2 = 13.74$, $p < 0.001$). Nonetheless, it should be noted that the level of postpartum care coverage shown in this study is captured by a single postpartum visit. It is therefore impossible to compare these figures to those obtained from other government authorities (the Ministry of Public Health and National Statistic Office). The percentages of postpartum service

utilisation published by the Department of Health were evaluated based on the Ministry of Public Health recommendation of two postpartum visits for those receiving obstetric care from the public health facilities only (Bureau of Health Service System Development 2003). According to the government records, 43.2 per cent of women did not have two postpartum visits in 2003. The percentage had declined to 38.7 per cent in 2006 (Division of Reproductive Health 2006).

In terms of the place of postpartum examination, the vast majority of women had postpartum check-ups at government health facilities. The proportion of women who received a postpartum examination at home is very small (2%). Similar to the pattern of delivery care, urban women were more likely to use the postpartum care services from private health facilities. This difference is statistically significant ($\chi^2 = 62.81$, $p < 0.001$). A further investigation of linkage between place of delivery care and place of postpartum care reveals that there is a considerable degree of continuity in the choice between public and private facilities. As shown in Table 5-5 the majority of women who delivered at government health facilities also had postpartum check-ups at government facilities. This proportion, however, significantly dropped to 39.2 per cent among those who chose private facilities for delivery. Based on the information obtained from fieldwork and other studies, a possible explanation is that many government obstetricians work part-time at private facilities (Whittaker 1996; Hanvoravongchai, Letiendumrong et al. 2000). There is thus a choice for women to have postpartum care services either at the private or public health outlets.

Table 5-4 Healthcare during the postpartum period by residence

	Urban		Rural		Total		χ^2
	No.	Per cent	No.	Per cent	No.	Per cent	
Utilisation of postpartum check-up	291	80.6	651	70.5	942	73.3	13.74***
Place of check-up							62.81***
Home	6	2.1	13	2.0	19	2.0	
Government Facility	195	67.2	571	88.0	776	81.6	
Private facility	89	30.7	65	10.0	154	16.4	
Type of professional							40.01***
Doctor	241	83.1	413	63.6	654	69.6	
Nurse	35	12.1	123	19.0	158	16.8	
Health officer	14	4.8	113	17.4	127	13.5	
Timing of visit							3.53
Within 4 weeks	206	72.3	443	67.3	639	68.9	
5–6 weeks	50	17.5	148	23.0	198	21.3	
More than 6 weeks	29	10.2	62	9.6	91	9.8	
Total number of women	362		927		1289		

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

Seven out of ten women received postpartum check-ups from doctors (Table 5-4). The proportion of women who visited doctors is significantly higher in the urban area compared with the rural area, whereas the proportion of women in the rural area who received services from health officers is three times higher than that of the urban area ($\chi^2 = 40.01$, $p < 0.001$). Among women who had postpartum care, the majority of visits occurred within four weeks after delivery with an average of 2.9 weeks (SD = 1.24). The proportions of women who received the postpartum service later than six weeks are relatively small at 10.2 per cent and 9.6 per cent for urban women and rural women, respectively.

Table 5-5 Place of postpartum care versus place of delivery care

Place of postpartum check-up	Place of delivery (per cent)			
	Home	Government facility	Private facility	All
Home	15.4	1.9	0.0	2.0
Government facility	84.6	84.9	60.8	81.6
Private facility	0.0	13.2	39.2	16.4
Total number of postpartum users	26	782	130	938

Source: ECODDF Survey Data

5.4.2 Determinants of Postpartum Care in Thailand

This analysis of the determinants of postpartum care is not intended to test any formal theory of health-seeking behaviour. The selection of the predictor variables to be included in the list for bivariate test prior to the regression analysis is largely based on the literature and the availability of the proxy variable (see also Section 4.4.4). Two important variables, i.e. quality of obstetric care and women's autonomy in the family, cannot be sufficiently determined from the available ECODDF variables, therefore they were excluded from the bivariate and subsequent analyses. Tables 5-6 to 5.9 summarise the results of the bivariate analysis of explanatory variables on the utilisation of postpartum service. Note that the results of bivariate tests suggest a trend and relationship between two variables only. The results are more suggestive than conclusive due to the fact that the relationships do not control for potential confounding variables. As such, when there appears to be a contradiction between the results from bivariate analyses and logistic regression analysis, more confidence is generally given to the results of logistic regression as potential confounding variables have been controlled for (Letamo and Rakgoasi 2003).

5.4.2.1 Individual Characteristics

The effect of the women's individual characteristics on their health-care-seeking behaviour during pregnancy and postpartum period is evident in most of the existing studies. In terms of age, it has been well-documented that the women's age plays an important role in the utilisation of medical (Fosu 1994; cited in Elo 1992; Chakraborty, Islam et al. 2002) and postpartum care services (Obermeyer 1993; Letamo and Rakgoasi 2003; Anson 2004; Haque 2009). Younger women tend to seek modern healthcare due to their higher opportunity of being exposed to education and knowledge of modern healthcare. As such, they are likely to place more value on modern medicine (Chakraborty, Islam et al. 2002: 495). In this study, the results from the bivariate analysis do not clearly show any pattern of postpartum service utilisation for different age groups. The pattern of postpartum utilisation varies positively with the mother's age ($\chi^2 = 8.33$, $p < 0.05$). The percentage of women who did not have any postpartum examination was highest (38.9%) for the youngest group (15–19 years) and lowest (17.8%) for the oldest group (40–49 years) (see Table 5-6).

Education is one of the most significant determinants of healthcare utilisation. A number of studies with different populations and settings share a similar finding: that educated women tend to have greater awareness of the existence of maternal healthcare services and benefits in using such services (Bhatia and Cleland 1995; Raghupathy 1996; Anson 2004; Kabakian-Khasholian and Campbell 2005; Koblinsky 2005; Nabukera, Witte et al. 2006; Kurtz Landy, Sword et al. 2008). Education modifies the women's attitude, belief and perception toward childbirth and maternity services (Elo 1992). It also empowers the women's decision-making capability, as well as the changes in their marriage and childbearing patterns (Chakraborty, Islam et al. 2002). With skills acquired from schooling, these women are more likely to be able to handle the communication with the healthcare providers and request the services that they themselves and their babies need (Navaneetham and Dharmalingam 2002). The current study supports the previous finding of a positive association between the education level and the postpartum service use ($\chi^2 = 50.04$, $p < 0.001$). The percentage of women who did not utilise the postpartum

Table 5-6 Utilisation of postpartum service by individual characteristics

Variables	Categories	Sample size	Per cent
Age	15–19	33	61.1
	20–29	449	72.0
	30–39	400	74.9
	40–49	60	82.2
	χ^2_{**}	8.33	
Education level	< 6 years	168	60.6
	6–9 years	551	73.4
	10–15 years	159	83.7
	16 years and above	64	95.5
	χ^2_{***}	50.04	
Parity	1 or 2	405	79.6
	3	489	70.9
	4 or more	47	55.3
	χ^2_{***}	26.37	
Working status	Not working	132	65.7
	Working	810	74.7
	χ^2_{**}	7.10	

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

service ranges from 40 per cent for women with some primary education to 4.5 per cent for those with higher education.

Several studies have suggested a strong negative association between the number of children and the use of healthcare services (Hulsey, Laken et al. 2000; Chakraborty, Islam et al. 2003; Annet 2004; Fikree, Ali et al. 2004; Kabakian-Khasholian and Campbell 2005). Bhatia and Cleland (1995) found that women with lower parity are more likely to seek postpartum services due to their inexperience with the postpartum period that might engender a greater sense of anxiety and fear. Wong *et al.* (1987) have also noted that having more children can create resource constraints

and thereby impede the use of the healthcare service. The current study observes, as the literature suggests, that the pattern of postpartum service utilisation also varies greatly and negatively with the women's parity ($\chi^2 = 27.24, p < 0.001$). As the number of children increases, the utilisation of postpartum service decreases. Approximately 80 per cent of the first-time mothers utilised the postpartum service, compared to 55.3 per cent of women with four children or more.

It has also been shown that working mothers are more likely than non-working mothers to take advantage of modern healthcare services (Navaneetham and Dharmalingam 2002). Working women tend to also have a certain level of control over the household resources as well as freedom of movement outside their household, which enables them to gain more knowledge about pregnancy and childbirth and to obtain information on the services available for pregnancy care (Navaneetham and Dharmalingam 2002). In this study, the bivariate effect of the working status on the women's postpartum service use is statistically significant ($\chi^2 = 7.10, p < 0.05$). The level of postpartum service use is 74.7 per cent among working women, compared to 65.7 per cent among non-working women.

In terms of marital status and religion (not shown in Table 5-6), the results from bivariate tests show that there is no association between marital status and women's postpartum service use ($\chi^2 = 7.10, p = 0.63$), or between religion and women's postpartum service use ($\chi^2 = 2.30, p = 0.37$).

5.4.2.2 Motivation and Perceived Need for Postpartum Care Services

Women who plan to get pregnant tend to be more motivated to take better care of themselves, thereby enhancing the propensity to seek healthcare services compared with those with unplanned pregnancy (Raghupathy 1997; Chakraborty, Islam et al. 2003). Hulseley *et al.* (2001), however, revealed an inconsistent finding: that pregnancy intention has no implication on the women's postpartum service use. The result from our bivariate analysis shows that the intention of pregnancy, either the husband's or the wife's, is positively associated with the use of postpartum services ($\chi^2 = 11.92, p < 0.001$). Seventy-five per cent of the planned mothers utilised the

Table 5-7 Utilisation of postpartum service by motivation or need for service use

Variables	Categories	Sample size	Per cent
Intention of pregnancy	No	201	65.7
	Yes	741	75.7
	χ^2 ***	11.92	
Living with mother	No	627	71.4
	Yes	315	77.4
	χ^2 **	5.09	
Method of delivery	Vaginal	758	71.0
	C-section	184	84.8
	χ^2 ***	17.45	
Antenatal visit	No	29	50.0
	Yes	913	74.3
	χ^2 ***	16.76	
Place of delivery	Home	26	34.7
	Government facility	784	75.0
	Private facility	132	80.5
	χ^2 ***	62.96	

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

postpartum service, compared to 65.7 per cent for the unplanned mothers (see Table 5-7).

Most quantitative studies suggest that the women who live with their mothers tend to adhere more to the traditional postpartum beliefs and practices (Geçkil, Sahin et al. 2009), thereby undermining their likelihood to seek postpartum services (Sai and Measham 1992; Fikree, Ali et al. 2004; Lubbock and Stephenson 2008). Sai and Measham (1992) have found that the women's mothers or mothers-in-law generally believe that the maternal services are inappropriate or irrelevant and this greatly influences women's perceptions and utilisation of care (cited in Lubbock and Stephenson 2008: 76). However, the results of the bivariate analysis in the current

study reveal an inverse relationship between living with mother and the postpartum service use ($\chi^2= 5.09$, $p < 0.05$), echoing a Chinese study of Anson (2004). The level of postpartum service utilisation is slightly higher among women who live with their mothers (77.4% versus 71.4%).

The current study uses the mode of delivery as a proxy for the need of postpartum care services. According to Sword (2009), there has been, thus far, no study that examines the impact of the delivery method on postpartum service use (2009: 2). Women with operative delivery, i.e. caesarean section, are expected to be more likely to seek postpartum care services than those with vaginal deliveries, due to the higher likelihood of uterine infection, obstetrical surgical wound complications and thromboembolic conditions (Lydon-Rochelle, Holt et al. 2000; Sword, Watt et al. 2009). The chi-square test shows that a higher proportion of women reporting a caesarean section use postpartum care services compared to those with vaginal birth (84.8 per cent versus 71.0 per cent) and that the effect of the delivery methods on the use of postpartum care is statistically significant ($\chi^2= 17.45$, $p < 0.001$).

The receipt of antenatal care is widely reported as one of the positive predictors of the postpartum service use (Kogan, Leary et al. 1990; York, Tulman et al. 2000; Chakraborty, Islam et al. 2002; Lu and Prentice 2002; Annet 2004). The literature suggests that with adequate information provided during the antenatal visits, women would become more aware of health problems and the existence of the postpartum services, thereby increasing the likelihood of service use. York *et al.* (2000) found that inadequate or absence of prior antenatal care can significantly lower the levels of women's attendance at postpartum clinics. As shown in Table 5-7, three out of four women with prior antenatal care utilise the postpartum services, compared to only 50 per cent for those otherwise ($\chi^2= 16.76$, $p < 0.001$).

The place of delivery is another significant predictor of the utilisation of postpartum care services. Several studies have observed that having a delivery at a health facility provides another opportunity for healthcare provider to disseminate knowledge and explain the benefit of postpartum care services and to encourage the women's use (Belizan, Barros et al. 1995; Ransjo-Arvidson, Chintu et al. 1998). In this study, the outcome of the bivariate test indicates that the place of delivery greatly affects the women's use of postpartum services ($\chi^2= 62.96$, $p < 0.001$). More than 75 per cent of

women with hospital delivery had postpartum services, compared to 34.7 per cent for the women with home delivery. The probability of postpartum care service use is also affected by the type of hospital. Women having a delivery at private hospital are more likely to use postpartum care services compared with those delivering at public hospitals (80.5% versus 75.0%).

5.4.2.3 Service Accessibility

Three variables regarding the accessibility of services are examined in this study to see the influence upon the utilisation of postpartum services among Thai women. The first variable is the economic status, which characterises the women's ability to pay for healthcare services. It has been shown in literature that women from wealthier families are more likely to seek healthcare services from medical professionals (Chakraborty, Islam et al. 2002; Anson 2004; Haque 2009). The current study regards the monthly household income as a proxy for the economic

Table 5-8 Utilisation of postpartum services by service accessibility

Variables	Categories	No. of samples	Per cent
Monthly household income (bahts)	0-9,999	800	72.5
	<20,000	87	77.0
	20,000 +	34	91.9
	χ^2 **	7.67	
Location of residence	Urban	291	80.6
	Rural	651	69.1
	χ^2 ***	13.68	
Eligibility for health insurance	None	349	70.1
	Partial	132	78.6
	Full	461	74.4
	χ^2 *	5.37	

Source: ECODDF Survey Data

Note: *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

status. The results are in line with the previous studies, indicating that the use of postpartum services varies positively with the monthly household income ($\chi^2 = 7.67$, $p < 0.05$). Just eight per cent of women with family income higher than 20,000 baht per month did not receive postpartum care, compared with 27.5 per cent for those with household income less than 10,000 baht per month (see Table 5-8).

Location of residence (i.e. rural or urban area) is another direct and physical measure of accessibility. It can reflect not only the pattern of economic development, but the distribution of healthcare services within the region (Elo 1992; Anson 2004). Women residing in the urban areas generally have better and more access to health facilities compared with those in rural areas (Wong, Popkin et al. 1987; Bhatia and Cleland 1995: 130; Chakraborty, Islam et al. 2002: 499; Mekonnen and Mekonnen 2002; Annet 2004; Alexandre, Saint-Jean et al. 2005; Mustafizur Rahman 2009). The chi-square test results of the current study indicate that the utilisation of postpartum services is strongly associated with the women's place of residence ($\chi^2 = 13.68$, $p < 0.001$). One out of three women in the rural area did not receive any postpartum examination, compared to one out of five for the urban area.

In addition to the economic status and the location of residence, it has been shown in the literature that having health insurance also influences the women's decision on utilising the maternal health service (Wong, Popkin et al. 1987; Campbell, Mitchell et al. 1995; Ciceklioglu, Soyer et al. 2005; Sharad Kumar and Vong-Ek 2009). Having insurance coverage was found to be associated with the increase in the number of modern healthcare visits and the decrease in the number of traditional care visits (Wong, Popkin et al. 1987: 935). In the study of Ellencweig *et al.* (1993), the coverage of health insurance has been noted to also increase the frequency of antenatal visits among Jerusalem women. The bivariate test results in this study show that the use of postpartum care services varies slightly with the eligibility for health insurance ($\chi^2 = 5.37$, $p < 0.01$). The percentage of women having postpartum care services varies from 70.1 per cent for women without insurance to 78.6 per cent for women with partial insurance coverage. However, with full insurance coverage the percentage of women having postpartum services is only 74.4 per cent.

The interaction of the postpartum service utilisation with the individual characteristics, service accessibility, and motivation or need to utilise postpartum

care services are assessed using logistic regression. All statistically significant variables that have been previously identified from the bivariate analysis are included in the model. As their influences appeared in studies on maternity service use (Letamo and Rakgoasi 2003; Sharad Kumar and Vong-Ek 2009), interaction terms between age and parity were included into the model building process. However, they were left out because they had no significant contribution to the model (as measured by Hosmer and Lemeshow chi-square) (Kleinbaum 1994; Nuwaha and Amooti-kaguna 1999) (See Appendix 5-1 for the results of interaction terms).⁴⁵

5.4.2.4 Logistic Regression Analysis

The results of the logistic regression analysis via the backward stepwise method are illustrated in Table 5-9. The factors describing the likelihood of postpartum service utilisation include the maternal age, level of education, monthly household income, pregnancy order, working status, place of residence, living arrangement (with/without mother), pregnancy intention and place of delivery. Pair-wise correlation and values of tolerance and variance inflation factor (VIF) indicate that there is no multi-collinearity problem in our logistic regression analysis (See Appendix 5-2).

From Table 5-9, it is seen that the women with a higher level of education and lower order of pregnancy are more likely to use postpartum services. The effect of education is significant; the women with the highest level of education (16 years +) were found to have 9.27 times the odds of those with less than six years of education. Likewise, the independent effect of parity is also significant. The women with three children were less likely to utilise the postpartum services. The odds ratio indicates that having three children decreases the likelihood of postpartum services use by 0.9

⁴⁵ Although the odds of the interaction terms between age and parity suggest that higher parity could discourage older women to utilise postpartum service, they were not statistically significant. In this interaction model, the independent effect of mother's age also becomes less powerful and p-value for the Hosmer and Lemeshow chi-square, which is 0.147, suggests problems concerning the fit of our model.

times. Although not statistically significant, having four children or more shows a consistent pattern of impact on the postpartum service use. In terms of the mother's age, women with higher age tend to use postpartum care services more than those with younger age. The odds of women aged from 20 to 29 years utilising the postpartum services is twice as high as that of ages 15 to 19 years, and even higher for women aged 30 to 39 years and 40 to 45 years. In terms of monthly household income, it is seen that the odds ratio increases with the level of household income; that is, the lower the household income, the less likely the women are to use the postpartum care services. However, with the significance level of 0.1, the household income does not much affect the likelihood of postpartum service use. It is also seen that women are more likely to utilise the postpartum services if they are working, living in urban area or with their mothers.

Intention of pregnancy seems significant in influencing the women's postpartum service use. The comparison between women who intended and did not intend to get pregnant reveals that the odds of those who intentionally became pregnant utilising the postpartum service is 1.5 times the odds of those with unplanned pregnancy. Place of delivery also significantly affects the likelihood of postpartum service use. Having an institutional delivery increases the likelihood of utilising postpartum care services by 4.53–4.69 times. Compared with the results from the previous bivariate test, the odds ratio for private facilities is slightly lower than that for public facilities.

Despite the high level of significance for antenatal care and the method of delivery found in the bivariate analyses, it is surprising to see that neither of these variables shows implications on the use of postpartum care services in the logistic model. Furthermore, the independent effect of the insurance coverage, which is used as one of the proxies for service accessibility, seems to have no effect on the women's use of postpartum care services.

Table 5-9 Parameter estimates, standard errors and odds ratios obtained from the logistic regression models to measure the women's individual characteristics and maternal care variables on the utilisation of postpartum care service

Variables		Odds ratio (Exp(B))	Estimate (B)	SE
Age	15-19	1	0	
	20-29	2.05	0.72**	0.31
	30-39	3.66	1.30***	0.33
	40-49	8.86	2.18***	0.50
Education level	< 6 years	1	0	
	6-9 years	1.93	0.66***	0.19
	10-15 years	3.11	1.13***	0.27
	16+ years	9.27	2.23***	0.68
Monthly Household income	0-9,999	0.62	-0.48*	0.26
	10,000-19,999	0.92	-0.09	0.25
	20,000 and higher	1	0	
Pregnancy order	1 & 2	1	0	
	3	0.92	-0.53***	0.01
	4 & more	0.62	-0.38	0.29
Working status	Not working	1	0	
	Working	1.69	0.52**	0.18
Location of residence	Urban	1.54	0.44**	0.18
	Rural	1	0	
Living with mothers	No	1	0	
	Yes	1.35	0.30**	0.16
Intention of pregnancy	No	1	0	
	Yes	1.50	0.40***	0.16
Place of delivery	Home	1	0	
	Government facility	4.69	1.55***	0.28
	Private facility	4.53	1.51***	0.36
Intercept			-2.68***	0.54

Note:(1)*** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

(2)The model accounts for 16.5 per cent of the variances in the postpartum service use. The Hosmer and Lemeshow Chi-square is 12.085 and the significance value is 0.207. According to Canchola *et al.* (2003), the p-value ≥ 0.20 indicates a good model fit (the closer to 1.00, the better). Thus, it can be concluded that our model to measure the effect of various variables for postpartum service is a good-fit.

5.5 Discussions and Summary

This chapter examines the patterns of maternity and postpartum service use as well as the determinants of postpartum care service utilisation for Thai women. Thailand is one of the few developing countries which attains a remarkably high rate of antenatal care coverage as well as a high percentage of childbirth attended by health professionals (Thailand Ministry of Public Health 2003; Thailand MDGs Report 2004; UNDP 2005; WHO 2007). This clearly indicates that Thai women are well aware of the importance of pregnancy and obstetric care. Women's preference for institutional delivery reported in the ECODDF survey data confirms the result of the previous studies that childbirth in Thailand is highly medicalised (Knodel, Chayovan et al. 1990; Hanvoravongchai, Letiendumrong et al. 2000; Liamputtong 2007; Poulsen 2007).

Despite the high percentages of antenatal and delivery care service utilisation, the postpartum care service is still under-utilised. The statistics indicate that 26.7 per cent of Thai women did not receive any postpartum care service. A series of bivariate and multivariate analyses on the determinants of postpartum service utilisation reveal that the women with fewer children, higher level of education and working status are more likely to utilise the postpartum care services. Furthermore, it is found, in contrast with previous studies (Obermeyer 1993; Bhatia and Cleland 1995; Islam and Ahmed 1998; Chakraborty, Islam et al. 2003), that the mother's age is positively associated with the use of postpartum services; that is, the mothers with higher age are more likely to seek postpartum care services. The difference between the findings of the current and the previous studies may be partly due to the variation of the pattern of marriage and childbearing across populations and settings. The 2000 census shows that the mean of Thai women's age at their first marriage was 24 years, a rise by 4.8 years over the past two decades (Montgomery, Cheung et al. 1988; Chayovan and Tsuya 2003). This age is relatively high, compared with those in between 18 and 19 years in the studies of India and Bangladesh (Bhatia and Cleland 1995; Islam and Ahmed 1998; Chakraborty, Islam et al. 2003). With the association of low parity, this could be one of the possible explanations for the higher likelihood of postpartum service utilisation among the older-age mothers. In addition, since the mothers' age is known to be associated with an increased chance of pregnancy complications and postpartum morbidities (de Graft-Johnson 1994; Uzma,

Underwood et al. 1999; McGovern, Dowd et al. 2006; Sharma, Sawangdee et al. 2007; Khoshnood, Bouvier-Colle et al. 2008; Sharad Kumar and Vong-Ek 2009), older mothers could become more anxious, thus encouraging them to seek postpartum care services.

Among the factors related to the accessibility of service, the location of residence and the monthly household income have been identified as strong predictors for the utilisation of postpartum care services. The results of this study suggest an existing inequality of postpartum service access between women residing in the urban and the rural areas as well as between the poor and the middle-class to the rich. Even though many studies have also suggested the influences of various community-level factors (e.g. distance of village from the health facility, ratios of doctor/nurse to population, level of health information dissemination in the village, average household income in the village, percentage of villagers with low level of education) on the accessibility of maternity services and women's healthcare seeking behaviour (Pebbley, Goldman et al. 1996; Gresenz, Stockdale et al. 2000; Stephenson and Tsui 2002; Sharad Kumar and Vong-Ek 2009: 120), these factors cannot be analysed in the current study due to the limitation of the variables available. Nonetheless, the non-significant association between location of residence and uses of antenatal and obstetric care services suggest looking at other aspects of service accessibility such as type and quality of service in health facility, which may also have significant influence on the women's use of postpartum care services.

In terms of the health insurance coverage, the result of the bivariate test has shown that the women's use of postpartum services is slightly impacted by whether or not they are insured. The logistic regression analysis, however, has not detected any significant association with the health insurance coverage on the use of postpartum care services. This may be due to the fairly even distribution of the variable across the categories investigated.

The place of delivery is observed as one of the most significant attributors of the postpartum service utilisation. The current study has found, in line with the previous studies (Bhatia and Cleland 1995; Hove, Siziya et al. 1999), that the likelihood of postpartum care utilisation is higher for women who had an institutional delivery, compared with those who had a home delivery. The effect of the hospital types on

the use of postpartum care services is, however, inconclusive. The outcome of the logistic regression model shows a lower impact on the postpartum-care-seeking behaviour for those having private hospital delivery than those having public hospital delivery.

It is very interesting to see that the logistic regression model also does not show any significant impact of the use of antenatal services and the method of delivery on the utilisation of postpartum services. A possible explanation for the low level of association between the utilisation of antenatal and postpartum services is the positive association between the intention of pregnancy and the use of postpartum care services in which the women who intended to get pregnant are more likely to also be self-concerned over their health, in addition to their foetuses/babies. Inadequate information regarding the postpartum care service during the antenatal visits may also be taken as another possible explanation for the insignificant association. For the method of delivery, its absence is of significance in the logistic regression model and it may share a similar reason to that of the health insurance coverage, in which the data variation across categories is negligible.

Even though we have identified from our quantitative study a set of factors, along with the corresponding levels of significance, that affect the use of postpartum care services, many other variables are yet to be explored. For example, women's attitudes and perceptions towards postpartum care services, or being given an appointment by the medical professionals, may impact upon the decisions to seek care (Bhatia and Cleland 1995; Kabakian-Khasholian, Campbell et al. 2000; Titaley, Dibley et al. 2009). The women's perceptions of postpartum healthcare and the related services which are generally constructed through social and cultural norms also warrant the necessity of the qualitative study in the following chapter.

Chapter 6

Using Postpartum Care Services: Experiences and Perspectives of

Kanchanaburi Women

6.1 Introduction

This chapter begins with a description of women's individual characteristics and health behaviours prior to pregnancy and the patterns of their use of antenatal and delivery services (Section 6.2). This is followed by a discussion of their prenatal intentions compared with their actual healthcare seeking behaviour during the postpartum period (Section 6.3). This chapter then presents the qualitative findings, which provide in-depth insight into and understanding of the factors that influence the use of postpartum services by Thai women and presents the prospective qualitative analyses (Section 6.4). Barriers and facilitators to the use of postpartum care services that emerged from the interviews are also highlighted. In the final section (Section 6.5), the chapter discusses the roots and causes of the women's perceptions of postpartum services, including a consideration of the relationship between women and their healthcare providers.

6.2 Women in the Study: Description of Pregnancy-related Behaviours

This description of women's pregnancy-related behaviours is based mainly on interview data, with some validation from data included in the KDSS longitudinal

survey dataset (Round 5/2004), and a survey on migration and health in Kanchanaburi Province, which was carried out in 2006 as part of the KDSS project.

6.2.1 Individual Characteristics

Women in the study ranged in age from 14 to 38 years, with an average of 25.9 years ($N = 43$, $SD = 6.3$) (Table 6-1). Education is grouped according to the highest level completed, and all women in the study had some formal education. A little over half (53.5%) of the studied women had left school after completing primary education (Grade 6). This figure is relatively high compared with the 2007 Thailand Multiple Indicator Cluster Surveys (MICS) that reported that just 28 per cent of girls did not enrol for secondary education (Cheunwattana 1999; 2007). Just over a third (34.9%) of women had finished the national basic education of six years of primary education, three years of lower secondary education, and three years of upper secondary education (Thailand Education Council 2004). Higher education was very rare among the women in the study; only one woman had completed a university degree.⁴⁶

Based on the prenatal interviews, the vast majority (95.3%) of women co-resided with a partner (26.8% married, 73.2% de facto). A change of marital status after childbirth was reported by one woman, who had separated from her partner in the first week postpartum. The median reported age at marriage was 20.0 years (mean = 19.6, $SD = 3.5$). About half of women in the study were first-time mothers. The majority of the multiparous women had one or two children. None of the women in the study reported dead children or stillbirths.⁴⁷

⁴⁶ The statistics of enrolment and completion of higher education for women in Thailand in 2000 are 4.87 per cent and 3.41 per cent, respectively (Thailand National Statistic Office 2000).

⁴⁷ There might be a chance of under-reporting of dead children or stillbirths. To minimise this, the study triangulated information obtained from interviews with the history of pregnancy as it appeared in the KDSS longitudinal survey data (Round 5/2004).

The majority of women in the study (86%) had worked, of whom 37.8 per cent stopped working due to pregnancy. Seventeen women (39.5%) worked in the agricultural sector, 13 women (30.2%) were involved in trading and services (vegetable trading, alterations and housekeeping services), and seven women (16.3%) worked for private employers in the formal and informal sectors. The remaining six women were housewives (3), students (2), and looking for a job (1). Nearly all (93%) of the women lived in the rural areas (Sethaput 2005).⁴⁸ About 60 per cent resided in two-tier families, where married children and spouses live with the parents and grandchildren within the same household. Twelve women (27.9%) resided in cluster families, where married children built their houses in the same compound or in an area adjacent either to the parents' or parents-in-law's house. The nuclear family was the least common type of living arrangement among the studied women with just six women (14%) reporting living with their spouses and children only. All women had health insurance; thirty-eight women (88.4%) were insured by the government's universal insurance (all maternity services are free-of-charge), whereas the remaining five women (11.6%) were covered by the Social Security Scheme by themselves or through their husband. The majority of women lived in families with low household income.⁴⁹

⁴⁸ The distribution of the studied samples by the location of residence is compared with that of the KDSS longitudinal survey data (Round 5/2004). Eighty per cent of the KDSS population resided in rural areas, whereas the rest lived in urban or semi-urban areas. See Sethaput (2005).

⁴⁹ See the definition of poor household in Chapter 4, Section 4.1 of the ECODDF women's characteristics.

