FACTORS RELATED TO THE UTILIZATION OF RURAL HEALTH FACILITIES PROVIDING CHILDBIRTH CARE FOR MOTHERS IN OMBEN AND CAMPLONG SUB-DISTRICT, SAMPANG INDONESIA

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FACTORS RELATED TO THE UTILIZATION OF RURAL HEALTH FACILITIES PROVIDING CHILDBIRTH CARE FOR MOTHER IN OMBEN AND CAMPLONG SUB-DISTRICT, SAMPANG INDONESIA

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ABSTRACT

A cross-sectional descriptive study was conducted to ascertain and understand factors affecting the utilization of health facilities providing childbirth care in Omben and Camplong sub-districts, Sampang district, Indonesia. The study group was comprised of 250 mothers who gave birth in those subdistricts in 2010. Respondents were interviewed during an immunization day in an immunization centre by trained interviewers using a structured questionnaire. The questionnaire was in Bahasa Indonesia with 74 questions and was divided into eight.

This study found that 93.15% of mothers utilized a health facility during childbirth. Thirty-eight factors were analyzed and twelve factors had a significant association with the utilization of a health facility providing childbirth care: parity, number of living children, knowledge about safe delivery, perception of safe delivery, planned place of childbirth, the nearest maternal and child health (MCH) care from home, frequency of antenatal care (ANC), place of ANC, suggested about place of childbirth during ANC, labelling with birth preparedness and complication readiness sticker, and traditional birth attendant involved in decision making. Multiple logistic regression selected 3 factors as predictors for the model which are : planned place of delivery (adj OR: 167.58, p-value: 0.001), perception of safe delivery (adj OR: 17.24, p-value: 0.023), and the nearest MCH care from home (adj OR:9.62, p-value: 0.027).

The government should provide reachable, friendly and affordable health facilities for childbirth. To improve mothers' perception of safe delivery, health professionals who undertake ANC should give better counselling to convey important information about danger signs and to encourage mothers to make birth plans.

KEY WORDS : UTILIZATION / RURAL HEALTH FACILITES/ CHILDBIRTH CARE

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AIDS	:	Acquired Immune Disease Syndrome
ANC	:	Ante Natal Care
BEONC	:	Basic Emergency Obstetric Neonatal Care
BPCR	:	Birth Preparedness and Complication Readiness
CEONC	:	Comprehensive Emergency Obstetric Neonatal Care
DKI	:	Daerah Khusus Ibukota (Province)
GOI	:	Government of Indonesia
IDHS	:	Indonesia Demography Health Survey
KR	:	Kuder Richardson
MCH	:	Maternal Child Health
MDG	:	Millenium Development Goals
MMR	:	Maternal Mortality Rate
MOH	:	Ministry of Health
MPS	:	Making Pregnancy Safer
SBA	:	Skilled Birth Attendance
TBA	:	Traditional Birth Attendance
UK	:	United Kingdom
UNFPA	:	United Nations Population Fund
UNICEF	:	United Nations Children's Fund
WHO	:	World Health Organization

CHAPTER I
INTRODUCTION

1.1. Rationale and justification

The global burden of death, disease and disability due to pregnancy and childbirth is considerable, and is inequitably imposed on poor countries. In 2006, the World Health Organization (WHO), the United Nations Children's Fund and the United Nations Population Fund estimated that about 530,000 maternal deaths occured annually in the world of which 99% occured in developing countries (1). In addition, over 10 million women experience some form of morbidity due to pregnancy or childbirth each year (2).

Indonesia's maternal mortality ratio decreased from 390 in 1994 to 228 per 100,000 live births in 2007. Skilled birth attendance increased to 79% in 2007 from 40.7% in 1991, and greatly influenced both maternal and infant mortality rates. Direct causes of maternal mortality are hemorrhage, eclampsia, prolonged/obstructed delivery, abortion complications, and infection (3).

Most morbidity and mortality is due to direct obstetric complications which occur during labour and birth (4). Since most life-threatening complications occurring at this time cannot be predicted or prevented, interventions to address the global burden of maternal death and disability that are broadly agreed upon and adopted focus on the intrapartum period. These interventions aim to ensure that deliveries occur in the presence of skilled health providers who function within an enabling environment of equipment, drugs and supplies (skilled attendance), and that deliveries take place in health facilities offering a package of medical interventions able to treat major direct obstetric complications (emergency obstetric care) (1). A proper place for childbirth, therefore, is a very important factor saving lives.

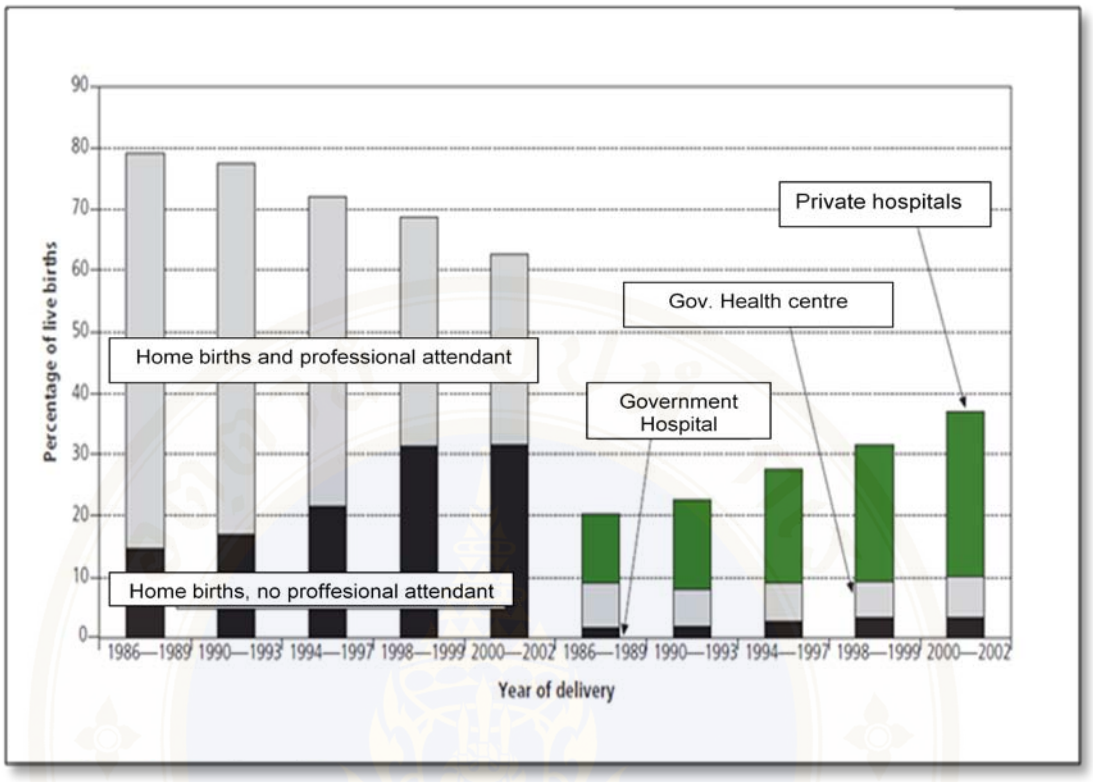


Figure 1.1 Trends in location of birth in Indonesia 1986 - 2002, by type of provider and presence of skilled attendant

Source : Indonesia Demographic Health Survey 2007 (13)

One of the main challenges in developing countries is to make interventions of demonstrated efficacy widely available to underserved populations. There is a series of interventions that could result in a significant reduction of maternal, infant and child morbidity and mortality globally. Theoretically, the implementation of known interventions could reduce neonatal and child mortality by 40 to 70% in less developed countries. Problems in low- and middle-income countries in improving maternal and child health are: poorly - organised health systems, disadvantaged socioeconomic conditions, and very heterogeneous cultural contexts (5).

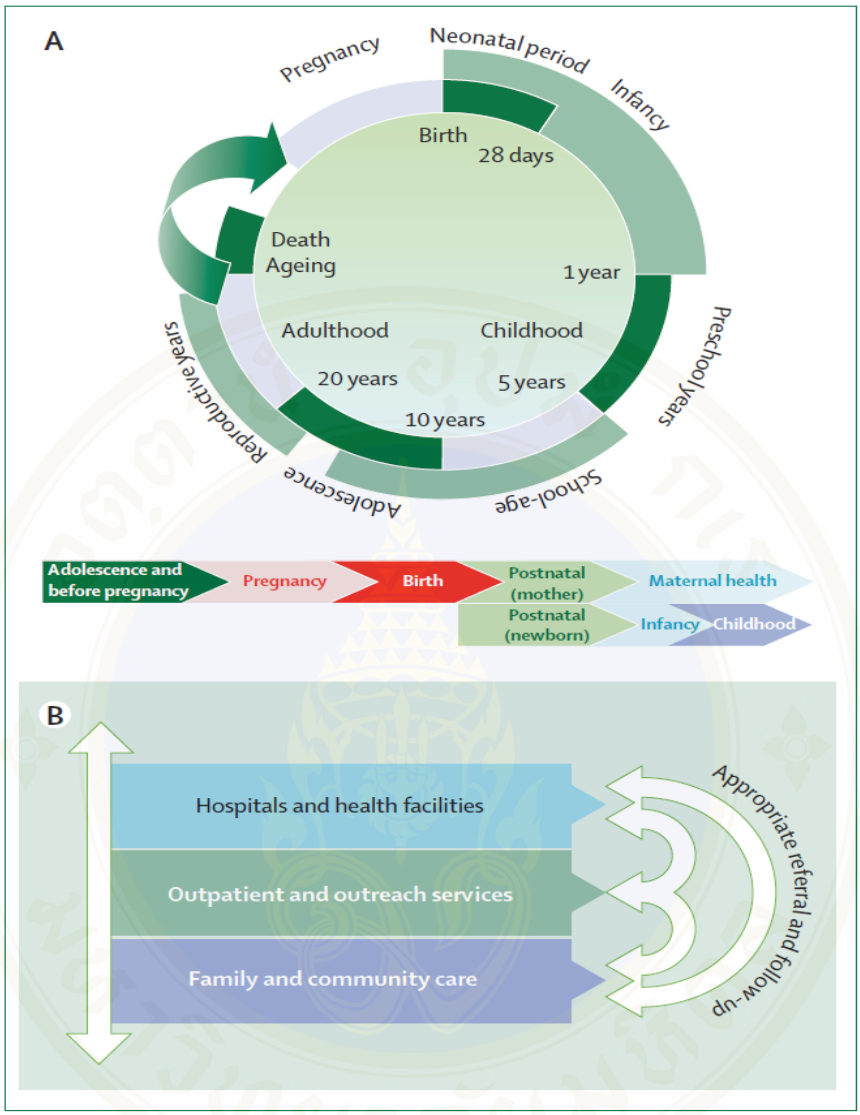


Figure 1.2 Continuum of care

Connecting care during the lifecycle (A) and at places of caregiving (B).

Source : Adapted from Partnership for Maternal, Newborn and Child Health (5)

Access to rural areas also represents a challenge for the equitable implementation of these strategies. The least skilled attendants are those who frequently provide care in distant rural areas where the most underprivileged women and children usually live. Finally, the feasibility of scaling up effective strategies in a cost-effective way also depends on the characteristics of the rural settings within each country. In childbearing, women need a continuum of care to ensure the best possible

themselves and their families in their homes i.e. self-care and prevention. It is followed by the first level of health care (at a health post, clinic or in a client's home) and involves the provision of high-quality midwifery care. This care can continue at the first level where pregnancies, birth and postnatal periods remain free from complications. However, when complications occur, women and/or their newborns will need care at secondary or tertiary levels of the health system, depending on the seriousness of their respective conditions. The successful provision of the continuum of care requires a functioning health care system with the necessary infrastructure in place, including transport between the primary level of health care and referral clinics and hospitals. It also needs effective, efficient and proactive collaboration between all those involved in the provision of care to pregnant women and newborns (6).

Skilled attendants are at the centre of the continuum of care. At the primary health care level, they will need to work with other care providers in the community, such as traditional birth attendants and social workers. They will also need strong working links with health care providers at the secondary and tertiary levels of the health system (7). "Skilled birth attendance" has only recently been defined explicitly as "the process by which a woman is provided with adequate care during labour, delivery and the early postpartum period". This definition goes onto emphasise that the process requires a skilled attendant and an enabling environment (8). The "enabling environment" has sometimes been described as a well functioning health system. For the health system to function effectively, at least the following must be in place (7):

- Regulatory frameworks and policies that not only protect the public, but also support the provision of effective maternal and newborn health care, and allow skilled attendants to provide all necessary care, including where required essential life-saving skills.
- Standards and protocols that define what is high-quality maternal and newborn health care.
- Adequate human resources and management systems.

Evidence shows that the health centre intrapartum-care strategy is likely to be the best because, even though midwives are the main providers, they work with other attendants in a team. Such care is referred to as basic, primary, routine,

basic essential obstetric care, and most recently skilled care at the first level. Another alternative strategy is home-based delivery and hence also needs to be coupled with strategies that remove community barriers to accessing emergency obstetric care, including recognition of danger signs by lay attendants (relatives and traditional birth attendants) and effective referral mechanisms (4).

A common reason for home-based delivery is the availability of health providers in the village. Home based delivery may also be cheaper and more practical than other options (4). The social distance between the community and village midwife is also an issue. Some women consider home-delivery more convenient because of their responsibilities to other children or household members (4).

Every pregnancy has chance to have complications, and statistically 20% of all delivery will end up with complication, critical point to save mothers' and babies' lifes are adequate treatment of those complictions (8). Approximately half the deliveries and early neonatal deaths in developing countries occur at home. Homebirth increases the risk of neonatal death to double or triple the neonatal death rate at hospital birth, especially the risk of having infection would increase three- to fourfold (9).

In Indonesia, mothers who gave birth at home or at health facility might have same chance having complications, but the output might be different. 50% of deliveries which were attended by health professionals would have complications, and it could be endanger mothers' and babies' lifes if they give birth at home which have limited conditions (13).

The Indonesian Government has made an intensive effort to follow WHO guidelines for safe motherhood programmes. The country has adopted a strategy to improve access to professional care at birth by posting professional midwives in villages. The village midwife (Bidan di Desa) programmeme was launched in 1989 in response to the large proportion of deliveries taking place at home without professional assistance, and high levels of maternal mortality (10).

The maternal mortality ratio (MMR) in Indonesia remains relatively high compared with other Asian countries. About 70% of mothers in rural areas also deliver at home. It is, therefore, important to study and understand why mothers in

rural areas choose to give birth at home rather than in some other type of health care facility. In Indonesia, pregnant woman have the following childbirth options: at home; midwifery hut; midwifery clinic; health centre or hospital. Availability and accesibility to childbirth care; mothers knowledge and perception; mothers condition during pregnancy and childbirth; and mothers satisfaction with childbirth care are some factors which may affect the childbirth care they will use. This information will assist the management, improvement and development of approriate maternal health care.

As a research site, Sampang is one " lagging behind district" in East Java province which has high maternal and infant mortality rates. It is important to study maternal health care in Sampang since several projects for improving maternal and neonatal health have been implemented but maternal and neonatal status in Sampang has not changed significantly in the last 5 years. Compared with other sub-districts in Sampang, Omben and Camplong citizens have more access to childbirth care: every village in these two sub-districts have village midwives or sub health centres but skilled birth attendance coverage remains below 80%. Omben is a mountainous area, and Camplong is a coastal area and can be conveniently compared to each other (11).

1.2. Research question

What makes mothers choose to give birth at a health facility?

1.3. Research objectives

1.3.1. General

To study, ascertain and understand factors affecting the utilization of ealth facilities providing childbirth care in Sampang District

1.3.2. Specific

1.3.2.1 To identify and describe the patterns of utilization of health facilities providing chidbirth care delivery in Omben and Camplong sub-districts

1.3.2.2 To identify and describe predisposing factors of mothers related to their decisions about utilizing childbirth care facilities.

1.3.2.3 To identify and describe enabling factors of mothers related to their decisions about utilizing childbirth care facilities.

1.3.2.4 To identify and describe need factors of mothers related to their decisions about utilizing childbirth care facilities.

1.3.2.5 To identify and describe satisfaction with care factors of mothers related to decision of utilizing childbirth care.

1.3.2.6 To identify the association between predisposing factors, enabling factors and need factors with utilization of childbirth care facilities.

Conceptual framework

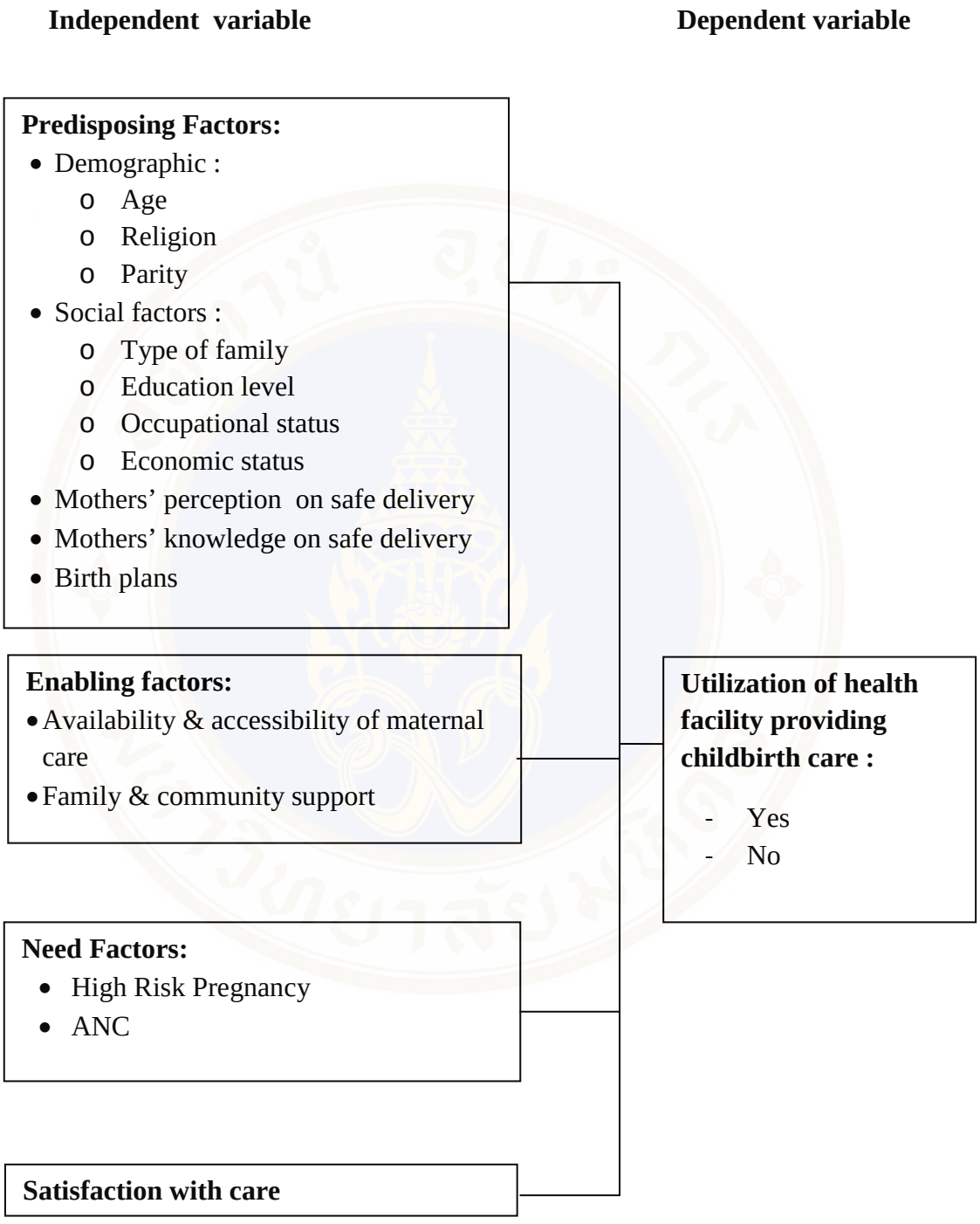


Figure 1.3 Conceptual framework

1.4. Operational definitions of study variables

1.4.1. Dependent variable

Utilization of health facility providing childbirth care: refers to the use of a health facility by a mother for the delivery of her last child, before referral. Health facility options are : hospital, health centre, midwivery clinic, or midwifery hut.

1.4.2. Independent variables

Age: refers to the complete age of mother at the time of interview.

Religion : refers to the religion of mother as at the time of interview, there are 5 religions which common in Indonesia : Islam, Catholic, Christian, Budhist and Hindu.

Parity : refers to the number of pregnencies which mother had at the time of interview, including : total pregnancies, number of abortion, still and live births.

Type of family : refers to how many family live in one house. There are two types of family: nuclear and joint family. A nuclear family means only one family in one house; a joint family is family which has two or more families in one house.

Mothers' education level : refers to the formal educational level attended by mother at the time of interview. It categorizes into primary, secondary, high school and higher.

Husbands' education level : refers to the formal educational level attended by husband at the time of interview. It categorizes into primary, secondary, high school and higher.

Mothers' occupational status : refers to maternal occupations by which they earn money for living at the time of interview.

Husbands' occupational status : refers to husbands' occupations by which they earn money for living at the time of interview.

Economic status : refers to mother's wealth of living which is assessed by average family income a month and mother's ownweship of card of insurance for the poor. Families which are registered and have this card will be categorized as poor and will be categorized as a grade from regional minimum wages standard for Sampang in 2010 and statistic beureu standard for defining poor people.

Mothers perception on safe delivery : refers to mother's apreciation about delivery process and issues surrounding it and is devided into 3 groups : perceptions of benefits, barriers and safety. In this study, perception will be categorized as positive or negative .

Mothers knowledge on safe delivery : refers to mother's understanding about safe delivery include maternal and neonatal danger signs which are described in the MCH handbook. In this study, knowledge was divided into three categories: good, moderate and poor.

Birth plans : refers to mothers' preparedness to stand before childbirth, which are : place of childbirth, money preparation and transportation preparation.

Availability and accesibility of maternal health care: refers to the presence of maternal health care (midwifery huts, health centres, private midwifery clinics and hospitals) in mothers' neighborhoods and how mothers can reach them not more than 2 hours from two aspects : cost and mode of transportation.

Family and community support : refers to the norm and culture of family and community support for mothers during childbirth in terms of psychological support, funding, vehicle for referral and blood donors.