Table 6-1 Key characteristics of the studied women (N= 43)

Characteristics	Categories	Number
Age (years)	<20	8
	20–29	21
	30–39	14
Religion	Buddhist	43
Educational level	Primary	23
	Secondary	15
	Diploma/vocational	4
	Higher education	1
Marital status	During pregnancy	
	Living together	41
	Separated	2
	After childbirth	
	Living together	40
	Separated	3
Age at marriage	<20	20
	20+	23
Parity (excluding the current pregnancy)	0	21
	1	15
	2	6
	4	1
Occupation	Agriculture	17
	Trader and service	13
	Employee	7
	Other	6
Family structure	Nuclear	6
	Cluster/two tiers	37
Location of residence	Urban	3
	Rural	40
Type of health insurance coverage	Universal insurance	38
	Social Security Scheme	5
Monthly household income	<9,999 Baht	34
	10,000-19,999 Baht	4
	20,000 Baht and more	5

6.2.2 Health Behaviour prior to and during Pregnancy and Delivery

The KDSS population has been described as a “controlled fertility society” (Thongthai 2005: 67).⁵⁰ The total fertility rate (TFR) of the whole province (Census 2000)⁵¹, which is identical to that of the KDSS (Round 5/2004), is at the replacement level of 2.02 children per woman (Thongthai 2005).

Of the 43 women in the study, 90.7 per cent reported use of at least one modern contraceptive method at some time before the current pregnancy (Table 6-2), with oral contraceptive pills being the most popular (59.1%). Although awareness of pregnancy prevention is high among women in the study, many women reported unintentional pregnancies.⁵² Twenty-two women reported their current pregnancies as unplanned, five women reported that they had had prior unplanned pregnancies, and sixteen women in this group (72%) became pregnant while using contraception.

⁵⁰ Controlled fertility is the opposite of natural fertility. In natural fertility, marriage is universal and there is no interference (family planning) on fertility after marriage (Thongthai 2005: 67).

⁵¹ Kanchanaburi. Thailand at a Glance. The ESCAP Population Data Sheet.

<http://www.unescap.org/esid/psis/population/database/thailanddata/central/kanchanaburi.htm>, Accessed on 19 October 2009.

⁵² The information is omitted as being beyond the objective of this thesis. For further discussion, see W. Pothisiri, (2008). ““Why am I Pregnant?”: Unplanned Pregnancies and Contraceptive Use among Thai Rural Mothers.” A paper presented at the International Seminar on Interrelationships between contraception, unintended pregnancy and induced abortion, Addis Ababa, Ethiopia, 1–3 December, 2008. <http://www.iussp.org/members/restricted/publications/Addis08/programme08.php>, Accessed on 13 October 2009.

Table 6-2 Reported pregnancy intention and use of family planning prior to the current pregnancy (N= 43)

Behaviour/Types of service	Categories	Percent
Current pregnancy planned?	Yes	48.8
	No	52.1
Ever use of contraception	Yes	90.7
	No	9.3
Type of last birth control method*	Pills	59.1
	Injectables	4.5
	Condom	9.1
	Calendar method	4.5
	No	22.7

Note: * The calculation included only the women who indicated that they did not want the indexed pregnancy.

6.2.2.1 Antenatal Care

Antenatal care is as an essential public health intervention to improve pregnancy outcomes (Sword 2003; Rosenberg, Handler et al. 2007), which was reflected in this study in high levels of women's awareness and use of antenatal care. All the women in the study sought antenatal care (Table 6-3), 23 women (53%) initiated the antenatal care before twelve weeks gestation and 34 women (79.1%) completed four antenatal visits as suggested in the government's antenatal care standard (Bureau of Health Service System Development 2003). The average number of antenatal visits is 8.7 (SD = 2.9). Most women (86.0%) attended government antenatal clinics, the remainder using private clinics. Excluding women who had had tetanus shots within the preceding five years, all received two doses of tetanus toxoid at antenatal clinics. Twenty-six women (60.5%) had at least one ultrasound scan.⁵³ Nine women (20.9%)

⁵³ Most of the health centres do not have an ultrasound machine. For a low-risk pregnancy, women who sought antenatal care at health centres are generally referred to a networked hospital once to see

Table 6-3 Reported health behaviour during pregnancy (N= 43)

Types of service	Categories	Percent
Any antenatal visit		100.0
	Initiation before 12 weeks	53.5
Completed four visits		79.1
	First visit (0-27 weeks)	93.0
	Second visit (28-31 weeks)	95.3
	Third visit (32-35 weeks)	90.7
	Fourth visit (36 weeks +)	88.4
Two doses of TT		100.0*
Ultrasound scan		60.5
Hospital admission		20.9

Note: * The calculation excluded the women who reportedly had TT vaccine within 5 years prior to the current pregnancy.

reported hospital admission during pregnancy due to motorcycle accident, high fever and severe morning sickness.

This limited sample suggests no association between pregnancy intention and the use of antenatal care, in line with previous research (Sable, Stockbauer et al. 1990; Sable and Wilkinson 1998). Six women with unplanned pregnancies who reported considering an abortion ultimately had more than four antenatal visits. Although they were indecisive about abortion at the time of first antenatal visit, these women mentioned that they sought antenatal care in order to prevent a negative birth outcome if their final decision was to keep the pregnancy.

an obstetrician and to receive the ultrasound scan. However, the referral is optional, women can choose if they would like to go to hospital for this service.

6.2.2.2 Delivery Care

All women in the study had a government facility-based delivery, except one who delivered at home but was assisted by a nurse-midwife from a nearby health centre to deliver the placenta and cut the cord (see Table 6-4).⁵⁴ Even though six women (14%) sought antenatal care from obstetricians at private clinics, the births took place at government hospitals, where the private obstetricians also worked. The majority of women had normal labour (81.4%), although only 16 per cent reported spontaneous labour.⁵⁵ Episiotomy was reported as a common practice. All 35 women with vaginal birth reported having undergone episiotomy. The use of absorbable sutures was reported. Six women (14%) delivered by caesarean section and two (4.7%) by forceps. For those who underwent caesarean section, the reasons included: previous experience of caesarean section (n=1); mal-presentation, obstructed labour and foetal

Table 6-4 Reported place of delivery, delivery method and postpartum sterilisation (N= 43)

Obstetric care	Categories	Percent
Place of delivery	Hospital	97.7
	Home	2.3
Delivery method	Vaginal	81.4
	Caesarean section	14.0
	Forceps	4.6
Postpartum sterilisation	Yes	30.2
	No	69.8

⁵⁴ This woman was pregnant with her fifth child. The previous three pregnancies (2nd–4th) also took place at home. The woman was transferred to the district hospital within half an hour after the delivery of placenta. She reportedly had excessive bleeding, while the newborn, weighing 2.090 kg, had a breathing problem.

⁵⁵ Where neither oxytocin injection nor natural technique by breaking water (or stripping of the membranes) were used to induce the labour.

distress (n=3); and elective caesarean section (n=2) following obstetrician's advice (see Chapter 8 for further discussion). Thirteen women (30.2%) underwent postpartum sterilisation, half of them citing the recent experience of unplanned pregnancy as the main reason. All had two or more children (including the infant), except one who decided to undertake the operation due to the healthcare provider's advice.

6.3 Utilisation of Postpartum Care Services: The Reported Numbers

This section presents results from analysis of the interview transcripts and comprises two sub-sections. The first sub-section presents women's knowledge of postpartum care services and their prenatal intentions to use postpartum services. The second sub-section describes women's actual postpartum service usage.

6.3.1 Prenatal Knowledge and Intention to Use the Service

In the prenatal interviews, only two women (4.7%), one primiparous and the other multiparous, spontaneously mentioned postpartum care services before the researcher asked probing questions. Thirty-eight women (88.4%) reported that they had heard of the postpartum services in response to a directed question. Four out of the five women who had never heard of the postpartum service were first-time mothers. Multiple sources of information about postpartum services were referred to. All of the multiparous women cited their previous childbirth; however, only two reported attendance at postpartum clinics following a previous birth. For the primiparous women, social networks (i.e., female siblings and neighbours) were identified as the key sources of information. Information from the healthcare providers was obtained indirectly, from overhearing the providers' conversations with other women. The women were also asked for their views on the significance of the postpartum care services. Regardless of their prior knowledge or childbirth experience, all of the studied women considered that seeing a healthcare provider after childbirth was beneficial to their uterine health.

Hove *et al.* (1999) and Makumbe (2001) indicate in their Zimbabwean studies that women's knowledge and positive views on postpartum care services are of prime importance to the decision to use postpartum services. However, in the current study it appeared that having knowledge as well as positive perception did not tally with the intention to use the postpartum care service. Of the 43 women interviewed, a little over half (51.2%) intended to seek postpartum care services from health care providers, while 38 per cent reported that they would have postpartum care based on certain pre-conditions, for example, if they received an appointment, if their mother had ever had the check-up, or if there was something wrong. Five women (11.6%) reported that they would not have the postpartum check-up, all of these were multiparous women who had never attended the postpartum clinic before (Figure 6-1). We will see in the following section that even though many women did not plan to attend postpartum clinic, some actually did. In contrast, some who planned to attend the clinic did not in fact do so.

6.3.2 Postpartum Clinic Visits

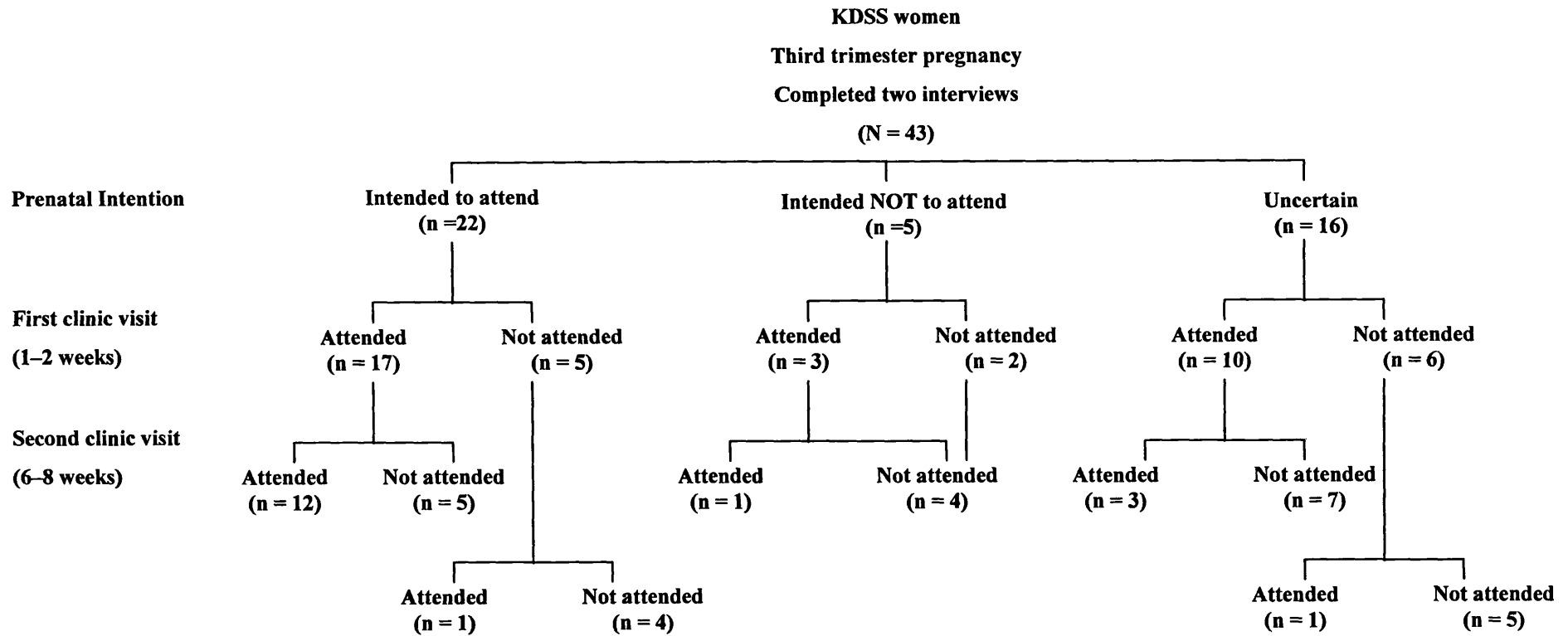
Nearly three quarters (74.5%) of the women reported at least one postpartum clinic visit (Table 6-5), and the vast majority of these (93.8%) sought a postpartum check-up in the first or second week after discharge from hospital. The remaining two women sought services in their sixth week postpartum. Half of the women who had a first-week clinic visit reported a second postpartum check-up in the following four to five weeks. Those women who had private antenatal care also had private postpartum care following a first-week postpartum service from the hospital where their childbirth took place (see Section 7.2.1 for more discussion). Only 16 women (37.2%) completed two postpartum visits as recommended by the government (Division of Reproductive Health 2006). that of the mothers.

Table 6-5 Reported postpartum clinic visits (N= 43)

Postpartum care	Categories	Number	Percent
Number of clinic visit	0	11	25.6
	1	12	27.9
	2	15	34.9
	3 or more	5	11.7
Timing of visit	Within 1–2 weeks	30	69.8
	Within 6–8 weeks	18	41.9
	Completed two postpartum visits	16	37.2
Reported type of professional*	Obstetrician	4	18.2
	Nurse	18	81.8
Place of check-up*	Government Facility	30	100.0
	Private facility	1	5.6

Note: * The calculation excluded eleven women who did not visit postpartum clinic.

Figure 6-1 Summary of prenatal intention and actual behaviour based on the Government's recommendation of two postpartum visits



6.4 Factors Influencing the Use of Postpartum Services

Two universal themes—the content of postpartum services and the postpartum service delivery system—recurrently emerged in both the prenatal and the follow-up interviews. The following sub-sections detail the results within each theme. Quotes were extracted from the interviews to offer examples and to explain the circumstances and experiences of the women studied. Table 6-6 summarises themes and frequencies of women's responses. To ensure women's anonymity, individual Thai names quoted or referred to are not their real names. Direct quotations are as close as possible to the women's exact words and paraphrasing is avoided (Yimyam 1997).

6.4.1 Content of Postpartum Services

Throughout the pre- and post-delivery discussions, three interwoven categories regarding postpartum service content emerged, in which barriers and facilitators to service use were identified. The first and most prominent category to emerge was women's perceptions related to cervical cancer screening tests. Unsurprisingly, the women's narratives revealed different levels of knowledge of postpartum health and healthcare services between those with and without prior childbirth experience. Even though the primiparous women were less ambivalent in the postpartum interviews than in the prenatal interviews, since it was their first experience of childbirth and postpartum these women were still less able to articulate their experience compared with the multiparous women. Despite this, it was apparent that in terms of the perceptions of the postpartum services there was no difference between the primiparous and the multiparous women, either in the prenatal interviews or the postpartum interviews.

Women perceived postpartum services based on their own and other people's experience and understanding of cancer screening, rather than seeing it as an evaluation of post-pregnancy health. The women referred to postpartum services as an internal examination with *taeng-lek* (literally means a metal stick). For many

Table 6-6 Summary of themes and frequencies of women's responses (N = 43)

Universal Themes	Prenatal responses	Postpartum responses
I. Content of Postpartum Care Services		
a) Postpartum care service = Cancer screening test	27	39
b) Postpartum check-up is unnecessary for c-section mothers	3	8
c) Perception of postpartum care services related to family planning	2	4
II. Postpartum Service Delivery System		
d) Appointment scheduling system	11	35
e) General service delivery system	0	5
Postpartum Themes		
III. Encounters with healthcare providers		
f) Labour experience		6
g) Communication style		25
h) Different places, different powers		7
i) Consistency of information and practice		4
IV. Decision-making process themes		
j) Unforeseen events		5
k) Weighing up pros and cons for themselves and the babies		11
l) "Just love yourself"		4

women, the use of the metal stick (or a speculum in medical context) was thought to allow the doctor or nurse to actually see inside and diagnose the presence of cancer immediately. This belief was confirmed by the immediate absence of the test result. As one primiparous woman, Wanna, commented:

...if we had cancer, the doctor would let us know immediately after testing. If no cancer, they wouldn't tell the result. [Case7:PR18, postpartum interview]

Although many women were told to wait for the result notification by mail, they tended to view that as because of the long queue rather than involving a laboratory test.

The doctor said three months...probably because of the long queue...she didn't give the result right away. She said if there was something wrong she would send a letter. [Case9:PR16, postpartum interview]

The interviews revealed that the women's common notion of postpartum service as an exercise in cancer screening can facilitate and impede the seeking of postpartum care. Prior to the interviews, just six of the sample women reported ever having a cervical cancer screening test⁵⁶, despite national efforts to increase uptake of cervical screening using the Pap test (Division of Reproductive Health 2006; Sriamporn, Khuhaprema et al. 2006). In Thailand, despite the government's great effort to reduce the incidence of cervical cancer (19.5 per 100,000 in 2003), there has been no organised programme for screening for cervical cancer. In 2002, the Department of Medical Services proposed the 5-yearly intervals screening of women in the ages of 35 to 60 years (Sriamporn, Khuhaprema et al. 2006). However, it was observed from many leaflets and documents distributed by both the government and public hospitals, as well as from the women's narratives, that women were encouraged to go for the Pap test every year. Many women considered favourably the idea of a one-time examination that could cover two purposes – cervical screening and postpartum examination. In many women's prenatal dialogues concerning their intentions to use postpartum care services, giving birth was perceived as an opportunity to have the Pap test. For example, one multiparous woman who last had a Pap test six years previously illustrates the dual motivation:

[H]aving to go frequently for check-ups, I won't. But this time, I'll go as I'll also give birth. [Case14:MR28, prenatal interview].

Women reiterated the advantage of using the postpartum services in the sense of killing two birds with one stone in that they faced discomfort and embarrassment only once but obtained both the postpartum uterus examination and the cancer screening test:

It's good to do it all in one time, to be shy and hurt one time...*Anamai* (health centre) has a project to examine cancer every year. The doctors came to our village but I had never gone...I took this opportunity to have the exam. Then I needn't see them again when they come next year. [Case11:MR31, prenatal interview].

⁵⁶ All were multiparous. Five out of six had the Pap-test more than five years ago.

Not all of the women's narratives indicated that the notion of having the Pap test facilitated their use of the postpartum service, however. The association of postpartum examinations with a Pap test could also cause delay in seeking postpartum services. Due to the government's strong information campaign, a mobile Pap test programme has been set up to increase the coverage of women in rural areas (Swaddiwudhipong, Chaovakiratipong et al. 1999; Boonmongkon, Nichter et al. 2001). As such, some women considered it was unnecessary to go for a postpartum examination at a specific time because they could also have the same test when the mobile unit came to their villages. As one woman, who had intended to use postpartum care services yet had not sought the service at the time of the postpartum interview, explained:

I didn't go back. Actually, we can have the test when the doctors come to our village. They will come soon, they come every year. We don't need to be examined only after delivery. [Case45:MR35, postpartum interview].

While the major perception of the postpartum care service revolves around the internal examination for cervical cancer, the second category that emerged was linked to the perceptions about the relevance of postpartum services for women who had caesarean sections. From the prenatal interview, Sinjai's experiences, who had previously had a caesarean section, revealed that she considered the postpartum services were not for women who had caesarean sections:

It is for women who labour through vagina. Mine was an operation, cutting through the belly. It didn't involve the uterus... [Case8:MR27, postpartum interview].

This notion resonated in the postpartum discussions with many women who had a caesarean section. These women considered that the need to see the healthcare providers after childbirth was just to check whether the incision wound was infected and to remove the stitches. All of the six women who had caesarean section in the current study sought postpartum care within the first week after hospital discharge expressly for these purposes. It is not surprising that none of these women re-visited the health facility in the sixth week postpartum, which tends to be scheduled for internal examinations.

Women's understandings of the content of postpartum services differed according to the method of delivery. In prenatal narratives, only five women referred to wound

examination as part of the postpartum service, in addition to the cancer screening. This is because most women do not know what their final delivery method will be, in addition to limited knowledge about possible obstetric interventions. The incision examination for episiotomy and caesarean section became apparent in the women's discussion of their childbirth and postpartum experiences, yet it was recognised as the follow-up examination of the incision operation rather than a part of the postpartum examinations following a delivery. Nonetheless, it was found to increase the likelihood of the postpartum service utilisation, especially among women who prenatally reported they did not intend to use postpartum services. Three out of five women had modified their intention and attended the postpartum clinic in order to receive wound checks.

The final category to emerge related to postpartum care service content was that of family planning. Low levels of information about the content of the postpartum service was identified as a barrier to use of the service. Reflected in their narratives, two primiparous women came to realise at the point of the postpartum visit that the postpartum service also included family planning, as one woman recounted what the nurse told her at the postpartum clinic:

I didn't know that I had to have birth control. The nurse came to tell me to sit on the bed and wait for the contraceptive shot. [Case9:PR16, postpartum interview].

There appeared to be little (if any) counselling for family planning and some women appeared to have no alternative or chance to refuse, but could only accept the offered contraception. The case of Nong-nuch can be taken in point. Her reasons for not seeking postpartum services included the embarrassment of the internal examination, combined with her prior experience of the postpartum services from a previous pregnancy:

After delivering my daughter, I went to the postpartum clinic. The nurse gave me an injection which I didn't like...[Did they inform you before giving injection?].... yes, they told me the pill would make me short of breast milk. And they had only the pill and the injectable. So this time I didn't go... [Case40:MR38, postpartum interview].

The findings related to limited information suggest poor quality of postpartum services being offered to women in the study, echoing findings in other studies

(Glazener, Abdalla et al. 1995; Chakraborty, Islam et al. 2002; Annet 2004; Shakuntala, Poonam Varma et al. 2006).

6.4.2 Postpartum Service Delivery System

Two categories emerged from the interviews in relation to the postpartum service delivery with respect to its impact on actual service use; the appointment scheduling system and the general health service delivery system.

6.4.2.1 Appointment Scheduling System

In discussing their experiences, women identified several issues regarding the appointment scheduling system that acted as barriers and facilitators to service use. In general, each woman should receive a “Pink booklet”, the maternal and child booklet, from the healthcare provider at the point of hospital discharge. The Pink booklet is usually pre-completed with appointments for the mother and the newborn. Different hospitals have different appointment strategies. For example, at one hospital, the cover of the booklet had two different coloured labels, noting dates and purposes of the appointments for the mother and the newborn. For another hospital, the cover had attached a large white sticker, showing dates and information on key activities, i.e., parental classes and postpartum clinics the mother was required to attend.⁵⁷

Kabakian-Khasholian and Campbell (2005) show that scheduled appointments are keys to increase the use of postpartum services among Lebanese women. In this study, the strategy of using pre-booked appointments was seen favourably by women in reminding them to seek the services, thereby fostering the likelihood of the service use. One woman, for example, showed us her Pink booklet, explaining:

⁵⁷ All of the women were asked for their permission for the researchers to see the information and records contained in their Pink Book and in some cases to take photographs.

Here, the doctor stapled the cards, saying when we had to see them...good, they informed [us] everything...vaccine for the baby and postpartum exam, as well as birth control. So we just followed the appointments. [Case14:MR29, postpartum interview].

Conversely, the appointment strategy was also identified by some women as obstructive to service use. The absence of notification of the appointment led the women to understand that they might not need the postpartum service. For instance, two women indicated that they were verbally informed during the hospital stay and again before the hospital discharge to return for the wound and postpartum examinations. Without any written appointments, neither of them returned for postpartum service. One woman commented that to give information corresponding to the patient's condition was just a general practice of the healthcare providers and had no particular application to her. Another woman, on the other hand, believed that the nurse might think that her health was already in shape so that she might not need to return for any examination. The first woman mentioned that:

No appointment card, how could we go...we may not need to go back...They [health providers] just informed us as a duty as they thought we were postpartum women...[Case15:MR31, postpartum interview].

It is worth noting that the covers of these two women's Pink booklets had appointment cards. However, the appointment dates were incomplete (they were left blank). This was seen by the women as meaning that the lack of the appointment card to affirm their service slot when they arrive at the clinic meant that they did not need postpartum care service.

Nonetheless, having certain appointments does not always mean that the women will definitely show up. In many cases, women said that they simply forgot the appointments. In their discussions, rearrangement of appointments was another issue identified by the women as a barrier to service use. Some women were unsure what to do in order to schedule the appointment again, while the others were very confident that the missed appointment could not be re-scheduled, "missed is missed" [Case35:PR24]. When asked why they thought it was impossible to make another appointment with the postpartum clinic, it was consistently mentioned that they were frightened of being asked for the reason they had missed the previous appointment. Linked to this was a concern that they would be treated discourteously as a result of

having missed the previous appointment. Individual circumstances could sometimes overcome the issues of missed appointments. For example, one woman indicated that despite missing the appointment, she could still have an examination with the healthcare provider because she was her cousin, as she remarked that “she said whenever I have time, I can just go see her” [Case27:MR23, postpartum interview].

6.4.2.2 General Service Delivery System

The service delivery system was identified as both facilitating and impeding the use of the service directly and indirectly. Based on the women’s narratives and from our observation, the lack of specific information on the location of postpartum services meant that women were unsure where they could actually receive the postpartum service. Many women claimed that the healthcare provider’s words were that “we can go to any places [health facilities]...If we are convenient and close to a hospital, then go to the hospital” [Case3:MR37, postpartum interview]. For some women, no particular specification of the health outlet encouraged them to use the service, as it was flexible and responsive to their day-to-day situation. One woman said, “on the appointment day I had to do something in the city so that I bypassed *Anamai* (health centre) and dropped by the hospital for the exam” [Case3:MR37, postpartum interview]. However, this was not the case for the majority of women.

In reality, women who used the government universal health insurance were unlikely to bypass the health centre to go to the hospital, even if the service was unavailable at the health centre. The second-hand experiences of friends and family members being refused service were spoken of by some of the women as the cause of them feeling hesitancy and thereby missing the appointment. As one multiparous woman said, “[T]hey (health providers) said to the girl [living] over there: this [the health centre] is not in your area, go back to the health centre in your area” [Case10:MR30, postpartum interview].

Variation in operating hours from one health facility to another was also identified as an obstacle. One woman spoke of going for postpartum services as taking a risk as to

whether or not the facility she chose to visit offered the postpartum examination and whether the service was available on the day she visited.

I tried going to [name of a health facility out of her residence area]. I didn't know if they had [postpartum examination]. Luckily, a doctor was there. She told me it wasn't the day for the postpartum clinic and contraception. But as I came already she then gave me the examination. So I was examined. [Case33:PR17, postpartum interview].

6.4.3 Encounters with Healthcare Providers

Four categories emerged in relation to the theme dealing with encounters with healthcare providers: (1) the labour experience; (2) communication styles; (3) different places, different power; and (4) consistency of information and practice.

6.4.3.1 The Labour Experience

The likelihood of use of postpartum service was found to be undermined through the recent experience of “a fateful moment” (Giddens 1991: 143; cited in Liamputtong 2005). Being disregarded by nurses during labour had altered two mothers' prenatal intention to use the postpartum service as well as health services in general. Feeling disregarded was interpreted negatively by women. One young primiparous woman narrated that during her labour:

I really wanted to push but they kept saying that it wasn't time yet. Why? I was in labour, why didn't you just let me push?...Frankly speaking, I was very dissatisfied...I don't want to go back and next time if I am pregnant I will labour at home. [Case29:PR19, postpartum interview]

In Manee's narrative, the lack of attention from the healthcare provider, together with the feeling of being shown disrespect verbally during the labour process were identified as barriers for her to return for postpartum services:

...The nurse didn't pay attention to me at all, leaving me alone. She was in another room. I was about to give birth. I couldn't hold on anymore, had to push. Then I pushed, only three times and the baby came out! Suddenly, the nurse turned to see me, she rushed to my bed and said, “Who asked you to push? You let yourself push so I should let you sew the wound

yourself?”...Oh, [I] couldn’t believe she said this to me... I will not go back to the hospital unless I am ill seriously...I am afraid that I might see this nurse again...It’s terrible. [Case19:MR30, postpartum interview]

Manee has been a village health volunteer (VHV) for many years. She worked for the hospital where she delivered to promote positive health behaviours in her village. It is worth noting that her postpartum intention not to seek postpartum care was a result of the very recent, negative labour experience. However, her role as the VHV might have changed her intention to seek healthcare services in the future.

6.4.3.2 Communication Styles

Healthcare providers’ actions, such as disrupting conversations and raised voices in public, were referred to by the women as making them feel disrespected. As a result they wanted to avoid further interaction, thereby hindering future service use, paralleling findings in other studies (Carboon 1999; Bennett, Switzer et al. 2006; Schmied, Cooke et al. 2008). One woman, Malee, who had intended to use postpartum services, and subsequently did use them, recalled an encounter with the healthcare provider:

Anamai [health centre] had no postpartum examination so I went to the hospital with Pin, my cousin, instead. She had just had a baby too...the nurse, she was in a very bad mood. She ran amok on Pin, yelling at her like why she polished her nails, sort of...She was also mad at me, scolding why I was standing there...oh, we are human beings too, we understand [human words]. [She] could have talked to us nicely. [Case11:MR31, postpartum interview]

In her statement, Malee also expressed her feelings about the sense of humiliation and insults she and her cousin had received. With all of these sensations, Malee ended her story by saying, “If I knew I would encounter this, I would definitely not have gone”.

Women also spoke of implicit threats in the healthcare provider’s advice which, in some cases, caused them fear and anxiety and thus constituted another barrier to service use. One young woman recounted a nurse telling her, “[D]on’t [use] *Yuu-fai* [or] hot bag. No *ya-dong*. None of these. You will see I won’t treat you if something

happens to you”, which led to, “I didn’t return. I would be badly scolded if she saw my black tummy” [Case1:PR18, postpartum interview].⁵⁸

In contrast, women commented favourably on healthcare providers who had a good sense of humour and gave the information in such a way that women felt comfortable and well-treated. As one woman recounted her experience with a nurse in the postpartum ward:

She was funny. I liked her. She had never scolded me...she asked me if I knew when I could start sleeping with my husband. I said six months, so she said, “Don’t you feel pity on your hubby, do you?”... She said one and a half months, that was enough and told me to come back for postpartum examination. [Case8:PR16, postpartum interview].

The women were also pleased when the healthcare providers gave information of interest and expressed their concern through simple words:

...the nursing students were so nice and helpful...they ran in and out most of the time, to help the nurses and to take care of us. They were always asking how I felt, was I hurting? They also told us what we could and couldn’t do. [Case45:MR35, postpartum interview]

In women’s opinions, polite ways of interaction represented the healthcare provider’s attentiveness and willingness to provide care. In comparing her encounter with a physician and a nurse, one woman remarked: “oh...he was a head doctor but he talked to me politely...asking me how I felt. He took very good care of us. So unlike those doctors (nurses)...who are always very stern” [Case11:MR31, postpartum interview].⁵⁹

⁵⁸ A symptom of skin burning injury as a result of excessive heat exposure. All of the women who practised *Yuu-fai*, and some with hot bag or charcoal belt practices, experienced the injury, yet none felt worried because the black skin would gradually peel off.

⁵⁹ In the rural areas, people generally referred to a nurse as a “doctor” and a physician in a higher position as a “head doctor”.

6.4.3.3 Different Places, Different Powers

Postpartum home visits were valued⁶⁰, and women who received a home visit commented favourably on the different treatment and attentiveness they received from the healthcare providers at home and at the health facility. According to the concept of social territory by Fiedler (1996), different physical and social environments lead to contrasting paradigms of care. This is evident in the narratives of women who contrast their experience at the health facility setting with that at home:

[A]t the hospital, to ask them is like we plead to them. But when they come to see us at home, it's much better as it's like they intend to see us, to spend time with us. Oh, it's so much different, in terms of feeling. [Case14:MR28, postpartum interview].

Since the provision of information was one-to-one and in a private and more relaxed setting, women became less passive, and more courageous to ask questions: "It's very good. I could ask what I wanted to know, whether about myself or the baby's belly button" [Case32:PR23, postpartum interview]. Consequently, the connection between the woman and the healthcare provider was better established, which resulted in less hesitancy to seek healthcare:

For some women, the feeling of hesitancy that delays the appropriate action may become less or disappear as a result of a home visit and, in turn, promote the likelihood of service use (Kogan, Leary et al. 1990; Serwint, Wilson et al. 1991; Fikree, Ali et al. 2004). Yet in the case of Wilai, a mother of two, despite the fact that the home visit increased her satisfaction with the healthcare services, as suggested in the literature (Moore, Ballinger et al. 1974; Gazmararian and Solomon 1997; Lieu, Braveman et al. 2000; Jirojwong, Rossi et al. 2005; Sword, Krueger et al. 2006; Ogbuanu, Jones et al. 2009), she insisted that she would only seek postpartum services if the health problems mentioned by the healthcare provider who visited her at home had occurred. Compared with her strong intention not to seek postpartum healthcare, Wilai's perception of the postpartum services at the follow-up interview

⁶⁰ Of the total of 43 women, eight women (18.6%) were visited by either nurses or public health officers at home. The majority of visits (62.5%) took place within one month after delivery.

had changed to being more receptive: “I’ll definitely go [to see a doctor] if the symptoms like what she [the nurse] told me happen...I know what I have to do” [Case10:MR30, postpartum interview].

6.4.3.4 Consistency of Information and Practice

Information from different healthcare providers about postpartum services was perceived by many women to be contradictory and contributed to their failure to use the service. For example, one multiparous woman compared what she was told by a hospital doctor with the information obtained from a nurse at the health centre:

Doctor P. gave me an appointment. But the nurse at the health centre told me it was unnecessary to go. Just wait to go to the health centre instead. She told me to wait for her call. It’s been more than two months and she hasn’t called. [Case49:PR29, postpartum interview]

Women shared their experience of service use with other postpartum women, and reported differences in the practices of postpartum examination led women to feel doubtful, frustrated and worried, all of which acted as barriers to service use. Hiranya is a mother of two who strongly intended to seek postpartum examination, which for her specifically equated to a Pap test. She reported having attended the sixth-week postpartum clinic but did not receive any physical examination, unlike her neighbour. This most recent experience was similar to what she experienced eight years earlier following the birth of her first child. Hiranya reflected her recent experience of postpartum services that:

[O]thers say it’s a metal stick putting inside the vagina...I didn’t have that, why?...[at *Anamai*] they asked how my wound was. I said it was already good. Then they said that if so, I didn’t need to have any exam...last time was the same. They didn’t do anything for me, just asking...if I knew they would just ask I wouldn’t go. [Case21:MR32, postpartum interview]

The narrative of Hiranya suggests the service being provided did not meet her expectation, which was highly likely to create negative attitudes and undermine her future use of the health service. Makumbe (2001) reported similar findings in which the sample of Zimbabwean women took the view that if the midwives only asked

how they were feeling without providing any physical examination, then “it was...a total waste of time to attend the sixth week postpartum clinic” (2001: 82).

6.4.4 Decision Making Processes Related to Postpartum Service Use

In addition to women’s perceptions about the health service system, three themes relating to their decision-making processes about whether or not to use postpartum services also emerged from the postpartum interviews. These individual-level themes are process-oriented, and by integrating them with perspectives about the health service system, provide further in-depth insights into real-life barriers women experienced in seeking postpartum care services.

6.4.4.1 Unforeseen Events

A theme that emerges from the data is that women’s intentions and behaviours are sensitive to unforeseen events. The women’s narratives reveal an on-going situational evaluation of whether or not to use the postpartum services. For example, Kanya’s decision-making process was affected by her previous experience of postpartum services, when she was given vague instructions and information:

I went to the health centre. The doctor asked if I still had lochia. I wasn’t sure if it was lochia. But anyway, the doctor told me to come back next week. Then on that day, I had menses. I think it was menses. It wasn’t as much as my regular menses. But I didn’t think that the doctor would give me the examination so I didn’t go...we have to evaluate, don’t we? It isn’t like we go ignorantly and gain nothing. [Case14:MR28, postpartum interview]

In contrast, problems with an episiotomy caused Wandee to change her mind and to attend the sixth-week postpartum clinic, which she previously planned to skip:

[My w]ound was not stitched. I went back to the hospital three times for examinations...It was already healed actually, but I decided to go for the postpartum exam to make sure that all were really good indeed. [Case6:PR18, postpartum interview].

Moore and Coty (2006) have noted in their prospective study of breastfeeding that women’s intentions and behaviours could change from day to day depending on their

perception of whether they encountered unforeseen problems or not. Such on-going situational evaluation shows that women's service use is not straightforward. Rather, it is a non-linear process where intricate day-to-day phenomena need to be taken into account in addition to those attributes acting as facilitators and barriers to the service use.

6.4.4.2 Weighing up Pros and Cons

The women's narratives illustrated the rational process of considering both the benefits and disadvantages of using postpartum services. It is congruent to the concept of "decisional balance" developed by Janis and Mann (1997; cited in Sword 2003: 328) in which the decision involves comparison of all potential gains and losses for either the individuals or others. One woman's decision-making processes involved the weighing up of perceived gains and losses of attendance at the postpartum clinic for herself and the baby. In her eyes, the potential gains included the physical recovery of her womb and its subsequent effect on her mental health and the baby's well-being. Her anticipated losses included the likelihood of receiving discourteous care and its subsequent effect on her emotional state. Her conclusion was that the gains would exceed the losses, but for her baby rather than herself:

I wanted to know if my inside was good...[but] I disliked the nurse. I didn't want to go. [I decided] I'd wait until the service for examining uterus came to my village. I'd attend that one instead. But it [the postpartum appointment] was on the same day as the baby's eye and ear examinations, and the vaccination. Then I decided to go. I let my sister bring the baby into the exam room and waited outside. I didn't want to be scolded...I unstapled the appointment card so that the nurse wouldn't ask if I had the exam yet. [Case1:PR18, postpartum interview]

In her narrative we see a clear illustration of weighing up gains and losses, together with the strategy she employed to avoid encountering any anticipated losses.

6.4.4.3 “Just love yourself”

The third process theme to emerge is that of an inherent sense of self, to take care of one’s own health, as one woman described, “just have the examination if you love yourself” [Case3:MR 37]. The statement reflects individual responsibility in order to reduce health hazards. The notion is also evident in another woman’s narrative about her decision to use postpartum services, even though she experienced discouragement from her family and friends:

Others told us not necessary to go [to have exam]. But if we were sick, would those people be sick with us? Of course, no! We, ourselves, would die, but they wouldn’t. [Case3:MR37, postpartum interview]

Sword (2003) has remarked on the use of antenatal care that in the ultimately the women make decisions whether or not to use the service in terms of “taking care of ourselves” (Sword 2003: 330). Following Sword’s line of thought, despite the uniqueness of each woman’s experience and its influence on shaping the woman’s needs and perceptions of postpartum services, individual responsibility is the overarching concept used to describe the basic consideration inherent in making the decision on postpartum service use.

6.5 Discussions and Summary

What can we make of women’s accounts of postpartum service use and perceptions of its use? Two major themes cut across individual-level and health-systems themes. The first is the existence and roots of widely-held perceptions of the equivalence of the postpartum care to a Pap test. The second is the ways in which encounters between service providers and users are critical in determining service (non-)use.

6.5.1 Postpartum care service = Cancer Screening

A key finding to emerge from women’s narratives is the equation of postpartum services with the cervical cancer screening (Pap) test. How did this develop and take

hold? Our observations at different health facilities underline that this is the healthcare providers' explicit messages for postpartum mothers. One nurse, for example, said to a postpartum woman, "[D]on't forget to come back for the *ma-reng* (cancer) examination in one and a half months".⁶¹ There is little room for an alternative interpretation other than promoting the notion of postpartum examination/service as related to the cancer screening test. Boonmongkon *et al.* (2001) have reported a consistent finding that the Pap test was recognised by the north-eastern rural Thai females as a diagnosis for all uterus problems, "not a screening procedure for precursors of cervical cancer" (2001: 1108). The authors also reported that women who sought gynaecological treatment were often recruited for a Pap test without addressing the immediate symptoms with which they had presented for treatment. In their study, 42 per cent of women received a Pap test because of an unspecified uterus problem.

Likewise, the results from our study show that approximately two-thirds of the women who attended the sixth-week postpartum clinic had a Pap test. Of these women, only 30 per cent received any other examinations, e.g., manual vaginal examination (per vagina), abdominal or breast examinations. The remaining one-third of the women were told to come back the following week and left the health facility without any examination. Little information had been given to these women about the conditions necessary for a Pap test, for example, that it could not be conducted if the women had vaginal discharge, i.e., lochia or menstruation. The observation at one health facility in Dan Makem Tei District provides consistent evidence that the women were asked if they still had lochia or whether their menses had returned. If the women were uncertain whether the vaginal fluid was lochia or menses, they were told to come back later. Little further information was given by the healthcare providers, nor did the women ask any questions. This meant that these women left the postpartum services with doubts and worries, echoing the findings of the study by Boonmongkon *et al.* (2001) conducted elsewhere in Thailand.

⁶¹ This excerpt was translated from the field diary for health-facility observation, made on 20 February 2008 at a health centre in Tha Maka District.

Women's narratives revealed that the perception of the Pap test as the postpartum service may be aggravated by their fear of cancer. Women frequently attributed cancer as the final outcome of a "bad" uterus caused by a range of factors, including incompatibility with contraception, overwork and medical operations on the uterus. With regard to childbirth, the women visualised their post-childbirth uterus in various pathological conditions as *mun* (an anthropomorphising term for the pronoun "it") was *aksep* (infected/inflamed), bruised, damp, sloppy, swollen and torn. Feelings of pain at or inside the uterus (*jeb mód loók*) as well as "not normal" inside the body were used to denote the sickness of the uterus. The postpartum uterus was perceived as another possible pathway of gynaecological illness leading to cancer. While the type of cancer was ambiguous and the details of progression of the illness were indeterminate, the illness was perceived as incurable and the progression could be aggravated by other factors including poor hygiene, early resumption of postpartum coitus and strenuous postpartum work. In our study, as in Boonmongkon *et al.* (2001), the fear of dying is paramount, as one woman remarked: "I don't know what [type of] cancer...[w]hatever it is, they are the same, cancer, and cause the same, death" [Case34:MR37]. The evidence suggests that when the women have come to see themselves as at great risk of cancer, fear and worry manifest themselves, possibly leading them to perceive the need for the cancer screening test.

Within the field of cancer research, however, there has been an issue over whether the Pap test is beneficial for postpartum women. A systematic literature review of Levitt *et al.* (2004) demonstrates the high possibility of abnormal Pap smear results among postpartum women due to cervical inflammation. In order to reduce the possibility of abnormal results, Rarick and Tchabo (1994) have suggested that postpartum Pap smears should not be performed until at least six or even eight weeks after delivery. As for most women in general, a postpartum woman should avoid using any vaginal medications and contraception during the 48-hour period before the examination, as well as avoiding having coitus 24 hours preceding the examination (Levitt, Shaw *et al.* 2004; Hasanzadeh and Behtash 2005). Despite the uncertainty of whether opportunistic screening at the sixth to eighth week postpartum visits is of benefit to women, the Pap smear is widely offered to rural postpartum women in our study although, in effect, it acts as a barrier to the use of the postpartum service. Chapter 7 examines in detail Thailand's postpartum service

delivery system, policies and regulation from the perspectives of the healthcare providers. The review uncovers whether the Pap test is specified in Thailand's postpartum service protocol.

6.5.2 Service Encounters: Culture, Power, Relationship and Space

Women commented extensively about their experiences with healthcare providers in a range of encounters. The healthcare provider is widely recognised in the literature as a key factor in the use of health services (Uzma, Underwood et al. 1999; Sword 2003; Lacy, Paulman et al. 2004; Scheppers, van Dongen et al. 2006). There have always been power relations in biomedical encounters and they can be described as "micropolitical situations that parallel relations in society at large" (Waitzkin 1991: cited in Whittaker 2000:118), reflecting and contributing to broader social relations, including social and political-economy power. Whittaker (2000) has demonstrated in her study of traditional postpartum care in Roi-et Province that the difference in social class between villagers and health service staff is considerable. Whittaker observed that staff in health facilities were often from an elite Thai background and looked down upon the village women who did not speak the central/official language. Staff portrayed village women as having poor hygiene and lacking cleanliness, reasons used by the health service staff to blame the women for their ill health. Whittaker concludes that the institutionalised subordination of villagers by the health service was replicated in the bureaucratic culture of Thailand as a whole.

In our study, combining the women's narratives with observations reveals a range of micro-relations of power enacted at the healthcare facilities. Encounters at these facilities mirrored the women's marginal status as passive acceptors of services, placing the healthcare providers in a superior position as a knowing agent. The most extreme situation that tended to be reported by the women was the critical period during labour and delivery, where the women were under the complete control of the medical professionals. They had limited choice and information about the labour process as well as the obstetric interventions being used. Liamputtong (2005) has described the women under this situation as "passive victims" of technocracy. This is revealed in our study in those women who had an episiotomy without any

understanding of its purpose. Similarly, some women indicated that they decided to have a caesarean birth because of the doctor's advice. One woman recounted her conversation with the physician who came to ask whether she would like to give birth at the moment by operation or to wait for more hours, then he could leave for home. The woman looked favourably on her decision to choose caesarean birth:

[o]nly half an hour, I didn't need to wait. The doctor must know the best. If he said it would be a very long time to wait until it [the cervix] was fully dilated, it would be so. [Case35:PR24].

Not only did this woman perceive the caesarean section in a positive light, she also had trust in her doctor that, with the medical knowledge, he would make the best choice for her (Liamputtong 2005).

The women's attitudes towards healthcare providers reveal that their relationship with them is not just individual-to-individual or individual-to-institution. Their attitudes also incorporate Thai rural cultural norms and values, and it is important to consider these in order to contextualise the individual women's narratives of their experiences. Five forms of dominant cultural norms and values in rural Thailand have been identified: respect for elders; loyalty and obedience; the status validation of schooling; indebted goodness, *kreng jai*, to restrain one's desire or interest which could cause conflict or displeasure to others; and respect for people who do good deeds (Suparb 1998). Thai people tend to view bureaucrats favourably, characterising them as well-educated and elite (Dhiravegin 1978; cited in Mulder 2000). These traits are also ascribed to healthcare providers, who tend to be depicted by rural Thais as leading community heroes, honoured with medical titles regardless of their actual level of medical education (Mulder 2000).

Women also perceived healthcare providers to have busy schedules and heavy workloads. This notion, in many cases, led women to respond to the health services they received with gratitude, rather than regarding the receipt of services as being their right. Even though they encountered discourteousness from healthcare providers, women compromised in order to avoid conflict. As one woman remarked:

I saw some patients talking back to the doctor...we don't want to do that actually. They [healthcare providers] already had many patients each day. They must be in a bad mood sometimes. They are like us, having both good and bad moments. [Case18:PR28].

Examining the women's narratives through the lens of the value of *kreng jai*, women do not necessarily perceive their responses as being submissive. Women may withhold their requests for services because they perceive the healthcare providers as being very busy, as one woman mentioned that

I really wanted to ask her [about coitus resumption]. But she was extremely busy, walking in and out. So I didn't ask. I *kreng jai* her. [Case47:PR22].

Not all encounters were passive, particularly when the setting was in a woman's home. In these cases our study reveals a reversal of power, where the interests of women tended to be prioritised. Observations of home visits by the health service staff revealed that they had excellent communication skills and were able to interact with the women in the local dialect. It is apparent in our study, as also evident in the literature, that the patient-centred approach enhances communication (Smith and Hoppe 1991; Dugdale, Epstein et al. 1999), as well as offering the healthcare provider opportunities to promote positive health behaviour.

6.5.3 Summary

Women's sources of information on postpartum services were multiple and varied with their childbirth experience. In contrast to the literature, evidence from our analysis showed that in some cases women's knowledge and attitude might not tally either with their intentions or their actual service use. Some women did not intend to use the postpartum services from the start, while others modified their intention later during the postpartum period.

Several factors suggested in the literature—including beliefs about the traditional confinement, access to health facilities, availability of support, transportation difficulties and male practitioners—do not account significantly for the low use of postpartum services in the current study. All the women reported bringing their babies for eye and ear examinations within the first week, and to receive vaccinations up to two months after birth, respectively. Almost all received help and support from husbands and family members to accompany them and their babies for infant check-up. In addition, the women recognised that the postpartum services were provided by

female practitioners. Similar to the issues commonly identified in the literature, the barriers to the use of postpartum services included embarrassment about being internally examined, the cost of transportation, and negative influence from friends and family, are apparent from our analysis (Uzma, Underwood et al. 1999; Koblinsky 2005; Nabukera, Witte et al. 2006; Moran, Winch et al. 2007; Dhaher, Mikolajczyk et al. 2008). However, they were not fully revealed in the prominent categories.

This study reveals that the use of postpartum services is strongly associated with the women's perception and experiences of postpartum care services and the health service system. Women's narratives about the content of postpartum services and their experiences with the healthcare system have identified several significant barriers and facilitators to the service use. Information about the content, purpose and benefits of the postpartum services, as well as detailed service provision (i.e. place and time of service operation), is incomplete. The prevailing notion that the postpartum service equates with the Pap test has also been further investigated. The analysis of the literature combined with the author's observation data indicates that the healthcare providers' postpartum practices combined with women's fears of cancer were the roots of the notion.

Women's encounters with healthcare providers during labour as well as in the postpartum period to account significantly for their actual usage behaviours. We highlight the missing pieces of the postpartum study by revealing the women's accounts of the critical moment of childbirth, from which there is a clear association between the women's satisfaction of service at delivery and postpartum service use. In many cases and circumstances, experiences with healthcare providers in the women's narratives reflected their marginalised and disempowered position in society (Sword 2003). Positive characteristics of the healthcare providers, including having a good sense of humour, respectful ways of communication, and use of simple language, were also identified by the women. The investigation, from an alternative view, reveals that the relationship between the healthcare providers and the women is not too difficult to establish due to the cultural values of the rural women which cause them to place the healthcare providers in high regard.

Beyond static concepts, the current study has illustrated the process-oriented factors influencing women's decisions about service use. Women's stories revealed an ongoing situational evaluation of whether or not to use the postpartum services. Women evaluated their current situations and modified their intentions accordingly. They weighed the potential gains and losses associated with service use, and the scope of the perceived gains and losses was not limited to women themselves, but also to their infants. Using postpartum services was viewed as a means of taking care of oneself; by enacting what was perceived to be the best choice for them, the women indicated that they essentially loved themselves.

Chapter 7

The Organisation of Postpartum Care Services and Its Influences on the Service Utilisation

7.1 Introduction

In this chapter, we explore the institutional and organisational contexts of postpartum care services in Thailand. The chapter considers how the health system in general and postpartum health services in particular might impact on the uptake of postpartum care by women. It builds on the perspectives elicited from women themselves, presented in the preceding two chapters, and develops a richer understanding of the facilitators and barriers to postpartum care use. This chapter also offers the analyses of interviews with key figures from relevant national and international agencies about their perceptions towards postpartum care as well as the current situation of low postpartum service use. The chapter begins with a description of the maternity services in our study context (Section 7.2), which provides the background for analyses of the postpartum services offered to women in the study. This is followed by discussion of the results from the perspectives of healthcare system (i.e., interviews with the healthcare providers and observations of service delivery in various health facilities) (Section 7.3) and policy actors (Section 7.4). The final section draws together the results and highlights two aspects of postpartum services; the cervical screening Pap test and the home visit programme (Section 7.5).

7.2 Maternity Services in Kanchanaburi Province: Contexts and Choices

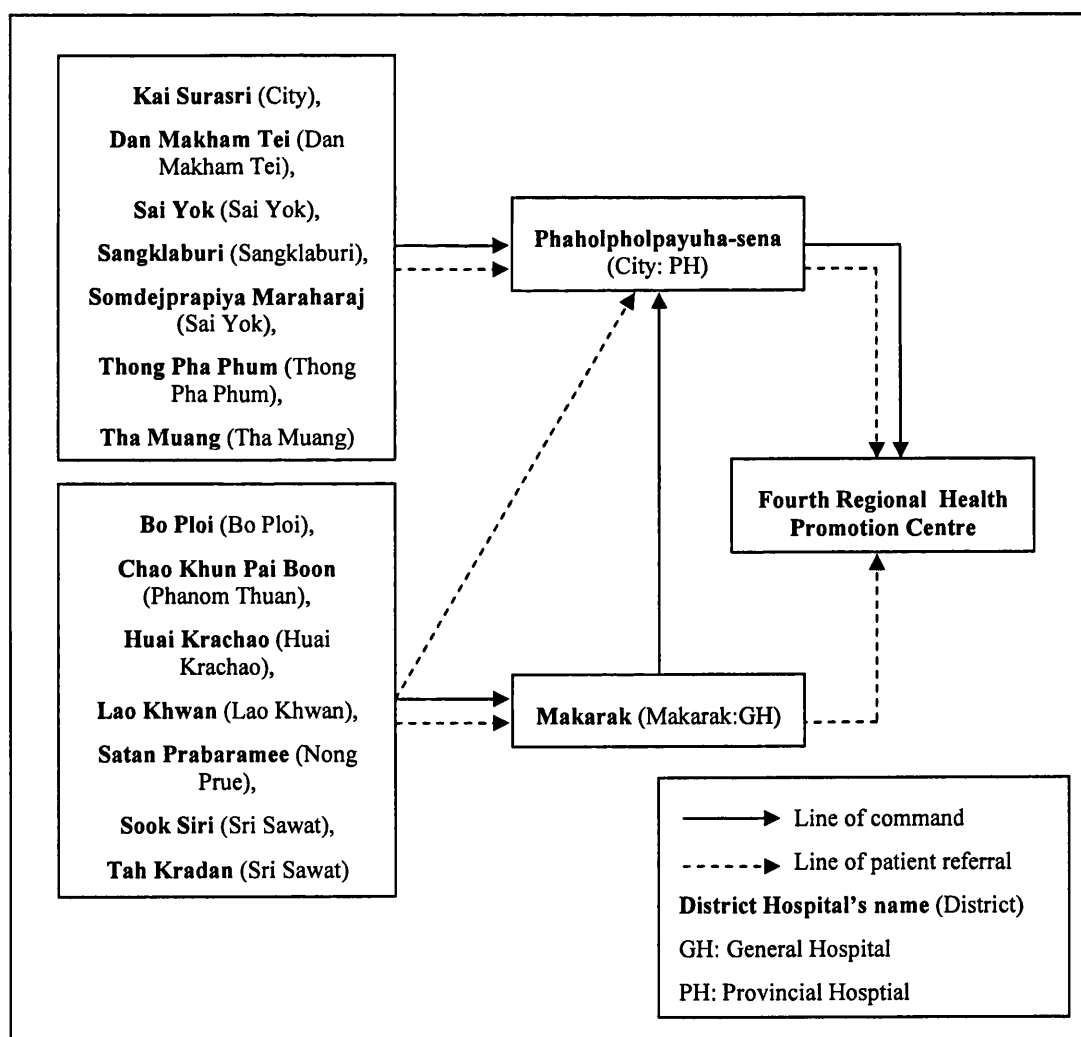
In Kanchanaburi province, as in other provinces across Thailand, maternity services are available at all levels of healthcare facilities (SEARO 2004). In 2008, the majority of Kanchanaburi women (83%) used the public health system for their deliveries.⁶² The public health infrastructure in Kanchanaburi province is organised into thirteen districts in which 143 communities are covered by 145 primary care units (PCUs) or health centres (*sathanii anamai*), 14 district hospitals, one general hospital and one provincial hospital (Kanchanaburi POC 2009).⁶³ The provincial hospital is located in the capital of Kanchanaburi province (*Muang*, literally means a city). Each district has one or two district hospitals, depending on population density (Liabsuetrakul, Peeyanajarassri et al. 2007). At the community level, health centres are responsible for providing healthcare services in communities where the population is less than 5,000 and PCUs for settings where the population is in the range 5,000–10,000. The health centre is usually staffed by one technical nurse, one public health technical officer and one community health officer. The PCUs are staffed by more health personnel, comprising one physician, two registered nurses and other relevant health staff members, such as dental assistant, technical nurse, and public health technical officer (Siriruttanapruk 2006; Hanucharunkul 2007). However, due to the country's shortage of physicians, none of the PCUs in Kanchanaburi province has a permanent medical doctor (Kanchanaburi POC 2009). The PCUs observed in this study each had their own approach to try to resolve the problem of the shortage of physicians. Some PCUs rely on the patient referral system to transfer patients in an emergency condition to a larger health facility. In other PCUs, a rotating system of medical doctors from the district hospital is used to provide essential medical services once a month (Chunharas 2009).

⁶² The information was obtained from the registration of birth place in Kanchanaburi province, collected by the Department of Provincial Administration, Ministry of Interior.

⁶³ Two public health centres are administered by the local administrative organisations.

The health facilities at each administrative level are supervised and supported by the provincial or the district health office and interconnected through a patient referral system. The provincial hospital is supervised and supported by the Fourth Regional Health Promotion Centre, located in Ratchaburi province. In terms of maternity services specifically, the administration and the referral system are illustrated in Figure 7-1. Phaholpolpayuha-sena Hospital (the provincial hospital) and Makarak Hospital (the general hospital) act as the units for contracting, supervising and monitoring the performance of the community hospitals. At the end of 2007, district hospitals generally reported 100–500 births per annum, whereas the general and

Figure 7-1 Administration and infrastructure of the maternity service system in Kanchanaburi province



provincial hospitals have more than 1000 births per annum.⁶⁴

Maternity services are also available at private facilities, which are mostly concentrated in the urban areas of Kanchanaburi province. There are five private hospitals with 24-hour emergency obstetric care and fourteen midwifery clinics. All of the midwifery clinics are owned privately by government health personnel. In the current study, two obstetricians and two registered nurses who were interviewed operated private clinics in conjunction with their public positions.

7.2.1 The Pattern of Maternity Care

Maternity services are free of charge at Thai public health facilities. Nurses (professional nurses/nurse-midwives) are the primary care-givers and are responsible for non-complicated pregnancy, childbirth and postpartum care. However, in some remote and rural areas, services may be provided by technical nurses⁶⁵ or other health officers, such as public health officers, public health technical officers and community health officers.⁶⁶ For non-complicated pregnancies, women may be referred just once to a doctor or obstetrician during antenatal care. Only those women who are identified as having high risk complications would be under the supervision of doctors or obstetricians (Hanvoravongchai, Letiendumrong et al. 2000; Liamputtong 2005).

⁶⁴ The information was obtained from the summary report of the Bureau of Health Promotion, Kanchanaburi Provincial Health Office.

⁶⁵ In Thailand, there are two levels of nursing licences. The first-class licence is issued to a professional nurse who has completed a four-year bachelor's degree of science in nursing programme. The second-class licence is issued to a technical nurse who has completed a two-year nursing programme. At the end of December 2007, the number of registered nurses in Thailand was 122,336 and technical nurses 9391 (Thailand Nursing and Midwifery Council's official website. <http://www.tnc.or.th>. Accessed on 26 April 2010.

⁶⁶ Public health officers are required to complete a two-year programme in public health or Thai traditional medicine. Community health officers are required to complete a bachelor's degree in public health programme, and to be upgraded to a public health technical officer, they must have experience of at least five years and pass the government examination.

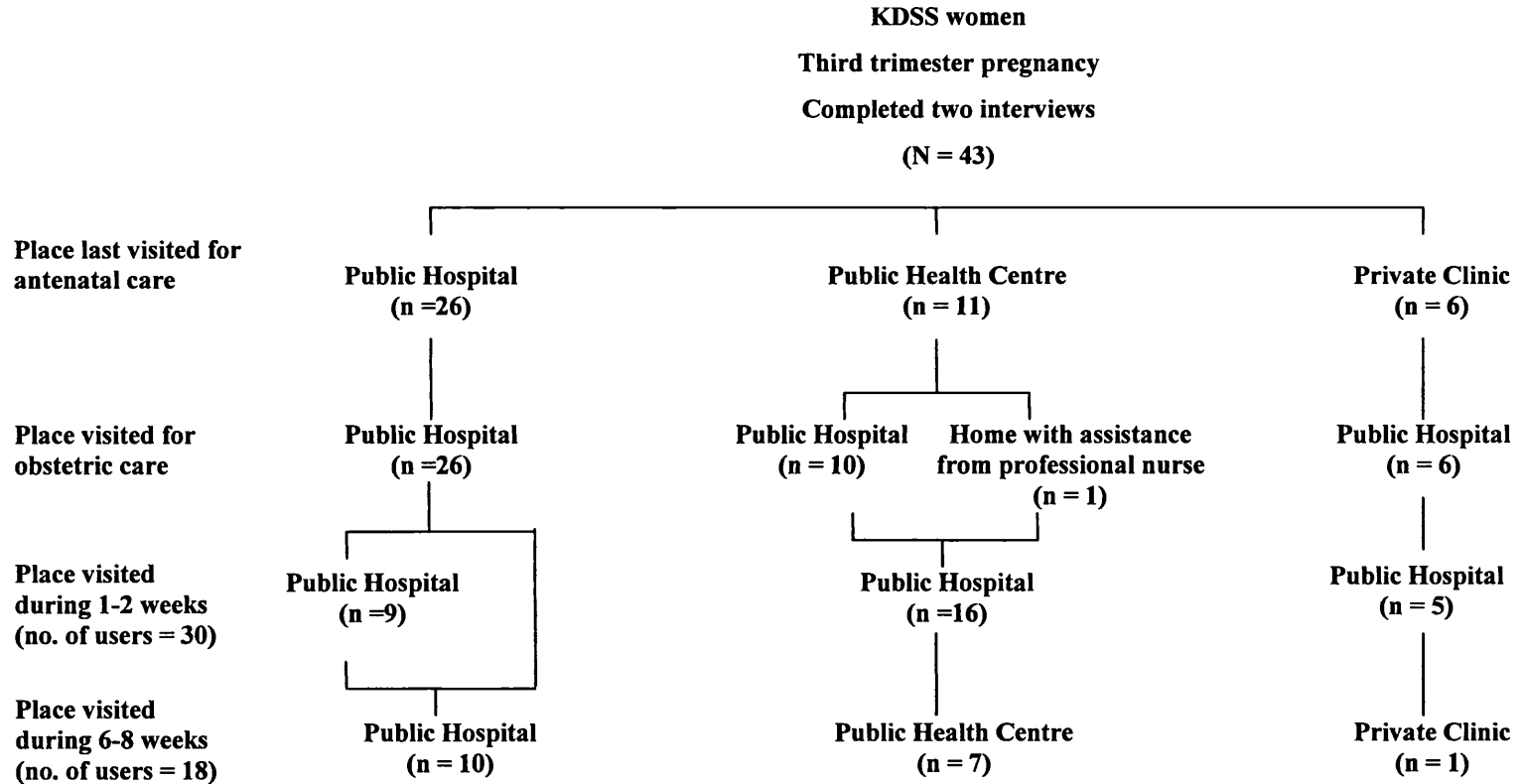
Alternatively, women can choose to have their own government obstetricians at the private clinics. Private antenatal check-ups at private clinics cost 150–200 Thai Baht (GBP3–4). In some cases, women may be asked to visit the obstetrician at the public hospitals, where they work as the medical specialists, if the private clinic does not have sufficient medical equipment, e.g., sonographic instruments. Women who choose to have their own obstetricians may deliver, for additional cost, at a public hospital. Six out of seven of the women in our study who chose private obstetricians reported having paid a “gratitude” fee (approximately 3000–4000 Thai Baht or GBP60–80). As reported elsewhere in Thailand (Hanvoravongchai, Letiendumrong et al. 2000), this fee was not fixed in advance but was described by the women as dependent upon the agreement between her and her obstetrician and the delivery method selected.