High risk pregnancy : refers to certain conditions of mothers the mother, the developing fetus, or both at higher-than-normal risk for complications during or after the pregnancy and birth during last pregnancies. Several high risk pregnancy which stated in MCH handbook as a reference book for pregnant mothers are : pervaginal bleeding, ex-Caesarean Section, Severe abdominal pain, premature membrane rupture, fever, disease related pregnancy and mal-presentation of the foetus.

Ante Natal Care: refers to how often the mothers had ANC during their last pregnancy and what information they have received from their health providers. For frequency of ANC, it is categorized as : less than 2 times, 2 – 4 times, 4 – 6 times and more than 6 times.

Satisfaction with care: refers to mothers' satisfaction with their last childbirth care in different aspects such as health provider rapid response, cost of care, fairness of care, empathy and cleanliness of delivery room.

1.5. Limitation of the study

This study only measured factors related to maternal health care during childbirth from a maternal prespective and didn't necessarily reflect health provider prespectives. Mothers were asked to provide information about their last pregnencies, but they might not remember the facts (recall bias). There might be intention bias due to fact that all the respondents were interviewed at an immunization centre on an immunazition day. These biases might cause better result in some sensitive variables. Since Sampang had 70% poor citizens which is different with situation of majority part in Indonesia, this research result cannot be generalized (11).

CHAPTER II
LITERATURE REVIEW

Health facility-based childbirth care is the best option to prevent maternal death since complications often occur during labour and it will lead to death if was not treated adequately. This chapter shows : situation of maternal death worldwide and Indonesia, cause of maternal death, strategies to reduce maternal mortality, utilization of maternal health care and theoretical model for this research. This chapter also reveals factors which influence mother to utilize health facility during childbirth.

2.1 Situation of maternal death

Maternal deaths is an important indicator by which the development of a country and nation can be measured. "Maternal death" is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (1).

Indonesia's MMR decreased from 390 in 1994 to 228, even though it was higher than in other countries in the region. Skilled birth attendance coverage increased to 79% in 2007 from 40.7% in 1991, and greatly influenced both maternal and infant mortality rates. Direct causes of maternal mortality are hemorrhage, eclampsia, prolonged/ obstructed delivery, abortion complications, and infection. These reductions however, must be treated with caution, and are certainly not consistent across the country as a whole. For example, analysis of the 1995 Household Survey data showed a substantial MMR variation between provinces. In Central Java for example, the MMR was estimated at 248, while in West Java it was 686. In outer Java areas, the MMR remains high; for example in East Nusa Tenggara the estimated MMR was 554, and in Papua it was estimated at 1,025 (15).

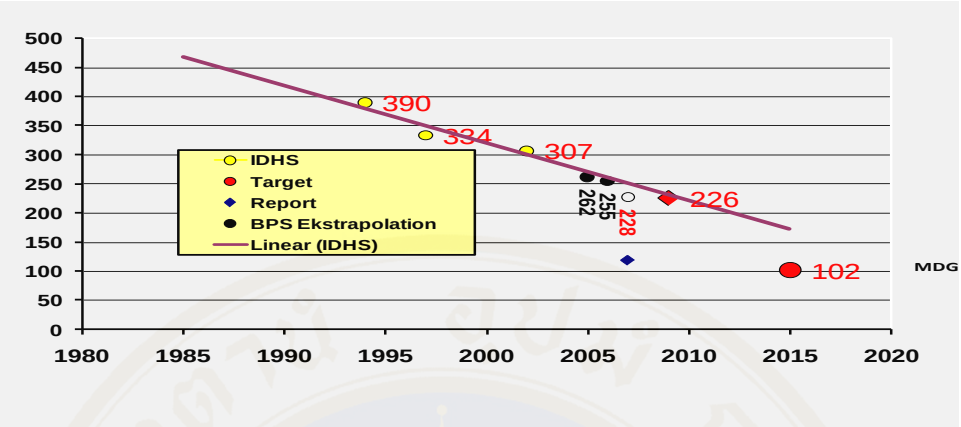


Fig 2.1 Maternal Mortality Ratio in Indonesia 1980 – 2007 (16)

Source : Presentation in Indonesia Country Report in the 6th ASEAN officials meeting

Maternal health appears to be improving for some women in Indonesia. However pregnancy and childbirth remain a major challenge to the health of many Indonesian women. Although the age of first marriage is increasing, research suggests that 10% of adolescents girls are married by the age of 16 years. According to Susenas, in 1998, the percentage was higher in some provinces than others : West Java (16%), South Kalimantan (15%), East Java (15%), Jambi (14%), Bengkulu (11%) . The proportion of adolescent pregnancies (births before 18 years of age) was 4.1% (15).

Between the mid nineteenth century and the late 1930s, patterns of maternal death reduction diverged markedly worldwide. The North European success story is all the more impressive since it was achieved before modern hospital technology, transfusions, caesarean sections, and antibiotics became available (12).

Until the 1960s, Thailand had had maternal mortality levels above 400; it was the same in the UK around 1900 or the USA in 1939. During the next fifteen years the first three health plans (1961-1976) gave priority to training paramedical personnel. During the 1960s 7,191 midwives were newly registered; double the number of the previous decade. Gradually Traditional Birth Attendents (TBAs) were substituted by certified village midwives. Mortality halved, down to between 200 and 250 in 1970. During the 1970s the registration of midwives was stepped up: 18,314

new registrations. It also was effective: mortality dropped steadily and caught up with Sri Lanka by 1980, at 98 (12).

In the ten years from 1977 to 1987, the number of beds in small community hospitals in Thailand quadrupled, from 2,540 to 10,800. The number of doctors in these districts rose from a few hundred to 1,339. By 1985 mortality had halved again, down to 42. By 1990 it was down to 25 and in 1995 to 11, the disadvantage being an impressive medicalization with 28% of deliveries through caesarean section. A major commitment of the ministry of public health to organize professional assistance for deliveries has clearly worked. This, however, is not what happens in many poor countries. Apparently the obstacles they face are not unlike those that delayed reduction of maternal mortality in many Western countries in the first half of the twentieth century, including sometimes bad quality care in hospitals (12).

Table 2.1 Maternal Mortality Ratios by Region (12)

WHO region	MMR*	Maternal deaths
Africa	940	213.000
The Americans	140	23.000
Eastern Mediteranean	440	68.000
Europe	59	7.000
South East Asia	610	235.000
Western Pacific	120	39.000
World Total	430	586.000

*MMR : maternal deaths per 100,000 live births

Source : WHO Maternal Mortality Ratio 2006.

2.2 Cause of maternal deaths

Hemorrhage (from placenta praevia, abruptio placenta, uterine atony, ectopic pregnancy, post partum tears and coagulopathies) is the leading cause of maternal deaths. Sepsis continues to take its toll, and a similar number die in

consequence of unsafe abortions. Hypertensive disorders of pregnancy can hardly be prevented, but the complications can often be averted or treated successfully. Obstructed labour, as a rule ending with a ruptured uterus, is important as a preventable cause (12).

Table 2.2 Cause of Maternal Deaths in the World (11)

Cause of deaths	Number	(%)	Possibly preventable	
			Number	%
Haemorrhage	127.000	25%	70.000	55%
Sepsis	76.000	15%	57.000	75%
Preeclampsia	64.000	12%	42.000	65%
Obstructed Labour	38.000	8%	30.000	80%
Unsafe abortion	67.000	13%	50.000	75%
Other direct cause	39.000	8%	-	-
Indirect cause	100.000	20%	269.000	
TOTAL	510.000	100%	269.000	

In addition, anemia and malaria deserve to be mentioned as important indirect causes. Both are prevalent in tropical countries, and both are aggravated by pregnancy. Anemia figures as a cause of death in many of the studies quoted in the Global Fact Book. A survey of maternal deaths in 1995 and 1996 in the highlands of the Arusha region, Tanzania, verified cerebral malaria as a primary cause in 20 out of 45 cases. Acquired immune-deficiency syndrome (AIDS) is also considered an indirect cause. In several African countries south of the Sahara upwards of 10% of pregnant women at antenatal care centres are HIV-positive. Given the natural course of HIV infection, 5% to 10% of these will succumb to HIV-related disease during pregnancy and puerperal (12).

Causes of maternal deaths in Indonesia according to the House Hold Survey 2002 were hemorrhage, eclampsia, prolonged/ obstructed delivery, abortion complications, and infection (13).

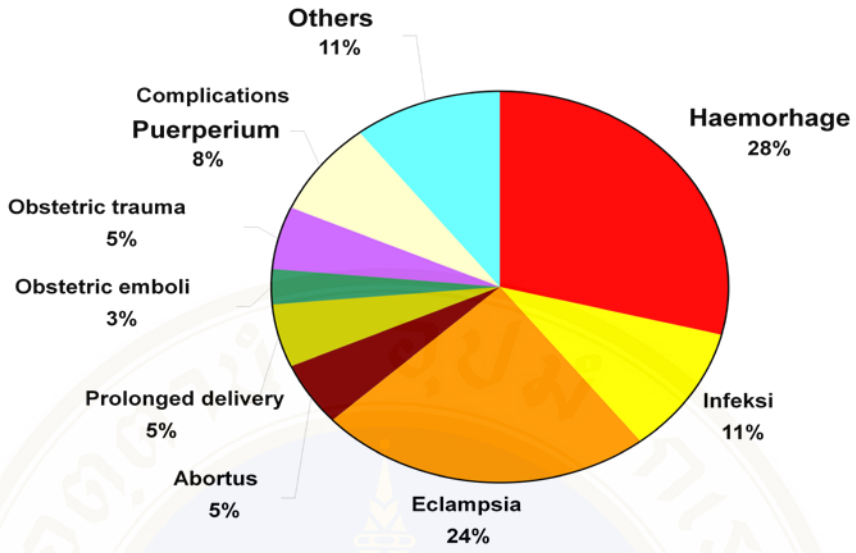


Figure 2.2 Cause of Maternal Death in Indonesia

Source : Indonesia House Hold Survey 2002 (16).

According to the maternal and child report from Sampang District Health Office in 2009, there were several indicators which showed inter-indicator disparities, and almost 100 babies died although coverage of skilled birth attendence was 80%. This indicated that, somehow, the quality of childbirth care was not adequate to handle neonatal complications, probably because of the many home-based deliveries in Sampang (11).

Table 2.3 Sampang MCH coverages and targets in September 2010 (11).

INDICATOR	Sampang	Omben	Camplong
Number of Pregnant Mothers	19,864	1,741	1,779
Number of Delivery Mothers	18,239	1,565	1,698
Number of Babies	18,058	1,490	1,617
Ante Natal Care	71.17%	66%	68%
Complete Ante Natal Care	56.25%	55%	58%
Skill Birth Attendance	65.2%	60%	68%
Post Partum Care	69.27%	61%	81%

Source : Sampang Profile (11)

Since MCH coverage was not completely satisfactory and affected immunization coverage, some communicable dieseases occured frequently in children and often ended up with a child's death. (11)

2.3 Strategies to reduce maternal mortality

A decade ago, a joint WHO/ UNFPA/ UNICEF/ World Bank statement called on countries to "ensure that all women and newborns have skilled care during pregnancy, childbirth and the immediate postnatal period". Essential quality of care necessery to ensure safe outcomes for mothers and babies rests upon skilled attendants. The crucial word 'skilled' is often defined or equated with 'trained' or 'professional'. Increasing the proportion of deliveries with skilled attendants working within a functioning health system is widely regarded as a crucial intervention strategy and widely advocated by international agencies (16).

The four essential pillars supporting strategies to achieve Millenium Development Goals (MDG) 4 and MDG5 are:(16)

- Family planning and access to other reproductive health services
- Skilled care during pregnancy and childbirth
- Emergency (or Essential) obstetric care for maternal and newborn complications
- Postnatal care for mothers and babies.

Rights-based approaches to improving health systems and services have often focused on women's access to and use of quality maternity services. A health systems analysis of the extent to which services are available, accessible, acceptable, and of the highest possible quality, can be valuable in identifying problems and designing interventions that are rights based. Ensuring that maternity services exist and are financially and physically accessible necessarily highlights rights. Focusing on healthcare providers and making sure that they are accountable to women who seek care is another such approach. Quality of care is thus an essential component of any programme that upholds the basic principles of a reproductive health approach (8).

Since 2005, the Indonesian government has created efffective policies and developed a strong commitment to improving maternal, neonatal and child health. Considerable efforts have been made to adopt policies which will guarantee their implementation. Although the Indonesian government is still struggling with national financial problems, it has persistently addressed mechanisms to enable families with low household financial capabilities to access basic services (17).

In order to improve community health, particularly maternal, neonatal and child health, the Indonesian Ministry of Health has adopted the Making Pregnancy Safer strategy that to improve access to and coverage of quality of maternal, neonatal and under 5 child care at the basic and comprehensive setting; to enhance and build effective partnerships to advocate for and maximize available resources and strengthen coordination of plans and activities in MPS; to encourage woman, family and community empowerment to ensure appropriate practices, provision and utilization of maternal, neonatal, and under 5 health services; and to increase the health surveillance, monitoring and MNCH information system, and health financing (17). Specifically, in the maternal health sector the GoI are working to ensure:

- All pregnant women have at least 4 ANC examinations with a health professional
- All childbirth should be assisted by trained health providers (doctors or midwives).
- The Maternal Mortality Ratio should be reduced from the current status of 228 to 118 per 100,000 live births,
- The Infant Mortality Rate should be reduced from 34 to 24 per 1,000 live births,
- The Neonatal Mortality Rate should be reduced from 19 to 15 per 1,000 live births.
- The health system has adequate numbers of Centers for Comprehensive Emergency Obstetric and Neonatal Care (CEONC) and Centers for Basic Emergency Obstetric and Neonatal Care (17).

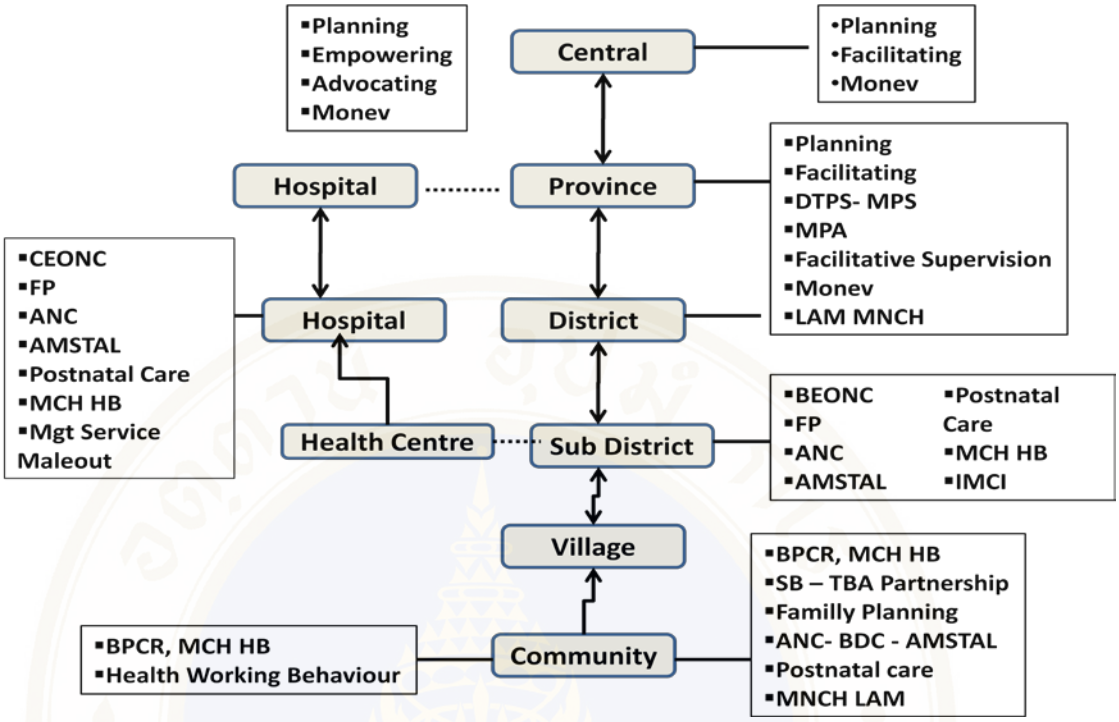


Figure 2.3 Health Delivery and Referral System in Indonesia (16)

Source : Presentation in Indonesia Country Report in the 6th ASEAN officials meeting

2.4 Utilization of maternal health care

About 79% of births in Indonesia were assisted by skilled providers in 2007, an improvement compared with 66% according to the Indonesia Demographic Health Survey (IDHS) 2002 – 2003. Deliveries in health facilities had been steadily increasing and in 2007 accounted for a total of 46% of all deliveries. Preference for private health facilities rose, with 36% of births delivered in private facilities compared to 10% in public ones. The percentage of skilled bith attendents increased along with the age of a mother, her level of education, and her income status.

According to the IDHS 2007, there are bigdifferences between urban and rural communities, also between provinces in Indonesia. Only 30% of mothers in rural areas gave birth at health facilities, compared with 70% of mothers in urban areas. Only 14% of poor women were delivered by a trained provider, compared with 83% of non-poor women. Regional differences were important, ranging from 97% in DKI

Jakarta to 33% in Maluku. Place of childbirth-home, health facility-also showed regional differences. The IDHS 2007 showed that 7% of births in the five years preceding the survey were delivered by caesarean section. Women most likely to have childbirth by caesarean section were women in urban areas (11%), women with secondary and higher education (13%), and women in the highest wealth quintile (17%) (13, 18).

2.4.1 Health facility-based childbirth care

"Skilled birth attendance" has only recently been defined explicitly as "the process by which a woman is provided with adequate care during labour, childbirth and the early postpartum period". This definition goes onto emphasize that the process requires a skilled attendant and an enabling environment which includes adequate supplies, equipment and infrastructure as well as efficient and effective systems of communication and referral. It means that it is nearly impossible to provide standardizised skilled birth attendance at home based childbirth because health provider have to prepare so many things for emergency situations which can occur during childbirth (6).

According to International Confederation of Midwives, the skilled attendants at childbirth should at least be able to :(6)

- Take a detailed history, asking relevant questions, demonstrating cultural sensitivity, and using good interpersonal skills.
- Provide antenatal care throughout pregnancy; provide continuity of care throughout the prenatal period.
- Perform a general examination, identify deviations from normal, and screen for conditions that are prevalent or endemic in the area.
- Educate women and their families about danger signs during pregnancy, and when and how to seek emergency care.
- Provide appropriate intervention (including referral)
- Manage postpartum hemorrhage
- Administer oxytocic agents
- Perform aortic compression or internal bimanual compression, depending on country norms

- Perform life-saving skills in several important cases
- Provide a safe and warm environment for mother and infant
- Educate woman and family regarding postpartum and newborn care (including care of the umbilical cord stump).
- Insert intravenous (IV) lines and administer IV fluids
- Make appropriate and timely referrals for additional and emergency care, arranging for transportation and care during transport.
- Identify breech and other malpresentations, and make timely referrals in early labour.
- Facilitate linkages between the community health facility, referral settings, and the traditional care providers in that community.
- Use appropriate interpersonal communication skills and counseling skills
- Employ critical thinking skills (includes self-assessment on and reflection of own practice)
- Respect diverse cultures and traditions
- Utilize management skills to organize the practice environment and to evaluate the effectiveness of service delivery.
- The skilled attendant at childbirth may have the additional skills to:
- Anticipate the need for forceps delivery or vacuum extraction; perform vacuum extraction
- Manage complications of late labour using appropriate interventions and hand maneuvers.
- Identify and manage fetal distress.
- Identify and manage multiple births.
- Perform manual removal of retained placenta.
- Identify and repair cervical lacerations.
- Use managerial skills to improve service delivery

Evidence shows that the best intrapartum-care strategy is likely to be one in which women routinely choose to deliver in a health centre, with midwives as the main providers, but with other attendants working with them in a team. (12).

Such a strategy would target all intrapartum women and aim to maintain the normality of the childbirth process, with an emphasis on non-intervention and timely watchfulness, and on preservation of the psychosocial benefits of a positive birthing experience. Underlying this strategy are important principals of safety, primary prevention where possible, and early detection and management of problems, including life-threatening ones. The treatment component would include all basic emergency obstetric functions, apart from blood transfusions or surgery which would be available at the referral level as comprehensive emergency obstetric care (12).

2.4.2 Home-based childbirth care

Home-based childbirth care could endanger mothers' lives and derive maternal quality of life since complications might be occured due to limited tools and skilled attendance during childbirth. Study in Nepal which ask mothers who delivered at home and then admitted to the hospital showed that several complications occured and one mother could have more than one complication, those complications were : retained placenta (73.7%), perinatal tear (60.6%), puerperal pyrexia (35.8%), postpartum hemorrhage (27.2%), shock (21.9%) and cervical tear (7%) (19)

Home based childbirth care is common in developing countries during their way to decrease maternal death as a "bridge" from TBA attendent to SBA. However health providers, especially doctors and midwives, have a responsibility to create the right circumstances for safe and satisfying home births. Their duty are , selecting women who are not at high risk of complications; establishing an infrastructure for safe obstetric interventions such as providing elevated beds and ensuring adequate hygiene; providing support during labour and in the days after childbirth, for which maternity home care assistants are important; and allowing access to hospital facilities Transfer during labour can be safe, but safety must not be assumed, and the availability of obstetric care must be established beforehand. Coordinated planning between primary care practitioners and obstetricians is crucial, and much will depend on local conditions (20).

A study in Nigeria found that privacy was the most commonly cited reason for not delivering at a health facility, and that the most favored site was the home of the woman. Lack of privacy was also given as a major reason for women not

wanting to deliver in public hospitals. The cost of hospital childbirth as a deterrent to hospital birth was not a major factor in some studies (21).

Table 2.4 Reasons for home delivery in Nigeria

Reasons	No	Percentage (%)
Privacy	51	28.9
Precipitate/"fast labour"	44	24.9
No transport	43	24.2
Husband/in laws choice	16	9.3
Bad attitude of hospital staff	14	7.4
Cost of hospital delivery	6	3.2
No reason	3	1.9

Source : Acta obstetricia et Gynecologica 2007 (21)

The claim of fast or precipitate labour that was made by some of the women in the home delivery group could as well be an alibi for the privacy that home delivery provides, as further probing revealed that in some cases labour lasted for as long as eight hours. Lack of transportation to a hospital was also a deterrent. Maternal literacy favored hospital delivery while high parity and previous home births were risk factors for home delivery (21).