In Thailand, there is no regulation that prescribes the length of hospital stay (LOS) after delivery. There is only a single reference in the most recently issued Standard for the Family Bonding Hospital project (2008), stating that the baby should be evaluated for jaundice within 48 hours (Section: Infant Care in Postpartum Ward, p. 20). This implies that the mother and baby are likely to be discharged within 48 hours. In other Thai studies, the length of hospital stay is observed to vary with the delivery method and whether or not postpartum sterilisation has taken place (Liamputtong 2007). With no, or less severe, complications women who have had vaginal births tend to stay in hospital for 48 hours, while those who have undergone caesarean section have longer stays, ranging from four to six days (Kaewsarn, Moyle et al. 2003; Liamputtong 2005; Wuttikonsammakit and Sukcharoen 2006; Prasarnphanich and Somlaw 2007). In the current study, the reported length of stay for the women with vaginal birth ranges from 1.5 to 9 days, with an average of 3.6 days (SD = 1.6, n = 37). The variation of LOS was attributed to levels of patient congestion in the postpartum ward, whether the woman had had postpartum sterilisation and the infant’s health. Two women in the study reported being asked to leave the health facility before 48 hours due to a lack of available beds, while another woman was offered an extended stay even though she reported an uncomplicated normal birth. Nineteen women reported staying longer than 48 hours due to either having been sterilised or because of the infant’s ill-health. The average LOS for the

women with caesarean section was 5.5 days (SD = 1.2, maximum = 7, minimum = 4, n = 6).

Following discharge from hospital, women who had used public antenatal care services are usually advised to return to any convenient health facility one week and six weeks postpartum for routine postpartum services. Women may also be offered a home visit once in the intervening period during the first and the sixth week. Women who had private obstetricians may use public services for the first-week postpartum examinations and private services for the sixth-week postpartum check-ups. Figure 7-2 illustrates the pattern of the maternity service use in this study, showing that the public hospital was identified is the primary destination for the first-week postpartum check-ups for both private and public service users.

Figure 7-2 Summary of the maternity service use by place of visit



7.2.2 Routine Postpartum Services: Content and Uptake

Thailand is similar to many other countries, including Australia, Lebanon and the US, where the documentary evidence regarding the provision of routine postpartum services is scant (Korst, Gregory et al. 2005; Cheng, Fowles et al. 2006; Kabakian-Khasholian, Jurdi et al. 2006; McLachlan, Forster et al. 2008). There are only two pieces of evidence regarding postpartum services. These include the “Pink Booklet”, the mother and child health (MCH) booklet in which the number of postpartum visits and the content requirements of routine visits are listed, and the Manual of Primary Healthcare Standard, where the additional evaluation of mental health is advised to be offered to postpartum women (Bureau of Health Service System Development 2003: 78).

Observations conducted at health facilities suggest that none of the facilities had written documents, clinical practice guidelines or codes of conduct regarding routine postpartum care. All of the interviewed healthcare providers used the women’s Pink booklets to guide their care provision. However, discussions with women clearly demonstrated that the contents of postpartum care listed in the Pink Booklet were not offered universally. Table 7-1 presents the percentage distribution of the postpartum services received by the women studied during the two postpartum visits. Services reported in the table are classified into two groups; the contents listed in the Pink Booklet and other services the women reported having been offered.

Since nearly all of the women in the study used the public health service for delivery and returned for their first-week postpartum check-ups at the public hospitals, the services they reported were quite consistent. The most commonly cited services included the examination of incision wounds (episiotomy, caesarean section and tubal ligation), lochia observation and questioning about the flow of breast milk. However, just two women’s Pink Booklets contained records of their assessments. Of these, one woman reported that she had not been offered a blood pressure examination, but the record showed that she had “normal” blood pressure.

Services provided at the sixth-week visit are more diverse. For example, one-third of the women whose tetanus vaccine course was incomplete were offered the vaccine

Table 7-1 Reported postpartum services

Contents of postpartum services	Percentage of attendants	
	1-2 weeks (n = 30)	6-8 weeks (n = 18)
<u>MCH Booklet:</u>		
Blood pressure	3.3	5.5
Level of uterus	3.3	27.4
Lochia	100.0	100.0
Nipple and breast ^a	3.3	27.4
Flow of breast milk ^a	100.0	66.5
Tetanus vaccination	0.0	35.2 ^b
Recording assessments	6.7	11.6
<u>Other services:</u>		
Temperature measurement	3.3	5.5
Wound examination ^c	100.0	0.0
Scheduled appointment	7.0	39.1
Medication prescription	7.0	0.0
Family planning service	0.0	28.5 ^d
Breastfeeding advice	30.0	28.5
Pelvic examination	0.0	66.5
Pap test	0.0	33.8

Note: a. The women were interviewed only. No physical assessment was provided.

b. The women who received the third shot before delivery were excluded.

c. The service included examination of stitches from episiotomy, c-section and tubal ligation.

d. The service included the supply of contraception. The women who had postpartum sterilisation were excluded.

and 26 per cent reportedly received abdominal examination for uterus involution. All of the attendees reported that they had been interviewed about lochia. None of the women in the current study indicated that they had specific indications for having a Pap smear, e.g. perineal trauma or stress incontinence (Noble 1993), yet all were offered the smear screening test if they indicated discontinuation of lochia.

7.3 Aspects of the Service Delivery System Affecting the Women's Use of Routine Postpartum Services

Interviews with healthcare providers combined with observations in healthcare facilities revealed three attributes of the service delivery system with direct and indirect impact upon women's use of postpartum care services: service environment and accessibility; organisation and administration of services; and service provider characteristics. Several factors from the perspective of the healthcare system echo those elicited from the perspective of individual women. This not only heightens the validity of the study's findings but also provides grounds for identifying what are the most important factors in improving the utilisation of postpartum care services.

The results include examples to illustrate the healthcare providers' points of view and experiences. The quotes are indicated by the healthcare provider number, type of health facility and location of health facility. For example, HP2, District hospital site 1 represents the second healthcare provider interviewed who worked at the district hospital in Lao Kwan District (see the list of sites and characteristics in Appendix 7-1).

7.3.1 Service Accessibility and Environment

Three potential barriers were identified with regard to the physical condition and the environment of health facilities that may hinder women's use of facility-based postpartum services. Firstly, the low levels of information dissemination, with the majority (19 out of 21) not providing any information about their opening hours for postpartum services. Discussions with healthcare providers (HP2, District hospital site 1 and HP15, District hospital site 5) revealed high proportions of women dropping in to hospitals in order to find out where to receive the postpartum check-ups.

All of the public facility-based postpartum clinics operated once a week and no clinics offered postpartum services at weekends. Most of the health centre-based

clinics were operated in the morning (8.30 am–12.00 pm),⁶⁷ whereas all of those based in hospitals were run in the afternoon (1–4 pm). Many studies show that limited and inconvenient service hours are associated with lower likelihood of service use. Makumbe (2001) notes that many Zimbabwean women commented that the schedule of the postpartum clinics did not facilitate visits. Engelman *et al.* (2004) reported that with the limited service hours the women may have to take time off their day time paid work in order to be able to attend the scheduled clinics.

Scheppers *et al.* (2006) suggest the simplest way to lessen the potential impact on the service use is through offering flexible clinic hours. The current study shows that in reality, clinic staff are willing to be flexible. As one hospital nurse reported:

In fact, we've examined all cases, no matter whether they came with or without the appointment card, or had already missed the appointment...those who lived outside our responsible areas, we also gave exams....sometimes, they came while I was running another clinic. I told them to wait. [HP2, District hospital site 1].

The reason she gave for offering this flexibility in service provision was that “they [the postpartum women] already came, how could we refuse giving the service...they wouldn't come back for a second time”. Interestingly, the quote from this hospital nurse reinforces the broad theme previously identified from the discussions with the women studied (Section 6.4.2). Recalling that the women perceived that they could not seek postpartum services unless they had been given an appointment, the above statement highlights the gap between what the women perceived and what some providers actually did.

The third potential barrier is related to privacy and confidentiality. The first-week postpartum services were generally provided on postpartum wards and women were asked to lie down on any unoccupied bed for examination of the incision wound, using a curtain to create privacy. During the examination, the women would be questioned on their breastfeeding practice and personal details, which could easily be overheard through the curtain by other women lying nearby as well as visitors on the ward. When there was no bed available, the women would have their postpartum

⁶⁷ The afternoon period is generally scheduled for home visits and school medical services.

examination in a small waiting room for labour, which could offer more privacy due to a closing door.⁶⁸

Privacy issues were observed to be more acute for the sixth-week postpartum clinics. In a hospital-based clinic, the sixth-week postpartum services were organised in a general examination room within the unit responsible for MCH care. The diagnosis, treatment and counselling services were all carried out within this room, which was frequently occupied by male staff delivering documents or dropping by for a chat. An example derived from the observation study is pertinent here. A member of the health staff asked a postpartum woman, “Did you have sex with your husband?”. The question was loud enough to draw attention from everyone in the room. The woman’s embarrassment was palpable in a brief encounter with her shortly after the examination, as she looked away awkwardly and tried to avoid everyone’s eyes.⁶⁹ Given that Thai women in general are reluctant to have internal examinations (Boonmongkon, Nichter et al. 2001; Jirojwong, MacLennan et al. 2001), the observed lack of privacy and confidentiality in those circumstances influences women’s use of the service. There is compelling evidence that the low level of privacy can undermine a woman’s likelihood of “repeating” attendance at the screening services (Engelman, Ellerbeck et al. 2004).

Hospital nurses commented at length about the difficulties they experienced in providing the postpartum services due to a lack of space. Central to all of these comments was concern over the Ministry of Public Health’s recently launched project, “Family Bonding” (or *Sai Yai Rak Hang Krobkrua*), in which public health facilities were required to facilitate maternal and child activities, e.g., breastfeeding clinic, child promotional clinic, parental schooling and family bonding clubs.⁷⁰ One hospital nurse commented that:

⁶⁸ However, there was no sign on the door showing whether the room was occupied.

⁶⁹ Excerpt translated from field diary, made on 23 January 2008.

⁷⁰ The Family Bonding Club was initiated in 2005 by HRH Princess Srirasmi, consort of the Crown Prince of Thailand, who considers the family institution a matter of high priority. The club was aimed to promote exclusive breastfeeding for infants to the age of six months. See details of Family Bonding Project in Section 7.4.1.3.

...we may not be able to set up all these activities that the Ministry has ordered. Look, we have no space to even set up a breastfeeding clinic...[a]ctually, we did it two years ago, but [it was] discontinued...[the room is] now modified for stocking the supplies...[HP20, Provincial hospital site 7].

Interestingly, only two providers expressed their concern regarding the impact of limited space on women's privacy. One provider spoke of her experience in providing the postpartum service for HIV-positive mothers:

...this [examination] room has no privacy at all...we can't move to other rooms because they are occupied...I'm thinking about talking to my boss soon as when an HIV-positive mother came I had no private place to talk to her. I sometimes had to use my office but there were other staff, very inconvenient. (HP9, District hospital site 3).

7.3.2 Organisation of Postpartum Service and Administrative Tasks

The majority of postpartum service providers reported that excessive workloads detracted from them either providing postpartum services or from spending sufficient time with their clients, echoing other studies (The SafeMotherhood 2005; Wieggers 2007). Our study, however, suggests that in fact the average number of postpartum cases was relatively small, ranging from five to ten cases per month for a health centre-based clinic and ten to fifteen cases per month for a hospital-based clinic. Two facilities reported that they did not have any postpartum clients at all within the months of observation. This information suggests that the caseload may not account significantly for the lack of postpartum care provision or the quality of the postpartum services provided. Healthcare providers' emphasis on their work overload might be due to the work-related tension and stress that had led them to over-report their work demands or under-report the level of control they had at work (Waldenström, Lundberg et al. 2003).

In all levels of health facilities, the sixth-week routine postpartum clinics were observed as combined with family planning clinics, with both services offered at the same place and by the same providers. However, due to the small number of postpartum and family planning caseloads, it was observed that healthcare providers often integrated administrative tasks, such as document work and meetings, as well as personal business, during these clinics. In many observations, administrative and

personal business actually represented the major tasks, possibly constituting significant barriers to the service provision. Some providers suggested that postpartum clinics might be closed from time to time:

We accept that we can't provide services to all those in need. We have so many things to do everyday and we have a family to take care of...Sometimes, we did not open the [postpartum] clinic because we had to go out to the District Office, meetings or somewhere else and there was no other provider available to help...[HP4, Health centre site 1]

Another potential negative impact of busy healthcare providers was observed. The current study found, as Schmied *et al.* (2008) reported, that the postpartum examination sessions were short and often interrupted. Most of the observed sessions, including the internal examination and counselling, rarely took more than ten minutes. Providers were observed to come in and out of the examination room/clinic, suggesting that the service provision was incomplete. Moreover, in our observations of two hospital-based clinics, some women were seen by those who were there, not by the assigned providers. This suggests another possibility that the services provided might be highly variable.

Many studies show that from the perspective of postpartum women one of the most important aspect of healthcare is to have the healthcare providers listen to their needs and concerns (Cheng, Fowles *et al.* 2006; McKellar, Pincombe *et al.* 2006; Schmied, Cooke *et al.* 2008). The evidence of short consultations reported in other studies as well as the current study suggests that the women's health concerns might not be fully addressed at the postpartum clinics (Gunn, Lumley *et al.* 1998; Makumbe 2001; Declercq, Sakala *et al.* 2002; Scheppers, van Dongen *et al.* 2006; Carlgren and Berg 2008). Scheppers *et al.* (2006) show that short consultation not only impacts the quality of service but also "undermines the fabric of trust between patients and health providers" (2006: 344).

In the healthcare providers' accounts, delays in hospital referral systems were identified as increasing the likelihood that healthcare providers used the opening hours of postpartum and family planning clinics to perform other tasks. In general, the postpartum women would be asked before hospital discharge where they would like to receive postpartum care. Postpartum wards would then issue appointment cards for these women, and send notification letters together with the women's

delivery history records to the selected postpartum services. Ideally, these services would receive the postpartum women's information in advance in order to arrange for proper postpartum care. In reality, the referral process was reported as problematic. A hospital nurse working at the postpartum ward illustrated these problems in the referral system:

We used to send letters to the health centre or the district hospital, wherever the women wanted to go. There were lots of complaints that the letters arrived very late, usually almost a month...It's like the health centre didn't know that there would be postpartum women in their area coming in for check-ups. They might be away or doing something else...and the women, when they visited the clinic, couldn't find anyone. [HP20, district hospital site 7].⁷¹

The problematic referral system reinforces the findings of the study by Doi-pila (1992) (see Section 2.6.2 in literature review). Even though Doi-pila's proposed scheme of self-referral was piloted with postpartum women in eight provinces, including Kanchanaburi (Sueb Wongpate, Rue-pitak et al. 1997) and offered positive outcome, it can be assumed from our findings in 2008 that the such scheme had not been put into practice.

7.3.3 Service Provider Characteristics

Providers' accounts of experiences with postpartum service provision identified two categories that influenced women's use of postpartum services: (1) knowledge and skill and (2) attitude and practice.

⁷¹ The referral system was described to be problematic in that the notification letters were not delivered directly to the receiving unit, but to the District Health Office under which the receiving unit was supervised. The letters were then delivered to the receiving unit's mailbox, waiting to be collected by the relevant providers.

7.3.3.1 Knowledge and Skill: Adequacy, Relevancy and Sustainability

Many providers identified their own knowledge and skill limitations as creating difficulties for service provision and increasing the likelihood of involuntary withholding of services to clients. At the primary care level, postpartum services were often single-handed practices, mostly carried out by public health technical officers or community health workers. All of these providers considered their educational background insufficient and their job description irrelevant to the provision of postpartum care services. For example, they identified a lack of proper training to perform clinical examinations. In addition, according to their interpretation of the job description, their main duties included administrative tasks, dissemination of health education and provision of technical health support to the community. This problem was reflected in a range of service provisions, as some providers noted, “[w]e can provide only simple services, like giving vaccine shots and birth control if the postpartum women come to see us” [HP25, Health centre site 8]. In dealing with requests for postpartum examination, two providers similarly suggested “[a]nd if the women wanted to have the examination, I would tell them to wait for the mobile unit or to directly visit the hospital instead” [HP18, Health centre site 6, and HP1, Health centre site 1]. The low levels of providers’ knowledge and skill were recognised by the postpartum women, contributing to their failure to attend for appointments, as noted by one health provider:

The villagers, they’ve already learned that I can’t do the exams so they would rather not come by. [HP10, Health Centre site 4].⁷²

The issue of insufficient knowledge and skill to provide essential maternity services was recognised by the Provincial Health Office. The healthcare providers mentioned that there were various training programmes offered to enhance their capability and the effectiveness of service provision. The most recent training programme cited by these healthcare providers was on clinical practice to perform the Pap smear screening test, which was viewed favourably to match their needs. Despite having been trained, two providers reported that they were still reluctant to provide the

⁷² None of the three women studied who resided in the responsible areas of HP 10 (Health Centre site 4) reported receiving postpartum care.

screening test and continued to refer postpartum women to the hospital or the mobile unit for testing. One female public health officer narrated her reason for not providing the postpartum examination that:

[I'm] afraid, afraid of hurting the women...I think the nurse would be able to provide a better [examination]. [HP8, Health Centre site 3].

Concerns about knowledge and skill levels as barriers to service provision were also articulated by professional nurses. One nurse mentioned the lack of self-confidence in conducting postpartum examinations, as she felt that her skills for internal examination had diminished due to the small number of women seeking postpartum or other gynaecological examinations:

[i]t was from time to time that the villagers came to see me for internal exams...I barely practised the exams. [HP18, Health Centre site 6].

The availability of postpartum services from other sources contributed to the service providers' declining confidence in their own capability, resulting in the non-provision of internal examinations:

I admit that I can't do the internal exam like before, using the finger and other sorts of things. I am not confident...nowadays we have a mobile unit, where the women can get the service from...It's like they [the postpartum women] no longer need to get the service from us only. [HP18, health centre, site 6].

The nurse's narrative evokes two significant issues reinforcing the earlier discussion in Chapter 6: the decline in women's demand for postpartum care service and the providers' perception of the postpartum care service. With the women's notion of the postpartum care service as a cancer screening Pap test, combining with the availability of alternative sources of the Pap test, the women's demand for postpartum service at health-facility based clinics has essentially diminished. Hence, it is unsurprising to see that the providers at the postpartum clinic reported having dealt with lower numbers of postpartum cases. The narrative also revealed a significant fact that some healthcare providers themselves perceived that postpartum examination only involved the cervical cancer screening and then turned away women from postpartum care.

7.3.3.2 Attitude and Practice

In response to questions about what type of care was important to postpartum women, healthcare providers unanimously highlighted family planning, which was perceived as the most important means of caring for the post-delivery uterus. In some cases, this attitudinal judgement was reflected in the practice of specifying the type of contraception to be provided. As one hospital nurse mentioned, about the family planning service she offered at the sixth-week postpartum clinic:

[t]he women should not fall pregnant again within two years. Those who came to see me would never miss the injection. It must be done first. ... I seized every woman for injection and if she refused I would ask if she wanted another baby to come out. [HP17, District hospital site 6].

This quote suggests, as Barrett *et al.* (2000) have found, that healthcare providers tend to assume that women would resume sexual intercourse soon following delivery, hence they provide birth control. The quote also reinforces the emergent themes, including the communication style and the provider-initiated lack of choice in contraception, as barriers to postpartum service use (See Section 6.4.1 The Perception of Postpartum Service).

In contrast to the literature (Whittaker 1999; Kaewsarn and Moyle 2000; Kaewsarn, Moyle et al. 2003; Geçkil, Sahin et al. 2009), the current study found that the overwhelming majority of the healthcare providers (92.5%) did not have negative views towards the postpartum women's use of traditional practices. Some healthcare providers even reported their own use of traditional postpartum practices. For the practice of lying by the fire (*yuu-fai*), however, providers consistently suggested the seclusion of babies to avoid smoke inhalation.

Nonetheless, most healthcare providers noted that they needed to act in a considerate manner on the topic of *yuu-fai* in order to avoid damaging their relationships with the women (and their families), which could in turn hinder the women's likelihood to use health services:

[i]t's their family tradition. Even though you said no, when they [the women] returned home their parents would let them practice it anyway and they would think that I objected their belief...and then they [families and the women] would hate me and wouldn't come to see me anymore...the

villagers are like this...I would rather say, “Why don’t you choose to use hot plastic bags?”. It [the effect]’s the same. [HP11, District Hospital site 4].

Likewise, this quote reinforces the emergent theme on the communication style of the healthcare providers. It showed that even though the providers disagreed with some postpartum practices, they were aware of their interaction with women and its possible negative consequences. It is worth noting that this nurse had lived in the community for eleven years. In her discussion, it was obvious that she witnessed other people’s experience of having conflict with the villagers which, in some serious cases, had led to protests and even the resignation of healthcare providers. As such, it is not surprising to see in the nurse’s narrative that she tried to avoid situations that could lead the villagers to reject her. Speaking with concern about her professional colleagues, this nurse also stated that “they should keep good relationships with the women and their families or relatives which would ease their jobs”.

7.4 Factors Attributing to the Government’s Attention on Postpartum Care: The Analysis of Policy Actors’ Viewpoints

Analysis of interviews with policy actors suggests that the issue of low use of postpartum care and service in Thailand may not be addressed particularly adequately or seriously. From their perspectives, the country’s maternal and child health has reached the same level as that of developed countries. Indicators of success commonly referred to by the policy actors were the low levels of maternal and infant mortality rates, in which the cited key attributes for the success were the high percentages of antenatal and obstetric care coverage. And because of this, it is not surprising to see that almost all of the policy actors interviewed did not recognise the low level of postpartum service use or consider it to be problematic.

Two possible causes underlying the government’s low attention to the low level of postpartum service use were identified from the interviews. The first and most important relates to indicators and their interpretation. It became apparent in the interviews that the coverage of newborn vaccinations was used as the proxy for postpartum service use. As one provincial-level policy actor mentioned:

Did you look at the rate of the vaccination coverage for infants? It's high. Of course, the mothers must have returned as they had to also bring their babies in for vaccination. [Head of the Health Promotion Bureau, Kanchanaburi Provincial Health Office].

And the gap between the percentage of postpartum service coverage and that of the infant vaccine coverage was explained to as:

[i]t [the gap] was rather because the responsible nurses did not record the service provided. [Head of the Health Promotion Bureau, Department of Health].

Roughly speaking, it may be sensible to assume that the women who sought the check-ups for their baby would also receive a check-up themselves. This is due to the fact that women may attend on behalf of their newborns rather than for themselves *per se*, and in some cases they may be “captured” by the healthcare provider to be examined for their own health (Makumbe 2001). In terms of health service delivery, since the timings of mother and newborn check-ups are fairly close⁷³, the healthcare provider may combine the two services together to facilitate the mother's clinic visit. Nonetheless, the results from our current study suggest that it is not always the case. The use of the two neonatal services is 100 per cent; all the women in this study reported bringing their babies for eye and ear examinations within the first week, and to receive vaccinations up to two months after birth, respectively.⁷⁴ This figure is in stark contrast with the figure of the women's two postpartum visits and clearly indicates that the use of infant check-up statistics may not be applicable and could distort the fact that the postpartum service is greatly under-used.

The health data collection system was identified as another significant barrier to information about postpartum service delivery and use. Following the healthcare reforms in 1998 and the introduction of UC in 2002, the task of collecting data on the utilisation of healthcare has been reassigned to the National Health Security Office (NHSO), to which the data are sent directly from hospitals. This approach was cited

⁷³ At the age of 1.5–2 months, the babies are due to receive three different vaccinations to prevent diphtheria (DTP), hepatitis B, pertussis, polio and tetanus.

⁷⁴ Reports about attendance for neonatal care were validated using information in the maternal and child booklet.

by one central-level policy actor to create the data incompleteness. Since the NHSO is responsible only for the UC, the data reported by the NHSO covered only beneficiaries who made claims to the UC. Women who did not seek any maternity care or were not insured by the UC scheme were not reported to the NHSO. It emerged from the interviews that, due to the limited budget, the NHSO had prioritised which indicators should be collected. It was revealed that for maternal and child healthcare, only indicators which related to antenatal care and obstetric care were included. This echoes, as Bick *et al.* (2008) reported from the UK case, that when the resources for maternity services become limited, postnatal care is always in the main area for reduction, suggesting that postpartum care is viewed as less important when compared with care during pregnancy and delivery.

To obtain the postpartum care information, one central-level policy actor claimed to resolve the problem once by providing incentives to provincial offices to compile the statistics covering the UC-uninsured women, as well as other significant indicators. Nonetheless, this approach appeared to be unsuccessful too, after the central government agency ran short of financial resources. As the Head of the Advisory Board to the Department of Health elaborated:

[A]fter we joined the NHSO, we've received much less statistics ... This is because we used to give them money or gifts for doing a report. But now, we haven't given them anything. So when we ask them to do the report, they are unwilling ... it'll be much better if we have a central data system that consolidates all kinds of health data and makes them reliable. [Head of the Advisory Board to the Department of Health].

At the time of interview, the Head of the Advisory Board to the Department of Health revealed that postpartum data was currently obtained by relying on surveys by relevant agencies, academics or the National Statistic Office.

The need for centralised health information was reiterated in other key informant interviews. Policy actors considered the consolidation of data and information from various relevant agencies as one of the urgent problems of the country. To put it into practice, however, they considered that it was perhaps too ambitious a strategy for Thailand at the moment, due budgetary limitations.

As Bick *et al.* (2008) note, the lack of postpartum health data underlines a lack of policy concern about postpartum under-utilisation in general. In the current study, it

is apparent that the absence of data distorted the policy actors' perception of women's postpartum health:

[i]n general, the postpartum mothers are doing fine ... so far, we haven't received any report of postpartum problems. [Head of the Health Promotion Bureau, Department of Health].

In response to the researcher's question of the future direction of maternal healthcare policy, quality of maternity care service is addressed as the key challenge. Reflected in interviews with top policy actors, the focus of maternity care in Thailand is much more than the issue of service coverage:

[i]t is rather the quality of care that we have to look at, as for the developed countries. [Director-General of the Department of Health, Ministry of Public Health].

This emergent issue of quality of care herein reinforced the findings previously investigated from other perspectives. This shows that even though the problem of low postpartum service coverage is not straightforwardly recognised by the policy actors, one key aspect of problem's root—poor quality of care—is not ignored.

7.5 Discussions and Summary

From the above analyses, two significant issues deserve further discussion. The first issue is related to the postpartum service practice, in which the possible causes of service variation are explored. The second issue concerns the home visitation programme. Note that this issue is not presented elsewhere before in this thesis. However, since the findings from the literature (CDPHC 2003; Sharma, Sawangdee, and Sirirassamee 2007; Moore, Ballinger, and Beasley 1974; Ghilarducci and McCool 1993; Kogan, Leary, and Schaezel 1990), consistently suggest the positive impact of home visitation on the utilisation of postpartum services, this section attempts to investigate the country's home visit programme and its implementation based on the available information obtained from the studied women and the healthcare providers. In essence, we intend to assess roughly the possibility of using home visits to promote the utilisation of postpartum services.

7.5.1 Postpartum Service Practices

In the previous section, it has been shown that the providers used the mothers' Pink booklets to guide their routine services. Even so, variation in the routine postpartum practices was still evident. This variation in the service provision is heightened if the postpartum women also forget to bring along their Pink booklets. The data from elsewhere show that more than half of the mothers lost their Pink booklets at some point and 16.8 per cent did not always bring the booklets along while seeking health services (Bureau of Health Promotion 2001; Isaranurug 2008). These data suggest that the postpartum practices may be of high variation and there may be also an over-reliance on the system of booklets held by the women themselves for the provision of postpartum care.

Record keeping can be help to explain the high variation in postpartum service practices. Lack of complete postpartum records is apparent in the current study. Only two of the studied women's Pink booklets were found to record the information on health conditions and care they had received. According to the WHO Guide to Promoting Effective Perinatal Care (2003), incomplete postpartum record keeping is due in part to the provider's lack of understanding of the importance of keeping accurate postpartum records. This incomplete record-keeping creates negative consequences. It impairs continuity of care and communication between healthcare providers, as well as increasing the risk of errors, either by duplication or omission. This is evident in McKaig and Deller (2006)'s study of unmet need of postpartum family planning, where some healthcare providers did not ask women about family planning because they assumed that these women were already received the services from other healthcare providers.

Like other studies (Albers and Williams 2002; Cheng, Fowles et al. 2006), the content of postpartum services provided to Thai women is largely focused on physical examinations. Since the physical examination and counselling rarely took more than ten minutes, it could be implied that consultation was only very brief, which might not offer an opportunity for women to talk about their health problem or raise any issue of concern. This may result in the healthcare providers' distorted

perception that women do not have any postpartum problems or concerns. Border (2006) has suggested that it is thus healthcare providers' responsibility to ask the women about their physical and mental problems, rather than wait for the women to inform them. Because postpartum women are required to take care of an infant, to reconstruct the family and to undergo the change of their health, they may prioritise the needs of infant and family, where their health and personal concern are often neglected or the last to be addressed. In addition, there are some physical and personal issues that the women may be too shy to speak about first. In particular, with the characteristics of Thai people discussed earlier, the women are highly unlikely to raise the issues or discuss with the healthcare provider about their postpartum concern, especially if they perceive the healthcare providers as being busy. Border (2006) stressed that although many of the healthcare providers have limited knowledge and ability to identify the women's health problems, they can still ask the women about their feelings and concerns/problems and may help them to manage their lives to avoid or minimise any problem that may arise.

7.5.1.1 Postpartum Cervical Cancer Pap Test

Based on the results from Chapter 6, the current discussion further explores the reasons behind the routine use of Pap tests in the postpartum services. It was found that the Pap test has been offered to Thai women for more than forty years (Sherris, Agurto et al. 2005; Linasmita 2006). However, the screening test in the early period was limited to women with medical indications (Phommo 2005). The provision of Pap tests to the postpartum women is believed to have begun at some point before 1991, as the study of Swaddiwudhipong *et al.* (1999) reported the results from the Pap test surveys conducted in 1991, and that the Maternal and Child Health (MCH) unit was the second most common place for Pap test services for the country. Since there was no written evidence of the Pap test protocol in relation to the postpartum services or women, the current provision of Pap tests may be due to the fact that the Pap test has already evolved as a "normative" practice, in which the providers follow their peers in similar circumstances (Potter 1999; Wennberg 2002; Hopkins, Maria Barbosa et al. 2005).

The discussions with the healthcare providers revealed another possible explanation for the widespread provision of Pap tests to the postpartum women. Since cervical cancer is the primary cause of cancer deaths for Thailand, the Pap test has been given explicit attention by the government in terms of its policy and budget to promote early detection (Swaddiwudhipong, Chaovakiratipong et al. 1999; Sherris, Agurto et al. 2005). It was, therefore, not surprising to see the respective agencies creating effective programmes and boosting their performance in accordance with the national policy. This was evident in the study of Boonmongkon *et al.* (2001), where the health facilities in north-eastern Thailand initiated “aggressive” strategies to recruit women with and without the symptoms of gynaecological illness to receive the Pap tests. Recently, the number of women who received Pap tests has become one of the country’s key indicators for reproductive health.⁷⁵ The national goal is that 50 per cent of the female population aged between 35 and 60 years, or those who have ever had sexual intercourse, must receive a Pap test once every five years (Sriamporn, Khuhaprema et al. 2006). The interviews with the postpartum service providers highlighted that the implementation of the policy was challenging, especially in reaching the women in the specified age groups. As a result, the providers found it easier to recruit more women on the criteria of having ever had sexual intercourse, for which the postpartum women became their ideal candidates.

7.5.2 Home Visit Programme

Global declines in the length of postpartum hospital stays means that home visit programmes have become increasingly important as a follow-up approach to reduce maternal and infant morbidity and mortality (Braveman, Egerter et al. 1995; Grullon and Grimes 1997; Keppler and Roudebush 1999; Escobar, Braveman et al. 2001; Sword, Watt et al. 2004). With adequate follow-ups in the community after the hospital discharge, costly and unnecessary non-routine healthcare visits can be reduced (Sword and Watt 2005) and women who are offered home follow-ups are

⁷⁵ Division of Reproductive Health, Department of Health, <http://rh.anamai.moph.go.th/static.htm>. Accessed 8 March 2009.

more likely to view the postpartum care satisfactorily (De Koninck, Blais et al. 2001; Escobar, Braveman et al. 2001). There are also positive associations between home visits and healthcare service use in general (Lieu, Braveman et al. 2000; Jirojwong, Rossi et al. 2005; Sword, Krueger et al. 2006) and home visits and postpartum service use in particular (CDPHC 2003; Sharma, Sawangdee, and Sirirassamee 2007; Moore, Ballinger, and Beasley 1974; Ghilarducci and McCool 1993; Kogan, Leary, and Schaetzel 1990).

In Thailand, the postpartum home visit programme was initiated in the 1970s, with the primary objective to extend the coverage of family planning services to women who had home births (Hemachudha, Asavasena et al. 1972; Rosenfield and Varakamin 1972). Postpartum women were offered family planning advice and contraceptive pills if they decided to practise birth control (Nitayarumphong 1990). A decade later, the increase in the number of institutional births, as well as the provision and acceptance by the women of other modern contraceptive methods, e.g. IUD and tubal sterilisation (Kanchanasinith, Piyapinyo et al. 1990), had essentially led to the virtual disappearance of postpartum home visits from providers' routine schedules, as well as from central government's attention. The system of postpartum discharge to transfer women to community care was ignored by the government because women were perceived to have their families as caregivers (Pichitpornchai, Street et al. 1999)

In 2004 the Ministry of Public Health introduced the Care Standards for Primary Care Units (PCU), in which home visitation was to be offered to postpartum women without any prior childbearing experience, those with a history of obstetric complications (e.g. haemorrhage), those who were less likely to be able to take care of themselves, and those who might be in need of care and advice due to a short stay in hospital. The standard intended to promote timely referral and to reduce maternal mortality and morbidity.⁷⁶ It is clear that home visitation is not targeted to be offered to low-risk postpartum women. In 2007, the targets of the postpartum home visits were extended to cover the women likely to wean before six months, such as those

⁷⁶ See the 2004 Manual of Primary Healthcare Unit Standard Evaluation and Quality Assurance, Department of Health Service Support, Ministry of Public Health, Thailand.

who had early resumption of employment. A special programme, called “Family Bonding”, was initiated to address Thailand’s very low rate of exclusive breastfeeding.⁷⁷

In our current study, 8 out of 43 women (18.6%) were visited by nurses or public health officers at home, of which the majority of visits (62.5%) took place within one month after delivery. In contrast to the recommendations of the PCU care standard, only one-thirds of the primiparous women in the current study were offered home visits, whereas none of the three women who experienced hypertension and haemorrhage during labour reported having received home visits from healthcare providers, nor did the two women who were asked to leave hospital prior to 48 hours. During the visit, no physical examinations were offered, only baby check-ups and self-care advice were provided. In line with other studies, home visits were viewed favourably by the studied women and reduced their feeling of hesitance to see a healthcare provider (See Section 6.4.3.3). Four women sought the six-week postpartum care services and one woman reported visiting a healthcare provider for a skin problem after receiving a home visit. Even though the findings suggest a positive impact, the precise effect of home visits on postpartum care service is inconclusive with the small scale of our sample size.

From the available data from interviews with healthcare providers and policy actors, as well as observations at various health facilities, two significant barriers were identified to contribute to the failure of home visit implementation. The first barrier is related to inadequate staffing, which has led the providers to prioritise home visits for other patients, leaving the postpartum women to be visited by chance only. Three nurses at hospitals admitted that they were unable to offer home visits to any postpartum women as intended. While two of these nurses cited lack of staff as the reason, the other who was in the third trimester pregnancy at the time of interview indicated that the suspension of postpartum home visits was due to her pregnancy

⁷⁷ In our study, exclusive breastfeeding is very rare. There was only one woman in our study who, at the postpartum interview, reported that she had not fed the baby with any other food, including plain water. All of the studied women, except for this one, reportedly fed the babies with water from the first week after childbirth.

and that she could not find anyone to replace her [HP2, District Hospital site 1]. In a rural health centre, one public health officer indicated that the centre was unlikely to offer home visits to all those in need. As a result, patients with acute chronic diseases and elderly people were prioritised and “if there is any postpartum woman residing in those households or nearby, I will take this opportunity to visit her also” [HP10, Health centre site 4].

To overcome the shortage of health staff, village health workers (VHVs) were reported to be used by three healthcare providers to give postpartum women a visit and to report back to the healthcare providers if any health problem was reported. Also in discussion with one provincial-level policy actor, the VHVs were cited as being important as the messengers to motivate or, if possible, accompany the mothers to postpartum clinics:

... the village volunteer is the key as a parcel to reach the women and the newborns because we don't have sufficient staffs ... I admit that they are incapable of providing the services but they could inform the women to come ... bring the women to see us. [Head of the Health Promotion Bureau, Kanchanaburi Provincial Health Office].

In response to the researcher's question about the skill of the VHVs, one provider indicated that the VHVs were trained to provide basic examinations, e.g., temperature and blood pressure checks. Another explained that the VHVs were “experienced postpartum women. They definitely know what is normal and what is not normal.” [HP12, Health centre site 4].

Like other studies (Sword, Watt et al. 2004; Jirojwong, Rossi et al. 2005; Koblinsky 2005; Wiegers 2007), transportation and its management were mentioned by some primary healthcare providers as a factor likely to discourage the provider from offering home visits. Unlike the hospital setting, where healthcare providers can request vehicles and drivers, the healthcare provider at the health centre had to use motorcycles, which staff found unsuitable to the environment. As one healthcare provider explained:

We have a motorcycle. But the community has dogs, [so] I have to use my car and fill up the gas on my own. [HP18, Health centre site 6].

Paying for the cost of fuel out of staff's own pocket may seem to discourage the provider from offering home visits. In this provider's account, however, that was not indeed the main problem. Rather, it was found that the procedure for reimbursement was the main problem. To claim the reimbursement, some documents had to be filled in and signed by the head of the health centre. It was viewed by the staff as too inconvenient to obtain reimbursement for just 50–100 Thai Baht (GBP1–2) for fuel. As one nurse said, she did not want to “be bothered with the process to get only a small amount of money back” [HP8, Health centre site 3].

Interestingly, our analysis has revealed another possible barrier to the implementation of home visits, that is, the expectation of healthcare providers that the targeted women would attend at health facilities for the routine postpartum services, such that home visitation could be regarded as unnecessary. As one nurse said, “We didn't visit them...whether they would return to our facility or elsewhere to receive the service, it's the same [in] that they will meet the healthcare provider” [HP5, Health centre site 1]. In this light, Whittaker (1996) has exemplified a similar attitude of the health providers in her study, which was referred to as “the passive acceptance of authority” which in turn inhibited the provision of healthcare services. Even though the women's satisfaction with postpartum care and the likelihood of using the health services increased when they were offered home visits, the possibility of using home visits to promote the use of postpartum services is low under the current constraints of the service delivery system.

7.5.3 Summary

The service delivery system can inhibit, rather than foster, women's use of postpartum services in many ways. While the literature overwhelmingly suggests that the access to healthcare may have a significant impact on the service utilisation, it is rare that the mere existence of a facility be considered as a factor that facilitates the service use. The current study found that the observed health facilities promoted neither productive service provision nor encounters between the healthcare providers and the women. Privacy for physical examinations appeared to be outside of most health facilities' concern. Consultations too were viewed as public affairs, in which

the women's intimate details could be easily overheard by strangers (Whittaker 2000).

The current study highlights the need for reconsideration of the current organisation of nursing and non-nursing tasks. The use of the operating hours of the postpartum clinics for non-nursing tasks can cause the providers to be absent from the postpartum clinics, and in effect not to provide any permanent postpartum services. The current mailing referral system was also viewed as inefficient and thereby hindered the healthcare providers from obtaining information about the women's treatment records in advance. The perceived skill inadequacy is another barrier to the service use, as identified from the providers' side. While some healthcare providers considered that they did not have proper training to provide the postpartum services, others found their skills diminished over time and they became unconfident to provide the services. The healthcare providers' attitude, as reflected in their service practice, can potentially affect the postpartum service use, which is an interesting finding. The providers' perception of family planning clearly illustrates this point and reinforces the findings of previous chapter (Chapter 6). In contrast to other studies, the healthcare providers who participated in the current study were quite positive about traditional postpartum practices. However, they were concerned that their communication style and the information provided could possibly contradict the women's and their families' culture and values.

The current study is similar to other studies in that it pinpoints the lack of clear guidelines for routine postpartum services or treatments for women as the most significant challenge for providers to perform routine services and to fulfil them to women's satisfaction (Boonmongkon, Nichter et al. 2001; Kabakian-Khasholian, Jurdi et al. 2006; McLachlan, Forster et al. 2008). The current study found that there was no chart or care map to guide the provision of postpartum care, except the information contained in the mothers' Pink Booklets. Despite the initiation of the home-visit programme, which was intended to provide continuing care for the postpartum women with high-risk complications and the likelihood of early weaning, the actual implementation of the programme was not responded to well by the practitioners.

The study also reveals two important institutional factors, i.e. the misunderstanding about using infant data to proxy women's postpartum care usage and lack of postpartum data collection, that attribute to the low recognition of policy actors on the problem of low postpartum service use. Nonetheless, it may be unjust to conclude that the Thai policy actors ignore such problem. By looking from the perspective of policy actors who are responsible for a variety of health problems, it may be worth noting that the country's postpartum service coverage of more than 70 per cent in both urban and rural areas is perhaps not on the top of their agenda as compared to other issues. Furthermore, it is seen that the problem of lack of postpartum data collection as well as the poor quality of care were acknowledged by the top policy actors interviewed.

Several themes that emerged from the interviews with health providers and policy actors are similar to those obtained from the analysis of the studied women's narratives. This not only highlights the consistency of the results, but also helps guide the order of importance to improve the provision and the utilisation of postpartum services for the responsible authorities.

Chapter 8

Discussions and Conclusions

8.1 Introduction

In this concluding chapter, we draw together the findings and discussions and discuss policy implications for improving postpartum service utilisation and provision, based on the study findings. The chapter begins with a brief review of the study in the context of the research objectives, followed by the discussion of the major findings related to the influences on women's use of postpartum care services (Section 8.2). Next, the key policy implications of the study are discussed and the contributions made to postpartum research are presented (Section 8.3 and Section 8.4). In the final section, directions for future research are suggested (Section 8.5).

8.2 A Brief Review of the Thesis

The thesis addresses the issue of low utilisation of postpartum care services in Thailand. Unlike many other developing countries, Thailand is a relative success story as regards maternal death reduction, providing a high rate of antenatal care coverage and with high percentage of hospital deliveries. However, postpartum care services remain under-utilised: 30 per cent of women do not receive any postpartum care and close to 37 per cent do not complete the two postpartum visits recommended by the government (National Statistics Office 2007). The gap between the uses of the three key maternity services is obvious, and this was the research

impetus for this thesis to investigate the question: *What are the reasons why many Thai women do not return to see healthcare providers for postpartum care services?* By examining postpartum care service provision and utilisation from multiple perspectives in-depth, barriers are identified in (1) the individual context (the women themselves), (2) the healthcare system (both as regards providers and the system in general), and (3) policies.

8.2.1 Influences of Individual and Social Context

Several individual and social factors influencing the utilisation of postpartum care services have been identified through logistic regression analysis of the national survey in 2001 and a small-scale qualitative survey in Kanchanaburi Province between 2007 and 2008. These results show that women are more likely to use the service if they are older and of a higher level of education, and have fewer children and an active working status. Urban women residing in households with a higher monthly income were more likely to have better access to and to use postpartum care services. Two significant motivating factors have also been found; first, women whose pregnancy was intentional were more likely to use the services. Second, the extended family is the predominant household structure in Thailand, and it was found that when a pregnant woman resides in the same household as her mother or mother-in-law this has a positive association with care utilisation. This is in contrast to other studies based in South Asian contexts (Sai and Measham 1992; Geçkil, Sahin et al. 2009). The place of childbirth is another indicator; studies (Belizan, Barros *et al.* 1995; Ransjo-Arvidson, Chintu *et al.* 1998) have noted that childbirth at a health facility or with assistance from health professionals presents an opportunity for healthcare providers to disseminate knowledge about postpartum care services and to encourage their use, and the current study has found that women who have a hospital delivery are more likely to use postpartum care services.

Women's Perceptions and Postpartum Experiences

The qualitative study has revealed that women's perceptions about postpartum care services and unforeseen postpartum experiences are also crucial factors determining service use. The findings of this study have shown that healthcare providers' postpartum practices, combined with women's perception of the condition of the uterus post-delivery and fear of cancer, have a great effect in shaping attitudes to services such as the cervical cancer Pap test. Surprisingly, however, it was shown that there are both positive and negative impacts. While some women visited a postpartum clinic in order to have a Pap test and other check-ups, others did not, because a Pap test could be sought elsewhere at other times. Caesarean delivery also has a negative impact; none of the women who had had a Caesarean delivery attended the sixth week postpartum clinic, because it was perceived as being for internal examinations and therefore unnecessary for in the case of non-vaginal birth.

By following the sample women from their third trimester of pregnancy through the postpartum period, the study has observed that women's intention to use postpartum services is dynamic and changeable. These changes were found to not only occur between the two periods, but from day to day. Based on the observations, three significant process-oriented factors have been identified as influencing women's use of postpartum care services: unforeseen events, gains and losses for their baby and themselves, and women's sense of individual responsibility to protect themselves.

8.2.2 Influences of the Healthcare System

The healthcare system plays a vital role in influencing women's use of postpartum care services, both positively and negatively. The relevant factors here relate to the health facility's programmes, the organisation of postpartum care services, and the characteristics of the healthcare provider; the development of appropriate strategies to improve postpartum care-service use is therefore a great challenge.

The Health Facility's Programmes

Since almost all births in Thailand take place in hospital, the significance of a hospital's discharge programme on women's postpartum decision-making is not surprising. Prior to hospital discharge, postpartum women are given appointments for the first-week and sixth-week postpartum clinics. The appointment card does not specify the place of service, to allow women to seek postpartum care services from whichever outlet is most convenient for them. As with other studies (Kabakian-Khasholian and Campbell 2005; Bryant, Haas *et al.* 2006), this study has found that women were generally satisfied with the appointment card as the reminder for when to seek the postpartum check-ups, and for many women not specifying the place of service was found to facilitate health facility access. However, these positive effects of the appointment system were found to be constrained by other factors: the extent to which the appointment card was organised efficiently, the availability of postpartum care services at the health facility women chose to visit, and women's perceptions of the general health delivery system. This study has found that some of the sampled women who did not receive the appointment card before their hospital discharge interpreted this to mean that they did not need to have postpartum care services. It has also been found that in some rural health centres, postpartum care services were in fact unavailable and that the women who resided in the areas for these health centres did not think they were able to go to another health centre or hospital.

Home visitation programmes arranged provided by health facilities have been found by this study to have a positive impact on women's use of healthcare services. Home visits allow healthcare providers to explore possible health problems experiences by either mothers or babies, and they motivate the use of healthcare services (Ghilarducci and McCool 1993; CDPHC 2003). From the women's perspective, this study has shown that women tend to receive more attention and care from healthcare providers at home than at a health facility, and when women feel much more satisfied with the health provider's care they tend to be more likely to seek healthcare services.

Organisation of Postpartum Care Services

Alongside location and perceptions about the healthcare system, this study also identifies various factors in the organisation of postpartum care services that affect utilisation rates. Barriers to service use include clinics' limited operational hours, a lack of signage and clear information, and a lack of privacy in areas designated for internal examinations and family planning counselling.

This study has also shown the importance of time management. Since the postpartum caseload is relatively small, healthcare providers may have other administrative work integrated into their routines. It has been shown that this affects the quality of postpartum care services, which may be interrupted, remain incomplete, or fail to meet the needs of women. In some cases, administrative work has resulted in healthcare providers being absent from or even closing the clinics. Unsurprisingly, some women spoke of taking a gamble as to whether a clinic would be operating or not on the days they sought services.

The efficiency of the referral system is another significant factor identified in this study, suggesting that successful provision is dependent on the functioning of the entire health delivery system (Parkhurst, Penn-Kekana *et al.* 2005). Instead of facilitating the continuity of maternity care, communication between the sending facility (i.e. the hospital) and the destination facility (i.e. the health centre) has been shown to be inefficient, delaying the advance arrival of information about postpartum women. This exacerbates the problems of a healthcare provider either using the operational hours of the postpartum clinic to perform other tasks, or being absent.

The Characteristics of the Healthcare Provider

Healthcare providers are a key part of the healthcare system and they play a significant role in influencing women's decisions about postpartum care services. This study has found that when the healthcare provider has limited knowledge or skill, this is a barrier both to postpartum service provision and utilisation. In Thailand, nurses are regarded as the primary care-givers responsible for non-

complicated pregnancy care and normal childbirth and postpartum care (Hanvoravongchai, Letiendumrong *et al.* 2000; Liamputtong 2005). However, due to a shortage of nurses in rural areas, it appears that postpartum care services are in the hands of other medical staff: in particular, health technical staff and community health staff, most of whom have not received proper midwifery training. Further, despite having received government-organised training on care services, some of these healthcare providers lack the confidence to perform internal examinations, and this problem was surprisingly shared by some nurses, too, who felt de-skilled as a result of the smaller number of women seeking postpartum or gynaecological examinations. This has inevitably resulted in variable postpartum practices, which affects utilisation rates as postpartum women share their experience of service use with other women and tell them that they were not offered the services they needed or expected.

The health provider's attitude towards postpartum care and postpartum women reflects certain opinions (Sword 2003), and this study has found that this can impede service use. For example, a provider's attitude about family planning as a means of caring for the post-delivery uterus has led some healthcare providers to coerce women to accept (unwanted) contraception. Nowadays, most Thai women have given up the traditional practice of lying by the fire, although the study has found that most healthcare providers did not generally hold a hostile attitude towards traditional postpartum practices. However, where a provider expresses concerns about the harmful consequences of lying by the fire, this can act as a barrier to service use if the advice contradicts the family's belief and culture or is communicated aggressively.

Encounters with healthcare providers suggest that communication style is another crucial factor, and poor communication during the moment of childbirth can act as a particular impediment to postpartum service use. In the context of Thai norms and values of respect for elders, loyalty and obedience, the status validation of schooling, indebted goodness and *kreng jai*, it was found that Thai women were 'grateful' to healthcare providers who provided them with services, and that the relationship between health providers and women should not be difficult to establish. The findings of this study suggest that once a good relationship is established, it promotes

the use of healthcare services and facilitates healthcare providers' work in community.

8.2.3 Influences of Policies

The findings of this study show that governmental policies have a significant impact both on women and the healthcare system. The Universal Healthcare Insurance scheme, through which maternity services, including postpartum services, are provided free of charge, removes financial barriers and thereby increases women's accessibility to postpartum care services. The revival of Thai Traditional Medicine, so that traditional postpartum services are now being offered in the campus of the hospital, indicates that traditional practices are now accepted as compatible with Western medical care, and this removes a cultural barrier to healthcare service use. Traditional postpartum care is not given as an alternative; women are required to have prior postpartum medical check-ups. Women are also more likely to use postpartum services if they participate in a postpartum club under the government's maternal and child *Family-bonding* project.

In particular terms of policy impact on the provider's practice, the adoption of a capitation payment system into the universal coverage insurance has been very much criticised as possibly causing negative practices by limiting necessary maternal services when they are expensive (Tangcharoensathien, Tantivess *et al.* 2002). Also, this study has revealed that Thailand has no written documentation for the Pap test protocol in relation to postpartum care services, and this may mean that healthcare providers recruit postpartum women for the Pap test because they are under pressure to meet high government targets for cervical cancer screening.

Another obstacle to service provision is the lack of guidelines for routine postpartum services or of a care map to orient the service practice (Levitt, Shaw *et al.* 2004; Kabakian-Khasholian, Jurdi *et al.* 2006; Schmied, Cooke *et al.* 2008). This study has found that many healthcare providers rely on the Pink booklet held by mothers to guide their routine services, but despite this, there are still obvious variations in routine postpartum practices.

This study has also revealed that the misuse of infant data to proxy the women's use of postpartum services, along with the lack of postpartum data in centralised databases, can adversely influence the policy actors' perception towards postpartum care issue. However, the existence of the past and present postpartum policies in Thailand suggests that Thai government does not totally lack attention to postpartum women. The interviews with policy actors have shown that the improvement of service quality of maternal and child healthcare is foremost on the mind of the government. This highly corresponds with the actual problems identified from other perspectives. It is clear that the level of postpartum service utilisation would not be improved if the quality of care service is neglected.

Overall, this study has demonstrated that there is a complex array of individual and social, healthcare system-related and policy-related factors that influence women's utilisation of postpartum care services. Unless adequate attention is given to these factors and their interrelation, the utilisation of postpartum care cannot be effectively promoted.

8.3 Policy Implications of the Study

This section presents the implications of the study for policy actors and for healthcare providers. Three key policy implications of the study are discussed: namely implications for women's reproductive health knowledge and practice, for the delivery of postpartum care services, and for the establishment of postpartum care guidelines.

8.3.1 Women's Reproductive Health Knowledge

This study's findings raise serious concerns about Thai women's reproductive health knowledge. It has been shown that 91 per cent of the sample had ever used at least one modern contraceptive method. Half of the women became pregnant while they were practicing a birth control method, and many of these women did not understand

why they had become pregnant. Some simply thought that it was the result of fate. While Thai women appeared to be well aware of the existence of various pregnancy prevention methods, they had only a partial understanding, if at all, of how they prevented pregnancy or how pregnancy occurs, and these methods were therefore used incorrectly. One key issue arising here is that without improved understanding in this area, the government's effort to promote family planning services may not be effective.

Further, women's perception that caesarean section does not relate to the internal reproductive organs indicates that many Thai women do not have a correct understanding of the process of childbirth. Such a misperception obviously impedes women from seeking postpartum care services, as this study has shown. The problem may be exacerbated due to the fact that Thailand has no regulations controlling a physician's decision to perform a Caesarean, and consequently a woman's decision on the matter tends to be manipulated by medical personnel (Hanvoravongchai, Letiendumrong *et al.* 2000; Liamputtong 2004).

The major policy implication of these findings is that Thailand needs to revise its current system of reproductive health and family planning education. Both topics should be integrated into the country's basic education curriculum standard, which is the best avenue for disseminating the information widely. General information about delivery methods, including type, practice, procedure, and health effects, should be given to women at an appropriate point during antenatal clinic visits, laying a foundation for informed decision-making (The Coalition for Improving Maternity Services 2007). There is also a particular need to provide comprehensive and in-depth information about Caesarean sections and other medical inventions to women before delivery.

8.3.2 The Delivery of Postpartum Care Services

In Thailand, even though in theory maternity services are universally available at any public health facility, in practice postpartum care services are unavailable in some rural areas, as is evident from the study's investigation of Kanchanaburi Province. It

has been shown that the unavailability of postpartum care services is not because they are non-existent, but rather because the service is rendered unavailable due to inefficient organisation at postpartum clinics and the inadequate knowledge and skill of postpartum care providers. These findings call for an organisational review of postpartum care service delivery and of the general health delivery system, including the existing referral system between health facilities.

It has been shown that healthcare providers responsible for postpartum care services have varying qualification levels, so that postpartum advice and practices provided to women are inconsistent, and this is a key variable in the health-care system. At one level, it cannot be denied that this is because of the lack of a postpartum policy or guidelines, and due to a shortage of human resources in the area of health. However, there is a need for the government to pay attention to the qualifications of postpartum service providers. Policy actors need to ensure that providers have sufficient knowledge and skills. In addition, some practices and the way that encounters between healthcare providers and women are handled reflect the inferior status of women in Thai society, and are consequently insensitive towards women's feelings and privacy. There is therefore a need to improve health providers' attitudes towards their clients. The importance of communication styles should be promoted through formal training programmes held for health personnel.

Poor dissemination of information underlines many problems identified in this study. It appeared that the studied women mainly received information through their social networks, rather than from educational programmes or health facilities. There is a specific need to provide adequate and correct information on postpartum care to women following their antenatal visits and during the hospital stay, in order to address the significance of postpartum services and to promote their use. To improve service satisfaction and quality, as well as utilisation, information about the services offered should be presented to the women early on during the clinic visit. Such information should be adequate, clear, organised, and summarised at the end of the visit (Starfield 1992). The use of the appointment card is concrete evidence of the positive effect such measures can have on postpartum service utilisation, and it suggests that printed materials providing postpartum information may be useful in providing more accurate and consistent information. Information given on the

appointment card should also be revised to specify the names of patients' preferred health facilities, along with a notice making clear that women can seek postpartum care services at any public health facility.

8.3.3 Postpartum Care Guidelines in Thailand

There is a need to develop standardised postpartum guidelines or a care map to orient postpartum care practices. However, without evidence about women's postpartum health, there is little impetus to develop them. The major policy implication is that Thailand needs a review of the national health record system, to include indicators related to postpartum care. This requires active cooperation from different levels of the health system: at the health facility level, the evidence of this study shows that healthcare providers do not record the postpartum services provided to women, demonstrating the need for improved record keeping. At the central government level, there needs to be collaboration with the National Health Security Office to collect postpartum health data. Nationally-representative surveys are another way to obtain and triangulate data on postpartum health, and the government could partner with academic institutions and the National Statistic Office to promote the inclusion of postpartum issues into surveys related to maternal and child health.

8.4 Contributions to Postpartum Care Research

This thesis makes conceptual and methodological contributions relevant to the study of postpartum healthcare in relation to developing countries in general and for Thailand in particular.

8.4.1 Conceptual Contributions

The first conceptual contribution made by this thesis is derived from new empirical evidence from the developing world, where relatively few studies have been carried

out, about the utilisation of preventive postpartum care services. Although Thailand is characterised by successful improvements in maternal and child healthcare and by high percentages of antenatal coverage and hospital delivery, many Thai women do not receive postpartum care services. While a number of other studies have focused solely on the promotion of antenatal care usage, with the expectation that this links the mothers to other maternal services, our evidence from Thailand shows that this does not always hold true.

Second, relatively few other studies have examined how postpartum services have been organised, in practice, at different levels of the health facility. Consequently, this study can offer particular and in-depth recommendations for improving postpartum care service provision. It also provides new evidence supporting the findings of the existing literature, which shows that the healthcare system itself, rather than just individual circumstances, has a significant influence on the use of maternity services (Stephenson and Tsui 2002; Sharad Kumar and Vong-Ek 2009).

Third, this study draws on the perspectives of key policy actors in Thailand to elicit how postpartum care and services, and the problem of low utilisation, are perceived. This gives some indications for why there is a low use of postpartum care services, and explains why the Thai government is less focused on postpartum care than on prenatal and obstetric care (Bick, Bastos *et al.* 2008).

By integrating heterogeneous evidence from women, the healthcare system, and policy actors, this study offers the most comprehensive analysis of the low use of postpartum care services in Thailand. This analysis would not have been possible without evidence from all three of these groups.