Another study in West Java found that home delivery was considered more convenient by some women because of their responsibilities to children or other household members. It would be appropriate to encourage pregnant mothers to actively seek the assistance of skilled attendants when home delivery becomes inevitable (22).

Normal childbirth and preventive functions of basic care, including some emergency first aid, can be delivered by skilled attendants in the home. Such strategies have been adopted successfully and have contributed to achieving low maternal mortality ratios in countries such as Malaysia and the Netherlands. Some argue that home births increase coverage of skilled birth attendance in remote areas and respond

mortality ratios in countries such as Malaysia and the Netherlands. Some argue that home births increase coverage of skilled birth attendance in remote areas and respond to women's demands for home-based care. However, home conditions can be extremely basic (21).

Home-based intrapartum care is also inefficient in terms of skilled attendants' time and ability to cope with emergencies. Several reqirements need to be met to deal with first-aid for complications on their own or with help only from the family, including arranging transport for referral. Home-based care without assurance of links and transport to emergency obstetric care facilities will also limit the effectiveness of this strategy and compromise community confidence in midwives (8).

2.5 Theoretical model

Andersen developed a behaviour model in 1960 to explain why families or individuals use a particular health service and he developed it to fit with needs developing. He suggested that relevant factors can be grouped into four main catagories: predisposing characterisics, enabling resources, the need for health care and consumer satisfaction (23).

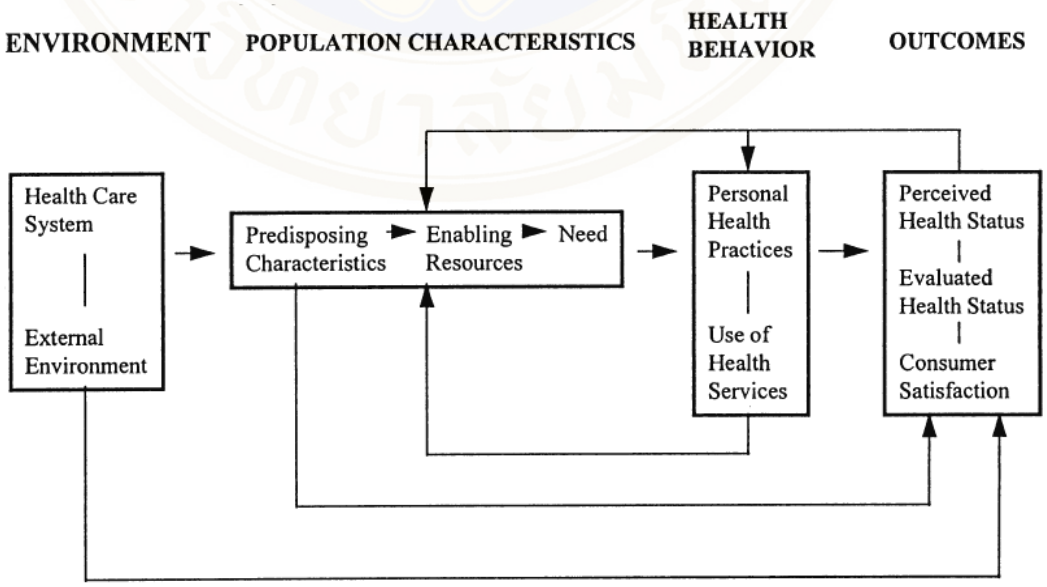


Figure 2.4 Andersen Behaviour Model of Health Care Utilization phase IV (23)

Source: Revisiting Model and Access to medical care (23)

A predisposing factor is defined as a characteristic of a particular individual such as age, sex, education, occupation, income and attitude. These factors can motivate people to seek appropiate health action and consist of :(22)

- Social structure which are :education, occupation, ethnicity, social networks, social interactions and culture
- Health beliefs which are : attitudes, values and knowledge that people have concerning and towards the health care system. It will result in appropriate treatment seeking and more common among woman, not only their own self but especially for children
- Demographics : age and gender, economic polarization within the society and lack of security system make the poor more vulnerable in terms of affordability and choice of health service.

An enabling factor is defined as a characteristic of service and accessibility of resource that make it possible to motivate a person to take action. There are three major groups factors which enable people to obtain health care: accessibility, availability and affordability which are reflected in:

- Personal/ family that will help people or patient can access to health service by giving financial support and information.,
- Community/ environment which help providing referral aid such as a vehicle, proper decision making, avialibility of qualivied and affordable health care.

Need factor is the most immediate cause of health service use, from functional and health problems which generate the need for health care services. Perceived need will help to have better understanding of care seeking and adherence to a medical regimen, while evaluated need will be more closely related to the kind and amount of treatment that will be provided after a patient has presented to a medical care provider (22).

- Perceived health status refers to how people view their own general health and functional state, as well as how they experience symptoms of illness, pain and worries about their health and whether or not they judge their judge their problems to be a sufficient importance and magnitude to seek professional help.

- Evaluated health status represents professional judgment about people's health status and their need for medical care.

Consumer satisfaction is the result of consumer expectation and their experience receiving certain service. Consumers will be satisfied when their expectation meet with their received service. Their expectation is influenced by their experience of having the same service in the past.

According to Andersen's behaviour model, this research adopted 4 factors from which afected to the use of health service :

1. Perdisposing characteristic , comprised demographic, believes, social structure
2. Enabling resources, comprised community support, availability of health care
3. Need factor, comprised evaluated health status during pregnancy
4. Consumer satisfaction, related to mothers' expirience and expectation

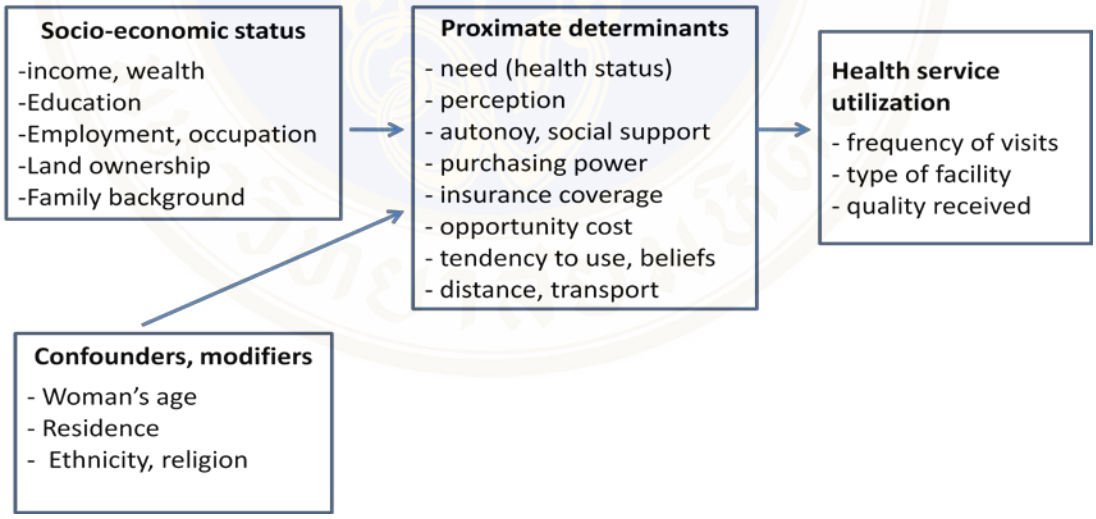


Figure 2.5 Kuate Defo's frame work of social-economic inequalities in health service utilization (12)

Source: Safe motherhood strategies (12)

Another framework from Kuate Defo' in 1997 explained that there were three major groups which affected to utilization of health service. Variables in socio-

economic status and confounders influenced proximate determinants, then proximate determinant affected to utilization. People attained different positions in the social hierarchy depending on their educational level, income level and other scarce resources (12).

This research adopted 4 factors from Andersen's Behaviour Model of Health Care Utilization, which were: Perdisposing characteristic, comprise demographic, believes, social structure; Enabling resources, comprise community support, availability of health care; Need factor, comprise evaluated health status during pregnancy; and Consumer satisfaction, related to mothers' expirience and expectation. This research categorized birth plans as a tendency, which was included in proximate determinant to use in Kuate Defo's framework, to a predisposing characteristic in this research conceptual framework.

2.6 Related variable

2.6.1 Predisposing factors

Research in rural Tanzania found that lack of money, lack of transport, sudden onset of labour, short labour, staff attitudes, lack of privacy, availability of a caregiver, tradition and cultures and the pattern of decision-making power within households which persuade by another influanced/ respectable person were perceived as key determinants of the place of childbirth (24).

Research in Bolivia found five principal reasons for the low rate of institutional births: fear of, or embarrassment related to receiving care at a public health centre (37%); the perception that the quality of care at a centre is poor (22%); distance or other geographic challenges (21%); financial constraints preventing arrival at or utilization of a health centre (14%); and the expectation of an "easy birth" (6%) (25). This research supports a study by Kesterton which concluded that greater availability of obstetric services will not alone solve the problem of low institutional childbirth rates in India (26, 27). Mothers with their first uncomplicated pregnancies may prefer to deliver in hospital for safety reasons (and many do so), while a mother

with her tenth pregnancy may prefer to deliver at home because she feels better cared for in her domestic environment (12).

Socio-demographic factors

All of the cultural, geographical, economic and logistical factors interact with each other, making the situation more complicated than the simple three-part taxonomy proposed by Barnes-Josiah et al (31). For example, women's fears and reluctance to go to a health service often stem from perceived quality of care. Distance and economics can pose problems because of the lack of resources available in health services (thus, even if a health centre has an ambulance, often there is no phone or radio so that women cannot contact them for transport). Research in Bolivia by Otis in 2008 found that an unperceived need for help from trained professionals (i.e. "easy birth") may persist partly due to a lack of community outreach by the health centres explaining the benefits of biomedical services (25).

Age

Age was often presented as a proxy for accumulated experience, including in the use of health services (32,33,34). Study in Brazil and Southern India reveald that older women were also possibly more confident and influential in household decision-making than younger women, and than adolescents in particular (32,34). Furthermore, older women might be told by health workers to deliver in a facility since older age was a biological risk factor (32,33). On the other hand, older women belonged to more traditional cohorts and thus be less likely to use modern facilities than young women (32,34).

Religion

Religion were often considered as markers of cultural background and were thought to influence beliefs, norms and values in relation to childbirth and service use and women's status. Moreover, study in Guatelama found that certain ethnic or religious groups were discriminated against by staff, making them less likely to use services (33).

More specifically, women in some cultures in Nepal were avoid facility delivery due to cultural requirements of seclusion in the household during childbirth & post childbirth period or because of specific requirements around childbirth position, warmth, and handling of the placenta (48). In some cultural groups in Africa, the

belief that obstructed labour was due to infidelity hinders care-seeking (46). Beliefs that birth was a test of endurance, and care-seeking a sign of weakness might be another reason for delivering alone in some contexts (38). In many societies, ethnicity and religion were closely linked to socioeconomic position and place of residence; minority ethnic or religious groups were live in remote areas with worse health infrastructure and transport. (38) Inadequate control for socioeconomic position, place of residence or access to services would lead to residual confounding.

Parity

Women with young children likely had difficulties finding child-care while they deliver at a health facility, in particular if they live in a nuclear family. Sometimes women were accompanied by family members during their hospital stay, so that even these cannot take care of other children during the time (38).

Education

Study in Peru, Southern India and Vietnam revealed that education reflected a woman's childhood background, including familiarity with health services and certain beliefs and norms (34,35,38). It had also been suggested that there may be community effects of education, with more highly educated communities organising themselves and demanding better public services and a higher position for health on the political agenda (38). By contrast, better awareness of poor quality in many facilities and higher confidence in self-care would delay careseeking among educated women.

Study in Peru found that educated husbands were more open toward modern medicine (35), aware of the benefits of skilled attendance and more able to communicate with health workers and demand appropriate care, as described for women's education. They put fewer constraints on their wives' mobility and decision-making, thus facilitating care-seeking.

Economic status

Economic accessibility refers to the relation between financial capability of the family and costs of a facility delivery including transportation costs. Economic constrain can effect ot first delay and second delay to health care (38).

Occupational status

Occupation was associated with education and wealth, and these may thus be confounding the relationship. Women who were working and earning money might be able to save and decided to spend it on a facility delivery. However, in many settings women either did not earn money for their work or did not control what they earn. An increased range of movement and better access to information were suggested as reasons why formal work promoted women's use of health facilities for delivery. On the other hand, working was poverty-induced and indicated resource constraints, which would make working women less likely to use health services for delivery (38).

Wives of husbands with higher status occupations could be more able to use facilities for delivery. High status occupations were associated with greater wealth, making it easier for the family to pay costs associated with skilled delivery care (38).

Mothers' perception on safe delivery

Perceived interpersonal quality of care overlaped to some extent with traditional beliefs and possibly sometimes with ethnic discrimination. Objective measured of quality of care such as facility infrastructure, equipment and staffing are associated with physical accessibility, access to information and other aspects of remoteness such as poverty and traditional values (46).

Mothers' knowledge on safe delivery

Specific knowledge about the risks of delivery and the benefits of skilled attendance increased preventive care-seeking, while recognition of danger signs and knowledge about available beneficial interventions increased care-seeking for complications (46). Few studies considered health knowledge. Women in Zambia who knew danger signs in pregnancy were more likely to deliver in a health facility as compared to those without such knowledge (39) and a similar but not significant tendency was observed in Southern Laos (41). Also, in Mali, women who were told about complications at antenatal care were more likely to give birth in a facility (40).

Birth plans

M Hiluf et al in their study in North Ethiopia found that 85.8% of the respondents reported that they made some arrangement for the birth of their baby. Place of childbirth selection (77%) and saving money (69%) were the most commonly

identified components of birth preparedness and complications readiness (29). Study in Kyrgystan found that the most frequently mentioned preparatory arrangement for the birth was to save money. A vast majority of women (84%) planned to give birth in the nearest maternity clinic, while in more than one in five (21%) planned to give birth at home (57).

2.6.2 Enabling factors

According to the IDHS 2007, 41% of women reported having at least one problem in accessing a health care. The most often cited problem was getting money for treatment (25%). Other concerns included distance to a health facility (15%), having to take transport (13%), and concern that no female health provider would be available (11%) (13). In another study in rural India, economic status was the strongest influence on the choice between choosing a private-for-profit or public facility for institutional childbirths (26).

Table 2.5 Mother problems in accessing maternal health care based on IDHS 2007

Background characteristic	Knowing where to go for treatment	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	At least one problem accessing health care
Total	5.4	4.2	**25.1**	15.3	13.3	12.1	10.6	40.9

Source : Indonesia Demographic Health Survey 2007 (13)

Skilled birth attendance in 2007 made a significant improvement among Indonesian poor and poorest mothers but remained lower compared to the richest quantile. Figure 9 below supports research that economic status was the greatest factor in health care utilization since the government started launcing insurance for the poor (Askeskin) in 2007 (13).

Availability and accesibility

Distance to health services implied a dual influence on use, as a disincentive to seeking care in the first place and as an actual obstacle to reaching care after a decision has been made to seek it (46). Many pregnant women did not even attempt to reach a facility for childbirth since walking many kilometres was difficult in labour and impossible if labour started at night, and transport were often unavailable. Those trying to reach a far-off facility often failed, and women with serious complications might die en-route (46).

The obstacle effect of distance was stronger when combined with lack of transport and poor roads, and its disincentive effect was less pronounced if women had serious complications or the reputation of the provider was good (46,38). Even where facilities were conveniently located, they were underused if their quality was considered bad. Study in China reported that where people had the choice between several facilities, they sometimes traveled further if the target facility was perceived to offer superior quality care (7,76). It would thus be useful to consider distance together with service quality and transport options.

Qualitative study in Nepal and Ghana mentioned distance as an important deterrent from delivering in facilities, in particular when labour started unexpectedly or at night and in the absence of transport options (48,42-44). A study in Maharashtra (43), however, reported that unexpectedly two women from the remotest village had delivered at a distant private hospital, because "the distance from their village to the primary health centre made them sceptical about delivering at home in the village in case complications occurred" (43).

The cost of care-seeking included costs of transportation, medications and supplies, official and unofficial provider fees as well as the opportunity costs of travel time and waiting time lost from productive activities (46). Where women did not travel alone, accompanying adults or children for whom no caretaker were found increase opportunity costs, transportation costs and costs for staying over night in the town where the health facility was located (46). Households on a tight budget had great difficulties to pay these costs and therefore was less likely to use a health facility for childbirth.

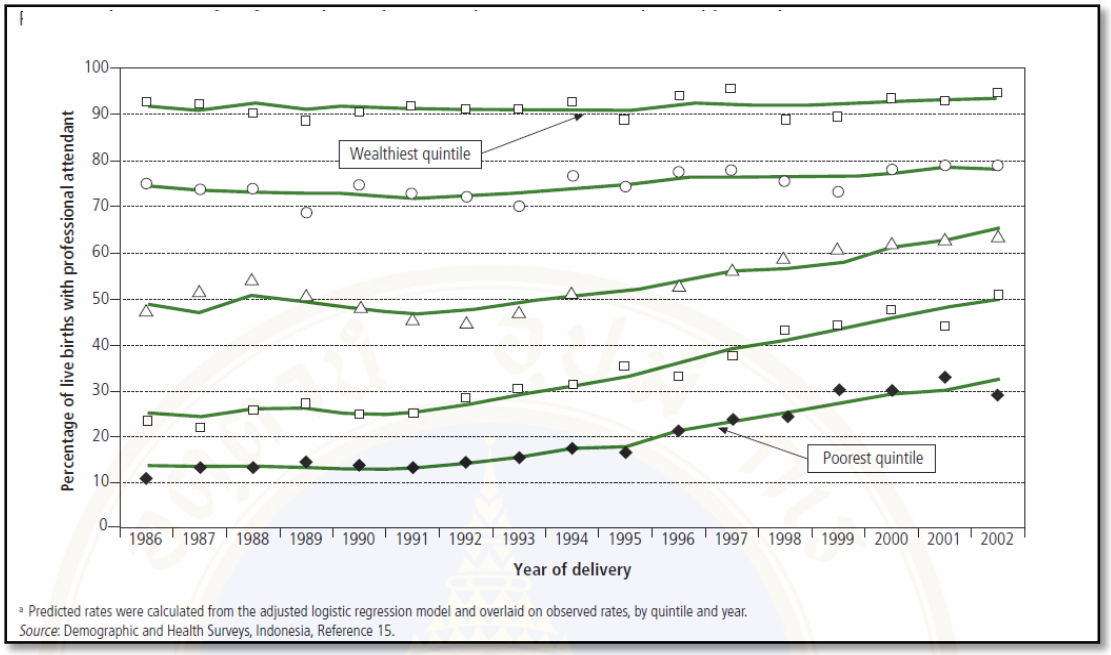


Figure 2.6 Trends in rates of professional attendance in Indonesia 1986-2001, by wealth quintile (13)

Source : Indonesia Demographic Health Survey 2007

A study about family planning in Indonesia in 2009 showed that the placement of medically - trained midwives in communities in Indonesia had resulted in changes to women's patterns of health care use during pregnancy and childbirth relative to the patterns observed for women in communities lacking programme midwives (28).

A medical referral system is one of the essential elements in a health system but the most important is how to operate the referral system in certain areas. The term referral can be used in different ways. For instance, it can be used to indicate the advice of a health worker to attend a higher-level health unit, whether followed or not. Referral is defined as any upwards movement of health care seeking individuals in the health system. There are many ways to do this with respect to pathway, timing and urgency. There are three categories of referrals in pregnancy and childbirth: institutional or self referral, depending on the involvement of first line services; antenatal, childbirth or postnatal referral; and elective or emergency referral (12).

The three delays for emergency care-seeking are unchanged from the framework presented by Thaddeus and Maine. If a woman who is receiving such preventive care at a health facility then develops a complication, her survival will depend on whether she receives adequate and appropriate treatment in time (third delay of emergency care-seeking). Since she is already in a facility, skilled providers should be able to discover this quickly (no first emergency delay) and she does not need to travel far if it can be handled there (no second emergency delay). For those complications that cannot be handled at that facility and that require referral to a higher-level facility, she will need to travel to a referral facility, possibly with help from (the first facility (second emergency delay) (38).

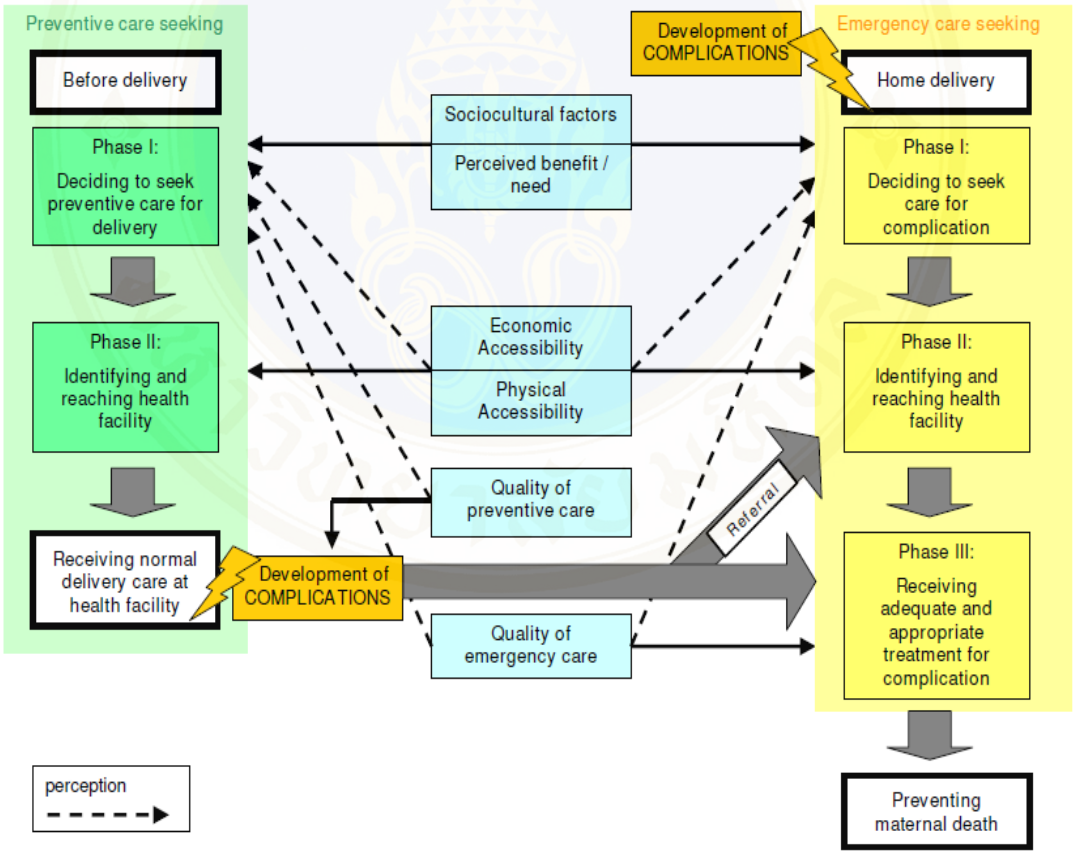


Figure 2.7 Delay phases and factors affecting use of childbirth care and maternal mortality

Source : Still too far too walk (adapted from Thaddeus & Maline (38)

In most countries full implementation of national referral guidelines would result in 30% to more than 50% of all pregnant women being referred to either antenatal care or childbirth. However, compliance with maternal referral advice was only 25%, reported referral compliance ranged from 12% in Rajasthan to 46% in Morocco (12).

Family and community support

The various dimensions of women autonomy, such as position in the household, financial independence, mobility and decision-making power regarding one's own healthcare, had impact on health facility use. In many countries, women could not decide on their own to seek care, but had to seek permission from a husband or mother-in-law (38). Furthermore, Furuta et. al study in Nepal mentioned that women might lack control over material resources needed to pay for expenses, their mobility were be restricted or they may lack access to vehicles or even bicycles or donkeys (45,46). However, women's informal power in the household mitigated some of the above (46). The interpretation of various measures of autonomy depends on the context – women who took decisions alone in a context where this is unusual, "might be relatively isolated, unsupported individuals, and not autonomous agents" (45).

Husbands and relatives have a major role in deciding and ensuring women referred receive care in rural Tanzania. Community perception of seriousness of the condition, transport, cost involved in transport and living at the hospital, and perceived quality of care determine the referral care seeking (31). Taking informed decision making seriously would imply to move from rigid application of referral criteria to individual counseling based on professional needs assessment and women's preferences (12).

Safe motherhood initiatives emphasize that women’s choices should be respected and ensured. This adds another dimension to the discussion on antenatal risk assessment and referral, because it implies involving mothers in defining the need for referral and shifts the focus from predictive power of risk factors to the risk as perceived by individual mothers (12).

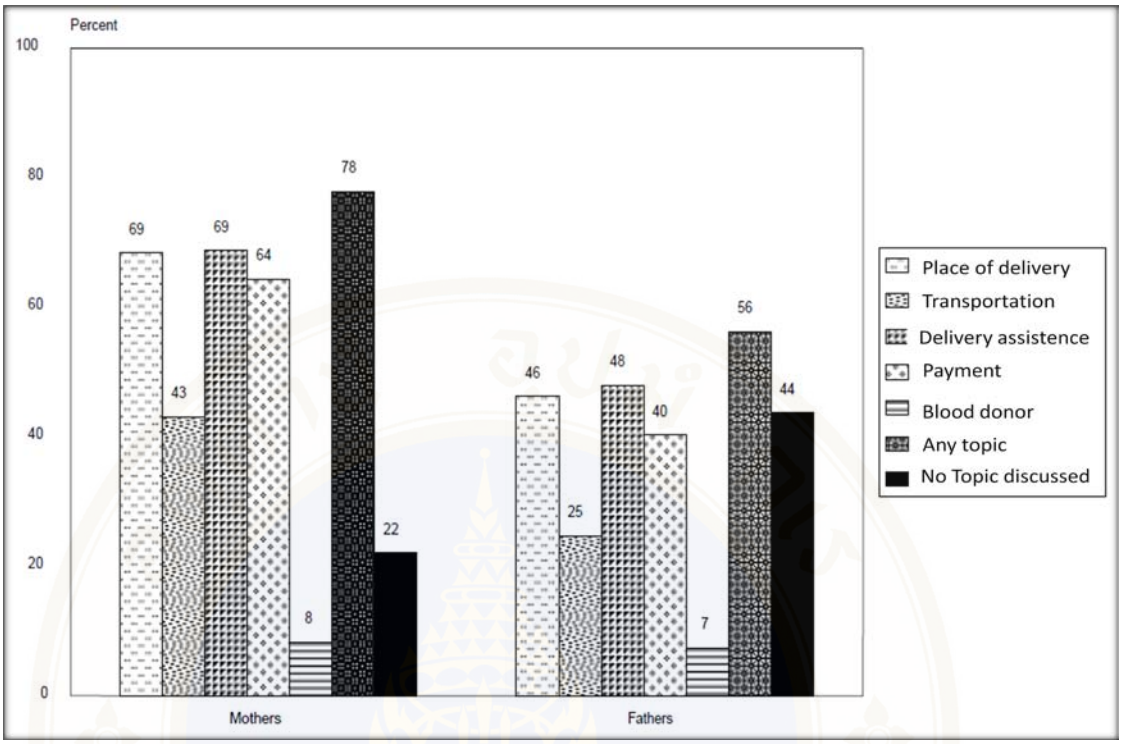


Figure 2.8 Topic Discussed during ANC between Health Provider, Mother and Husband

Source : Indonesia Demographic Health Survey 2007

The research of Endang et. al. in Indonesia found that midwives are more likely than family and TBAs to recognize the need for a complication to be managed in hospital. Their professional status lends them authority when persuading families of the necessity to refer. Midwives also make good use of community and professional contacts to help organize fee exemption documents and transport (49).

Community-based education about preparation for birth and its complication and empowerment of women by expanding educational opportunities are important factors in enhancing birth preparedness and hence reducing the effect of pregnancy related complications. Hiluf's study in Ethiopia reported that antenatal care clinics should give due emphasis to preparation for birth/complication and provide informations and educations to all pregnant women (29).

Birth preparedness and complication readiness is the process of planning for a normal birth and anticipating the actions needed in case of an emergency. Responsibility for birth preparedness and complication readiness must be shared by all

safe motherhood stakeholders and policy makers, facility managers, health providers, communities, families, and women. Only a coordinated effort can reduce the delays that contribute to maternal and newborn deaths. In a skilled care approach, birth preparedness includes identifying skilled health providers and making the necessary plans to receive skilled care for all births. Complication readiness (emergency funds, transport, blood donors and designated decision-makers) receives greater emphasis in emergency obstetric care programmes. Birth preparedness has been globally endorsed as an essential component of safe motherhood programmes to reduce delays for care (30).

Over the past decade, TBAs in many developing countries have been trained in midwifery and basic hygiene as part of safe motherhood initiatives aimed at reducing maternal mortality. TBAs speak the local languages, allow traditional birthing practices, and often have the trust and respect of their communities. (8) The role of TBAs was found in most communities of the world although their nature and function vary considerably. She was a person who assisted the mother during childbirth and who initially acquired her skills by delivering babies herself or by working with other TBAs'.

For families, TBAs were a cheaper option than domiciliary professional midwives and would often accept payment in kind. In many countries where home delivery was the norm, midwives were only available in health facilities. In many cultures, TBAs were respected members of their communities, performed important cultural rituals, and provided essential social support to women during childbirth (12).

2.6.3 Need factors

High risk pregnancy

Complications experienced during previous deliveries or Loss of the newborn can make women awared of the dangers of childbirth and the benefits of skilled interventions and thus make them use skilled attendance for subsequent deliveries. Furthermore, women with specific medical interventions in a previous delivery, e.g. a Caesarian section, would be encouraged by health workers to seek skilled care for subsequent deliveries since there was an increased risk for rupture with a scarred uterus (38).

A longitudinal observational study in Hongkong found that mothers who had had complications in previous deliveries tended to change from preferring a planned vaginal birth to an elective cesarean section after their first delivery (40).

ANC during pregnancy

Antenatal care is one of the "four pillars" of safe motherhood, as formulated by the Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. The other three are family planning, clean/safe delivery, and essential obstetric care. The package was devised to ensure that women should be able to go safely through pregnancy and childbirth and have healthy infants, in other words, to prevent the dreaded outcomes: maternal death, and perinatal and infant death (12).

The poor quality of routine antenatal care, in terms of preventing, diagnosing, or treating complications, has been widely noted from observational studies (50). Despite this observation, high overall levels of antenatal care coverage exist, including in poor countries, with an average of 68% of pregnant women having at least one antenatal care visit. Such high coverage is partly explained by the existence of multiple points for provision, a fairly low cost, and a long window of time for seeking care. Moreover, although differences in uptake according to poverty levels exist, these are rarely as marked as those for uptake of skilled attendants at childbirth (8).

However, antepartum packages of interventions have a limited potential to aff ect maternal mortality ratios. High-risk screening during antenatal care, as a means of identifying women for facility-based intrapartum care, is not effective, either for women who were at low or high risk when they first presented for antenatal care (51,52). Similarly, antepartum screening by traditional birth attendants, based on demographic risks eg, age and parity, has been shown to be inefficient and could overwhelm referral sites (53).

As antenatal care represents a system of several components (a set of tests and interventions delivered at pre-set intervals), one should consider the objective of each element and decide if it is really effective, and, secondly, critically review whether that objective has been reached. This was done by an expert panel on the content of prenatal care convened by the U.S. Department of Health and Human Services, which recommended a more goal-oriented programme with fewer visits than

that which was advised by the American College of Obstetricians and Gynaecologists at the time (12).

2.6.4 Satisfaction with care

Pregnant mothers wanted to be treated with dignity and respect and to receive emotional support. Regardless of social class, all of the women studied wanted medical information shared with them. Accepting birth as a medical process, women wanted information not only about pregnancy care, fetal development, and labour and childbirth but also about the medical system: how people are treated, what medical personnel do, and how the hospital "worked". Lay middle-class women wanted an obstetrician who inspired confidence and communicated well. This desire in itself was not different from that of the poor women (67).

In another study, Sheppard, in 2004, found that low income women had preferences and perceptions which were similar to those of higher income women about what constitutes good quality care (68). On the other hand, midwives' inter-personal skills dealing with pregnant woman in Indonesia remained low, and only 38.8% of mothers said that they had had information about danger signs and information about complications during their ante natal care, even though since 2002 the Ministry of Health had been using the using Maternal and Child Health (MCH) Handbook as a tool to record and educate mothers. Health providers seemed only to focus on medical examination and put aside the need for communication between them and mothers (13).

Table 2.6 Components of Ante Natal Care based on IDHS 2007 (13)

Background characteristic	Informed pregnancy Complications	Weight measured	Height measured	Blood pressure	Urine sample	Blood sample	Abdominal examination	Iron tablet
	38.8	90.7	33.3	91.9	40.1	29.2	96	77.3

Source : Indonesia Demographic Health Survey 2007

Tolman, Vroom and Pasuraman et al. defined expectation as perceived contigencies between any two events. In managing customer expectations, there were

some possible avenues which companies or institutions can adopt : accommodating and altering their expectations, or even abandoning customers when either approach fails. It was important to know what were they expected before managing them since meeting customer expectations would affect profits although some expectations may be unjustified, unfeasible or unproductive (69).

There are six dimensions of care which can be used to explain how health care can match patients needs or expecations :

1. **Safe:** Avoiding injuries to patients from the care that is intended to help them.
2. **Effective:** Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse). Doing the right thing for the right person at the right time.
3. **Patient-centered:** Providing care that is respectful of and responsive to individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions.
4. **Timely:** Reducing waits and sometimes unfavorable delays for both those who receive and those who give care.
5. **Efficient:** Avoiding waste of equipment, supplies, ideas and energy.
6. **Equitable:** Providing care that does not vary in quality due to personal characteristics such as gender, ethnicity, geographic location and socio-economic status.

Accomodation responses to consumer expectation has generally taken three forms: (i) product/ service innovations; (ii) segmentation, niching and positioning; (iii) Total Quality Management, quality and customer satisfaction movement. The recent approach in managing customer expectations is altering or shaping them, which can be done through three paradigms: (i) human resource management, (ii) framing paradigm and (iii) compliance paradigm (69).

CHAPTER III
RESEARCH METHODOLOGY

3.1 Research design

A cross sectional study was conducted in Sampang District to determine the factors that influence mothers in deciding whether to deliver their babies at home or in a health facility.

3.2 Study area

3.2.1 Geography

Sampang District is located in the middle of Madura Island in East Java Province. Land territory is located along the North and South shores, and comprises 13 sub-districts between sea level and 50 m above sea level (44).

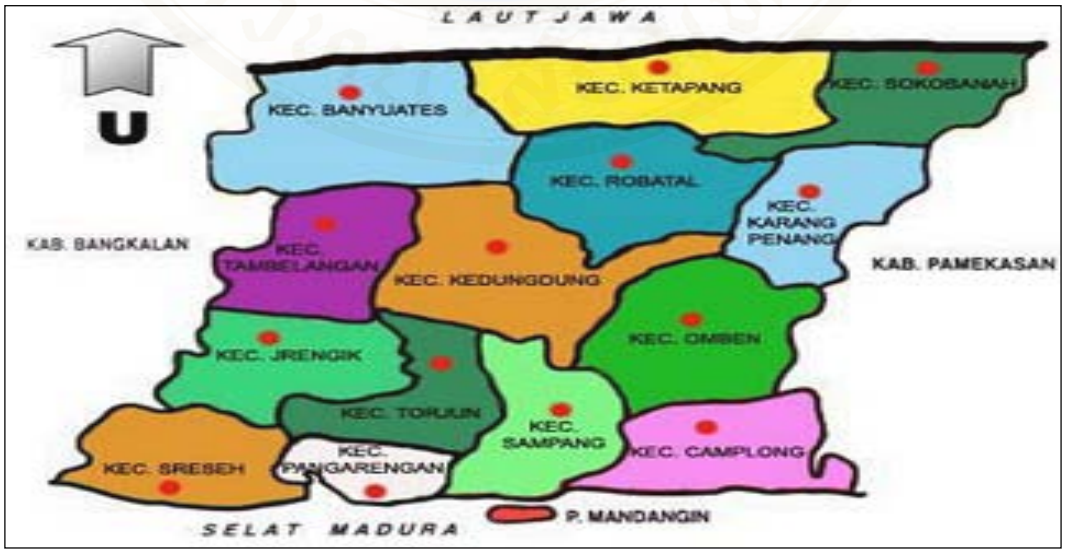


Fig 3.1 Map of Sampang Regency

Source : Sampang Profile (70)

3.2.2 Demography

The estimated total population in 2009 was 829,352. Most were farmers and merchants. Population density was 645/km^2. Illiteracy is higher than in other districts in East Java. Moslem religious leaders have important roles for Sampang's citizens since 99% are Moslem, and many Islamic boarding schools (Pesantren) have developed in Sampang (70).

Table 3.1 Omben Demography and number of Immunization Centre in 2010

No	Sub District	Village	Population	Pregnant Mothers	Immunization Centre
1	Omben	Kebonsareh	2,364	62	3
2		Karangnangger	1,661	44	3
3		Napo Laok	1,004	27	2
4		Napo Daya	2,141	57	2
5		Sogian	4,102	108	4
6		Astapah	1,286	34	2
7		Angsokah	3,046	80	3
8		Jrengoan	2,732	72	4
9		Gersempal	3,725	98	4
10		Meteng	4,929	130	5
11		Madulang	6,106	161	5
12		Kamondung	5,379	142	5
13		Tambak	8,320	220	8
14		Temoran	3,923	104	4
15		Omben	4,575	121	4
16		Rapa Laok	3,717	98	4
17		Rapa Daya	2,165	57	2
18		Karang Gayam	4,776	126	4
			65,951	1,741	68

Source : Sampang Profile (70)

Sampang has 1 District Hospital and 21 Health Centres, 5 of which provide basic emergency obstetric and neonatal care. Health care in Sampang is dependent on public health care since it is a poor district and better off citizens go to Surabaya seeking better medical care. Until 2009, 30 doctors were registered working in Sampang and 214 of 310 midwives worked as village midwifes in 186 villages. However, 516 TBAs were registered and 277 of them had joined the midwife – TBA partnership (71).

Table 3.2 Camplong Demography and Number of Immunization Centre in 2010

No	Sub District	Village	Population	Pregnant Mothers	Immunization Centre
1	Camplong	Tanjung	6,899	172	8
2		Sejati	6,838	170	7
3		Batukarang	2,558	64	4
4		Rabasan	6,853	170	7
5		Pamolaan	5,306	132	6
6		Plampaan	4,926	122	7
7		Dharma camplong	7,986	199	7
8		Tambaan	4,249	106	4
9		Prajan	2,327	58	2
10		Tadan	5,021	125	5
11		Bj Talelah	4,850	121	5
12		Bj Tabulu	7,541	187	7
13		Madupat	6,195	154	6
			71,549	1,780	75

Source : Sampang Profile (70)

3.3 Study population

Mothers in Omben and Camplong Sub-Districts who delivered in 2010 comprise the study population for this research. These sub-districts are more reachable than other sub-districts in Sampang; have enough health providers and human resources to assist this research; and are similar in terms of size of population, economic level and public access to health centres and hospitals.

Compared with other sub-districts in Sampang, Omben and Camplong citizens have more access to childbirth care. Every village in these two sub-districts has a village midwife or assisting health centre, but skilled birth attendance coverage remains below 80%. Omben is a mountainous area and Camplong is a coastal area and so they can be compared and contrasted with each other (11).

3.4 Sample size

The sample size was calculated using the formula :

$$n = \frac{Z^2 NP(1-P)}{Z^2P(1-P) + (N-1)E^2} = \frac{(1.96)^2 (3{,}521)(0.29)(1-0.29)}{(1.96)^2(0.29)(1-0.29) + (3{,}521-1)(0.06)^2}$$

$$n = \frac{2{,}784.2}{13.463} = 206.462 \sim 207$$

CI = 95% (confidence interval)

E = 6% (acceptance error)

Z = 1.96 (standard normal score at 95% of confidence interval)

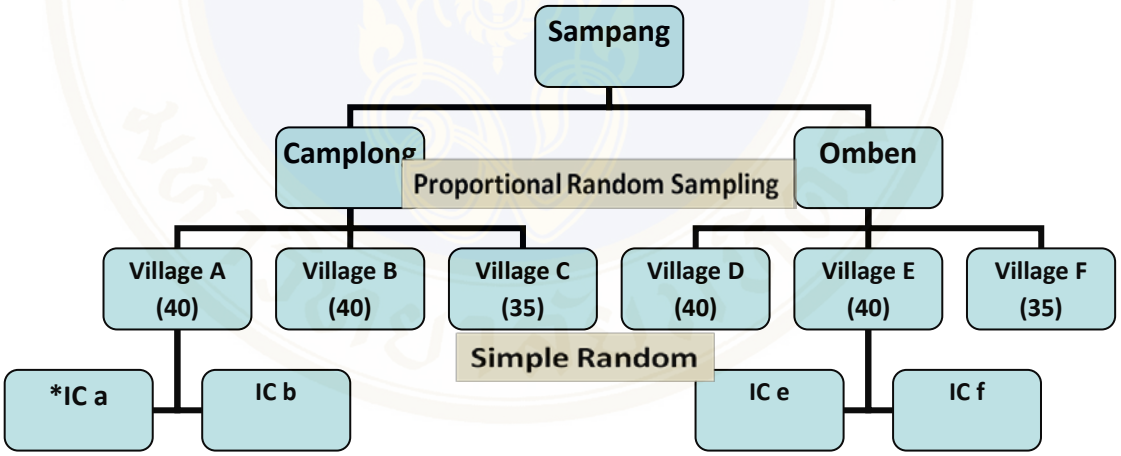
N = 3,520 (pregnant mother in 2 subdistrict)

P = 0.29 (Facility based delivery mother in Indonesia rural area) (13)

Applying this formula, the minimum sample size should be 207. In this study, the sample size was increased by 20% to prevent information loss due to incomplete data or withdrawal of participants from the study. Thus, 250 mothers were interviewed for the study.

3.5 Sampling technique

Three villages were randomly selected from each sub-district. Proportional sampling was then used to calculate the number of mothers in each village who were invied to participate. Each village was represented by 4 immunization centres which were chosen randomly. Trained interviewers interviewed all mothers who were eligible and attended immunization days in the chosen immunization centres (Posyandu) and using structured questionaires.



*IC = Immunization Centre

Figure 3.2 Sampling Technique

3.6 Research instrument for data collection

The questionaire comprised about 74 questions and was divided into eight parts :

a. Basic information, 13 questions

These were 13 questions seeking basic information about the respondents, namely: age, address, religion, type of family, education level, income level, parity, health insurance coverage, and occupation

b. Prenatal history, 7 questions

This consisted of 7 questions related to the respondents' prenatal histories, and included questions on the ante natal care they had had, and risks during pregnancy.

c. Delivery history, 7 questions

These were 7 questions related to delivery process. They covered complications during the delivery process, where they were first admitted, health persons who attanded delivery, delivery planning, and reasons for choosing the place of delivery.

d. Availability and accessibility, 6 questions

These were 6 questions relating to availability and accessibility of maternal health care facilities which provided delivery care. They covered the existence of 24 hour maternal care close to their homes; how they reached it; how much they had to pay for transportation and childbirth; and whether it was expensive for them, or not.

e. Satisfaction with childbhirth care, 9 questions

There were 9 questions about satisfaction with childbirth care. These covered respondents' appraisals of different aspects of their last childbirth care (e.g. health provider rapid response, cost of care, fairness of care, empathy, and cleanliness of delivery room).

f. Decision making and family support, 5 questions

In this part, 5 questions were asked about deciding the place of childbirth, and community support and family support. It included questions on the decision making process, whether TBAs were involved in the decision making, personal birth preparedness, and community support plans.

g. Maternal knowledge about safe delivery, 14 questions

In this part 14 questions were asked about maternal knowledge about safe delivery. They covered danger signs, how the danger signs were managed, safe delivery process, and neonatal care. In this study the knowledge of the respondents about safe delivery was recorded based on the Benjamin

Bloom's scale with a maximum score of 14:

- Correct answer = 1 point
- Incorrect or unsure = 0 points

In this study, knowledge level was divided into three categories according to Bloom's criteria:

- Good – respondents who got > or equal to 80% of the total score for the knowledge questions.
- Moderate- respondents who got 60-80% of the total score for the knowledge questions.
- Poor – respondents who got < to 60% of the total score for the knowledge questions.

h. Maternal perception regarding safe delivery, 13 questions

These were 13 questions intended to ascertain the respondents' perceptions regarding safe delivery. This was devided into 3 parts :

- Perception of safety
- Perception of benefits
- Perception of barriers

This questions were in the form of statements to which the respondents were requested to mark: "agree", "not sure", or "disagree". Score for the perception statements were allocated as follows :

- For positive statements :
  - Agree : 3 points
  - Not sure: 2 points
  - Disagree: 1 point
- For negative statements :
  - Agree : 1 point

- Not sure: 2 points
- Disagree: 3 points

Perceptions were categorized as either **positive** or **negative** based on the mean score as follows :

- Positive perception : the total obtained score was greater or equal than the mean score
- Negative perception : the total obtained score was less than the mean score

3.7 Pretesting the questionaire

Before the real data collection, the questionnaire was pretested for reliability. The reliability of the knowledge questions was measured using the Kuder-Richardson formula 20 (KR-20); Cronbach's alpha was used for the knowledge and perception of safe delivery parts. Two groups of 30 mothers at the immunization centre in Tanjung and Omben Health Centre working area but different villages which for data collection were used for the trial. The reliability result in the first pretest in Omben sub district was 0.398 (KR20) and 0.332 (Cronbach alpha), after modify some questions and pretested in Camplong, the result became 0.675 (KR20) and 0.751 (Cronbach alpha), which was eligible to be used for data collection tool

3.8 Method of data collection

After the research proposal was approved by the Mahidol University Ethics Committee, data collection was started. The steps were :

a. Identified immunization centre immunization days in each selected village.
b. 8 interviewers were selected to assist data collection, and two of them was chosen to act as a coordinator. Criteria for interviewers are :

- Health provider
- Not working as a health provider in the study area

- Able to speak Bahasa Indonesia and local native languange (Maduranese)
- Able to explain questions and convey the information.

c. A one day training course was conducted to introduce the questionnaire and ethical issues to the interviwers and health officers in Omben and Camplong.

d. Permission was sought from the District Health Office and Chief of Health Centre in the region.

e. Attended immunization centre on those day to select the required number of participants.

f. Respondent were mothers who attended the selected immunization centres on immunization days and who had agreed to participate were interviewed. Before interviewing the respondents, the interviewers explained the purpose of the research and made it clear that the collected data would be kept secure and confidential, and that mothers could skip questions or refuse to answer.

g. An informed consent was obtained from each respondent prior to interviewed mother.