8.4.2 Methodological Contributions

The mixed methods approach used in this thesis has provided a more complete picture than that found in the majority of previous studies which have used either quantitative or qualitative approaches. In this respect, the thesis extends conventional methodologies' boundaries to prompt the use of a mixed-methods approach to address similar research objectives (Asante 2006).

Another significant contribution made by this thesis is the distinctive application of prospective design in the qualitative study, used to examine women's intentions and actual behaviour in postpartum service use. In this way, the barriers and facilitators that have changed or modified women's intentions and behaviour have been uncovered. This time-varying perspective is absent from other studies; a small, but growing, body of literature suggests the use of prospective design to explore postpartum women's behaviour, but little has been suggested about the method of analysis. Methodologically, this study has demonstrated how a prospective qualitative study can form the basis for an analysis, providing a model for future similar work.

8.5 Directions for Future Research

Three directions for future research are suggested. First, due to time and resource constraints, this current study has focused only on women who reside in Kanchanaburi Province. Future research is needed to extend the analysis to other settings with different population characteristics (for example, Muslim populations in southern Thailand) so that, in addition to the current findings, a more comprehensive nationwide picture of the utilisation of postpartum care services can be developed. Second, future research analysing the health needs of postpartum women will be useful for determining the elements and thus the practices of postpartum care services. In such analyses, the duration of observation could be extended to three, six, or twelve months postpartum, in order to uncover health issues that might occur in the medium-term. Such studies will provide more robust evidence from Thailand as a developing nation for the development of guidelines for postpartum care. Finally, within the country's limited health resources, research on the health system and its operation will be highly useful for the government in identifying an appropriate model of postpartum service delivery.

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Appendix 4-1

Ethical approval letter from Thailand Ministry of Public Health



Document No. 7 /2007

The Ethical Review Committee for Research in Human Subjects
Ministry of Public Health, Thailand

Title of Project : The utilization of postpartum care services in Thailand : A case study of
Kanchanaburi Province. (Ref. No. 99/2549)

Principle Investigator : Mrs. Wiraporn Pochisri

Place of proposed study :

Paholpolpayuhaseene Hospital	Makarak Hospital
Somdejprapiyemaharaj Rommaneeyakhet Hospital	Sai Yok Hospital
Dho Ploy Hospital	The Kradm Hospital
The Muang Hospital	Thongphabnumi Hospital
Sengkleburi Hospital	Cheo Khun Paiboonluan Hospital
Lac kwan Hospital	Dan Mekamta
Satharprabaramee Hospital	Khai Sunasae Hospital
Sooksinrasawat Hospital	Huey Krejao Hospital
The Rua Health Center	Thansan Hospital
Saeng Xuta Hospital	Kanchanaburi Memorial
Noi River Christian Health Center	Thesaban Muang Kanchanaburi 1
Thesaban Muang Kanchanaburi 2	Thesaban Tambon The Pra Tan

Document Reviewed:

1. English proposal Final version
2. Curriculum Vitae

Document Approved:

1. Thai proposal revised version date January 15, 2007
2. information sheet for
 - Volunteers KI-1 group
 - Volunteers KI-2 group
 - Volunteers KI-3 group

3. Informed consent form

We also confirm that we are an ethics committee constituted in agreement and in accordance with the ICH-GCP.

The Ethical Review Committee for Research in Human Subjects Ministry of Public Health, Thailand had reviewed both Thai and English protocol. In ethical concern, the committee has reviewed and approved for implementation of the research study as above mention, therefore the Thai protocol will be mainly conduct. The protocol must be approved by continuation review for the duration of one year until expired.

Chatri Banchuin

Chairman

(Mr. Chatri Banchuin)

Pakorn Siriyong

Secretary

(Mr. Pakorn Siriyong)

Date of Meeting November 29, 2006

Date of Approval January 17, 2007 Date of Expired January 16, 2008

Appendix 4-2

Research introductory sheet and informed consent form

เอกสารแนะนำโครงการ (สำหรับกลุ่ม KI-3)

คำแนะนำและวัตถุประสงค์:

นักวิจัยกำลังเรียนเชิญท่านเข้าร่วมโครงการวิจัยการใช้บริการดูแลสุขภาพหลังคลอดในประเทศไทย กรณีศึกษา: จังหวัดกาญจนบุรี (The Utilization of postpartum care services in Thailand: A case study of Kanchanaburi Province) เป็นโครงการศึกษาระดับปริญญาเอกของนางวิราภรณ์ โพธิศิริ นักเรียนปริญญาเอก ณ ลอนดอน สกูล ออฟ อีโคโนมิคส์ มหาวิทยาลัยลอนดอน

การวิจัยการดูแลสุขภาพหลังของมารดามีวัตถุประสงค์หลักในการศึกษาปัจจัยของการใช้บริการดูแลสุขภาพหลังคลอดของมารดาที่สถานพยาบาล พฤติกรรมของมารดาในช่วงหลังจากการคลอดบุตร ความรู้ความเข้าใจ ตลอดจนมุมมองและทัศนคติที่มีต่อการดูแลตนเองหลังการคลอด ในการศึกษาวิจัยในครั้งนี้ ประกอบไปด้วยสองส่วน ส่วนที่หนึ่งคือ การวิเคราะห์ข้อมูลสถิติเพื่อศึกษาสถานการณ์ในปัจจุบันของการดูแลอนามัยแม่และเด็ก ตลอดจนการใช้วิธีทางสถิติในการวิเคราะห์ปัจจัยที่เป็นตัวกำหนดการใช้บริการดูแลสุขภาพหลังคลอดของมารดา และในส่วนที่สองจะเป็นการเก็บข้อมูลเชิงคุณภาพ โดยใช้วิธีการสัมภาษณ์เชิงลึก และการอภิปรายกลุ่ม

ขั้นตอน:

ในฐานะที่ท่านเป็นผู้เข้าร่วมโครงการวิจัยนี้ ผู้วิจัยขอให้ท่านตอบคำถามกับผู้วิจัยหรือผู้สัมภาษณ์ที่ผ่านการฝึกฝนเรียบร้อยแล้ว การสัมภาษณ์จะใช้เวลาประมาณ 1 ชั่วโมง ผู้วิจัยจะสัมภาษณ์ในวัน เวลาและสถานที่ที่ท่านสะดวก และขออนุญาตบันทึกเทปการสัมภาษณ์เพื่อที่จะนำไปใช้ในการอ้างอิง คำถามที่ผู้วิจัยซักถามท่านจะเป็นคำถามที่เกี่ยวข้องกับการดูแลสุขภาพหลังคลอดของท่าน มุมมองและความคิดของท่านต่อการดูแลสุขภาพหลังคลอดของตนเอง ตลอดจนความรู้และความเข้าใจในการประกอบกิจกรรมต่าง ๆ หลังคลอดการ

ความเสี่ยง:

ในการสัมภาษณ์อาจมีบางคำถามที่ท่านรู้สึกไม่สบายใจหรือสะอึกใจที่ตอบ ถ้าเป็นเช่นนั้นท่านสามารถเลือกที่จะไม่ตอบคำถามดังกล่าวได้ ถ้าท่านตัดสินใจที่จะไม่ตอบคำถามใดคำถามหนึ่งเฉพาะเจาะจง หรือไม่ต้องการที่จะอภิปรายในหัวข้อใดก็ตาม ท่านสามารถข้ามประเด็นนั้นไปได้ และผู้วิจัยจะสัมภาษณ์ท่านในหัวข้อถัดไป

ประโยชน์ที่ได้รับจากโครงการวิจัย:

ท่านอาจมีความรู้สึกยินดีที่ได้รับโอกาสในการบอกเล่าและแบ่งปันประสบการณ์และความคิดของท่าน แต่อย่างไรก็ตาม การเข้าร่วมงานวิจัยในครั้งนี้ไม่ได้ก่อให้เกิดผลประโยชน์โดยตรงกับท่าน แต่การเข้าร่วมงานวิจัยของท่านจะช่วยให้ผู้วิจัยสามารถเข้าใจถึงความคิด และมุมมอง ตลอดจนพฤติกรรม การดูแลสุขภาพหลังคลอดของท่าน อันเป็นแนวทางไปสู่การเสนอรูปแบบให้บริการดูแลหลังคลอด เพื่อให้บริการเข้าถึงมารดา

คำตอบแทน :

ท่านจะไม่ได้รับคำตอบแทนจากการเข้าร่วมโครงการวิจัยนี้

ทางเลือก:

ท่านสามารถเลือกที่จะไม่เข้าร่วมโครงการวิจัยนี้ได้

การเก็บรักษาความลับ:

การเข้าร่วมโครงการวิจัยนี้อาจจะทำให้ท่านสูญเสียความเป็นส่วนตัวบางส่วนเพราะอาจมีบุคคลอื่นนอกจากผู้วิจัยได้เห็นบันทึกการสัมภาษณ์ บุคคลอื่นในที่นี้คืออาจารย์ที่ปรึกษาของผู้วิจัย แต่อย่างไรก็ตาม ผู้วิจัยจะบันทึกการสัมภาษณ์ต่อเมื่อได้รับอนุญาตจากท่านเท่านั้น และหลังจากการสัมภาษณ์เสร็จสิ้น ผู้วิจัยจะเป็นฟังและถอดเทปการสัมภาษณ์ด้วยตนเอง ในการบันทึกบทสัมภาษณ์ ผู้วิจัยจะใช้รหัสหรือนามสมมติแทนชื่อจริงของท่าน เพื่อเป็นการเก็บรักษาข้อมูลของท่านไว้เป็นความลับ เหนือบันทึกเสียง

สิทธิของผู้ให้สัมภาษณ์:

ท่านเข้าร่วมโครงการวิจัยครั้งนี้ด้วยความสมัครใจอย่างสมบูรณ์ ท่านมีอิสระที่จะปฏิเสธไม่ตอบคำถามหนึ่งได้ หรือสามารถถามถึงสิ่งที่ผู้วิจัยไม่ได้อภิปรายเฉพาะเจาะจง หรือสามารถหยุดการสัมภาษณ์ได้ทันทีที่ต้องการ ในระหว่างการสัมภาษณ์ ท่านสามารถขอหยุดการบันทึกเทปการสัมภาษณ์ได้ตลอดเวลาที่ท่านต้องการ ท่านสามารถขอตรวจสอบแก้ไขเทปและการบันทึกการสัมภาษณ์ได้ตามที่ท่านต้องการ

สถานที่ติดต่อ:

หากมีคำถามหรือข้อสงสัยเกี่ยวกับโครงการวิจัย ท่านสามารถติดต่อโดยตรงที่ผู้วิจัย

นางวิราภรณ์ ไพรศิริ

วิทยาลัยประชากรศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

อาคารวิจิตรศิลป์ประจวบเหมาะ ถนนพญาไท

แขวงวังใหม่ เขตปทุมวัน

กทม. 10330

เบอร์โทรศัพท์ 02-218-6404 และ 081-343-9669

ใบยินยอมด้วยความสมัครใจ

ชื่อโครงการ โครงการวิจัยการให้บริการดูแลสุขภาพหลังคลอดในประเทศไทย กรณีศึกษา:
จังหวัดกาญจนบุรี
วันที่ให้การยินยอม วันที่.....เดือน.....พ.ศ.....

ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึง
วัตถุประสงค์ของการวิจัย วิธีการวิจัย และประโยชน์ที่ได้จากการวิจัย รวมไปถึงผลข้างเคียงที่
อาจเกิดขึ้นจากการวิจัยอย่างละเอียด และมีความเข้าใจดีแล้ว

ผู้วิจัยรับรองว่าจะตอบคำถามต่างๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบัง ซ่อนเร้น จนเป็น
ที่พอใจของข้าพเจ้า

ข้าพเจ้าเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจ ข้าพเจ้ามีสิทธิในการบอกเลิกการให้
สัมภาษณ์และผลของการเข้าร่วมโครงการวิจัยเมื่อใดก็ได้ ตามที่ข้าพเจ้าต้องการ ทั้งนี้ ผู้วิจัย
รับรองว่าจะเก็บข้อมูลเกี่ยวกับตัวข้าพเจ้าเป็นความลับ หากมีการอ้างอิง จะต้องเป็นการใช้ชื่อ
สมมุติเท่านั้น

ข้าพเจ้าได้รับรายละเอียดที่สามารถติดต่อผู้วิจัยได้ตลอดเวลาแล้ว
คำยินยอมให้นำข้อมูลไปใช้เพื่อการวิจัย:

ข้าพเจ้าได้อ่านเอกสารแนบไปโครงการ ข้อความข้างต้น และได้รับทราบคำอธิบายเกี่ยวกับ
โครงการวิจัยนี้แล้ว และมีความเข้าใจดีทุกประการ ข้าพเจ้ายินดีที่จะเข้าร่วมโครงการวิจัย
ข้างต้น และลงนามในใบยินยอมนี้ด้วยความเต็มใจ

ลงนามผู้ยินยอม.....

ลายเซ็นผู้ยินยอม.....

ลงนามพยาน.....

ลงนามผู้วิจัย

ท่านอาจมีความรู้สึกยินดีที่ได้รับโอกาสในการบอกเล่าและแบ่งปันประสบการณ์และความคิดของท่าน แต่อย่างไรก็ตาม การเข้าร่วมงานวิจัยในครั้งนี้ไม่ได้ก่อให้เกิดผลประโยชน์โดยตรงกับท่าน แต่การเข้าร่วมงานวิจัยของท่านจะช่วยให้ผู้วิจัยสามารถเข้าใจถึงความคิด และมุมมอง ตลอดจนพฤติกรรม การดูแลสุขภาพหลังคลอดของท่าน อันเป็นแนวทางไปสู่การเสนอรูปแบบให้บริการดูแลหลังคลอด เพื่อให้บริการเข้าถึงมารดา

คำตอบแทน :

ท่านจะไม่ได้รับคำตอบแทนจากการเข้าร่วมโครงการวิจัยนี้

ทางเลือก:

ท่านสามารถเลือกที่จะไม่เข้าร่วมโครงการวิจัยนี้ได้

การเก็บรักษาความลับ:

การเข้าร่วมโครงการวิจัยนี้อาจจะทำให้ท่านสูญเสียความเป็นส่วนตัวเพราะอาจมีบุคคลอื่นนอกจากผู้วิจัยได้เห็นบันทึกการสัมภาษณ์ บุคคลอื่นในที่นี้คืออาจารย์ที่ปรึกษาของผู้วิจัย แต่อย่างไรก็ตาม ผู้วิจัยจะบันทึกการสัมภาษณ์ต่อเมื่อได้รับอนุญาตจากท่านเท่านั้น และหลังจากการสัมภาษณ์เสร็จสิ้น ผู้วิจัยจะเป็นฟังและถอดเทปการสัมภาษณ์ด้วยตนเอง ในการบันทึกบทสัมภาษณ์ ผู้วิจัยจะใช้รหัสหรือนามสมมติแทนชื่อจริงของท่าน เพื่อเป็นการเก็บรักษาข้อมูลของท่านไว้เป็นความลับ เทียบบันทึกเสียง

สิทธิของผู้ให้สัมภาษณ์:

ท่านเข้าร่วมโครงการวิจัยครั้งนี้ด้วยความสมัครใจอย่างสมบูรณ์ ท่านมีอิสระที่จะปฏิเสธไม่ตอบคำถามหนึ่งได้ หรือสามารถถามถึงสิ่งที่ผู้วิจัยไม่ได้อภิปรายเฉพาะเจาะจง หรือสามารถหยุดการสัมภาษณ์ได้ทันทีที่ต้องการ ในระหว่างการสัมภาษณ์ ท่านสามารถขอหยุดการบันทึกเทปการสัมภาษณ์ได้ตลอดเวลาที่ท่านต้องการ ท่านสามารถขอตรวจสอบแก้ไขเทปและการบันทึกการสัมภาษณ์ได้ตามที่ท่านต้องการ

สถานที่ติดต่อ:

หากมีคำถามหรือข้อสงสัยเกี่ยวกับโครงการวิจัย ท่านสามารถติดต่อโดยตรงที่ผู้วิจัย

นางวิราภรณ์ โพธิศิริ

วิทยาลัยประชากรศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

อาคารวิศิษฐ์ประจวบเหมาะ ถนนพญาไท

แขวงวังใหม่ เขตปทุมวัน

กทม. 10330

เบอร์โทรศัพท์ 02-218-6404 และ 081-343-9669

ใบยินยอมด้วยความสมัครใจ

ชื่อโครงการ โครงการวิจัยการให้บริการดูแลสุขภาพผู้สูงอายุในเขตเทศบาลนครเชียงใหม่
จังหวัดภาคเหนือ
วันที่ให้การยินยอม วันที่.....เดือน.....พ.ศ.....

ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย และประโยชน์ที่ได้จากการวิจัย รวมไปถึงถึงผลข้างเคียงที่อาจเกิดขึ้นจากการวิจัยอย่างละเอียด และมีความเข้าใจดีแล้ว

ผู้วิจัยรับรองว่าจะตอบคำถามต่างๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปกปิด ซ่อนเร้น จนเป็นที่พอใจของข้าพเจ้า

ข้าพเจ้าเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจ ข้าพเจ้ามีสิทธิในการบอกเลิกการให้สัมภาษณ์และผลของการเข้าร่วมโครงการวิจัยเมื่อใดก็ได้ ตามที่ข้าพเจ้าต้องการ ทั้งนี้ ผู้วิจัยรับรองว่าจะเก็บข้อมูลเกี่ยวกับตัวข้าพเจ้าเป็นความลับ หากมีการอ้างอิง จะต้องเป็นการใช้ชื่อสมมุติเท่านั้น

ข้าพเจ้าได้รับรายละเอียดที่สามารถติดต่อผู้วิจัยได้ตลอดเวลาแล้ว
คำยินยอมให้นำข้อมูลไปใช้เพื่อการวิจัย:

ข้าพเจ้าได้อ่านเอกสารแนะนำโครงการ ชัดความข้างต้น และได้รับทราบคำอธิบายเกี่ยวกับโครงการวิจัยนี้แล้ว และมีความเข้าใจดีทุกประการ ข้าพเจ้ายินดีที่จะเข้าร่วมโครงการวิจัยข้างต้น และลงนามในใบยินยอมนี้ด้วยความเต็มใจ

ลงนามผู้ยินยอม.....

ลายเซ็นผู้ยินยอม.....

ลงนามพยาน.....

ลงนามผู้วิจัย

Appendix 4-3

In-depth interview guide with targeted women

Record no.

In-depth Interview Guideline

Targeted women (KI-3)

KDSS Identification number

District _____

Sub-district _____

Village _____

Household No. _____

Individual No. _____

Existing KDSS individual:	(1) Yes (2) No, I moved in this household in _____ (year)
Title of the respondent:	(1) Miss (2) Mrs.
Name of the respondent:	_____
Respondent's address:	House No. _____ Village No. _____ Village name _____ Sub-district _____ District _____
Residence:	(1) Municipality (2) Rural
Family structure:	(1) Nuclear family (2) Nuclear family but living next to parent's/parent-in-law's house (3) Extended family (living with parent or parent-in-laws or other relative)
Nearest health facility:	(1) Located within the same village (2) Located at a nearby village (Village No. _____ Village name _____)
Name of the nearest health facility:	_____
Number of pregnancy weeks:	_____ (weeks) [Ask if she has the MCH book]
Expected delivery date:	_____ (approx.)

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
SECTION 1A: PERSONAL INFORMATION	SECTION 1B: THE BABY'S AND WOMEN'S INFORMATION
<p>1.1A What is your birth date? [PROBE: if the woman cannot remember the exact birth date, ask her 'How old are you?']</p> <p>1.2A What is your current marital status now? [Single, married, widowed, divorced, or separated]</p> <p>1.3A How many years of schooling have you completed?</p> <p>1.4A Are you currently working? a. No — [PROBE1: Are you looking for job?] [PROBE2: Is the respondent a student or a housewife] [PROBE3: Stop working because of pregnancy] b. Yes — 1b) What type of work is it? 2b) When do you plan to stop working?</p>	<p><i>Researcher: Check whether the birth results in twins or triplets. If so, record information for the twins/triplets.</i></p> <p>1.1B What is the baby's name?</p> <p>1.2B Is the baby a boy or a girl?</p> <p>1.3B What was the baby's birth weight (grams)? [Ask for the MCH booklet]</p> <p>1.4B Did the baby receive any vaccination before the hospital discharge?</p> <p>1.5B After the hospital discharge, did you have to bring the baby to see any health staff? a. No — [PROBE: Didn't the baby has any health problem?] b. Yes — 1b) When and where? 2b) why was the baby taken to health staff?</p> <p>1.6B Do you have any appointment with the health staff for the baby's vaccination? a. No — [PROBE: Has the baby completed the course of vaccination?] b. Yes — 1b) When is the appointment? 2b) Where will you go?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>1.5A How many times have you been pregnant? [excluding the current pregnancy]</p> <p>1.5.1A If the current pregnancy is not the first, ask the respondent whether all previous pregnancies ended in live births?</p> <p>1.5.2A If all previous pregnancies ended by living children, ask for the children's date of birth. If not, ask the respondent to describe in detail [PROBE: was it livebirth or stillbirth?]</p>	<p><i>Now I would like to ask information about yourself</i></p> <p>1.7B What is your current marital status? [Single, married, widowed, divorced, or separated]</p> <p>1.7.1B) [X-check to Q1.4A] If the answers are not the same, ask if the respondent has separated with her husband (and when?).</p> <p>1.8B Have you resumed working?</p> <p>a. No — 1a) Do you plan to work? 2a) If the answer to 1a) is 'yes', ask if the respondent has planned to start working.</p> <p>b. Yes — 1b) What type of work is it? 2b) When did you start working?</p>
<p><i>Researcher's statement: For the following questions, I would like to focus on your CURRENT pregnancy.</i></p>	
SECTION 2A: PRENATAL AND SELF-CARE DURING PREGNANCY	SECTION 2B: DELIVERY CARE
<p>2.1A At the time you got pregnant, did you want to get pregnant?</p> <p>a. No — 1a) Did you want to wait until later? (If yes, ask how much longer the woman would like to wait? If no, probe if she did not want to have any (more) child at all?)</p> <p>2a) Have you ever used anything or tried in any way to delay or avoid getting pregnant? If yes, what method did you use? [PROBE: Pills, IUDs, injectables, implants, condom, diaphragm,</p>	<p>2.1B Before giving birth, how many times did you receive prenatal check-up?</p> <p>2.2B Where did you give birth? 2.2.2b[X-check to Q2.8A] If it is not the same place as planned, ask for the reason.</p> <p>2.3B How did you get to the delivery place? 2.3.1B) Who accompanied you to the hospital for delivery? 2.3.1.1B) Was your husband with you when you delivered the baby?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>rhythm, withdrawal, others]</p> <p>3a) Have you and your husband ever discussed about this pregnancy? What were the issues that came up during your discussion?</p> <p>b. Yes — 1b) Was this pregnancy your own decision, your husband's, a mutual agreement between you and your husband or other people's? If other people's, ask the woman who influenced the pregnancy?</p> <p>2b) Do you know how long it took to get pregnant? [PROBE: how many months did you try to get pregnant?]</p> <p>2.2A Have you seen anyone for health check-up /examination during this pregnancy?</p> <p>a. No — Why not? [PROBE: not service available, not sure, too early to attend, inconvenient service hour, lack of privacy, lack of provider expertise, long time waiting, not beneficial/needed] [THEN SKIP TO Q 2.6A]</p> <p>b. Yes — 1b) How many months were you pregnant when this pregnancy was first checked? [RPOBE: the first time the women went for prenatal check-up was just because she wanted to check everything was fine or she had a problem? If she had a problem, then ask her to describe the problem]</p>	<p>2.3.2B) At what point of your labor did you go to the delivery place?</p> <p>2.4B What was the delivery method?</p> <p>2.4.1B) [X-check to Q2.9A]If it is not the same method as planned, ask for the reason</p> <p>For women who planned for normal delivery but had C-section instead:</p> <p>2.4.2A) Why did the doctor decide to do the c-section for you? [PROBE: Ante-partum hemorrhage, bleeding during labor, obstructed labor, eclampsia, malpresentation, fetus unwell, diabetic mother, previous neonatal death, very young/old mother]</p> <p>2.4.3B) Did you know you were going to have C-section before the time of delivery? (GO TO Q 2.5B)</p> <p>2.5B Did you have any problem during delivery?</p> <p>a. No [PROBE: Bleeding, convulsion with loss of consciousness, eclampsia, fever during labor, fainting during labor, prolonged labor, retained placenta, vaginal tear, ruptured uterus, hysterectomy]</p> <p>b. Yes</p> <p>c. I don't know/I can't remember</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>2b) How many times have you had a pregnancy check-up so far?</p> <p>3b) Where and from whom did you have each of the pregnancy check-ups?</p> <p>4b) Who generally accompanied you to have the prenatal check-up?</p> <p>5b) Can you tell me about the expenses incurred from the prenatal visits?</p> <ul style="list-style-type: none"> - Health check-up fee - Transportation cost - Paying for someone to accompany you - Other (e.g. food) <p>6b) Who paid for the expenses?</p> <p>7b) Could any of the expenses be reimbursed?</p> <p>8b) Do you have to borrow money from anyone to pay for the expenses? If yes, who did you borrow the money from?</p> <p><i>For prenatal-registered women only:</i></p>	<p><i>For multiparous women only:</i></p> <p>2.5.1B) Did you have any problem during your previous deliveries?</p> <p>2.6B How long did you stay at the hospital after delivery?</p> <p>2.6.1B) How did you feel while staying at the hospital after delivery for recovery?</p> <p>[PROBE: Comfortable/uncomfortable/want to go home/exhausted]</p> <p>2.6.2B) If the hospital stay lasted longer than 2 nights for the woman with vaginal delivery, ask for the reason</p> <p>2.6.3B) If the reason was 'sterilization', ask the respondent:</p> <p>2.6.3.1B) Who influenced your decision to undergo sterilization?</p> <p>2.6.3.2B) Did you receive any information on sterilization before the operation?</p> <p>2.7B Do you find any difficulties during the hospital stay?</p> <p>[PROBE: Did they provide the assistance you needed?]</p> <p>Did they give you enough information? (if yes, ask what sorts of information you wish the doctors or nurses should have given you before leaving the hospital?)</p> <p>Did they provide contradictory advice?</p> <p>2.8B How satisfied were you with the delivery service at _____?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>2.3A During this pregnancy, have you received any injection in the arm to prevent the baby from getting tetanus?</p> <p>2.3.1A) From whom and how many injections did you get?</p> <p>2.4A Have you got the prenatal ultrasound?</p> <p>2.4.1A) Who did the ultrasound for you?</p> <p>2.4.2A) Where did you get the ultrasound from?</p> <p>2.4.3A) Did you request for the ultrasound? If yes, why?</p> <p>[PROBE: Would you mind about the baby's sex? If yes, ask the women:</p> <ul style="list-style-type: none"> - Do you want a boy or a girl? - Did the examination show your preference of the baby's sex? Were you disappointed? - Have you and your husband ever discussed about the baby's sex? What were the issues that came up? <p>2.4.4A) Who paid for the prenatal ultrasound?</p> <p>2.4.5A) Was the cost of ultrasound reimbursable?]</p> <p>2.5A Do you find any difficulties in receiving prenatal care from health professionals?</p> <p>[PROBE: health facility is closed early, health staff not available, inconvenient transportation, unhelpful health professionals, long queue, etc.]</p>	<p>2.9B Can you tell me about the expenses incurred from this delivery?</p> <ul style="list-style-type: none"> - Delivery fee - Transportation cost - Paying for someone to accompany you - Fee for upgrading accommodation - Other (e.g. food) <p>2.9.1B) Who paid for the expenses?</p> <p>2.9.2B) Could any of the expenses be reimbursed?</p> <p>2.9.3B) Do you have to borrow money from anyone to pay for the delivery expenses? If yes, who did you borrow the money from?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>2.6A Do you know the sign of danger during pregnancy?</p> <p>a. No ---- [PROBE: During the prenatal check-ups, weren't you told about sign of danger?]</p> <p>b. Yes ---- 1b) What kind of health problems can a women have when she is pregnant? [PROBE: Prolonged labor, vaginal bleeding, fever, convulsions, faint, breathlessness, tiredness, other]</p> <p>2b) Where did you learn from?</p> <p>3b) What should the women do if she experienced the problem?</p> <p>2.7A During this pregnancy, how have you taken care of your health?</p> <p>2.7.1A) Did anyone inform you how to take care of your health during pregnancy?</p> <p>2.7.2A) What types of information did you receive and what were sources of information?</p> <p>2.7.3A) In your opinion, what types of care are important to the women's health during pregnancy?</p> <p>2.8A During pregnancy, have you discussed with anyone about:</p> <ul style="list-style-type: none"> - place of delivery - transportation to the place of delivery - Who is going to accompany you to the delivery place? - Payment for the delivery <p>2.8.1A) Whom did you discuss with?</p>	

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>2.8.2A) What were the issues that came up during the discussion?</p> <ul style="list-style-type: none"> - Where and why you chose the place for delivery? - Mode of transportation - Accompanying person(s) - Method of payment <p>[PROBE1: expenses reimbursable? All or partially? Types of insurance</p> <p>PROBE2: Sell asset/borrow money from anyone to pay for the delivery expenses? If yes, who did you borrow the money from?]</p> <p><i>For multiparous women only:</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>2.8.3A) Ask the woman about the places of delivery and birth assistants for her previous pregnancies.</p> <p>2.8.4A) If the answer to Q 2.8.3A is different from that to Q 2.8.2A, ask the respondent to describe why she has decided not to receive the service from the previous birth assistants.</p> <p>[PROBE: is this because the TBAs have no longer provided the service?]</p> </div> <p>2.9A Have you discussed with anyone about the <u>method of delivery</u>?</p> <p>a. No — 1a) Have you planned for the method of delivery?</p> <p>a. No — 1.1a) why not</p>	

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>b. Yes — 1.1b) Which method and why? 1.2b) If the C-section method is planned, ask for the respondent's reason [PROBE: Personal desire to avoid vaginal birth, breech position of baby, multiple babies, size of baby, baby or mother's health, doctor's refusal to permit VBAC (Vaginal Birth After Cesarean)]</p> <p>c. It's up to the "doctor" (identify what "the doctor" means: doctor/midwife/health technician²)</p> <p>b. Yes — 1b) Whom did you discuss with? 2b) What was the delivery method that came up during the discussion? 3b) If the C-section method is planned, ask for the respondent's reason [PROBE: Personal desire to avoid vaginal birth, breech position of baby, multiple babies, size of baby, baby or mother's health, doctor's refusal to permit VBAC (Vaginal Birth After Cesarean)]</p>	

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For multiparous women only:</i></p> <p>2.9.1A) Ask the woman about her previous delivery methods</p> <ul style="list-style-type: none"> - Why did you choose those methods? Was it your decision? - Did any delivery complication happen? <p>2.9.2A) If the answers to Q 2.9.1A are different from that to Q 2.9A, ask the respondents to describe their reasons</p> <p>2.10A Can you tell me what kind of problem can happen to a woman during delivery? [PROBE: Nothing, water break too early, excessive bleeding during delivery, fever, long labor, faint, convulsion, placenta does not come out, stillbirth]</p> <p>2.10.1A) Where did you learn from?</p> <p>2.11A If not mentioned, ask 'did you have someone coming to massage your abdomen during pregnancy?'</p> <ul style="list-style-type: none"> a. No — [PROBE: Do you plan to do so? When?] b. Yes — 1b) Who provided the massage? <ul style="list-style-type: none"> 2b) What was the massage for? 3b) How often did you get the massage? <p>2.12A Do you have any traditional beliefs and practices during the pregnancy and in</p>	

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>relation to childbirth?</p> <p>a. No — [PROBE: Activities: no bathing in the evening to prevent miscarriage, keep working, not attending any funeral function. Consumption: drinking water contained in the vases holding lotuses from a temple³, eating banana to prevent an obstructed birth, etc.]</p> <p>b. Yes — 1b) What are the beliefs and practices? 2b) Who informed you? 3b) Did you follow? 4b) Do you think these beliefs and practices are useful for you? (If yes, in what ways? If no, why?)</p>	
SECTION 3A: SELF-REPORT ILLNESS/HEALTH STATUS AND THE CORRESPONDING HEALTHCARE SEEKING BEHAVIORS	SECTION 3B: SELF-REPORT ILLNESS/HEALTH STATUS AND THE CORRESPONDING HEALTHCARE SEEKING BEHAVIOR
<p>3.1A Have you ever been hospitalized for any reason during the pregnancy?</p> <p>a. No</p> <p>b. Yes — Why were you hospitalized?</p> <p>3.2A Have you had any health problems so far during this pregnancy?</p> <p>a. No</p> <p>[PROBE1: high blood pressure, chest discomfort, convulsion, severe headache, vaginal bleeding, heaving bleeding, severe pain in abdomen, vomiting, lose appetite, pale, yellow skin, usual size of abdomen, vaginal discharge with foul odour, high fever, urine became</p>	<p>3.1B After returning home, have you been hospitalized for any reason?</p> <p>a. No</p> <p>b. Yes — Why were you hospitalized? Where? When?</p> <p>3.2B After returning home, have you experienced any health problems?</p> <p>a. No</p> <p>[PROBE1: Pain in the lower abdomen, high fever, vaginal bleeding, foul discharge, convulsions, backache, frequent headaches, pelvic pains, hemorrhoids, constipation, perineal pain, pale, anemia, breast soreness, Abscess scar, jaundice</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>dark as tea, loin pain, anemia, difficulty in passing urine, frequent fainting, face/feet swollen, diabetes, others]</p> <p>PROBE2: For prenatal-registered women only: <i>What did the doctor or nurse say about your health during prenatal visits?</i></p> <p>b. Yes —1b) What were the symptoms you had experienced? 2b) What do you regard as the causes of the problem? 3b) What did you do to overcome the problem? [PROBE1: Did you buy drugs on your own from a pharmacy? (If yes, ask why the respondent did not seek for treatment from health professionals. PROBE2: If the respondent's seek for the treatment, ask how long after the problem occurred that she seek for the treatment] 4b) Was your problem resolved? If not, did you seek for a second treatment? From whom? Where?</p> <p>3.3A How do you feel about your pregnancy? [Happy, excited, blissful, unhappy, anxious, tired, sluggish, stress, sad, blue, miserable, down] [PROBE: During the pregnancy, do you feel any mood swing?]</p> <p>3.4A During pregnancy, did you feel <u>tired</u> or <u>tense</u> compared to before pregnancy? - If yes, how often? - Were you able to eat/sleep/work?</p>	<p>PROBE2: <i>Before hospital discharge, what did the doctor/nurse tell you about your health?</i></p> <p>PROBE3: <i>Have you taken any medicine?</i></p> <p>b. Yes —1b) What were the symptoms you had experienced? 2b) When did the symptoms happen? (Number of days or weeks after the hospital discharge) 3b) What do you regard as the causes of the problem? 4b) What did you do to overcome the problem? [PROBE1: Did you buy drugs on your own from a pharmacy? (If yes, ask why the respondent did not seek for treatment from health professionals. PROBE2: If the respondent's seek for the treatment, ask how long after the problem occurred that she seek for the treatment] 4b) Was your problem resolved? If not, did you seek for a second treatment? From whom? Where?</p> <p>3.3B After the baby born, how do you feel about yourself? [PROBE: Feeling down on yourself, feeling terrible or depressed, feeling sad, tearfulness, anxiety, or irritability] - When and how often did you have that feeling? - Please shortly describe your feeling at that moment. - Does/did your feeling this way affect your <u>eating</u> (lose appetite) and <u>sleeping</u> behavior, the <u>baby care</u>, the relationship with your</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>- Did you consult anyone? Who? Where?</p> <p>3.5A Do you feel you got ill in general easily than before pregnancy?</p> <p>3.6A In comparison to other women in general at your age, how do you feel about your health?</p> <p><i>For multiparous women only:</i></p> <p>3.7A Did you have any health problems during your previous pregnancy? / pregnancies</p> <p>3.8A Compared with health during the previous pregnancy, how do you feel</p>	<p>husband, family members, friends or other people, or your work?</p> <p>- Did you consult anyone?</p> <p>- Do you still feel this way?</p> <p>3.4B How do you feel about the baby?</p> <p>3.5B How do you feel about your current health?</p> <p>3.5.1A) Do you have any concern on your health after giving birth?</p> <p>3.5.2A) In comparison to other women at your age, how do you feel about your current health?</p> <p>3.6B In comparison to your health before pregnancy, how do you feel about your current health?</p> <p><i>For multiparous women only:</i></p> <p>3.7B Did you have any health problems after giving birth for your previous pregnancies?</p> <p>3.8B Compared with your health after giving birth for the previous pregnancies, how do you feel about your current health?</p>
SECTION 4A: KNOWLEDGE AND PERSPECTIVES ON PPC	SECTION 4B: ACTUAL POSTPARTUM CARE
<p>4.1A In general, how do women in your village care for themselves after leaving the hospital?</p>	<p>4.1B Before leaving the hospital, did you receive any information regarding your (the mother's) healthcare from the health staffs?</p> <p>a. No</p> <p>[PROBE: leaflets, care guidebooks, postpartum classes,</p>

TOPICS FOR DISCUSSION

PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For multiparous women only:</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>4.1.1A) For your previous pregnancies, how did you care for your health after giving birth?</p> </div> <p>4.2A Do you know what kind of problems can happen to the mother after giving birth?</p> <p style="margin-left: 20px;">a. No</p> <p style="margin-left: 20px;">b. Yes — 1b) What kind of health problems can happen to the mother after giving birth?</p> <p style="margin-left: 40px;">[PROBE: Excessive bleeding, faint, convulsions, fever, foul-smelling discharge, sore breast, sadness, depression, other]</p> <p style="margin-left: 20px;">2b) Where did you learn from?</p> <p style="margin-left: 20px;">3b) What should the women do if she experienced the problem?</p> <p>4.3A In your opinion, what is the most important health care for women after giving birth? Why?</p> <p>4.4A How long do you think the postpartum women should be cared for?</p>	<p style="text-align: center;">breastfeeding lectures, one-on-one training]</p> <p>b. Yes — 1b) What information did you obtain?</p> <p style="margin-left: 20px;">2b) Who provided the information?</p> <p style="margin-left: 20px;">3b) Did information match your need?</p> <p style="margin-left: 20px;">4b) If the answer to 3b) is 'no', ask 'what sort of information would you like to obtain from the doctors or nurses?'</p> <p><i>I'd like to ask about your healthcare (both self-care and care provided by other) during the first week and six weeks after giving birth.</i></p> <p>4.2B Please tell me the types of healthcare you had during the first week?</p> <p style="margin-left: 20px;">4.2.1A) During this first week after delivery, what types of care did you need the most? Why?</p> <p style="margin-left: 20px;">4.2.2A) Did you receive the care you needed? Why or why not?</p> <p>4.3B Please tell me the types of healthcare you had during the six week after giving birth?</p> <p style="margin-left: 20px;">4.3.1A) What types of care did you need the most during this period? Why?</p> <p style="margin-left: 20px;">4.3.2A) Did you receive the care you needed? Why or why not?</p> <p>4.4B After the hospital discharge, did you receive any health check-ups?</p> <p style="margin-left: 20px;">a. No</p> <p style="margin-left: 20px;">b. Yes — [PROBE: This visit was for her health check-up, not for the baby.]</p>

TOPICS FOR DISCUSSION

PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For the prenatal-registered women only:</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>4.5A During the prenatal visit (s), did any health staffs inform to you about health care after delivery?</p> <p>a. No</p> <p>b. Yes — 1b) What was the information?</p> </div> <p>4.6A If not mentioned, ask if the respondent has ever heard of postpartum check-up?</p> <p>a. No</p> <p>b. Yes — 1b) Where/whom have you heard it from?</p> <p>2b) What is the postpartum check-up?</p> <p>4.7A Do you think having checking up with health professionals is important to your postpartum health? How?</p> <p>4.8A Will you seek postpartum care after this delivery?</p> <p>a. No— 1c) Why do you think so?</p> <p>b. Yes — 1b) Why do you think you should go for postpartum check-up?</p> <p>2b) Do you know where you can have the postpartum check-ups?</p> <p>c. I am not sure</p>	<p>1b) How many days or months did the first health check-up take place?</p> <p>2b) Where and from whom did you have the check-up(s)?</p> <p>3b) What were the services provided to you?</p> <p>4b) Did you have to pay for the check-up(s)?</p> <p>4.5B If not mentioned, ask if the respondent has been visited by any health staff?</p> <p>a. No</p> <p>b. Yes — 1b) When?</p> <p>[PROBE: Was it within 7-days after the hospital discharge?]</p> <p>2b) How many times?</p> <p>3b) Who paid you the visit (s)?</p> <p>4b) What has the (3b) done to you?</p> <p>[PROBE: Abdomen examination, breast examination, providing self-care advices, etc]</p> <p>5b) How do you feel with the health staff's visit?</p> <p>6b) Did you have to pay?</p>

TOPICS FOR DISCUSSION

PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For multiparous women only:</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>4.8.1A Ask the respondent whether she had the postpartum-check-up after her previous delivery</p> </div> <p>4.9A Do you have any traditional postpartum beliefs and practices?</p> <p>a. No [PROBE: No shampooing, hot bathing, not allowed to go outside, placing hot bag on abdomen, avoiding from rain for 3 months, etc.]</p> <p>b. Yes — 1b) What are the beliefs and practices? 2b) Where did you learn from? 3b) Do you think these beliefs and practices are helpful for you? (If Yes, in what ways? If no, why?)</p> <p>4.10A If not mentioned, ask whether the respondent has planned to perform <i>Yoo-fi</i>?</p> <p>a. No — 1a) Why not? 2a) Do you plan to use any other traditional practice? If yes, what are they and how do you expect these practices would benefit you?</p> <p>b. Yes — 1b) Who made the decision for you to perform <i>Yoo-fi</i>? PROBE: Your husband, mother, mother-in-law, neighbor? 2b) Who do you expect to provide <i>Yoo-fi</i> to you? 3b) In what way that do you think that <i>Yoo-fi</i> will benefit you?</p>	<p><i>For C-Section mothers</i></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>4.6B If not mentioned, ask whether the respondent has seen any health staff to examine the surgery wound?</p> <p>a. No [PROBE: No need to cut the nylon or silk thread, no infection]</p> <p>b. Yes — 1b) When? And where? 2b) Apart from the wound examination, did you receive any other care service?</p> </div> <p>4.7B If not mentioned, ask whether the respondent have received any postpartum check-ups?</p> <p>a. No — 1a) Why didn't you have the postpartum examination? [PROBE: No time, had to work, not being informed, not being arranged by health staff, no health problem, too shy (do not want to see the male staff again), not allowed to go outside, no accompanying person, no one looking after the baby, no money, others]</p> <p>b. Yes — 1b) When? (Number of weeks after leaving hospitals _____) [PROBE: <i>This visit was for her health check-up, not for the baby.</i>] 2b) Where did you have the postpartum check-up? 3b) Who provided you the postpartum check-up?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p>4b) What types of service did you received during the postpartum check-up?</p> <p>[PROBE: Abdominal exam, breast exam, internal exam, Pap smear, family planning service]</p> <p>5b) Did you receive any advice from the health care provider?</p> <p>PROBE: Advice regarding self-care, sexual abstinence, breastfeeding, diet intakes, physical activities, exercise, weight loss]</p> <ul style="list-style-type: none"> - What was the advice? - Do you think the advice was helpful? Why or why not? - Did you follow the advice? Why or why not? <p>[PROBE: If no, ask 'did you want to follow the advice?' Also ask whether it was because of some other persons (e.g. husband or mother) would not let her follow the guidance even though she herself wanted to.]</p> <p>4.8B Check if the answer to Q 4.8A is the same as what the respondent has planned for. If it is different, ask her to describe why she has changed her mind.</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p><i>For women who have already had postpartum check-up only:</i></p> <p>4.9B Why did you decide to have postpartum check-up? [PROBE: Did you have health problem or suspect of having health problem?]</p> <p>4.8.1A) Did your husband or any of your family members take part in the decision to receive the postpartum check-up?</p> <p>4.10B How do you think the health professionals can help improve your postpartum health?</p> <p>4.11B Can you tell me about the expenses incurred from the prenatal check-up?</p> <ul style="list-style-type: none"> - Health check-up fee - Transportation cost - Paying for someone to accompany you - Fee for upgrading accommodation - Other (e.g. food) <p>4.10.1B) Who paid for the expenses?</p> <p>4.10.2B) Could any of the expenses be reimbursed?</p> <p>4.10.3B) Do you have to borrow money from anyone to pay for the expenses? If yes, who did you borrow the money from?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p><i>For women who have already had postpartum check-up only (continued):</i></p> <p>4.12B What do you think to the postpartum examination service provided by the health staff?</p> <p>[PROBE: (1) Were you comfortable to see female, rather than male practitioners?</p> <p>(2) Did they have a private room for internal examination and counseling?</p> <p>(4) Did you think that the queue for check-up was too long?</p> <p>(5) Did they have sufficient skill?]</p> <p>4.13B Overall, were you satisfied with the advice or information you received?</p> <p>[PROBE: Do you need any more information?</p> <p>Do you think you have received too much information?]</p> <p>4.14B If not mentioned, ask whether the respondent have performed <i>Yuu-fi</i>?</p> <p>a. No —1a) Why didn't you perform <i>Yuu-fi</i>?</p> <p>[PROBE: No one available to take care during <i>Yuu-fi</i>, had C-section, too complicated method]</p> <p>2a) Have you applied any other practices instead of <i>Yuu-fi</i>?</p> <p>[PROBE: Placing hot bags on abdomen, heat lamp on perineum, hot compress on breast, hot bath, hot drink, steam tenting, body pressing]</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p>3a) If yes, ask the respondent to describe further on:</p> <ul style="list-style-type: none"> - Method - Duration of practice - Providers and service fee - Perceived benefit on postpartum health (i.e. how do you feel after practicing _____) <p>b. Yes — 1b) Ask the respondent to describe <i>Yuu-fi</i> in terms of:</p> <ul style="list-style-type: none"> - Method - Duration of practice - <i>Yuu-fi</i> providers and service fee - Perceived benefit on postpartum health <p>2b) Apart from <i>Yuu-fi</i>, have you adopted any other practices [PROBE: hot drink, hot bath, steam tenting, body pressing]</p> <p>3b) If yes, ask the respondent to describe further on:</p> <ul style="list-style-type: none"> - Method - Duration of practice - Providers - Perceived benefit on postpartum health <p>4.15B Check if the answer to 4.10A is the same as what the respondent has planned for. If it is different, ask her to describe why she did not perform <i>Yuu-fi</i></p> <p>4.16B If not mentioned, ask if the respondent has followed any traditional beliefs</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p>regarding postpartum health care.</p> <p>a. No — [PROBE: No shampoo, avoiding cold, wind, and rain, staying at home only, etc.]</p> <p>b. Yes — 1b) What are the beliefs? 2b) What are the sources of these beliefs? 3b) Did you take any of beliefs into action? 4b) Do you view these beliefs beneficial to you or your health? In what ways?</p>
SECTION 5A: KNOWLEDGE, PERSPECTIVES AND EXPECTED BEHAVIOURS ON THE THREE POSTPARTUM-RELATED ISSUES	SECTION 5A: ACTUAL BEHAVIORS ON THE THREE POSTPARTUM-RELATED ISSUES AND THEIR REFLECTION
<p><i>Diet intake and prohibition</i></p> <p>5.1A Do you expect to eat/drink any types of food/beverage more often after giving birth? What types of food and why? Do you believe it would be helpful to your health?</p> <p>5.2A Do you expect to abstain from any types of food after giving birth? What types of food and who?</p> <p>5.3A Has anyone influenced on your decision to consume or abstain from certain types of food? How?</p> <p>5.4A In your point of view, how important is the food intake to your health?</p>	<p><i>Diet intake and prohibition</i></p> <p>5.1B Have your usual types of food/beverage changed during after giving birth?</p> <p>a. No PROBE: Do you have any restricted food?</p> <p>b. Yes — 1b) How? (I.e. what food/drink do you have more often or abstain from after giving birth) 2b) Why? 3b) Were they suggested by anyone? Who?</p> <p>5.2B Do you think the food you have had after delivery is good to your health after delivery? How?</p> <p>5.2.1A) If you think it is not good to your health, what would you like to change?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For multiparous women only:</i></p> <p>5.5A Ask the respondent for her experience on postpartum diet intake and prohibition for the previous childbirth</p> <p>Breastfeeding</p> <p>5.6A Do you plan to breastfeed your child?</p> <p>a. No — 1a) Why not?</p> <p>b. Yes — 1b) Has anyone influenced your decision on breastfeeding?</p> <p>2b) How many months do you think you will breastfeed your child?</p> <p>3b) When do you think you will start feeding your baby with other foods?</p> <p>5.7A In your opinion, does the breastfeeding have any impact on your postpartum health? In what ways? How?</p> <p>5.8A Do you think that breastfeeding has any impact on</p> <ul style="list-style-type: none"> - your weight - your eating habit - physical activities (e.g. working) <p>5.8.1A In what ways?</p>	<p>5.3B Do you feel that your eating habit has changed after delivery?</p> <p>a. No</p> <p>b. Yes — 1b) How?</p> <p>2b) Are there any factors influencing your eating habits?</p> <p>[PROBE: weight loss goal, want to have more breast milk, your belief about postpartum food, health care provider's advice, lose appetite]</p> <p>5.4B How important is it for you to return to your weight you were before being pregnant?</p> <p>Breastfeeding</p> <p>5.5B After giving birth, have you breastfed your baby?</p> <p>a. No — 1a) Why didn't you breastfeed your baby?</p> <p>[PROBE: No breast milk, had to work, had health problem]</p> <p>2a) What have you fed your baby with?</p> <p>b. Yes — 1b) Did you feed your baby with only breast milk?</p> <p>a. No — 1a) What else did you feed your baby?</p> <p>[PROBE: Banana, infant formula, plain water, sugar water, rice water, fruit juice, honey, semi-solid food]</p> <p>2a) Who advised you to feed the baby with other types of food?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p><i>For multiparous women only:</i></p> <p>5.8.2A Ask the respondent for her previous experience in breastfeeding and its impacts on the above issues</p> <p><i>Sexual resumption and contraceptive use</i></p> <p>5.9A Do you have any knowledge on the sexual activities during postpartum period?</p> <p>5.10A Do you think the postpartum women should abstain from the sexual activities with their partners?</p> <p>a. No — 1a) Why not?</p> <p>b. Yes — 1b) For how long and why?</p> <p>5.11A In your opinion, how sexual abstinence is important to your postpartum health?</p> <p>5.12A Do you plan to have another baby after this pregnancy?</p> <p>a. No — 1a) Do you plan to use any contraceptive method after giving birth?</p> <p>2a) Which method do you prefer?</p> <p>3a) When and where will you seek for the contraceptive method?</p> <p>b. Yes — 1b) When?</p>	<p>3a) How many months do you plan to continue the breastfeeding?</p> <p>b. Yes — 1b) Why didn't you feed the baby with other types of food?</p> <p>2b) How many months do you plan to continue the exclusive breastfeeding?</p> <p>5.6B Do you have any breastfeeding difficulties?</p> <p>PROBE: Problem with nipples, breastfeeding position, breast massage</p> <p>5.6.1B) Do you feel that you need any assistance from health staff regarding breastfeeding</p> <p>5.7B Do you feel that breastfeeding has any impact to your current health? How?</p> <p>5.8B Do you think that breastfeeding makes a difference to</p> <ul style="list-style-type: none"> - your weight - your eating habit - physical activities <p>5.8.1 In what ways?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>c. I don't know</p> <p><i>For the multiparous women only:</i></p> <p>5.13A How many months after your lastest childbirth that you and your partner resumed sexual activities?</p> <ul style="list-style-type: none"> - Who decided to start having sex? - Were you ready to have sex? Why or Why not? - Did you have any problems? <p>PROBE: Bleedings, pain? (ask if she seek for any treatment or advice)</p> <p>5.14A How many months did your period returned after the birth of your last child?</p> <p>5.15A When did you start using contraceptive methods?</p> <p>(If the respondent cannot recall, ask if it was before or after the first sexual resumption)</p> <ul style="list-style-type: none"> - What method? - Where did you get the contraception? 	<p><i>Sexual resumption and contraceptive use</i></p> <p>5.9B Have your period returned since the delivery?</p> <p>5.9.1B) If yes, when did the period return?</p> <p>5.10B Have you resumed the sexual relation with your partner?</p> <p>a. No — 1a) After delivery, have you and your husband ever discussed about having sex?</p> <p>2a) How many months do you plan to continue the sexual abstinence? Why?</p> <p>3a) Do you have any worries about the sexual resumption with your husband?</p> <p>b. Yes — 1b) When did you start having sex?</p> <p>2b) Were you ready to have sex?</p> <p>[PROBE: If 'no', ask whether she was forced to have sex and whether she seek for any advice.]</p> <p>3b) Did you have any problem such as bleeding or pain?</p> <p>4b) Was there any sexual problem or difficulty that you think was a result of pregnancy?</p>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
	<p><i>For the non-sterilized women only:</i></p> <p>5.11B Have you started using any method to delay or avoid pregnancy in the future?</p> <p>a. No — [PROBE: Do you want to have another child?]</p> <p>1a) If the woman does not want another child, ask her if she will use any method in the future?</p> <ul style="list-style-type: none"> - If no, ask why she will not use any method? <p>[PROBE: Not having sex, infrequent sex, postpartum amenorrhea]</p> <ul style="list-style-type: none"> - if yes, ask which method she would prefer to use? and When will you start using the method? <p>b. Yes — 1b) when was your first use the contraceptive method?</p> <p>2b) What method did you use?</p> <p>3b) For those who used pills, IUDs, implants, injectables, ask if they knew about the side effects or problems they might have from using such method?</p>
SECTION 6A: FAMILY INVOLVEMENT DURING THE CURRENT INTRAPARTUM PERIOD AND THE EXPECTED POSTPARTUM PERIOD	SECTION 6A: ACTUAL FAMILY INVOLVEMENT DURING THE POSTPARTUM PERIOD AND HUSBAND'S BACKGROUND
Researcher's statement: <i>For the following questions, I would like to ask information about your family</i>	
<i>If the respondent's current marital status is 'Not married' or 'Single with a partner', skip to the Q6.4A</i>	<i>If the respondent's current marital status is 'Not married' or 'Single with a partner', skip to the Q6.7B</i>

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>6.1A During this pregnancy how is your relationship with your husband/partner?</p> <p>6.2A During this pregnancy, has your husband/partner given you extra help?</p> <p>6.3A Do you feel that your husband/partner pleases and supports you while you are pregnant?</p> <p>6.4A During pregnancy, who is responsible for:</p> <ul style="list-style-type: none"> - cooking - household chores - taking care of other children - working for pay <p>6.4.1A For married and single with partner women, ask have you ever discussed with your husband/partner about those future tasks?</p> <p>6.4.2A If you expect them to be changed, when and who will be responsible for the tasks?</p> <p>6.5A During pregnancy, who is the first person you turn to when you need to talk or get help? Why?</p> <p>6.6A After delivery, who do you expect to be the first person to turn to when you need</p>	<p><i>Now I would like to ask information about your husband/partner</i></p> <p>6.1B How old is your husband/partner?</p> <p>6.2B What is the highest level of school your husband/partner attended?</p> <p>6.3B Is he currently working?</p> <ul style="list-style-type: none"> a. No — [PROBE1: Is he looking for job?] b. Yes — 1b) What type of work is it? <p>6.4B After the baby was born, how has your relationship with your husband/partner been?</p> <p>6.5B After the baby was born, has your husband/partner given you extra help?</p> <p>6.6B Do you think you get sufficient support from him?</p> <p>6.7B Has anyone come to your home to help you <u>cook, clean, take care of the baby or other children?</u></p> <ul style="list-style-type: none"> a. No PROBE: Just you and your husband? 1a) What tasks are your in-charge? 2b) What task are your husband's in-charge? b. Yes — 1b) Who came to help you?

TOPICS FOR DISCUSSION	
PRENATAL INTERVIEW	POSTPARTUM INTERVIEW
<p>to talk or get help? Why?</p>	<p>2b) What did (1b) do?</p> <p>6.8B After giving birth, who was the first person you turned to when you needed to talk or get help? Why?</p> <p>6.9B In your household who usually decides what to do if a family member is ill?</p>
CLOSING SCRIPT	CLOSING SCRIPT
<p>1) Is there anything else you would like to tell me about the topics we have just discussed?</p> <p>2) Do you have any questions for me?</p> <p>Thank you again for taking the time to participate in our research study. We really appreciate your time.</p>	<p>1) What are some things in your environment, such as where you live, work, shop, or spend your time, that you would change if you could to help you lead or maintain a healthy postpartum lifestyle? What might you change?</p> <p>2) Is there anything else you would like to tell me about the topics we have just discussed?</p> <p>3) Do you have any questions for me?</p> <p>Thank you again for taking the time to participate in our research study. We really appreciate your time.</p>

Appendix 4-4

In-depth interview guide with healthcare provider

Record no.

In-depth Interview Guideline

Health care providers (KI-2)

Health facility identification

Name of the Health facility: _____

Address: _____

- Type of facility:
- (1) Government facility—Provincial hospital
 - (2) Government facility—District hospital
 - (3) Government facility—Community health center
 - (4) Private-sector facility—Private hospital
 - (5) Private-sector facility—Private clinic
 - (6) Other _____

Respondent's detail

Name of the interviewee: _____

Gender: Male / Female

- Position held at the health facility:
- (1) Doctor/obstetrician
 - (2) Registered nurse/midwife
 - (3) Technical nurse
 - (4) Health technician/technical specialist
 - (5) Community health worker
 - (6) Village health Volunteer

Record no.

Interview's detail

Place of interview: _____
(If the interview is not conducted at the health facility)

Date of interview: _____

Starting time: _____ : _____
Ending time: _____ : _____

Result of the interview: (1) Completed
(2) To be continued on _____ (date)
(3) Postponed to _____

Interviewer's note

SECTION 1: EXPERIENCE AND TRAINING OF THE HEALTH PROVIDER

1.1 In what year did you start working in this facility?

1.2 Could you tell me your past and current responsibilities in the [name of health unit]?

1.3 How many years have you been in charge for the current responsibility?

1.4 Before taking the current responsibility, have you received any training?

1.3.1) What was the name of training program?

1.3.2) What was the training for?

1.3.3) Who/which agency provided the training program for you?

SECTION 2: MATERNAL SERVICES

2.1 At the [Name of health unit], what types of the maternal and newborn services are available?

[PROBE: Item 1) -10]]

2.2 Could you tell me how the referral system for the maternal services work?

2.2.1) In what situation that the women/newborns are referred?

2.2.2) what is the process for the referral system?

2.2.2) What is the destination for the cases referred? And what network has your unit involved in?

3. PERCEPTION TOWARDS POSTPARTUM SERVICE PROVISION

3.1 Specifically, what types of service are available to postpartum women?

3.1.1) Are the services you provide for the women having vaginal delivery different from those having c-section? What are the differences?

3.1.2) Do you/your health unit have any particular postpartum protocol for HIV/AIDS mothers?

3.1.2.1) Is this protocol issued by your health unit or by the MoPH?

3.1.2.2) Could you explain the protocol and your responsibility in the protocol?

3.1.3) If not mentioned in detail, ask for further details about the 7-day postpartum care home visits

3.1.3.1) How did your health unit manage to provide the PPC visits to women?

3.1.3.2) What types of care did you provide to the women during the PPC home visit?

3.1.3.3) In general, did the women in your responsible areas receive the 7-day postpartum care home visits?

- If not, what do you regard as the causes of women not receiving the PPC home visits?

[PROBE: No information/record of the women's delivery dates, staff had no time, no staff available, the women moved out of the area immediately after delivery, the women were not home at the visiting time, etc]

- Has the low coverage of PPC home visits been assessed? By you or your health unit?

- Do you or your organization plan to do anything to improve the home visit coverage?

3.1.3.4) Did you find any health problem during the postpartum visits? (both physical and psychological problem)

- If yes, what was the problem? How did you deal with it?

- Was the problem resolved?

3.1.4) If not mentioned in detail, ask for further details about the 6-week postpartum care at the health facilities.

3.1.4.1) What types of care do you provide for women on the 6-week postpartum check-up at your health unit?

3.1.4.2) Did you find any health problem during the 6-week postpartum check-up?

- If yes, what was the problem? Was the problem serious?
- How did you deal with it?

3.2 Regardless of the women's profile, what type of care, in your opinion, is important to the newly-delivered women?

3.2.1) Why? In what way?

3.2.2) Is it available in your health unit? If not, where can the women seek for the care service?

3.3 After delivery, how long do you regard as the postpartum period? And why?

3.4 How do you regard your role in providing postpartum care?

3.5 In your opinion, what are the most important factors affecting the quality of postpartum care provision?

3.5.1) How do you regard the quality of your postpartum service?

3.5.2) What aspects do you think should be improved?

SECTION 4. PERCEPTION TOWARDS POSTPARTUM CARE UTILIZATION

4.1 What is the current situation of postpartum care utilization in your responsible areas?

4.1.1) Do you have any indicator(s) for assessing the postpartum care situation? What are these indicators? Are these indicators your own? If not, what are their sources?