3.9 Data analysis procedure and statistical tools used

- Data were examined for completeness. Data was entered using Epidata and analyzed using Minitab software;
- Descriptive statistics were used to calculate frequency, percentage, mean, median and standard deviation;
- Chi-square tests were used to analyze the relationship between the dependent variable (facility based delivery) and the dependent variables (predisposing factors, availability and accessibility factors, experience and expectation factors, knowledge factors)
- Logistic regression was used to determine the strength of the association and to find predictors for the model

CHAPTER IV
RESULTS

The study was conducted to ascertain and understand factors affecting the utilization of health facilities providing childbirth care in Sampang District. Immunization centres in 6 selected villages were used as sites for data collection. Data were collected on specified immunization days in February to March 2011. Two hundred fifty mothers attended immunization centres and were interviewed using a structured questionaire. The study describe the pattern of utilization of health facilities providing childbirth care and identified predisposing factors, enabling factors, need factors, enabling factor and satisfaction of care as independent variables for utilization of health facility providing childbirth care.

The study was a descriptive cross-sectional study. Variables are described in terms of frequency and percentage distribution. The association between each of the various independent variables and utilization of health facilities providing childbirth care was calculated using chi-square tests. The strength of association and significant predictors were measured using multiple logistic regression. The findings are presented on two parts as follows:

1. Tables of frequency and percentage distribution of all variables;
2. Association of various independent variables with the dependent variable.
3. Association between factors and utilization of health facility providing childbirth care

Table 4.1 shows that most of the mothers (93.15%) had utilized health care during their last delivery and percentage of mothers who utilize health faciluty in Omben sub distric were more than in Camplong. About quarter of the mothers (24.6%) delivered in private clinic and 61.69% delivered in midwivery hut. Mothers in Camplong prefered to deliver in private clinics rather than delivering in midwivery hut it was contrast in Omben which about 90% childbirth was in midwivery hut.

Table 4.1 Frequency and percentage distribution of the mothers by utilization of health facility providing childbirth care

Variables	Omben		Camplong		Total	
	N = 112	%	N = 136	%	N = 248	%
Utilize						
Yes	109	97.32	122	89.71	231	93.15
No	3	2.68	14	10.29	17	6.85
Place of childbirth						
Home	3	2.68	14	10.29	17	6.85
Midwivery hut	101	90.18	52	38.24	153	61.69
Health centre	5	4.46	11	8.09	16	6.45
Private clinic	3	2.68	58	42.65	61	24.60
Hospital	0	0	1	0.74	1	0.40
Referral case						
Yes	40	35.71	16	11.76	56	22.58
No	72	64.28	120	88.24	192	77.42
Place to referr						
Midwifery hut	2	5	2	12.50	4	7.14
Health centre	22	55	9	56.25	31	55.36
Hospital	16	4	5	31.25	21	37.5

Table 4.1 also shows that 22.58% of the mothers were referred due to any reasons and more than half of them (55.36%) were referred to health centre. Proportion of referral cases in Omben was larger than referral cases in Camplong.

4.1 Predisposing factors

4.1.1 Socio-Demographic

Table 4.2 Frequency and percentage distribution of mothers by socio demographic characteristics of the mothers

Variables	Number (n=248)	Percentage (%)	
Age			
<20 years old	27	10.89	
20 – 35 years old	212	85.48	
>35 years old	9	3.63	
Mean = 25.72	SD = 5.82	Min = 15	Max = 50
Parity			
< 3	178	71.7	
≥3	70	28.23	
Median = 2	QD = 1	Min = 1	Max = 9
Living Child			
<3	193	77.82	
≥3	55	22.18	
Median = 2	QD = 1	Min = 1	Max = 9
Type of family			
Joint family	113	45.56	
Nuclear family	135	54.44	
Income			
<Rp.300.000	104	41.94	
Rp.300.000-Rp.750.000	91	36.69	
Rp.751.000-Rp.1.500.000	31	12.5	
>Rp.1.500.000	22	8.87	

Table 4.2 Frequency and percentage distribution of mothers by socio demographic characteristics of the mothers (cont.)

Variables	Number (n=248)	Percentage (%)
Covered by Health Insurance for The Poor		
Yes	178	71.77
No	70	28.23
Mother's education		
No school	21	8.47
Primary	147	59.27
Secondary and more	80	32.26
Husband's education		
No school	19	7.66
Primary	149	60.08
Secondary and more	80	32.26
Have private vehicle		
Yes	109	43.95
No	139	56.05
Type of vehicle (n = 109)		
Car	13	11.93
Motor bike	96	88.07
Wife occupation		
House wife	178	71.77
Work	70	28.23
Husband occupation		
Self employee	190	76.61
Employee	58	23.39

Table 4.2 shows that, 85.48 % of the mothers were 20 to 35 years old. The minimum age was 15 years old and the maximum age was 50 years old.

Regarding parity, 71.7% of the mothers had had less than 3 pregnancies . 77.82% of the mothers had less than 3 living children; the maximum number was 9 children. The average number of living child was 2.12. Over half of the mothers (54.44%) were nuclear family.

Concerning coverage of insurance for the poor, 71.77% of the mothers were covered by this insurance. 41.94% of them (had family incomes of less than Rp.300.000 per month , which was the poverty cut off point in Indonesia; 36.69% had family incomes between Rp. 300.000 and Rp.750.000; 12.5% had family incomes between Rp.750.000 and Rp.1.500.000; and only 8.87% had family incomes of more than Rp.1.500.000.

59.27% of the mothers had primary education and only 8.47% of them had no formal education. 60.08% of the husbands had primary education and 7.66% of them had no formal education.

Less than half of the mothers (43.95%) had private vehicles; most of them (88,07%) had motor bikes, and 11.82% had cars.

Concerning the occupation of the mothers, only 28.23% were working outside and the rest were housewives. With respect to the husbands' occupations, 76.61% were self employed as farmers, fishermen or bussinesmen, and 23.39% were employees.

4.1.2 Mothers' perceptions regarding safe delivery

Table 4.3 Frequency and percentage distrbution of mothers by perceptions regarding Safe Delivery

Variables	**Number (n=248)**	**Percentage (%)**	
Perceptions regarding safe delivery			
Positive (attitude≥mean)	145	41.53	
Negative (attitude<mean)	103	58.47	
Mean=30.278	SD=2.510	Min=20	Max=37

Table 4.3 Frequency and percentage distrbution of mothers by perceptions regarding Safe Delivery (cont.)

Variables	Number (n=248)	Percentage (%)	
Perception on safety			
Positive	225	90.73	
Negative	23	9.27	
Mean=11.952	SD= 1.252	Min=11	Max=15
Perception on benefit			
Positive	214	86.29	
Negative	34	13.71	
Mean=9.335	SD=0.813	Min=6	Max=11
Perception on barrier			
Positive	178	71.77	
Negative	70	28.23	
Mean=8.99	SD= 1.508	Min=4	Max=12

Table 4.3 shows that 58.47% of the mothers had negative perceptions of safe delivery. Regarding perceptions of safety, benefits and barriers to safe delivery. Most of the mothers had positive perceptions about safety (90.73%), benefit (86.29%) and barrier (71.77%)

Table 4.4 Perceptions of the mothers regarding safe delivery by item

Statement	Agree (%)	Not Sure (%)	Disagree (%)
Perceptions about safety			
1. Childbirth is the natural process, no need medical care	15.32	3.63	81.05

Table 4.4 Perceptions of the mothers regarding safe delivery by item (cont.)

Statement	Agree (%)	Not Sure (%)	Disagree (%)
2. Recognition of danger sign can avoid delay seeking care	87.1	8.87	4.03
3. Experienced TBAs have the same skills as midwives and doctors	14.52	34.27	51.21
4. Money preparation before the childbirth is important	94.35	4.03	1.61
5. If there was no complication during pregnancy, childbirth process will be easy.	83.87	15.32	0.81
Perceptions about benefits			
6. Childbirth in health facilities will make safe outcome for baby	60.48	35.89	3.63
7. ANC is not important for second pregnancy	9.68	6.85	83.47
8. Health provider who assist childbirth must be qualified	95.16	4.84	0
9. Health provider in health centre must be stand by 24 hours	97.98	2.02	0
Perceptions about barriers			
10. Family have to prepare millions rupiah for delivery in hospital	26.21	38.31	35.48
11. Husband cannot accompany mother during delivery in health facility	9.27	11.29	79.44
12. Cost for give birth in health facilities is not cheap	11.29	57.66	31.05
13. Delivery in hospital usually will not end up with easy childbirth	16.94	66.13	16.94

With regard to perceptions about safety, nearly all of the mothers (94.35%) agreed that money preparation before childbirth is important, but most of them (83.87%) thought that the childbirth process would be easy if there was no complication during pregnancy. With regard to perceptions about benfits, 60.4% of the mothers believed that childbirth in a health facility would be safe outcome for the baby; no-one disagreed with the statement that health providers in health centres should be available on stand-by 24 hours a day and must be qualified. For perceptions about barriers, 79.44% of the mothers disagreed that husbands were not allowed to accompany mothers during childbirth in health facility and 66.13% of the mothers were not sure that childbirth in hospital usually will not end up with an easy childbirth. (Table 4.4)

4.1.3 Mothers' knowledge about safe delivery

Table 4.5 Frequency and percentege distribution of the mothers by knowledge about safe delivery

Variables	**Number (n=248)**	**Percentage (%)**	
Knowledge about safe delivery			
Good (>80%)	77	31.05	
Moderate (60-80%)	125	50.40	
Poor (<60%)	46	18.55	
Mean=10.25	SD=2.99	Min= 4	Max= 14

Table 4.5 shows that only 31.05% of mothers had good knowledge about safe delivery, and 18.55% of mothers had poor knowledge.

Table 4.6 Statement about knowledge about Safe delivery

Statement	Number Correct	Percentage (%)
1. Bleeding during pregnancy endanger mother's and neonatus life	169	68.15
2. Mothers can do daily work during pregnancy	202	81.45
3. Normal labour process takes time less than 24 hours	169	68.15
4. Mothers should not reduce drinking, when they are swelling during pregnancy	**128**	**51.61**
5. Vomiting mother in 6 months pregnancy is not common	**135**	**54.43**
6. Bathing baby can be conduct after 6 hours after delivering	177	71.37
7. 35 years old pregnant mother has more risk than 25 years old pregnant mother	219	88.31
8. 18 years old pregnant mother has more risk than 25 years old pregnant mother	**83**	**33.47**
9. Green and fishy odor amniotic fluid is sign that there is a problem in pregnancy	235	94.76
10. Pregnant mother should check to health provider when she has difficulty of breath	227	91.53
11. Mother can take any food and drinking during labour	206	83.06
12. Unconscious after give birth need special treatment	236	95.16
13. Amniotic fluid discharging at 7 months pregnancy is a danger sign	152	61.29
14. Active fetus will not make pregnant mother fever	203	81.85

Table 4.6 shows that 51.61% of the mothers knew that they should not reduce drinking when they were swelling during pregnancy; 54.43% did not know that vomiting at 6 months of pregnancy was a danger sign, and only 33.47% knew that 18 year old pregnant mothers had more at risk than 25 year old mothers.

4.1.4 Availability and accesibility

Table 4.7 Frequency and percentage distribution of mothers by availability and accesibility to utilize health facility

Variables	**Number (n=248)**	**Percentage (%)**	
Nearest MCH care from home			
Public	195	78.63	
Private	53	21.37	
Walk from home to MCH care			
< 8 minutes	49	62.35	
≥ 8 minutes	31	38.75	
Mean= 8.41	SD= 7.622	Min= 4	Max= 60
Use vehicle from home to MCH care			
< 9 minutes	90	53.57	
≥ 9 minutes	78	46.93	
Mean= 9.3	SD= 6.78	Min= 3	Max= 30
Cost to reach MCH care			
No pay	135	54.44	
< Rp.3,250	65	26.21	
≥ Rp.3,250	48	19.35	
Mean=3,295	SD=1.8238	Min=0	Max=200,000

Table 4.7 Frequency and percentage distribution of mothers by availability and accesibility to utilize health facility (cont.)

Variables	Number (n=248)	Percentage (%)	
Expensive to reach			
Yes	10	8.84	
No	103	91.15	
Pay for delivery			
Yes	107	43.15	
No	141	56.85	
Cost to deliver			
<Rp.500.000	90	84.11	
≥Rp.500.000	17	15.89	
Median = 300,000	QD = 50.000	Min=20,000	Max=12,000,000
Expensive to pay			
Yes	47	43.93	
No	60	56.07	

According to Table 4.7, 78.63% of the mothers lived near public MCH care, some of mothers went to health facility by walk and some of them went to healthfacilities by vehicles. They only needed about 8.4 minutes to reach a health facility by walking and 9.3 minutes by vehicles, they had to pay Rp.3,295 on average to reach health facility. More than half of mother did not need to pay for delivery. Among mothers who paid for delivery, 84.11% mothers paid less than Rp.500.000 and 43.93% of them thought it was expensive.

4.1.5 Family and community support

Table 4.8 Frequency and percentage distribution of the mothers by decision making in place of delivery

Variables	Number (n=248)	Percentage (%)
Decision maker		
Self	188	75.81
Husband and granmother	60	24.19
Mother participated for decission		
when Husband and grandmother as a Decission maker (n = 60)		
Yes	55	91.67
No	5	8.33
TBA involved		
Yes	76	30.65
No	172	69.35

According to Table 4.8, 75.81% of the mothers decided where they would be delivered by themselves and 69.35% said that TBAs were involved in the decision making. In family which husband and grandmother were the decission maker for place of childbirth, 91.67% mothers remained participate for decission.

Table 4.9 Frequency and percentage distribution of the mothers by Family and Community Support

Variables	Number (n=248)	Percentage (%)
Saving money		
Yes	212	85.48
No	36	40.73
Prepare vehicle		
Yes	101	40.73
No	147	59.27
Prepare family care givers		
Yes	14	5.65
No	234	94.35
Community Support		
Community support Plan		
Yes	69	27.82
No	65	26.21
Do not know	114	45.97
Type of support		
Vehicle	34	49.28
Money	34	49.28
Other	1	1.45

With regard to birth preparedness by their families and community, 85.48% of the mothers saved money, 59.27% of them prepared a vehicle for referral, but only 5.65% of them prepared family care givers while they were pregnant. Only 27.52% knew about community support plans in their villages, and 49.28% of them knew that community had money and vehicle support plan. (Table 4.9)

4.1.6 Ante Natal Care

Table 4.10 Frequency and percentage of mothers by prenatal history in last pregnancy

Variables	Number (n=248)	Percentage (%)
ANC frequency		
<4 times	20	8.06
≥4 times	228	91.94
Place of ANC		
Integrated health post	114	58.06
Health Facility	104	41.94
Place of childbirth suggested		
Yes	238	95.97
No	10	4.03
ANC attendant		
Health professional	246	99.19
Non Health professional	2	0.81
MCH Handbook		
Have	242	97.58
Don't have	6	2.42
Labeled with BPCR sticker		
Yes	226	91.13
No	22	8.87

According to Table 4.10, most of mothers (91.94%) had ANC equal or more than 4 times during pregnancy and more than half (58.06%) had ANC at an integrated health post in their community as the place for ANC. 95.97% mothers had been suggested about place of childbirth and were attended by health profesionals (99.19%) during ANC visits.

4.1.7 Need factors

Table 4.11 Frequency and percentage distribution of mothers by high risk pregnancies

Variables	Number (n=248)	Percentage (%)	Of total respondents (%)
High risk pregnancy			
Yes	33	13.31	
No	215	86.69	
Type of risk :			
Bleeding	6	18.18	2.42
Post Caesarian section	6	18.18	2.42
Severe abdominal pain	4	12.12	1.61
Premature membrane rupture	2	6.06	0.81
Mal Presentation	3	9.09	1.21
Other	12	36.39	4.84

Table 4.11 shows that 86.69% of the mothers were not categorized as high risk pregnancies. Bleeding (18.18%) and post caesarion (18.18%) sections were the most common risks they had during pregnancy. 2.42% of the total respondent mothers said that they had caesarian section before last pregnency. Regarding prevalence of maternal risk among respondents, bleeding and post caesarian section were the major risk .

Table 4.12 Frequency and percentage distribution of the mothers by obstetric and neonatal complications

Variables	Number (n=248)	Percentage (%)	Of total respondents (%)
Obstetric complications			
Yes	52	20.97	
No	196	79.03	
Type of obstetric complication			
Bleeding	24	46.15	9.68
Obstructed labor	11	21.15	4.44
Fever	1	1.92	0.40
Eclampsia	4	7.69	1.61
Unconscious	12	23.08	4.84
Neonatal complications			
Yes	20	8.06	
No	228	91.94	
Type of neonatal complication			
Low Birth Weight	6	30	2.42
Asphixia	6	30	2.42
Other	8	40	3.23

Table 4.12 shows that only 20.08% of the mothers had obstetric complications during child birth and bleeding was the most frequent complication. Only 8.06% of the mothers had neonatal complications during childbirth. Low birth weight and asphixia were the most frequent neonatal complications. 9.68% mothers from total respondent informed that they had bleeding during childbirth. Regarding prevalence of maternal complication during childbirth among respondents, bleeding and obstructed labour were the major complications. Regarding prevalence of neonatal complication among all respondents, 2.42% mothers informed that their babies were low birth weight.

Table 4.13 Intention of the mothers about place of childbirth

Variables	Number (n=248)	Percentage (%)
Same place of childbirth as planned		
Yes	225	90.73
No	23	9.27
Planned place of childbirth		
Home	16	6.45
Health Care Facility	232	93.55

Table 4.13 also shows that 90.73% of the mothers delivered at same place as what they planned during pregnancy and very few of mothers planned deliver at home .

Table 4.14 Frequency and percentage distribution of the mothers by reason to choose the place

Variables	Number (n=248)	Percentage (%)
Close to home		
Yes	208	90.04
No	23	9.96
Cheap/affordable		
Yes	221	95.67
No	10	4.33
Friendly provider		
Yes	230	99.57
No	1	0.43

Table 4.14 Frequency and percentage distribution of the mothers by reason to choose the place (cont.)

Variables	Number (n=248)	Percentage (%)
Friendly provider		
Yes	230	99.57
No	1	0.43
Trustable provider		
Yes	223	97.40
No	6	2.6
Husband/family decission		
Yes	200	86.58
No	31	13.42
Relatives recommendation		
Yes	55	23.81
No	176	76.19
Fancy building		
Yes	125	54.11
No	106	45.89

According to table 4.14 the most cited reasons of mothers for choosing childbirth place were friendly provider (99.57%) and trustable provider (97.4%). Only 23.81% of mother chose that place due to relatives recommendation and 54.11% mothers chose that place due to fancy building.

4.1.8 Satisfaction with care

With regard to their last delivery, almost all the mothers (99.60%) thought that their health providers responded rapidly, and 97.79% of mothers felt satisfied with their health care during chilbirth. Less than 10% said that their husbands or families could not accompany them in delivery room during child birth. (table 4.15)

Table 4.15 Frequency and percentage distribution of the mothers by experience regarding last delivery

Variables	Number (n=248)	Percentage (%)
Provider rapid response		
Yes	247	99.60
No	1	0.4
Husband can acompany		
Yes	228	91.94
No	20	8.06
Clean delivery room		
Yes	244	98.39
No	4	1.61
Simple administration		
Yes	239	96.37
No	9	3.63
Satisfied with service		
Yes	245	97.79
No	3	1.21

Table 4.16 Frequency and percentage distribution of the mothers who had been pregnant more than once by experience regarding previous childbirth

Variables	Number (n=248)	Percentage (%)
Place of delivery in previous delivery		
Home	46	33.09
Health facility	93	66.91

Table 4.16 Frequency and percentage distribution of the mothers who had been pregnant more than once by experience regarding previous childbirth (cont.)

Variables	Number (n=248)	Percentage (%)
Satisfied with previous delivery		
Yes	105	75.54
No	34	24.46

For mothers who had been pregnant more than once, 66.91% had previously delivered in a health facility and about three quarters of them were satisfied with the service.(Table 4.16)

Table 4.17 Frequency and percentage distribution of the mothers by expectation of health care in next pregnancy

Variables	Number (n=248)	Percentage (%)
Expect to use same place for next pregnancy		
Yes	223	89.92
No	25	10.08
Expectation of child birth care in next pregnancy		
Close from home	128	54.61
Cheap	30	12.10
Friendly provider	39	15.73
Family can acompany	28	11.29
Comfortable delivery room	8	3.23
Husband decission	15	6.05

Table 4.17 shows that 89.92% of the mothers wanted to use the same place for their next delivery. Close from from and friendly provider were the two most cited mothers' expectations in next pregnancy.

4.2 Association of the various independent variables with the dependent variable

4.2.1 Socio-Demographics

Table 4.18 shows the association between the socio-demographic factors and utilization of health facility providing childbirth care. Regarding parity, 87.14% mothers who had been pregnant three or times utilized a health facility for childbirth. There was a significant association between parity and utilization of a health facility providing childbirth care (p-value 0.019). Mothers who had had pregnant fewer than 3 times were 3 times more likely to utilize a health facility providing child birth care than

The number of living child had a significant association with utilization of a health facility providing childbirth care (p-value 0.011). Only 4.66% of the mothers who had had fewer than 3 children did not utilize a health facilty for childbirth and they were 3 times more likely to utilize a health facility providing child birth care.

Table 4.18 Association between socio-demographic factors and utilization of a health facility providing childbirth care

Variables	No Utilized n=17	%	Utilized n=231	%	OR	p-value
Age group						
High risk	3	8.33	1	91.67	1	0.720 [f]
Low risk	14	6.6	1.29	93.4	1.29	
Parity						
≥3	9	12.86	1	87.14	1	**0.019**
< 3	8	4.49	3.125	95.52	3.125	

Table 4.18 Association between socio-demographic factors and utilization of a health facility providing childbirth care (cont.)

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Living Child						
≥3	8	14.55	1	85.45	1	**0.011**
<3	9	4.66	3.44	95.34	3.44	
Type of family						
Nuclear family	8	7.08	1	92.92	1	0.898
Joint family	9	6.67	1.06	93.33	1.06	
Income						
<Rp.300.000	11	10.58	1	89.42	1	0.173
Rp.300.000-Rp.750.000	5	5.49	2.03	94.51	2.03	
Rp.751.000-Rp.1.500.000	0	0	8.73	100	8.73	
>Rp.1.500.000	1	4.55	2.48	95.45	2.48	
Covered by health insurance						
For the Poor						
No	6	8.57	64	91.43	1	0.502
Yes	11	6.18	167	93.82	14.28	
Mothers' education						
No school	2	9.52	19	90.48	1	0.869
Primary	10	6.80	137	93.20	1.44	
Secondary and higher	5	6.28	75	93.75	1.58	
Husbands' education						
No school	2	10.53	17	89.47	1	**0.013**
Primary	15	10.07	134	89.93	1.05	
Secondary and higher	0	0	80	100	8.69	
Have private vehicle						
Yes	10	9.17	99	90.83	1	0.201
No	7	5.04	132	94.96	1.9	

Table 4.18 Association between socio-demographic factors and utilization of a health facility providing childbirth care (cont.)

Variables	No Utilized n=17	%	Utilized n=231	%	OR	p-value
Type of vehicle						
Car	2	15.38	11	84.62	1	0.408
Motor bike	8	8.33	88	91.67	2	
Mothers' occupation						
Work	6	8.57	64	91.43	1	0.502
House wife	11	6.18	167	93.82	14.28	
Husbands' occupation						
Employee	4	6.9	54	93.10	1	0.989
Self employee	13	6.84	177	93.16	1.01	

Table 4.18 also shows that husband education was significantly associated with utilization of a health facility for childbirth (p-value 0.013) . All husbands who had secondary or higher education brought their wives to a health facility for child birth. Husbands who had secondary and higher education were 8 times more likely to utilize a health facility providing child birth care than husbands who had no formal education at all.

4.2.2 Mothers' perceptions regarding safe delivery

Table 4. 19 Association between perceptions of safe delivery and utilization of a health facility providing delivery care

Variable	No Utilized n=17	%	Utilized n=231	%	OR	p-value
Perception of safe delivery (Overall)						
Negative	15	14.56	88	85.44	1	**<0.001**

Table 4.19 Association between perceptions of safe delivery and utilization of a health facility providing delivery care (cont.)

Variable	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Positive	2	1.38	143	98.62	12.19	
Perception on safety						
Negative	6	26.09	17	73.91	1	**<0.001**
Positive	11	4.89	214	95.11	6.87	
Perception on benefit						
Negative	10	29.41	70.59		1	**<0.001**
Positive	7	3.27	207	96.73	12.32	
Perception on barrier						
Positive	14	7.87	164	92.13	1	0.315
Negative	3	4.29	67	95.71	1.923	

p-value = 0.001

Table 4.19 shows that there was a significant association between mothers' perceptions regarding safe delivery (p-value <0.000). Regarding each category of perception, only perceptions regarding benefits and barriers were significantly associated with utilization of a health facility providing child birth care (p-value <0.000). Mothers who had positive perception of safe delivery were 12 times more likely to utilize a health facility providing child birth care than mothers who had negative perception on safe delivery.

4.2.3 Mothers' knowledge about safe delivery

Table 4.20 shows a statically significant association between knowledge about safe delivery and utilization of a health facility providing delivery care (p-value 0.026). Almost all of the mothers (97.4%) who had good knowledge about safe delivery utilized a health facility providing child birth care. They were 12 times more likely to utilize a health facility providing child birth care.

Table 4.20 Association between knowledge about safe delivery and utilization of a health facility providing delivery care

Knowledge	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Good	2	2.6	75	97.4		**0.026**
Fair	8	6.4	117	93.60	0.39	
Poor	7	15.22	39	84.78	0.15	

4.2.4 Availability and accesibility

Table 4.21 displays the association between availability and accesibility respectively of maternal care and utilization of a health facility providing childbirth care. There was a significant association between mothers living near public MCH care (p-value 0.007), and only 15.09% of mothers who lived near private MCH care did not utilize a health facility providing child birth care. Mothers livinf near public MCH care were 3 times more likely to utilize a health facility providing child birth care than mothers living near private MCH care.

Table 4.21 Association between availability & accesibility of maternal care and utilization of a health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Nearest MCH care from home						
Private	8	15.09	45	84.91	1	**0.007**
Public	9	4.62	186	95.38	3.67	
Walk from home to MCH care						
$\geq$ 8 minutes	5	17.24	24	82.76	1	0.094 [f]
< 8 minutes	2	4.08	47	95.92	5	

Table 4.21 Association between availability & accesibility of maternal care and utilization of a health facility providing childbirth care (cont.)

Variables	No Utilized n=17	%	Utilized n=231	%	OR	p-value
Use vehicle from home to MCH care						
< 9 minutes	8	8.70	84	91.30	1	0.186
≥ 9 minutes	3	3.75	77	96.25	2.44	
Cost to reach MCH care						
≥3,250	4	8.33	44	91.67	1	0.652
<3,250	13	6.5	187	93.5	1.315	
Expensive						
Yes	0	0	10	100		0.596 [f]
No	10	8.85	103	91.15	0.00	

p-value = 0.01 [f]: Fisher exact test applied

Table 4.22 Association between mothers' residence and utilization of a health facility providing childbirth care

Variables	No Utilized n=17	%	Utilized n=231	%	OR	p-value
Subdistrict						
Camplong	14	10.29	122	89.71	1	
Omben	3	2.68	109	97.32	4.13	**0.013**

Table 4.22 shows that there was a significant association between mothers' residance and utilization of health facility providing childbirth care (p-value 0.013). For delivery mother, living in Omben was 4 times more likely to utilize a health facility providing childbirth care than living in Camplong.

4.2.5 Family and community support

Table 4.23 shows that with regrad to family and community support, only TBA involvement in the decision making was significantly associated with utilization of a health facility providing childbirth care (p-value 0.039). Mothers who made decission without TBA involvemet were 2 times more likely to utilize a health facility providing child birth care than mothers who made decission with TBA involvement.

Table 4.23 Association decission making process and community support and utilization of health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Decission maker						
Other	5	8.33	55	91.67	1	0.603
Self	12	6.38	176	93.62	1.33	
Mother participated for decission						
No	1	12.5	7	87.5	1	0.438
Yes	16	6.67	224	93.33	2	
TBA involved						
Yes	9	11.84	67	88.16	1	**0.039**
No	8	4.65	164	93.35	2.75	

Table 4.24 Association between family and community support and utilization of health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Saving money						
Yes	16	7.55	196	92.45	1	0.295

Table 4.24 Association between family and community support and utilization of health facility providing childbirth care (cont.)

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
No	1	2.78	35	97.22	2.86	
Preparing vehicle						
No	12	8.16	135	91.64	1	0.325
Yes	5	4.95	96	95.05	1.69	
Preparing family care givers						
Yes	0	0	14	100		0.607 [f]
No	17	7.26	217	92.74	0.00	
Community support Plan						
Yes	3	4.35	66	95.65		0.103
No	2	3.08	63	96.92	1.43	
Don't know	12	10.53	102	89.47	0.39	
Type of community support						
Vehicle	2	5.88	32	94.12	1	0.538
Money and Blood Donor	1	2.86	34	97.14	2.12	

[f]: Fisher exact test applied

4.2.6 Ante Natal Care

Table 4.25 shows that there was a significant association between how often mothers had ANC during their pregnancies and utilization of a health facility providing childbirth care (p-value <0.000). Nearly all of the mothers (95.18%) who had had ANC more than 4 times utilized a health facility for childbirth. Mothers who had had ANC more than 4 times were 8 times more likely to utilize a health facility providing child birth care than mothers had had ANC less than 4 times.

Table 4.25 Association between pre-natal history and utilization of a health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
ANC frequency						
<4 times	6	30	14	70	1	**< 0.001**
≥4 times	11	4.82	217	95.18	8.45	
Place of ANC						
Integrated Health Post	15	10.42	129	89.58	1	**0.009**
Health Care	2	1.92	102	98.08	5.88	
Place of childbirth suggestion						
No	3	30	7	70	1	**0.024**
Yes	14	5.88	224	94.12	6.66	
ANC attendant						
Health professional	17	6.91	229	93.09	5.47+0.8	1[f]
Non Health prof.	0	0	2	100		
MCH Handbook						
Don't have	2	33.33	4	66.67	1	0.056[f]
Have	15	6.20	227	93.60	7.69	
Labeled with BPCR sticker						
No	4	18.18	18	81.82	1	**0.028**
Yes	13	5.75	213	94.25	3.703	

[f]: Fisher exact test applied

Almost all of the mothers (98.08%) who had had their ANC in a health facility utilized a health facility for childbirth, and there was a significant association between place of ANC and utilization of a health facility providing childbirth care (p-value 0.009). Mothers who went to health facility for ANC were 5 times more likely to utilize a health facility providing child birth care than mothers who went to Integrated Health Post for ANC. (Table 4.25)

Only 5.75% mothers who had Birth Preparedness and Complication Readiness (BPCR) sticker did not utilize a health care facility for childbirth, but there was a significant association between mother's house labeled with BPCR sticker and utilization of a health facility providing childbirth care (p-value 0.028). Mothers who had BPCR sticker were 3 times more likely to utilize a health facility providing child birth care than mothers who didn't have BPCR. (Table 4.25)

4.2.7 High risk pregnancy

Table 4.26 shows that there was no significant association between high risk pregancy and utilization of a health facility providing child birth care (p-value 0.585). 9.09% of mothers who were at high risk did not utilize a health facility for childbirth.

Table 4.26 Association between pre-natal history and utilization of a health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
High risk pregnancy						
No	14	6.51	201	93.49	1	0.585
Yes	3	9.09	30	90.91	1.4	
Type of risk :						
Bleeding	1	16.67	5	83.33	1	0.464 [f]
Post Caesarian section & others	2	7.41	25	92.59	2.5	

[f]: Fisher exact test applied

Table 4.27 Association between intention to deliver in health facility and utilization of a health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=17	%	n=231	%		
Planned place of childbirth						
Home	9	56.23	7	43.75	1	**< 0.001**
Health facility	8	3.45	224	96.55	33.33	

According to Table 4.27, there was a significant association between planned place of childbirth and utilization of a health facility providing childbirth care (p-value < 0.000) and 3.45% mothers who planned to deliver in a health care facility but did not utilize a health facility for childbirth. Mothers who planned to deliver in health facility were 33 times more likely to utilize a health facility providing child birth care than mothers who planned to deliver at home.

4.2.8 Satisfaction with care

Table 4.28 Association between satisfaction with care in respect of previous deliveries and utilization of a health facility providing childbirth care

Variables	No Utilized		Utilized		OR	p-value
	n=13	%	n=126	%		
Place of childbirth in previous delivery						
Home	7	15.22	39	84.78	1	0.095
Health facility	6	6.45	87	93.55	9.09	
Satisfied in previous delivery						
Yes	11	10.48	94	89.52	1	0.424
No	2	5.88	32	94.12	9.75	

For mothers who had been pregnant more than once, there was no significat association between their place of childbirth for previous pregnancies and utilization of a health facility providing childbirth care (p-value 0.095). Even though 89.52% were satisfied with the health service during previous deliveries and utilized a health facility for childbirth, there was no significant association between previous satisfaction and utilization of a health facility providing childbirth care (p-value 0.424). (Table 4.28)

4.3. Multiple logistic regression

All significant independent variables which had significant association with utilization of health facility providing childbirth care in simple logistic regression and chi-square calculations were included in the full model then were tested by multiple logistic regression to find strength of the association with utilization of health facility providing child birth care. These calculations were also to predict the factors for utilization of health facility providing child birth care and related variables.

Twelve following factors were tested to find significant predictors of utilization of health facility providing childbirth care, which were: planned place of childbirth, nearest MCH care from home, suggested about place of childbirth during ANC, labeled with BPCR sticker, TBA involved during decission making, perception on safe delivery, knowledge on safe delivery, frequency of ANC, place of ANC, parity, living child, and Husbands' education.

Table 4.29 Association between factors and utilization of health facility providing child birth care

Factors	Adjusted Odd Ratio	95 % CI Lower	Upper	p-value
Planned place of childbirth				
Home	1			
Health Facility	167.57	13.13	2,137	**0.001**

Table 4.29 Association between factors and utilization of health facility providing child birth care (cont.)

Factors	Adjusted Odd Ratio	95 % CI Lower	95 % CI Upper	p-value
Nearest MCH care from home				
Private	1			
Public	9.61	1.297	70.725	**0.027**
Suggested about place of childbirth during ANC				
Yes	7.61	0.37	1,566	0.455
No	1			
Labeled with BPCR sticker				
Yes	2.51	0.22	28.08	0.456
No	1			
TBA involved during decission making				
Yes	1			
No	1.16	0.16	8.29	0.880
Perception on Safe Delivery				
Positive	17.24	1.488	201.712	**0.023**
Negative	1			
Frequency of ANC				
< 4 times	1			
≥ 4 times	2.17	0.031	6.84	0.574
Place of ANC				
Integrated Health Post	1			
Health facility	2.86	0.38	21.68	0.309
Parity				
< 3 times	1			
≥ 3times	5.04	0.17	153.26	0.353

Table 4.29 Association between factors and utilization of health facility providing child birth care (cont.)

Factors	Adjusted Odd Ratio	95 % CI Lower	95 % CI Upper	p-value
Living Child				
< 3	1			
≥ 3	2.13	0.08	54.75	0.649
Husbands' education				
No school	1			0.851
Primary	0	0	0	0.996
Secondary and higher	0	0	0	0.996
Knowledge				
Good	3.85	0.1	6.44	0.549
Fair	3.33	0.03	2.71	0.411
Poor	1			0.283

Table 4.29 ilustrates that three selected factors had significant association with utilization of health facility providing child birth care. Planned deliver at health facility was the strongest predictors to make mothers utilize health facility during childbirth period since mothers who already planned deliver in health facility were 167 times more likely to utilize a health facility providing child birth care than mothers who planned to deliver at home.Mothers who had positive perception on safe delivery were 17 times more likely to utilize a health facility providing child birth care than mothers who had negative perception. Mothers who lived near public MCH care were 9 times more likely to utilize a health facility providing child birth care than mothers who lived near private MCH care.

CHAPTER V
DISCUSSION

The cross-sectional study was conducted to study, ascertain and understand factors affecting the utilization of health facilities providing childbirth care in Sampang District. Sample of this study were mothers who lived and delivered in Camplong and Omben sub districts in 2010 and attended to the immunization centre immunization day of 6 villages in Camplong and Omben sub districts. Respondents were interviewed by structured questionnaire which had 74 questions included socio-demographic factor, prenatal history, delivery history in last child birth, availability and accessibility, satisfaction of care, decision making process, community support, knowledge on safe delivery and perception on safe delivery.

5.1 Methodological concern

Villages were randomly selected 3 villages in each sub-district. Proportional sampling was used to calculate the number of mothers in each village who were invited to participate. Each village was represented by 5 immunization centres which were chosen randomly. Trained interviewers interviewed all mothers who attended immunization days in the chosen immunization centres (Posyandu) using structured questionnaires.

The reliability result in the first pretest in Omben sub district was 0.398 (KR20) and 0.332 (Cronbach alpha), after modify some questions and pretested in Camplong, the result became 0.675 (KR20) and 0.751 (Cronbach alpha), which was eligible to be used for data collection tool. Two pretest sites were different villages for data collection. Before pretesting, questionaire was consulted to two advisors to obtain valid result.

Numbers of total respondents were increased 20% from total respondents needed. There were 250 mothers had been interviewed and after data cleansing, only

248 data were eligible to be analyzed. However, it was enough number data for this research because minimum data required was 207.

Data were entered by using Epi data and analyzed using Minitab and SPSS. Bivariate analyses, chi-square and simple logistic regression were used to assess association between each independent variable and dependent variable. The percentage and crude odd ratio was used to show strength of association with 95% confident interval. Multiple logistic regression was used to find significant predictors of utilization of health facilities providing childbirth care. Only the variables which had p-value < 0.05 in chi-square test were used in multiple logistic regression analysis.

Andersen's Behaviour Model of Health Care Utilization was used as a base model for this research, however Kuate Defo's framework also was used to add birth plans as a independent variable in predisposing factors. Birth plans should be interpreted as a mediator variable in statistic, which had closer relationship with utilization of childbirth care than other factors, and implied stronger association than other variables in multiple logistic regression (58).

5.2 Utilization of health facility providing child birth care

Utilization of health facility providing childbirth care refers to the use of a health facility by a mother for the delivery of her last child, before referral. Health facility options are : hospital, health centre, midwivery clinic, or midwifery hut. This definition emphasizes the process that requires a skilled attendant and an enabling environment which includes adequate supplies, equipment and infrastructure as well as efficient and effective systems of communication and referral, since maternal and neonatal death is occurred in childbirth period (6).

This research found that 93.15% of mothers utilized health care during their last delivery; it was higher than the result of IDHS 2007 which was only 30% of mothers in rural area gave birth in health facility. Regarding annual 2010 MCH report, this difference might be since almost 90% villages in Sampang had midwifery hut, contrasted to rural condition in overall which only about 60% villages had midwifery hut due to limited health providers in some remote area (11). Utilization in Omben

was higher than in Camplong, most of mothers in Camplong gave birth in private clinics and mothers in Omben prefered to give birth in midwifery hut.

24.6% of mothers utilized private clinic during childbirth process in total, it was less than IDHS 2007 findings. However, it was a big difference between Camplong and Omben sub district about utilization on private clinic, 42.65% of mothers in Camplong utilized private clinics but only 2.68% of mothers in Omben utilized private clinics. Perhaps it was due to geographical factor. Camplong as coastal area had better access than Omben, since trans-Java highway cross this area. More private clinics were opened to anticipate strangers who pass the highway and need medical care.

Referral cases in both subdistrics was about 20% which was similar with percentage of obstetric complications which occured in the mothers, however it was lower than number in IDHS 2007 (13). Referral cases in Omben were twice fold than in Camplong, but health centre was the most preferable destination to referr mothers with complication since both health centres were health care which could provide basic emergency obstetric and neonatal care (BEONC) (11).

5.3 Predisposing factors

5.3.3 Socio-demographic

Most of mothers were 20 to 35 years old, it meant that they were in suitable age for pregnant and childbirth. However, there was no significant association found between age and utilization of health facility providing child birth care and it was similar to other studies findings in Nigeria and Mali (60, 64).

Nearly three quarter mothers had had less than 3 times pregnancies and living child. On average, they had 2 children and there was a significant association between parity and utilization of health facility providing child birth care. It was supported by Kirina which found significant association in negative effect to utilization of health facilites in childbirth (61). Other studies which supported this finding were researchs in Peru (35) Uttar Pradesh, India (75) which women with

several small children may have greater difficulty in attending facilities due to the need to arrange child care.

Over half of the mother informed that no other family lived with them in their house and there was not found significant association between types of family and utilization of health facility providing child birth care. It was supported by Magadi et al study in Kenya which did not found significant association between type of family and institutional delivery (38). However, it was contrast with the study in Nepal 2006 (27).

Members of family could influence on the mothers decision but this research found that more than three quarter mothers decided their own place of childbirth. It meant, the presence of other family would not affect mothers' decision. Women with young children may have difficulties finding child-care while they deliver at a health facility, in particular if they live in a nuclear family. Sometimes women are accompanied by family members during their hospital stay, so that even these cannot take care of other children during the time (38).

About 80% of the mothers had family income less than Rp.750.000 per month which was the cut off point for poor people in Indonesia. This study did not find significant association between income and utilization of health facility providing child birth care, supported by study in Guatemala and Tajikistan which had similar finding (63). It was contrast with other studies in Jamaica and India (63) which found association between higher economic status with an increased probability of using medical setting for childbirth.

It might be possible due to Indonesian government had provide health insurance for the poor to family having income less than Rp.750.000 per month ,it meant those family did not have to pay for health care include maternal and neonatal care. However, this research found that 15% of mothers who were covered by insurance for the poor had income more than Rp.750.000 per month, it might be due to mothers couldnot estimate their income since most of them were not employee which did not have fix income every month.

Wives and husbands in Sampang had equal chance of having formal education, since proportion of mothers and husbands who had primary and seconadry educations were almost similar. This study did not find significant association between

mother's education and utilization of health facility providing child birth care. It supported by other research findings in rural area in Nigeria (64), Bangladesh (72) and Indonesia (28) which did not find association between mothers' education and institution delivery.

Husbands' education was one of the predictor for the utilization of health facility providing child births. A positive correlation was also observed with respect to husbands' education in Kristina's study about IDHS 2007 (61). Women with higher educated husbands were also found to be significantly more likely to deliver at health facility. It was supported by other research in Peru which found significant association between husbands' education and childbirht at health facility (35). One possible explanation for this result was husbands was able to influence the wife's decission to seek modern health care, the higher educational level of husbands, the greater their influance in maternal and child-care decissions (38). Other possible explanation was: educated husbands were more likely to be aware of the complications and its consequences on life, therefore, they tried to find and utilize health facility for their delivered wives (27).