4.2 From your own experience, do women in your responsible areas generally come back/seek for postpartum check-up at 6 weeks after delivery?

- a. Yes — 1a) On average, what is the percentage of postpartum women returning for health check-up? (Ask for the official records, if available)
- 2a) What types of women do you regard to be likely to have PPC check-up?
- 3a) In your opinion, what are the reasons that the women have PPC check-up?
 – if the respondents mentioned about the support/promotion of PPC check-up use, then ask for details on the activity/action plan/strategy they adopted.
- b. No — 1b) On average, what is the percentage of postpartum women not returning for health check-up?
- 2b) What type of women do you regard as less likely to receive the service?
- 3b) From your point of view, what do you regard as the causes for women not returning for postpartum check-up?
- 4b) Has the low coverage of PPC home visits been addressed? By you or your health unit?? Do you or your organization plan to do anything to improve the home visit coverage?
- 5b) In order to improve the service utilization, what do you think should be done?

SECTION 5. PERSPECTIVE TOWARDS TRADITIONAL POSTPARTUM CARE AND PRACTICE

5.1 From your experience or knowledge, do postpartum women generally perform traditional postpartum practices such as *Yuu-fi, tonling, taking traditional medicine*?

- a. No — 1b) What do you regard as the causes for women not having the traditional practices?
- b. Yes — 1b) What are the traditional practices that women generally perform?
- 2b) Did they consult with you before performing these practices?/What were your suggestions?

3b) What do you regard as the main causes for women having the traditional practices?

5.2 What are your 'personal' views on the traditional postpartum care?

5.2 Do you think the traditional practices should be accepted/combined with the modern postpartum care? If yes, in what way?

Thank you for your time

Appendix 4-5

In-depth interview guide with Policy Actors

Themes	Potential questions
MCH situation in Thailand	<ul style="list-style-type: none"> -What is the current situation of MCH in Thailand? - Do you think the MoPH's work on MCH is successful? On what aspects you think it is successful? - What aspects do you think should be done to improve the MCH situation in Thailand?
Perception towards postpartum healthcare	<ul style="list-style-type: none"> - What is the current postpartum care situation in Thailand? - In your viewpoint, what are the most important health aspects for postpartum women? - Are Thai women likely to receive the postpartum care?/Which type?/from whom? <p>[PROBE: How many types of PPC are there? Are there any differences between them?</p>
Perception towards postpartum service delivery system	<ul style="list-style-type: none"> - Does the system of health delivery support the provision of PPC with health professionals? How? - As many information sources point to the gap between the percentages of women receiving prenatal and delivery care with professionals and that of women receiving postpartum care, does these information reflect the actual situation of PPC with health professionals? - In your opinion, what are the most serious health risk for the women not having PPC with health professionals? - What type of women do you regard as less likely to receive PPC from health professionals? And what do you regard to be the causes? - Do you think the relatively low use of the PPC with professionals requires any interventions? <p style="text-align: center;">- Who do you think should initiate the intervention and why?</p>
Policy and policy planning process with respect to PPC	<ul style="list-style-type: none"> - Does your agency have any current policies/action plans/activities/interventions related to PPC? - What criteria or guidelines influence your agency's MCH or postpartum policy (plan/intervention) determination? - In terms of policy, are there any aspects in relation to PPC that should be improved? What aspects? And who should be the key actors?

Appendix 4-6

Abortion guideline

How to deal with an 'abortion' situation: Created 17/08/07

The best way to avoid awkward, discomfort and biased conversation arising from talking with abortion-intended women is to be well-prepared beforehand. The following guide has been constructed based on possible scenarios the researcher may encounter:

What if the woman informs that she was/is thinking about abortion or has attempted on abortion for this pregnancy

Remain neutral (unbiased) upon being informed about the woman's intention for abortion. Keep the personal feeling separated.

- 1) Beware of the facial expressions, gestures and even eye-contact.
- 2) Let the woman talk and avoid posing any questions about abortion back (if not necessary).
- 3) Be aware that the woman might turn the conversation to abortion again

What if the woman poses some sort of questions back, for example, what to do and where to get abortion?

- 4) Say 'I am sorry. I am not qualified to answer this question'.
- 5) Ask her politely to proceed with the interview.

What if the conversion is, intentionally or unintentionally, reversed to the abortion topic?

- 6) Follow item 3) and item 6)

What if after she tells her story of unsuccessful abortion and asks if her baby will be normal like other babies?

- 7) Say 'I am not a doctor and not qualified to answer this question'.
- 8) Try to avoid any suggestion if not necessary. However, if she looks much serious, say 'it'd be better if you can see the doctor'

The researcher:

- Make sure to write down all information obtained from the interview and observation during the course of the interview.
- Make sure to follow the woman closely to see if her pregnancy is terminated.
- Make sure to keep the electronic records separately and safely. Once the records have been transcribed, make sure to delete all the record files.

Appendix 4-7

Observation guide at postpartum women's house

OBS. Record

Observation Guide for the Postpartum Women

The women's information

Name of the respondent: _____
KI-3 Interview record: _____
Delivery date: _____
Method of delivery: (1) vaginal delivery (2) Caesarean section

Observation information

Time of visit	Date of visit	Time started	Time ended	Result of the observation
1				(1) Completed (2) Incomplete due to: _____
2				(1) Completed (2) Incomplete due to: _____
3				(1) Completed (2) Incomplete due to: _____

SECTION I: PHYSICAL CONDITIONS OF WOMAN'S HOUSE

Is the woman living in:	(X)
Single- One-storey house with space under the house	
Twin-house	
Wooden rowed house	
Shop house	
Boat house	
Rental room inside a house/building	
Condominium	
Others _____	
For A-D, the characteristics of women's house:	(X)
One-storied	
One storied with large space under the house	
Two-storied	
Other _____	
Is the place the woman living in made of:	(X)
Concrete/cement/tile	
Zinc plate	
Wood	
Bamboo/Lamparata cylindrica/Elephant grass/Palm leaf/teak leaf	
Is the woman's place located in a farm?	(X)
Yes	
No	

Are there cattle raised within the woman's place?	(X)
Yes	
No	
Does the woman's place have?	(X)
A. Electncity	
B. Tap water	
C. Toilet	

SECTION II: POSTPARTUM OBSERVATION

1. The woman has been accompanied by at the beginning of the session:	(X)
Baby	
Husband/partner	
Parent Father or mother	
Parent-in-law Father-in-law or mother-in-law	
Relatives _____	
Traditional birth attendant	
Others _____	

2. Actions during the observation session

Does the woman:	Yes	No	See Item
A. Take any medicine			3
B. Perform traditional practice			4
C. Eat/drink			5
D. Breastfeed the baby			6
E. Do household chores			7
F. Cry, yell to herself, the baby, others, nervous			8
G. Have the postpartum visit by a health staff			9
H. Leave the house for a short time			Rec. in attached blank sheets
I. Rest (sleep, nap)			
J. Work at home for income			
K. Others _____			

3. Taking medicine

Does the woman take:	Yes	No
A. Medicine prescribed by a doctor (see bags)		
B. Vitamin supplementary		
C. <i>Ya-dong</i>		
D. Herbal medicine		
F. Others _____		
Who helps her out (e.g. providing water)	Yes	No
None		

Last revised on 28/08/2007

Husband		
Parent (father/mother/both)		
Parent-in-law (father-in-law/mother-in-law /both)		
Relatives _____		
How often does the woman take:	_____ (times)	
A. Medicine prescribed by the doctor		
B. Vitamin supplementary		
C. <i>Ya-dong</i>		
D. Herbal medicine		
F. Others _____		

4. Performing traditional practice

(Write down all practices observed in blank sheets)

Does the woman practice:	Yes	No	D/K
A. Laying by fire			
B. Putting a hot bag on her abdomen			
C. Steam tenting			
D. Body pressing			
F. Hot bath			
G. Hot compress on breast			
H. Heat lamp on perineum			
I. Squatting or kneeling			
H. Others _____			
I. None of the above practices	GO TO 5		
Who provides the traditional practice:	Yes	No	N/A

None			
Parent (father/mother/both)			
Parent-in-law (father-in-law/mother-in-law /both)			
Relatives _____			
Traditional birth attendant			
Others _____			
Do the woman and the provider discuss about:	Yes	No	N/A
A. Methods of traditional practices			
B. Benefits of performing practices			
C. Troubles/problems of not performing practices			
D. Beliefs for postpartum care			
E. Health care advice			
Does the woman:	Yes	No	N/A
A. Show any disagreement during the discussion			
B. Complain during the practice			

5. Food and drink intakes

During the observation,	Yes	No
A. How many meals has she had?		
Who provides the meal (s):	Yes	No
None		
Husband		
Parent (father/mother/both)		
Parent-in-law (father-in-law/mother-in-law /both)		
Relatives _____		

Last revised on 28/08/2007

Neighbour		
Others _____		
Does the women have:	Yes	No
A. Hot drinks		
Record observed details on food and drink intakes in blank sheets		

6. Breastfeeding

During the observation,	Yes	No
A. How many times does the woman breastfeed?		
B. How long does the woman breastfeed? (on average)		(mins)
Who assists her during breastfeeding:	Yes	No
None		
Husband		
Parent (father/mother/both)		
Parent-in-law (father-in-law/mother-in-law /both)		
Relatives _____		
Others _____		
Does the woman:	Yes	No
A. Breastfeed the baby every time the baby cries		
B. Talk to the baby while breastfeeding		
C. Complain anything during breastfeeding (write down the complaints)		
D. Seek for advices from books/leaflets/MCH book		

E. Feed the baby with water		
F. Feed the baby with bananas		
G. Feed the baby with bottled milk		

7. Household chores

Does the woman:	Yes	No
A. Sweep the floor		
B. Mop up the floor		
C. Do laundry (using washing machine or not)		
D. Iron clothes		
E. Cook		
F. Take care of other children (if any)		
G. Others _____		
H. Does the woman lift heavy objects?		
Who helps the woman out:	Yes	No
None		
Husband		
Parent (father/mother/both)		
Parent-in-law (father-in-law/mother-in-law /both)		
Relatives _____		
Others _____		

8. Postpartum mood

Does the woman:	Yes	No
A. Cry/sob		
How many times has she cried	_____ (time)	
B. Yell to other people		
C. Look anxious or nervous		
D. Get mad at other people		
E. Look upset		
E. Complain about her life to herself or other people		
F. Complain that she is not a good mother/person		
G. Other observed mood _____		

9. Postpartum visit by health staff

Who has paid her a visit: (Mark all visitors)	(X)
Doctor	
Midwife/registered nurse	
Technical nurse	
Health technician/technical specialist	
Village health volunteer	
Others _____	
Sex of the health staff	(X)
Female	
Male	
Has the health staff provided:	(X)

A. Clinical examination for the woman	
B. Counselling for the woman	
C. Clinical examination for the baby	

9.1 Counselling observation

Counselling session starts at _____:

During the counselling session, does the provider:	Yes	No
A. Ensure the client of confidentiality		
B. Ask open-ended questions		
C. Encourage the client to ask questions		
D. Treat the client with respect		
E. Use simple language		
F. See the client in private		
G. Discuss about the client's concerns		
H. Give the client reading materials to take home		
I. Review the client's previous records (i.e. MCH booklet and the client's family folder)		
J. Record the counselling conversation		
During the counselling session, have the client and the provider discussed on:	Yes	No
A. Hygienic and wound cleaning		
A. Body positions for breastfeeding		
B. Emotional bonding/responses mother and baby		
C. Exclusive breastfeeding		

Last revised on 28/08/2007

D. Breastfeeding barriers		
E. Infant's nutrition		
F. Mother's nutrition		
G. Household chores		
H. Working resumption		
I. Depression, sadness, stress		
J. Life difficulties after the baby was born		
K. Relationship with husband		
L. Socialization with other people		
M. Traditional belief and practice		
N. Postpartum check-up		
O. Sexual resumption with the client's partner		
P. Other _____		
Does the provider:	Yes	No
A. Use any educational materials with the woman		
B. Use any screening test with the woman		
B. Interpret and explain the test result to the woman		

Counselling session ended at _____:

Total time of counselling session: _____ (mins)

9.2 Clinical examination observation

Clinical examination conducted by the same provider:	(X)
Yes	

No	
Clinical examination provider:	(X)
Doctor	
Midwife/registered nurse	
Technical nurse	
Health technician/technical specialist	
Village health volunteer	
Others _____	

Examination session started at _____ : _____

Clinical services received	Yes	No
A. Measurement of vital signs		
B. Temperature measurement		
C. Blood pressure measurement		
D. Character of discharge examination		
E. Breast examination		
F. Interpret and explain the test result to the client		

Examination session ended at _____ : _____

Total time of examination session: _____ (mins)

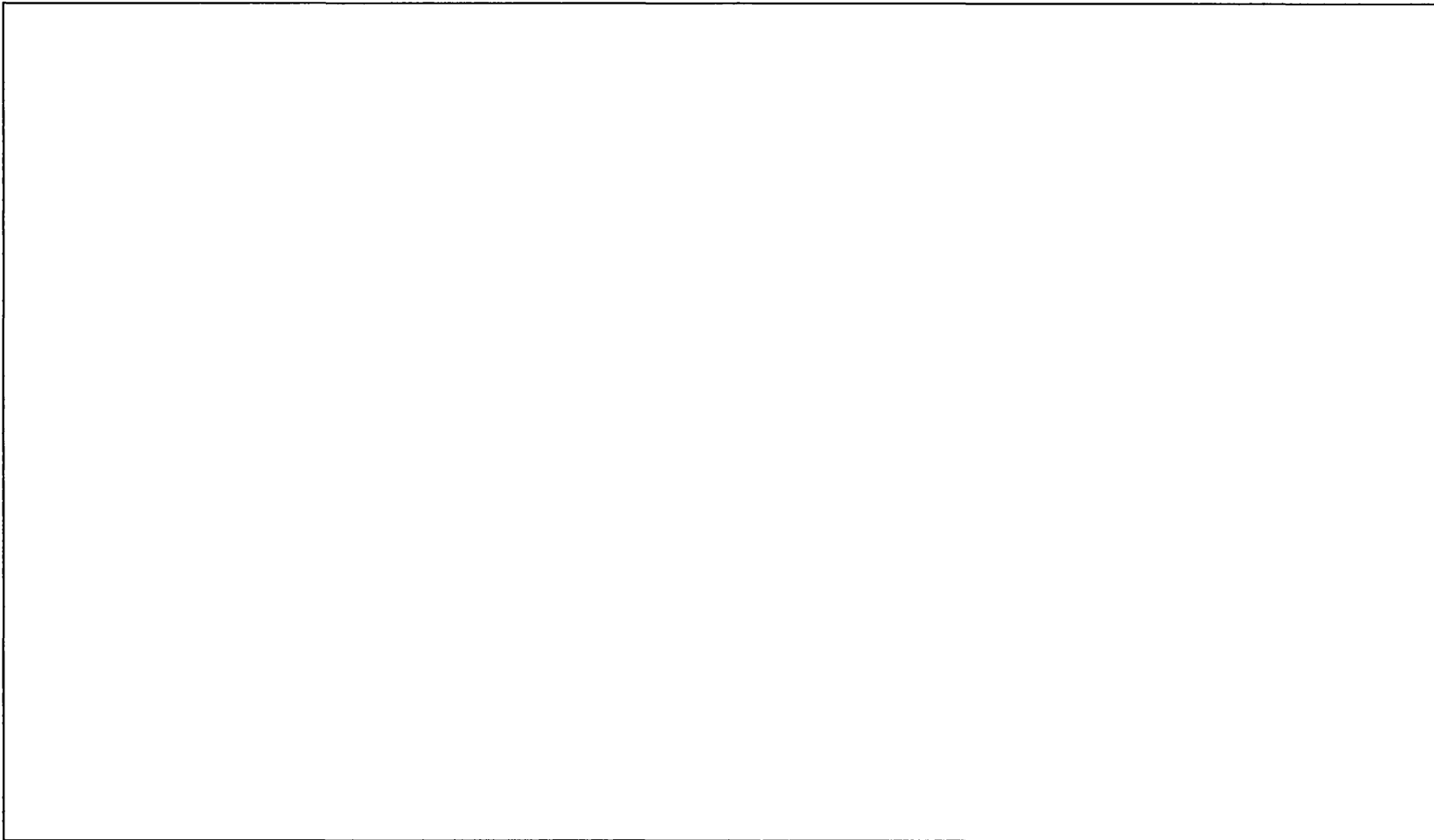
For the client whom the health provider has identified or suspected of having postpartum health problems

Does the provider:	Yes	No
A. Inform the client about the health problem		
B. Use simple language during the explanation		
C. Encourage the client to ask questions		
D. Discuss about the client's concerns		
E. Record the problem		
F. Prescribe any medicine		
G. Prepare/refer for further treatment (if applicable)		

Closing script

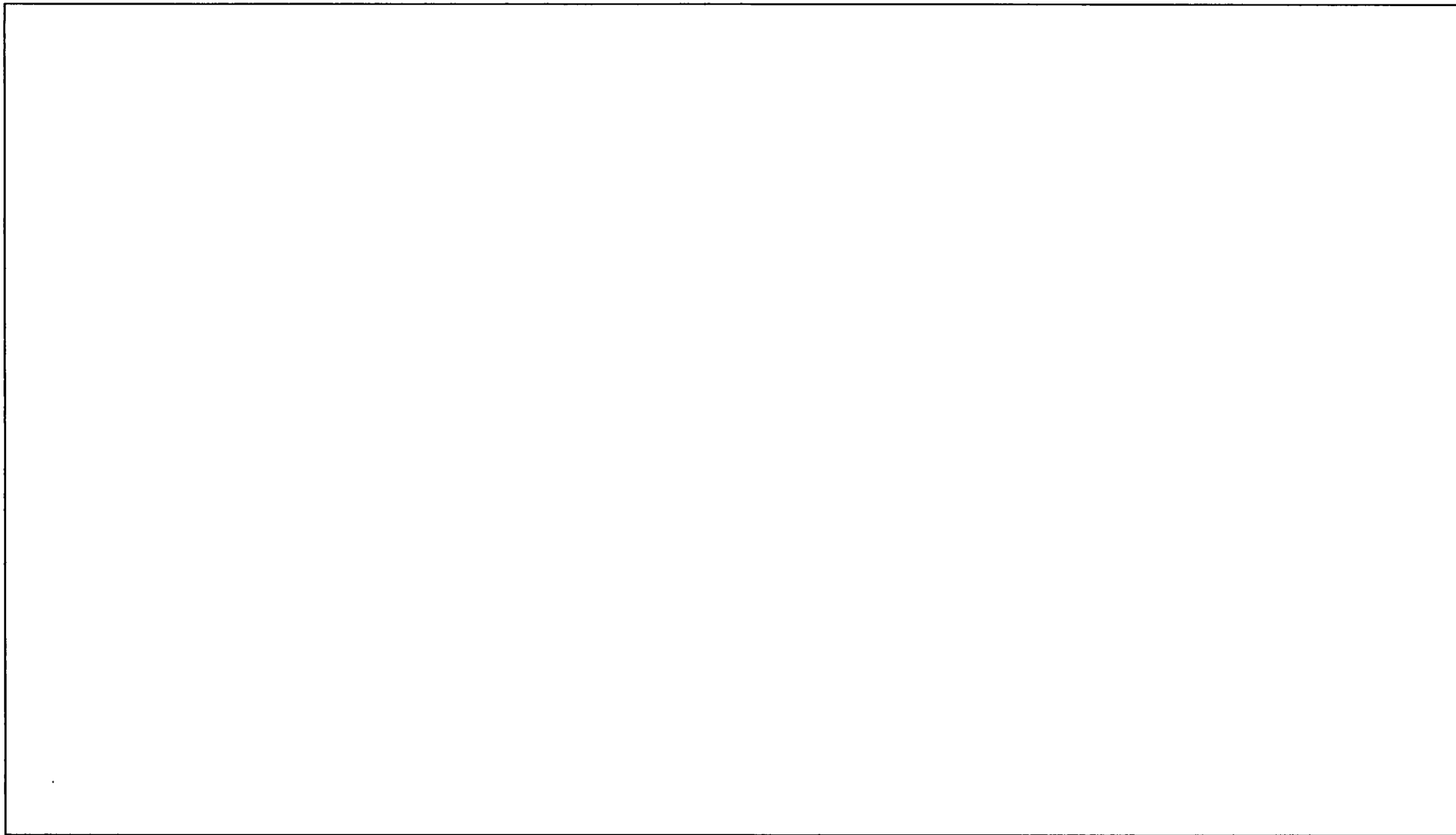
Thank you (the client and the provider) for granting permission for the researcher to observe this session

Blank sheet for the researcher's comment/note:

A large, empty rectangular box with a thin black border, intended for the researcher to provide a comment or note. The box is centered on the page and occupies most of the vertical space below the header.

Last revised on 28/08/2007

Blank sheet for the researcher's comment/note:

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Last revised on 28/08/2007

Appendix 4-8

Observation guide at the hospitals/health centres

OBS. Record

Observation Guide for the Postpartum Health Care Facility

Health facility information

<p>Name of health facility: _____</p> <p>Address: _____</p> <p>Type of facility: (1) Government facility—Provincial hospital (2) Government facility—District hospital (3) Government facility—Community health centre (4) Private-sector facility—Private hospital (5) Private-sector facility—Private clinic (6) Other _____</p> <p>Locality of facility: (1) Municipality (2) Rural</p>

Observation information

Time of visit	Date of visit	Time started	Time ended	Result of the observation
1				(1) Completed (2) Incomplete due to: _____
2				(1) Completed (2) Incomplete due to: _____
3				(1) Completed (2) Incomplete due to: _____

PHYSICAL CONDITIONS

Does the health facility has	(X)
Electricity	
Toilet	
Emergency vehicle	
Waiting area (chairs or sitting on floor)	
Sign informing working days and hours	
Shelf or box containing educational leaflets	
Organization chart	
The health facility participated in: (look for signs)	(X)
A. Baby-friendly hospital	
B. Family bonding project	
C. Lactation clinic	
D. Safe-motherhood project	
E. Parental schooling	
F. Others _____	

I. COUNSELLING OBSERVATION BACKGROUND

1. Provider performing MOST of the session:	(X)
Doctor	
Midwife/Registered Nurse	
Technical nurse	
Health technician/technical specialist	
Others _____	
2. Sex of the provider	(X)
Female	
Male	

II. CLINICAL OBSERVATION BACKGROUND

3. Clinical examination conducted by the same provider:	(X)
Yes (MARK AND GO TO 6)	
No	
4. Provider performing MOST of the session:	(X)
Doctor	
Midwife/Registered Nurse	
Technical nurse	
Health technician/technical specialist	
Others _____	

II. CLINICAL OBSERVATION BACKGROUND (Continued)

5. Sex of the clinical provider:	(X)
Female	
Male	

III. COUNSELING OBSERVATION

Counseling session starts at _____:

6. The client has had previous contact with this provider:	(X)
Yes	
No	
Don't know	
7. Main reasons for visit (as stated by the client):	(X)
A. Postpartum check-up (by appointment)	
B. Postpartum check-up (no appointment)	
C. Had postpartum health problem/suspect of having postpartum health problem	
D. Both A and C	
E. Both B and C	
F. Family planning	
G. Breastfeeding counseling	
H. Infant care	

III. COUNSELLING OBSERVATION (Continued)

8. During the counseling session, does the provider:	Yes	No
A. Ensure the client of confidentiality		
B. Ask open-ended questions		
C. Encourage the client to ask questions		
D. Treat the client with respect		
E. Use simple language		
F. See the client in private		
G. Discuss about the client's concerns		
H. Give the client reading materials to take home		
I. Review the client's previous records (i.e. MCH booklet and the client's family folder)		
J. Record the counselling conversation		

9. Family planning counselling

During the counselling session, have the client and the provider discussed on:	Yes	No
A. Menstruation		
B. Sexual resumption with the client's partner		
C. Planned number of children		
D. Birth spacing		
E. History of contraceptive use		
F. Partner's attitude about FP		

9. Family planning counselling (continued)

During the counselling session, have the client and the provider discussed on:	Yes	No
G. Use of family planning flip chart		
H. STDs		
I. Contraception during breastfeeding		
J. Return visit		
Does the client:	Yes	No
J. Mention contraceptive preference? _____		
K. Receive the preferred method?		

Go to item 10

Reason for not receiving the preferred method:	(X)
A. Stock out	
B. Not available	
C. Not available but referred to another health facility	
D. Not an appropriate method	
E. No appropriate provider available that day	
F. The provider recommended other method	
G. Change of mind after listening to the provider	
H. The client didn't make a decision at the time of counselling	
I. The client preferred to consult with her partner	

Method actually received: _____ / No method

10. Breastfeeding counselling

During the counseling session, have the client and the provider discussed on:	Yes	No
A. Anatomy of breast		
B. Body positions		
C. Responses mother and baby		
D. Emotional bonding		
E. Exclusive breastfeeding		
F. Suckling		
G. Time spending on suckling		
H. Breastfeeding barriers		
I. Working mother		
J. Infant's nutrition		
Does the client:	Yes	No
J. Mention expected duration of breastfeeding? _____ (months)		

11. Psychological assessment

During the counselling session, have the client and the provider discussed on:	Yes	No
A. Depression, sadness, stress		
B. Life difficulties after the baby was born		
C. Relationship with husband		
D. Socialization with other people		
Does the provider:	Yes	No
E. Use any screening test with the client		
F. Interpret and explain the test result to the client		

Counseling session ended at _____:_____

Total time of counseling session: _____ (mins)

IV. CLINICAL OBSERVATION

Clinical examination session started at _____:_____

12. Clinical services received	Yes	No	N/A
A. Measurement of vital signs			
B. Temperature measurement			
C. Blood pressure measurement			
D. Character of discharge examination			
E. Internal examination (pelvic, perineum)			
F. Pap test			

G. Tetanus injection (3 rd shot)			
H. Contraceptive injection			

13. Internal examination and Pap test

Does the provider:	Yes	No	D/K
A. Ensure the client's privacy			
B. Explain the examination procedure to the client			
C. Put on new and disinfected gloves before the examination			
D. Wash hands with soap and water before the examination			
E. Ask the client to take slow, deep breaths and relax			

Clinical examination session started at _____:_____

Total time of clinical examination session: _____

14. Other treatment

Check the answer to 7C	Yes	No
The answer to 7C is		

↓
Go to item 15

For the client who had or suspected of having postpartum health problems

Does the provider:	Yes	No
A. Inform the client about the health problem		
B. Use simple language during the explanation		
C. Ask open-ended questions		
D. Encourage the client to ask questions		
E. Discuss about the client's concerns		
F. Give the client reading materials to take home		
G. Record the counselling conversation		
H. Prescribe any medicine		
I. Prepare for further treatment (if applicable)		

15. Closing script

Thank you (the client and the provider) for granting permission for the researcher to observe this session

Appendix 5-1

The logistic regression where the age-parity interaction was included

Variables		Odds ratio (Exp(B))	Estimate (B)	SE
Age	15-19	1	0	
	20-29	0.30	-1.19	1.50
	30-39	3.09	1.13***	0.46
	40-49	6.52	1.87***	0.48
Education level	< 6 years	1	0	
	6-9 years	1.93	0.66***	0.19
	10-15 years	3.11	1.13***	0.27
	16+ years	9.27	2.23***	0.68
Monthly Household income	0-9,999	0.62	-0.48*	0.26
	10,000-19,999	0.92	-0.09	0.25
	20,000 and higher	1	0	
Working status	Not working	1	0	
	Working	1.69	0.52**	0.18
Location of residence	Urban	1.54	0.44**	0.18
	Rural	1	0	
Living with mothers	No	1	0	
	Yes	1.35	0.30**	0.16
Intention of pregnancy	No	1	0	
	Yes	1.50	0.40***	0.16
Place of delivery	Home	1	0	
	Government facility	4.69	1.55***	0.28
	Private facility	4.53	1.51***	0.36
Interaction terms				
	30-39 x Pregnancy order 1 & 2	6.69	1.90	1.47
	30-39 x Pregnancy order 3	5.17	1.64	1.51
	40-49 x Pregnancy order 1 & 2	1.25	0.22	0.36
	40-49 x Pregnancy order 3	0.59	-0.53	0.37

Note: (1) *** significance level of 1 per cent, ** significance level of 5 per cent, and * significance level of 10 per cent.

(2) Variable 'Pregnancy order' was removed in step 3

(3) The Hosmer and Lemeshow Chi-square is 6.538 and the significance value is 0.147.

Appendix 5-2

Multi-collinearity Test (1): Pair-wise correlation among the explanatory variables used in the regression analysis

Variables	Age	Educational level	Parity	Working status	Monthly HH income	Location of residence	Insurance coverage	Pregnancy intention	Living with mother	Method of delivery	Prenatal care uptake	Place of delivery
Age	1											
Educational level	-0.14	1										
Parity	0.40	-0.33	1									
Working status	0.04	-0.01	0.00	1								
Monthly HH income	0.01	0.47	-0.16	0.00	1							
Location of residence	-0.03	-0.22	0.09	0.04	-0.39	1						
Insurance coverage	-0.06	0.05	-0.09	0.03	-0.11	0.16	1					
Pregnancy intention	0.00	0.04	-0.16	0.03	0.06	0.03	0.01	1				
Living with mother	0.20	-0.12	0.18	-0.06	0.02	-0.14	-0.11	-0.06	1			
Method of delivery	0.11	0.23	-0.10	-0.02	0.25	-0.19	0.01	0.05	0.01	1		
Prenatal care uptake	-0.06	0.14	-0.20	-0.01	0.07	0.01	0.14	0.08	-0.03	0.02	1	
Place of delivery	0.00	0.22	-0.22	-0.08	0.28	-0.30	-0.05	-0.02	0.03	0.23	0.17	1

Appendix 7-1

List of field sites and their characteristics

Site	Name of district	Area (km ²)	Population (2008)	Health facilities
1	Lao Khwan	831.3	55,282	1 district hospital, 13 health centres/PCUs
2	Huai Karchao	622.0	32,727	1 district hospital, 6 health centres/PCUs
3	Dan Makhm Tia	807.1	32,471	1 district hospital, 7 health centres/PCUs
4	Thong Pha Bhum	3655.2	66,033	1 district hospital, 14 health centres/PCUs
5	Phanom Thuan	535.8	51,851	1 district hospital, 9 health centres/PCUs
6	Tha Muang	610.9	103,037	1 district hospital, 13 health centres/PCUs
7	Muang	1236.3	158,218	1 provincial hospital, 1 military hospital and 3 private hospitals, 22 health centres/PCUs
8	Tha Maka	340.8	134,083	1 general hospital, 1 private hospital, 15 health centres/PCUs

Source: Bureau of Policy and Strategy, Ministry of Public Health. <http://bps.ops.moph.go.th>.