Most of mothers were housewife only and most of their husbands were self employee. Either mother's occupation did not have significant association with utilization of health facility providing child birth care. The finding was supported by systematic reviews in Guatemala and Tajikistan (63), research in Peru (36), Vietnam, Ethiopia and Bangladesh (38) which could not find significant association between mothers'occupation and utilization of health facility providing child birth care. Study in Indonesia also found very weak association between mothers' occupation and utilization of health facility provideing childbirth care (61). This might be due to most of the women who work were from poor households and work for family survival or perhaps working women experience time constraints that reduce their opportunities for receiving health care.

Husbands' occupation did not have significant association with utilization of health facility providing child birth care. It supported by study in Turkey did not find any effect of paternal occupation in itself but when the father had household health insurance, the last birth was more likely to have occurred in a health facility (38).

5.3.4 Mothers' perception on safe delivery

More than half mothers had negative perception regarding safe delivery and this study found significant association between mother perception on safe delivery in overall and utilization of health facility providing child birth care. There was a significant association between mothers' perception on safe delivery and utilization of health facility providing child birth care. Having positive perception on safe delivery were 17 times more likely to utilize a health facility providing childbirth care. This finding was similar with finding in Malawi which proved that perception on danger signs had important effect on maternal health care seeking behaviour especially during childbirth (73). Another research in Bolivia also reported that perception that quality of care at the centre would not lead mothers to deliver in health facility (25).

Most of mothers disagreed that childbirth is the natural process and does not need any medical care, however about 40% of mothers did not sure and disagreed that childbirth in health facilities will make safe outcome for baby. It showed that mothers focused on their safety first and put a side neonatal safety during child birth.

5.3.5 Mothers' knowledge on safe delivery

Statically significant association was found between knowledge on safe delivery and utilization of health facility providing child birth care even though only about 30% mother had good knowledge on safe delivery. It was supported by study in Zambia which found that mothers who know danger signs in pregnancy were more likely to deliver in a health facility as compared to those without such knowledge (39). Also, in Mali, women who were told about complications at antenatal care were more likely to give birth in a facility (40). It was contrast with studies conducted by Okolocha et al , Chiwuzie et al and Asowa-Omorodion in Nigeria (64) which noted the high level of awareness of possibility of life threatening conditions had not affected mothers care seeking behaviour.

Anyway, how to to improve mothers' knowledge and perception about safe delivery are very important. Health voluteers role are very strategic to bring more informations to mother, since their roles' are preparing immunization centres every months, give health education about danger signs and health care to mothers and child

include nutrition, and conduct home visit to pregnant and post delivering mothers to monitor mothers' and childs' health status (80).

5.3.6 Birth plans

More than 90% of the mothers delivered at same place as they planned during pregnancy and this study found a significant association between planned place of childbirth and utilization of health facility providing childbirth care. Furthermore, planned place of childbirth was the strongest predictor which were 167 times more likely to utilize a health facility providing child birth care. Regarding evolution of the birth plan, Simkin highlighted that the birth plans was envisioned to help expectant parents prepare for physical and emotional aspects of the childbirth process, plan ahead for how they want in various situations, handeld outside of the emotions of the moment, and provide a vehicle for referral, and health provider prior to the birth. However, birth plans was an indirect variable of utilization of health facility providing childbirth care since mothers would make proper plan if she had sufficient knowledge and adequate perception about safe delivery, in addition, they should consider about availability of childbirth care in their area, availability of fund and support from family and community (79).

Planned place of childbirth as the strongest predictor was constructed from ample knowledge and appropriate perception about safe delivery (79). It would only be accomplished if there were enough resources to support the plan such as family and community support, proper decision maker who could make the right decision for the mothers and at last, availability and affordability of MCH care .

Almost all of mothers chose friendly provider and trustable provider as reasons why they chose place of childbirth. There were similar to other research in Bolivia which found some barrier's factors to utilize health facility were fear or embarrassment to health provider and negative perception of health care's quality (25).

About 20% of mothers informed that they had obstetric complications during last child birth process. Furthermore, bleeding was the most often complication occurred which was 9.68% of total respondents reported that had had bleeding during childbirth. These findings were different with Indonesia Demographic and Health Survey 2007 which revealed obstetric complications among mothers were 46.7% (13).

We could assume this difference due to utilization of health facility in childbirth care in Sampang was higher than rural area in Indonesia and it effect to better childbirth care for mother who lived in Sampang.

5.4 Enabling factors

5.4.1 Availability and accessibility of maternal care

More than three quarter mothers lived near public health facility, they needed less than 10 minutes to reach health facility by walk or by vehicle in average.This research did not find significant association between distance, and utilization of health facility providing childbirth care. It was suported by the finding in rural Vietnam (62) , Guatemala and Bangladesh (38) which did not find significant asocition between childbirth in health facility and distance to health care, contrast with others findings in Bolivia (25) and Mali (61) which found that distance was a important factor for institutional delivery.

It could be explained since mothers' home were not too far from health facility in Sampang and they had easy enough access to reach health care, it might be different with the conditions in Bolivia, Guatemala, Mali and even other place in Indonesia which had difficulties to access health facility due to geographical situation.

Nearest MCH care from home was one of the predictor of utilizing health facility providing childbirth care since lived near public health facility were 9 times more likely to utilize a health facility providing childbirth care.

More mothers in Camplong lived near private health care than in Omben, perhaps it was the reason why proportion of mothers who delivered in private health care in Camplong was about 20 times larger than in Omben. It was contrast with condition in Camplong which 38.24% of the mothers lived near private childbirth care and this conditions resulted utilization of private childbirth care in Camplong 20 times larger than Omben. It meant that mothers would find the nearest health care in emergency situation such as delivering baby, public or private did not matter for them. Therefore, it assumed availability of health care has stronger effect to utilize health facility more than the type of health facility.

More than half mothers did not need to pay for childbirth service. Less than half mothers who paid and thought that it was expensive. Concerning coverage of insurance for the poor, 71.77% of mothers were covered by this insurance.

There was not a significant association between covered by health insurance for the poor and utilization of health facility providing child birth care, it probable due to about quarter of the mothers who covered by insurance for the poor still need to paid for childbirth care. This finding was contrast with IDHS 2007 (45) and study in rural Mali (60) which pointed out that one personal berrier to institutional delivery was getting money for delivery. In the other side, 15% of the mothers who were covered by insurance for the poor had family income more than 750.000 IDR and about 25% of the mothers who were covered by insurance for the poor remain needed to pay for childbirth care. It might be the reason why there was no associaton between health insurance status with utilization of health facility providing childbirth care. Proportion of mothers who paid for delivery in Camplong were about three times than in Omben and almost 90% mothers who had insurance for the poor in Camplong remained to pay for chilbirth. In Camplong, 60.98% mothers who were covered by heatlh insurance for the poor and delivered in health facility remain have to pay for delivery.It showed some management problems occured in Camplong about utilization of insurance for the poor and might have impact to utilization of health facilitiy providing childbirth care in this subdistrict.

Living in Omben made mothers utilize health facility providing childbirth care more than mothers who lived in Camplong, it seemed that availability public maternal and child health cares in Omben were better than in Camplong and mothers who paid for delivery in Omben were less than in Camplong. Despite there was no associaton between cost and utilization of health facility providing childbirth care, payment of childbirth care was a barrier for the mothers to utilize it since almost 90% mothers who had insurance for the poor in Camplong remained to pay for chilbirth and availability of public MCH care in Omben looked better than Camplong. It might be relevant because mothers from poor family and were covered by insurance for the poor, did not have to pay for childbirth care in public MCH care.

5.4.2 Family and community support

Three quarter of mothers decided where they delivered by them self. Almost all mothers participated in decision making, even though they were not the dicision maker. 69.35% of mothers informed that Traditional Birth Attendance (TBA) was involved during decision making about place of childbirth.

There was not a significant association between decision maker and utilization of health facility providing childbirth care, this finding was supported by Hazemba's study in Zambia (74). However, several studies in Guatemala, Vietnam, Nigeria and Tanzania found significant association between mothers autonomy to decide place of childbirth and utilization of health facility providing childbirth care (38).

This study found significant association between TBA involvement in decision making and utilization of health facility providing childbirth care. It would have negative impact to the decision of using health facility during childbirth, similar as finding of Magoma et al. in Tanzania which TBAs dissuaded women from delivering at health units since it might be conflict of interest between TBA and midwives. TBA might feel that they would lose their status and opportunity to earn money from delivery mother (59).

Since 2007, Indonesian government introduce Birth Preparedness and Complication Readiness (BPCR) either in family or community to educate mothers and their family that childbirth process had to be well prepared since early pregnancy.

More than 80% mothers had already saved money in preparing childbirth and complication when needed, it supported study about BPCR in rural Kyrgyzstan which revealed save money and identify transport were the most preparedness mothers cited (57). However family preparedness in saving money, preparing vehicle and preparing family care givers didn't have significant association with utilization of health facility providing child birth care.

Almost half of mothers didn't know about community support plan in their village. Furthermore, there was not a significant association between community support plan and utilization of health facility providing child birth care. It was contrast to Bhutta et al on their study in rural Pakistan which found a big difference between some intervened villages by community organization and mobilization group, and non

intervened villages (77). Perhaps, since those villages in Pakistan were pilot villages, researchers usually made special effort to them and commonly tend to have different outcome when compare to non pilot villages.

5.5 Need factors

5.5.1 Ante natal care

More than 90% of mothers had ANC equal or more than 4 times during pregnancy and they chose integrated health post in community as place of ANC more than health facility. A significant association between how often mothers had ANC during their pregnancy and place of ANC with utilization of health facility providing child birth care was found. Mothers who had ANC more than 4 times would likely have positive effect to utilize health facility providing childbirth care. It was supported by study in Mali which found that the level of antenatal care uptake in the enumeration area is highly predictive of individual women's health facility use for childbirth, even when controlling for individual ANC use (40) , and also study in Haiti found that the presence of a health worker providing ANC in the community could also increase use of skilled attendance (78). Mothers who had ANC in health facility would also likely have positive effect to utilize health facility providing childbirth care. It was similar to qualitative research findings in rural Tanzania which revealed that one of important factors in institutional delivery were good relationship between provider and client which could be reached with high intensity of ANC, more over, this study also revealed that lack of privacy was a barrier to build good relationship between mother and health provider (58). ANC in posyandu had less privacy than in health facility since examine room in posyandu was very small and sometimes had no room at all for consultation; consultation time was also very limited due to long queue of pregnant mothers and babies.

Mothers who had BPCR sticker in their house tended to utilize health facility during childbirth since BPCR sticker was a reminder for mothers and family about birth plan which they made during early pregnancy. It contained mothers'

identity, estimated time of conveyment, planned place of deliver, planned childbirth attendance, planned blood donor, and planned vehicle for referral.

5.5.2 High risk pregnancy

There were not difference result between this research and IDHS 2007, 89.4% mothers were low risk in IDHS, while 86.69% mothers were low risk in this research. It might be due to ANC's quality in Sampang was better than Indonesia in over all since more than 90% mothers in Sampang had ANC more than 4 times, therefore it could screen more risk. Study in rural Mali showed similar finding which could not find significant association between high risk pregnancy and utilization of health facility providing child birth care (60). Study in Mexico showed that a significant association was found only in particular pregnancy risk and delivery in health facility (38).

Proportion of high risk pregnancy in Omben was almost twice larger than in Camplong, however proportion of mothers had caesarian section in previous delivery in Camplong about three times larger than in Omben. Perhaps, since Camplong was in coastal area and had better acces to hospital and private health care, it seemed mother who lived in Camplong had better chance to have definitive treatment in hospital.

5.6 Satisfaction with care

People will satisfy if their expecations of care are meet with service which they get and expectations are influenced by their experience about particular service or good. Experience could make negative or positive effect to their expectations. 98.79% of mothers said that they satisfied with last delivery, but only 89.92% of mothers wanted to use again in next pregnancy. It might be some barriers to access which occurred among them; geographical and financial factors could be potential problems since more than 80% mothers were categorized as poor group and about quarter of mothers needed to pay for delivery.

More than half of mothers delivered in health facility in previous delivery and three quarter mothers were satisfied to the service. More than 70% of mothers

who delivered at home in previous delivery was not satisfied and more than 80% of them changed to deliver in health facility in last delivery.

All mothers who changed their place of delivery from home to health facility were satisfied, however only 87% of them wanted to use same place again in next delivery. (Table 4.47) It shows that health care in Sampang had been improved since about 3 years before and likely meet to mothers need, however there were some barriers which hindered mothers to use health facility in the future pregnancy. It might be due to accesibility barriers which came up to them or their families. There was not a significant association between satisfied in previous delivery and utilization of health facility providing child birth care, it was contrast with the findings of qualitative studies in Uganda (42), Ghana (44) and Vietnam (62) which indicated that women tended to deliver with the same provider if a previous delivery went well and tended to change when they were dissatisfied. Two quantitative multi-country analyses of Demographic and Health Survey in Africa found very strong associations between previous and current facility delivery (38,47).

89.92% of mothers want to use same place in next delivery. Living close to health facility and friendly providers were the most common mothers expected in their next pregnancy. It was similar as a finding in quantitative study in Finnish women which revealed that mothers more emphasized on unhurried atmosphere, feeling of control in childbirth then support person and physical environment (65).

CHAPTER VI
CONCLUSION AND RECOMMENDATIONS

Health facility-based childbirth is likely to be the best strategy to accelerate maternal mortality reduction because health provider work with other attendants in a team in a proper environment to handle complications, since home-based delivery needs to be coupled with strategies that remove community barriers to accessing emergency obstetric care, including recognition of danger signs by lay attendants and effective referral mechanisms.

6.1 Conclusion of the study

This study was conducted to ascertain and understand factors affecting the utilization of health facilities providing childbirth care in Omben and Camplong Sub District. 93.15% of the mothers utilize health facility during their childbirth. Findings in this research were amenable to the conceptual framework, which was based on Andersen's behaviour model of health care utilization. Planned place of childbirth and perception on safe delivery were in the predisposing characteristic varible group, the nearest MCH care from home represented the enabling resources. Frequency and place of ANC were included in the health care system variable group; meanwhile parity, number of living child, husbands' education and mothers' knowledge were included in the predisposing characteristics.

Data were collected during February and March 2011. The study group comprised 250 mothers who gave birth in 2010. Respondents were asked to participate to this research during immunization day immunization centre. Those mothers were interviewed by trained interviewers using structured questionaire. The questionaire was in Bahasa Indonesia with 74 questions and devided in to 8 parts.

Utilization of childbirth care in Omben was higher than in Camplong, most of the mothers in Camplong gave birth in private clinics and mothers in Omben prefered to give birth in midwifery hut. Referral cases in both subdistricts was about

20% which was similar with percentage of obstetric complications which occured in mothers, and the most preferable referral service was health centre

In socio demography variable, parity and number of living child had negative effect to utilization of health facility but husband education had positive effect. Good positive perception would make positive impact to mothers choice on place of childbirth.

Accessibility and availability to public health facility were important factors, since mothers who lived near public health facility were more likely 9 times to utilize health facility during childbirth than lived near private health facility. Furhtermore, more than half mothers expected having health facility near their house during childbirth in the next delivery. Utilization of health insurance for the poor needed to be improved in terms of selecting accurate participant and disbursement to minimize misused.

Thirty-eight factors were anlyzed and this research found twelve factors which had significant association with utilization of health facility providing childbirth care which were: planned place of childbirth, nearest MCH care from home, suggested about place of childbirth during ANC, labeled with BPCR sticker, TBA involved during decission making, perception on safe delivery, knowledge on safe delivery, frequency of ANC, place of ANC, parity, living child, and Husbands' education. Finally, multiple logistic regression selected 3 factors as best predictors for model which were: planned place of childbirth, perception of safe delivery and the nearest MCH care from home.

6.2 Recommendation

Several recommendations were developed for policy makers, health care professionals and further research based on findings of this study.

Recommendations for policy maker

Providing reachable, friendly and affordable health facility for childbirth care is very important, mothers tend to deliver in health facility which close to their

home and provide friendly childbirth care. Since private health care start coming up in rural area, district health office should encourage them to provide qualified childbirth care as the standard and participate in health insurance for the poor.

Every mother and child health care should comply to the standard which has been released by MOH. The standard is not only for equipment but also for health care during ANC, childbirth care and post natal care. It is important to improve their quality and make good impression to mothers. Every District Health Office in Indonesia need to conduct health survey to asses mothers' expectations on maternal health care including ANC, childbirth care and postnatal care. This assasment will provide more information to policy maker to construct suitable health care for mothers in their area, so that mothers will have better perception of childbirth care.

Birth Preparedness and Complication Readiness program which has been lauched since 2007 in Indonesia should be continued and emphasize on place of childbirth planning during ANC since it is strongest predictor to utilize health facility providing childbirth care.

Recommendations for health care professionals

This research revealed that having positive perception leaded mothers to utilize health facility during childbirth. Good communication between health providers and pregant mothers will lead mothers to have better knowledge and perception on safe delivery, moreover they can have better relationship and lead to preferable trust between mothers and health provider. Therefore, health professionals who undertake ANC should be qualified not only in medical care but also counseling to convey important information about danger sign and to encourage mothers to make birth preparedness.

Recommendations on further research:

This research was limited by the size of the study group and number of research sites. Further research with a larger study group and covering a wider range of locations throughout Indonesia would be helpful to give a better overall image of maternal health conditions and issues in Indonesia.

Qualitative research is also needed to gain more information about the extent to which mothers are satisfied with childbirth care options in Indonesia. Additional, more extensive research may be expected to generate additional and more accurate data of value to health administrators and planners about public maternal health care and perception of safe dalivery. Specific research about factors related to financial constrains is also needed to obtain more information and evaluate health insurance scheme for the poor.

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APPENDICES

APPENDIX A
QUESTIONNAIRE

This questions will be gain informations from mothers about chidbirth care and issues surround it.

Please circle the respondent answer or statement or fill the blank

BASIC INFORMATION

1 How old are you ? : ..... Years

2 Where do you live ?

Village :

Hamlet :

3 When did you deliver your last baby? .....

4 Parity

How many times have you been pregnant ? ..... Times

How many living child do you have? .....

5 What is your religion?

1. ISLAM
2. CATHOLIC
3. CHRISTIAN
4. BUDHIST
5. HINDU

6 Do any other family live with you in the same house ?

1. Yes
2. No

7 How much is your family average income a month ?

1. < Rp.300.000
2. Rp. 300.000 - Rp. 750.000
3. Rp. 750.000 - Rp. 1.500.000
4. > Rp. 1.500.000

8 Are you covered by insurance for the poor? 1. Yes 2.No

9 How many years formal education do you have? ..... Years

10 How many years formal education does your husband have? ..... Years

11 Do you have private vehicle ?

1. Yes
2. No

If yes, please specify :

1. Car
2. Motor Bike
3. Boat

12 What do you work ?

1. House wive
2. Bussiness
3. Service
4. Labourer
5. Agriculture
6. Civil servant
7. Fisherman
8. Other

13 What does your husband work ?

1. Agriculture
2. Business
3. Service
4. Labourer
5. Civil servant
6. Fisherman
7. Other

PRENATAL HISTORY IN LAST PREGNANCY

14 How many times did you have ANC ?

1. < 2 times
2. 2 - 4 times
3. 4 - 6 times
4. > 6 times

15 Where did you have your ANC?

1. Posyandu
2. Midwifery hut
3. Health centre
4. Midwifery clinic
5. Hospital
6. Other

16 During ANC, did the health provider suggest about place of delivery?

1. Yes
2. No

17 Who was your ANC attendant?

1. Obgyn
2. Doctor
3. Midwife
4. Nurse
5. TBA

18 Do you have MCH handbook?

1. Yes
2. No

19 Did you have risk during pregnancy?

1.Yes
2. No (skip to 20)
3. Don't know (skip to 20)

If yes, please specify :

1. Per vaginal bleeding
2. Ex - Caesarean Section

3. Severe abdominal pain
4. Premature membrane rupture
5. Fever
6. Mal-presentation
7. Foetal problem
8. Other

20 Was your house labeled with Birth Preparedness sticker during pregnancy ?

1. Yes
2. No

DELIVERY HISTORY IN THE LAST DELIVERY

21 Did you have obstetric complications during delivery?

1. Yes
2. No (skip to 22)
3. Don't know (skip to 22)

If yes, please specify :

1. Bleeding
2. Obstructed labor
3. Fever
4. Eclampsia
5. Unconscious
6. Other

22 Did you have neonatal complications during delivery?

1. Yes
2. No (skip to 23)
3. Don't know (skip to 23)

If yes, please specify :

1. Low Birth Weight
2. Asphixia
3. Infection
4. Haematological
5. Feeding disorder
6. Other

23 Where were you first admitted for delivery?

1. Home (skip no 25)
2. Midwifery hut
3. Health centre
4. Midwifery clinic
5. Hospital

24 Why did you choose that place ? (continue from no 23)

Reasons		
a. Close from home	1. Yes	2. No
b. Cheap / affordable	1. Yes	2. No
c. Friendly provider	1. Yes	2. No
d. Trustable provider	1. Yes	2. No
e. Husband/family decide	1. Yes	2. No
f. Relatives and friends recommendation	1. Yes	2. No
g. Fancy building	1. Yes	2. No

25 Was it same place of delivery which you planned during pregnancy?

1. Yes
2. No

26 Please specify place of delivery you had planned :

1. Home
2. Midwifery hut
3. Health centre
4. Private Midwifery clinic
5. Hospital

27 Was it a referral case?

1. Yes
2. No (skip to 27)

If yes, please specify where it refer to :

1. Midwifery hut
2. Health centre

3. Private Midwifery clinic
4. Hospital

AVAILABILITY & ACCESSIBILITY

28 What was the nearest maternal & child health care from your home which open 24 hours and could assit delivery ?

1. Midwifery hut
2. Health centre
3. Private Midwifery clinic
4. Public hospital
5. Private hospital

29 How did you reach there? (choose one)

1. Walk, take ..... Minutes
2. Vehicle, take ..... Minutes
3. Other :

30 How much was it cost to reach there ? ..... Rupiahs

31 Was it expensive for you?

1. Yes
2. No

32 Did you pay for delivery process?

1. Yes
2. No (skip to 34)

If yes, how much you paid? ..... Rupiahs

33 Was it expensive for you?

1. Yes
2. No

SATISFACTION WITH CARE

34 Where did you deliver in previous delivery? (more than 1 child)

1. Hospital
2. Health Centre
3. Maternity Hut
4. Private Midwefery Clinic
5. Home

35 Are you satistifed with the care in previous delivery? (more than 1 child)

1. Yes
2. No

Experiance for last delivering baby :

	Statement	Last Delivery
36	Did the provider do rapid response when you get in?	**1. Yes 2. No**
37	Could your husband or family stand by you during chilbirth process?	**1. Yes 2. No**
38	Was the delivery room clean ?	**1. Yes 2. No**
39	Was the administration & payment process simple ?	**1. Yes 2. No**
40	Were you satisfied with the service ?	**1. Yes 2. No**

41 Would you want to use the same place of delivery if you were pregnant again?

1. Yes
2. No

42 What makes you deliver to health facility if you were pregnant again? (The most)

1. Close from home
2. Cheap / affordable
3. Friendly provider
4. Family can stand by mother during delivery
5. Comfortable delivery room
6. Husband/ family decide

DECISSION MAKING, FAMILY & COMMUNITY SUPPORT

43 Who made the decision about place of delivery?

1. Self
2. Husband
3. Mother in law
4. Community leader
5. Health personell
6. Other

44 Were you consulted or asked about the place of delivery?

1. Yes
2. No

45 Wheather TBA be involved in decission making of place of delivery?

1. Yes
2. No

Did your community have a community support plan to assit with your last
46 pregnancy?

1. Yes
2. No (skip to 47)
3. Don't know (skip to 47)

If yes, please specify :

1. Transportation
2. Fund
3. Other

47 What birth preparedness did you have during pregnancy ?

a. Money : 1. Yes 2. No,
b. Transportation : 1. Yes 2. No,
c. Family care givers : 1. Yes 2. No,

KNOWLEDGE

48 Bleeding during pregnancy only endanger mother's live

1. Correct 2. Wrong

49 Mothers cannot work during pregnancy

1. Correct 2. Wrong

50 Normal labour process takes time less than 24 hours

1. Correct 2. Wrong

51 Mothers should reduce drinking, when they are swelling during pregnancy

1. Correct 2. Wrong

52 Vomiting mother in 6 months pregnancy is normal

1. Correct 2. Wrong

53 Bathing baby can be conduct after 6 hours after delivering

1. Correct 2. Wrong

54 35 years old pregnant mother has more risk than 25 years old pregnant mother

1. Correct 2. Wrong

55 18 years old pregnant mother has same risk as 25 years old pregnant mother

1. Correct 2. Wrong

56 Green and fishy odor amniotic fluid is sign that there is a problem in pregnancy

1. Correct 2. Wrong

57 Pregnant mother should check to health provider when she has difficulty of breath

1. Correct 2. Wrong

58 Mother cannot take any food and drinking during labour

1. Correct 2. Wrong

59 Unconscious after give birth need special treatment

1. Correct 2. Wrong

60 Amniotic fluid discharging at 7 monts pregnancy is a sign that mother does not active

1. Correct 2. Wrong

61 Active foetus make pregnant mother fever

1. Correct 2. Wrong

PERCEPTION ON SAFE DELIVERY

No	Statetment	Agree	Not Sure
	Perception on Safety		
62	Delivery is the natural process, no need medical care*		
63	Recognition of danger sign can avoid delay seeking care		
64	Experienced TBAs have the same skills as midwives and doctors*		
65	Money preparation before the delivery is important		
66	If there was no complication during pregnancy, delivery process will be easy.*		
	Perception on Benefit		
67	Delivery in health facilities will make safe outcome for baby		
68	ANC is not important for second pregnancy*		
69	Health provider who assist delivery must be competant		
70	Health provider in health centre must be stand by 24 hours		
	Perception on Barrier		
71	Family have to prepare millions rupiah for delivery in hospital*		
72	Husband cannot acompany mother during delivery in health facility*		
73	Cost for give birth in health facilities is not cheap*		
74	Delivery in hospital usually will not end up with easy delivery *		

APPENDIX B

Pertanyaan berikut ini untuk menggali informasi dari ibu tentang proses persalinan dan issue sekitar persalinan

Silakan lingkari jawaban atau tulis pernyataan dari responden

INFORMASI DASAR

1 Umur : ..... Tahun

2 Alamat Desa :..... Dusun: .....

3 Kapan melahirkan ? ..... (bulan/tahun)

4 Paritas

Berapa kali hamil ..... Kali

Berapa banyak anak yang masih hidup ? .....

5 Agama

1. ISLAM 3. PROTESTAN 5. HINDU

2. KATOLIK 5. BUDHA

6 Apakah ada keluarga lain yang tinggal serumah?

1. Ya 2. Tidak

7 Berapa penghasilan rata - rata perbulan ?

1. < Rp.300.000 3. Rp. 750.000 - Rp. 1.500.000

2. Rp. 300.000 - Rp. 750.000 4. > Rp. .500.000

8 Apakah masuk dalam Askeskin/Jamkesmas ? 1. Ya 2.Tidak

9 Berapa lama anda bersekolah ? ..... Tahun

10 Berapa lama suami anda bersekolah ? ..... Tahun

11 Apakah punya kendaraan pribadi ?

1. Ya 2. Tidak

Jika ya, sebutkan :

1. Mobil 2. Sepeda motor 3.Perahu

12 Apa pekerjaan anda ?

1. Ibu Rumah Tangga 4. Buruh 7. Nelayan

2. Bisnis 5. Petani 8. Lain-lain
3. Jasa 6. PNS

13 Apa pekerjaan suami anda ?

1. Petani 4. Buruh 7. Lain-lain
2. Bisnis 5. PNS
3. Jasa 6. Nelayan

RIWAYAT KEHAMILAN TERAKHIR

14 Berapa kali periksa selama kehamilan terakhir?

1. < 2 kali 3. 4 - 6 kali
2. 2 - 4 4. > 6 kali

15 Dimana periksa kehamilannya? (Paling sering & **hanya satu jawaban)**

1. Posyandu 4. BPS
2. Polindes 5. Rumah sakit
3. Puskesmas 6. Lain-lain

16 Apakah petugas kesehatan pernah menanyakan tentang rencana tempat bersalin Anda selama periksa kehamilan ?

1. Ya 2. Tidak

17 Siapa yang memeriksa kehamilan anda ? (Paling sering & **hanya satu jawaban)**

1. Dokter Obgyn 3. Bidan 5. Dukun
2. Dokter umum 4. Perawat

18 Apakah anda punya Buku KIA ?

1. Ya 2. Tidak

(periksa buku KIA-nya)

19 Apakah anda mempunyai risiko tinggi saat hamil terakhir?

1. Ya 2. Tidak (lanjut ke 20) 2. Tidak tahu

Jika ya, sebutkan :

1. Perdarahan 4. Ketuban pecah dini
2. Bekas SC 5. Demam 7. Janin bermasalah
3. Nyeri perut 6. Kelainan letak janin 8. Lain-lain

20 Apakah rumah anda ditempeli stiker P4K ?

1. Yes 2. No

RIWAYAT PERSALINAN TERAKHIR

21 Apakah ada penyulit selama proses persalinan ?

1. Ya 2. Tidak (lanjut ke 22) 2. Tidak tahu

Jika iya, sebutkan :

1. Perdarahan 3. Demam 5. Lain-lain
2. Partus lama 4. Eklampsi

22 Apakah ada penyulit pada bayi saat persalinan ?

1. Ya 2. Tidak (lanjut ke 23) 2. Tidak tahu

Jika iya, sebutkan :

1. BBLR 3. Infeksi 5. Gangguan makan
2. Asfiksia 4. Gangguan darah 6. Lain-lain

23 Dimanakah anda melakukan persalinan pertama kali ?

1. Rumah (lanjut ke 25) 4. BPS
2. Polindes 5. Rumah sakit
3. Puskesmas 6. Lain-lain

24 Mengapa memilih tempat tersebut ?

Alasan	Ya	Tidak
a. Dekat dari rumah		
b. Murah/ terjangkau		
c. Petugasnya ramah		
d. Pelayanannya dapat diandalkan		
e. Keputusan suami / keluarga		
f. Saran teman dan kerabat		
g. Gedungnya bagus		

25 Apakah tempat yang sama seperti yang anda rencanakan saat hamil ?

(lanjutan no 23 & 24)

1. Ya 2. Tidak

26 Dimanakah tempat bersalin yang anda rencanakan saat hamil ?

1. Rumah 4. BPS
2. Polindes 5. Rumah sakit
3. Puskesmas 6. Lain-lain

27 Apakah kasus ini dirujuk ?

1. Ya 2. Tidak (lanjut ke 28)

Jika ya, sebutkan tempat rujukannya :

1. Polindes 3. BPS 5. Lain2
2. Puskesmas 4. Rumah sakit

KETERSEDIAAN DAN KETERJANGKAUAN

28 Sarana kesehatan apa yang paling dekat dengan rumah anda yang buka 24 jam dan bisa menolong persalinan ?

1. Polindes 4. RS Pemerintah
2. Puskesmas 5. RS Swasta
3. BPS 5. Lain-lain

29 Bagaimana bisa mencapai tempat itu ? (pilih salah satu)

1. Jalan kaki / ditandu, ..., Menit
2. Naik kendaraan, ... Menit
3. Lain

30 Berapa biaya yang anda keluarkan utk transportasi ? ..... Rupiah

31 Apakah mahal ? 1. Ya 2. Tidak

32 Apakah anda harus membayar biaya persalinan?

1. Ya 2. Tidak (lanjut ke 34)

Bila iya, berapa yang harus dibayar ? ..... Rupiah

33 Apakah itu mahal ?

1. Ya 2. Tidak

KEPUASAN PELAYANAN

34 Dimana anda bersalin pada persalinan sebelumnya ?

(bagi ibu yang mempunyai anak lebih dari 1)

1. Rumah sakit 3., Polindes 5. Rumah
2. Puskemas 4. BPS

35 Apakah anda puas dengan pelayanan pada persalinan sebelumnya ?

(bagi ibu yang mempunyai anak lebih dari 1)

1. Ya 2. Tidak

Pengalaman pada persalinan yang terakhir

No	Pernyataan	Persalinan Terakhir	
		Ya	Tidak
36	Petugas kesehatan memberikan respon yang cepat ?		
37	Apakah suami atau keluarga bisa mendapingi selama proses persalinan ?		
38	Apakah ruang bersalinnya bersih ?		
39	Apakah proses adminstrasinya tidak rumit ?		
40	Apakah anda puas dengan pelayanan saat itu ?		

41 Apakah anda mau menggunakan tempat melahirkan yang sama bila anda bersalin lagi ?

1. Ya 2. Tidak

42 Apakah yang membuat anda bersalin ke fasilitas kesehatan bila bersalin lagi ?
(1 alasan terpenting)

1. Dekat dari rumah
2. Murah/ terjangkau
3. Petugasnya ramah
4. Keluarga bisa mendampingi selama persalinan
5. Ruang bersalin yang nyaman
6. Keputusan suami

PENGAMBILAN KEPUTUSAN, DUKUNGAN KELUARGA DAN MASYARAKAT

43 Siapa yang **<u>memutuskan</u>** dimana ibu bersalin saat itu ?

1. Saya sendiri
2. Suami
3. Orang tua / mertua
4. TOMA
5. Petugas kesehatan
6. Lain-lain (sebutkan)

44 Apakah anda dimintai pendapat untuk tempat bersalin ?

1. Ya 2. Tidak

45 Apakah dukun terlibat dalam pengambilan keputusan tempat persalinan ?

1. Ya 2. Tidak

46 Apakah ada P4K di desa anda ?

1. Ya 2. Tidak (lanjutkan ke 47) 3. Tidak tahu

Jika ya, sebutkan tentang apa :

1. Transportasi 2. Dana 3. Lain-lain

47 Persiapan persalinan apa yang anda lakukan selama kehamilan ?

a. Dana 1. Ya 2. Tidak

b. Transportasi 1. Ya 2. Tidak

c. Pengasuh keluarga 1. Ya 2. Tidak

PENGETAHUAN

48 Perdarahan pada kehamilan hanya membahayakan jiwa Ibu saja.

1. Benar 2. Salah

49 Sebaiknya ibu tidak bekerja selama masa kehamilan

1. Benar 2. Salah

50 Proses persalinan normal berlangsung selama kurang dari 24 jam

1. Benar 2. Salah

51 Bila terjadi bengkak selama kehamilan, maka Ibu harus mengurangi minum.

1. Benar 2. Salah

52 Adalah normal, bila terjadi muntah pada ibu hamil 6 bulan.

1. Benar 2. Salah

53 Bayi dimandikan paling cepat 6 jam setelah kelahirannya

1. Benar 2. Salah

54 Ibu hamil yang berusia kurang dari 18 tahun mempunyai risiko yang sama dengan usia 25 tahun

1. Benar 2. Salah

56 Air ketuban yang hijau dan berbau tanda bila ada masalah pada kehamilannya.

1. Benar 2. Salah

57 Ibu hamil harus memeriksakan diri ke petugas kesehatan apabila mengalami sesak nafas

1. Benar 2. Salah

58 Ibu sama sekali tidak boleh makan & minum pada saat persalinan

1. Benar 2. Salah

59 Tidak sadar pada proses persalinan adalah salah satu kondisi yang perlu penanganan khusus

1. Benar 2. Salah

60 Pecahnya air ketuban pada kehamilan kurang dari 7 bulan, tanda ibu kurang aktif bekerja selama hamil

1. Benar 2. Salah

61 Janin yang aktif menyebabkan demam pada ibu hamil

1. Benar 2. Salah

PERSEPSI TENTANG PERSALINAN AMAN

S : Setuju; TP : Tidak Pasti; TS : Tidak Setuju

No	Statetment	S	TP	TS
Persepsi tentang keamanan				
62*	Persalinan adalah proses alamiah, tidak perlu pertolongan medis			
63	Mengetahui tanda bahaya dapat mencegah terlambat mencari pertolongan			
64*	Dukun yang berpengalaman mempunyai kemampuan yang sama dengan bidan dan dokter dalam menolong persalinan			
65	Persiapan tentang dana saat kehamilan sangat penting			
66*	Jika tidak ditemukan penyulit saat kehamilan, proses persalinan akan lancar			
Persepsi tentang keamanan				
67	Bayi dari proses bersalin di sarana kesehatan pasti sehat			
68*	ANC hanya perlu pada kehamilan pertama saja			
69	Petugas kesehatan yang menolong persalinan harus kompeten			
70	Tenaga kesehatan di puskesmas & RS harus siaga 24 jam			
Persepsi tentang halangan				
71*	Keluarga harus menyiapkan uang jutaan rupiah untuk bersalin di rumah sakit			
72*	Suami tidak boleh mendampingi istri selama persalinan			
73*	Bersalin di sarana kesehatan mahal			
74*	Bersalin di rumah sakit biasanya berakhir dengan operasi			

APPENDIX C

Tables of interest that was not included in result

Table 4.30 Frequency and percentage distribution of mothers by socio-demography

Variables	Omben N = 112 (%)	Camplong N = 136 (%)	Total N = 248 (%)
Income			
< 300.000	30.36	51.47	41.94
300.000 – 750.000	35.71	37.50	36.69
751.000 – 1.500.000	19.64	6.62	12.50
>1.500.000	14.29	4.41	8.87
Covered by Insurance for the poor			
Yes	79.46	65.44	71.77
No	20.54	34.56	28.23
Pegnancy			
< 3	70.54	72.79	71.77
≥ 3	29.46	27.21	28.23
Mothers' education			
No education	5.36	11.03	8.47
Primary	61.61	57.35	59.27
Secondary and above	33.04	31.62	32.26
Husbands' education			
No education	6.25	8.82	7.66
Primary	55.36	63.97	60.08
Secondary and above	38.39	27.21	32.26

Table 4.30 Frequency and percentage distribution of mothers by socio-demography (cont.)

Variables	Omben N = 112 (%)	Camplong N = 136 (%)	Total N = 248 (%)
Income			
< 300.000	30.36	51.47	41.94
300.000 – 750.000	35.71	37.50	36.69
751.000 – 1.500.000	19.64	6.62	12.50
>1.500.000	14.29	4.41	8.87
Covered by Insurance for the poor			
Yes	79.46	65.44	71.77
No	20.54	34.56	28.23
Pegnancy			
< 3	70.54	72.79	71.77
≥ 3	29.46	27.21	28.23
Mothers' education			
No education	5.36	11.03	8.47
Primary	61.61	57.35	59.27
Secondary and above	33.04	31.62	32.26
Husbands' education			
No education	6.25	8.82	7.66
Primary	55.36	63.97	60.08
Secondary and above	38.39	27.21	32.26
Mothers' occupation			
House wife only	79.46	65.44	71.77
Work	20.54	34.56	28.23
Husband's occupation			
Self employee	61.61	88.97	76.61
Employee	38.39	11.03	23.39

Table 4.31 Percentage distribution of mothers of health financing by subdistricts

Variables	Omben N = 112 (%)	Camplong N = 136 (%)	Total N = 248 (%)
Paid for delivery			
Yes	19.64	62.50	43.15
No	80.36	37.50	56.85
Expensive			
Yes	36.36	45.88	43.93
No	63.64	54.12	56.07
Referal case			
Yes	23.21	11.76	16.94
No	76.79	88.24	83.06
Covered by insurance for the poor AND paid for delivery care			
Yes	11.11	88.89	25.28
No	88.88	11.11	74.72

Table 4.32 Percentage distribution of mothers' high risk pregnencies by sub district

Variables	Omben (%)	Camplong (%)	Total (%)	Of total respondents (%)
High risk pregnancy				
Yes	17.86	9.56	13.31	
No	82.14	90.44	86.69	

Table 4.32 Percentage distribution of mothers' high risk pregnencies by sub district (cont.)

Variables	Omben (%)	Camplong (%)	Total (%)	Of total respondents (%)
High risk pregnancy				
Yes	17.86	9.56	13.31	
No	82.14	90.44	86.69	
Type of risk :				
Bleeding	20	15.38	18.18	2.42
Post Caesarian section	10	30.77	18.18	2.42
Severe abdominal pain	5	23.08	12.12	1.61
Premature membrane rupture	0	15.38	6.06	0.81
Mal Presentation	15	0	9.09	1.21
Other	50	30.76	36.39	4.84

Table 4.33 Percentage distribution of obstetric and neonatal complications by sub district

Variables	Omben (%)	Camplong (%)	Total (%)	Of total respondents (%)
Obstetric complications				
Yes	24.11		20.97	
No	75.89		79.03	
Type of obstetric complication				
Bleeding	18.52	76	46.15	9.68
Obstructed labor	25.93	16	21.15	4.44
Fever	*3.70*		1.92	0.40
Eclampsia	11.11	4	7.69	1.61
Unconscious	40.74	4	23.08	4.84

Table 4.33 Percentage distribution of obstetric and neonatal complications by sub district (cont.)

Variables	Omben (%)	Camplong (%)	Total (%)	Of total respondents (%)
Neonatal complications				
Yes	9.82	6.62	8.06	
No	90.18	93.38	91.94	
Type of neonatal complication				
Low Birth Weight	36.36	22.22	30	2.42
Asphixia	36.36	22.22	30	2.42
Other	27.27	55.56	40	3.23

Table 4.34 Percentage distribution of MCH care by sub district

Variables	Omben N = 112 (%)	Camplong N = 136 (%)	Total N = 248 (%)
Same place as planned			
Yes	92.86	88.97	90.73
No	7.14	11.03	9.27
Nearest MCH care from home			
Public	99.11	61.76	78.63
Private	0.89	38.24	21.37
Place of ANC			
Health Facility	35.71	47.06	41.94
Posyandu	64.29	52.94	58.06
Frequency of ANC			
< 4 times	8.93	7.35	8.06
≥ 4 times	91.07	92.65	91.94

Table 4.34 Percentage distribution of MCH care by sub district (cont.)

Variables	Omben N = 112 (%)	Camplong N = 136 (%)	Total N = 248 (%)
Satisfied			
Yes	100	97.79	98.79
No	0	2.21	1.21
Wanted to use again			
Yes	87.50	91.91	89.92
No	12.50	8.09	10.08

Table 4.35 Frequency and percentage distribution of insurance for the poor

Variables	Number (n) = 178	Percentage (%)
Income		
< 300.000	79	44.38
300.000 – 750.000	73	41.01
751.000 – 1.500.000	18	10.11
>1.500.000	8	4.49
Paid for delivery		
Yes	45	25.28
No	133	74.72
Cost for delivery (n=45)		
<500.000	42	93
>500.000	3	7

Table 4.36 Frequency and distribution between income and husbands' occupations

Income	**Employee**		**Self Employee**	
	n=58	**%**	**n=190**	**%**
< 300.000	19	18.27	85	81.73
300.000 – 750.000	25	27.47	66	72.52
751.000 – 1.500.000	9	29.03	22	70.97
>1.500.000	5	22.73	17	77.27

Table 4.37 Frequency and percentage distribution of experience regarding previous delivery (for mothers who have been pregnant more than once)

Variables	**Omben (%)**	**Camplong (%)**	**Total (%)**
Place of delivery in previous delivery			
Home	21.31	42.31	33.09
Health facility	78.69	57.69	66.91
Satisfied with previous delivery			
Yes	86.89	66.67	75.54
No	13.11	33.33	24.46

Table 4.38 Frequency and percentage distribution of mothers' satisfaction who delivered at home in previous delivery.

Variables	**Number n = 46**	**Percentage (%)**
Satisfied in previous delivery		
Yes	13	28.26

Table 4.38 Frequency and percentage distribution of mothers' satisfaction who delivered at home in previous delivery (cont.)

Variables	Number n = 46	Percentage (%)
Satisfied in previous delivery		
No	33	**71.74**
Utilize health facility in last delivery		
Yes	39	**84.78**
No	7	15.22
Expectation on next delivery		
Close	19	41.30
Cheap	8	17.39
Friedly	5	10.87
Family can acompany	8	17.39
Clean delivery room	3	6.52
Husband decission	3	6.52

Table 4.39 Frequency and percentage distribution of mothers having more than one child and delivered at home in previous delivery and utilize health facility in last delivery

Variables	Number n= 39	Percentage (%)
Satisfied in last delivery		
Yes	39	100
No	0	0
Want to use same place again		
Yes	34	87.18
No	5	12.82

BIOGRAPHY

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