Early breastfeeding practice in West Sumatra, Indonesia : determinants and interventions for promotion

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INTRODUCTION

Children need adequate nutrition to become healthy which influence their growth and behavior development. The child nutrition during infancy and childhood periods has a fundamental role. If they get it right, they can survive during their lives. The only one and best nutrition in early infant lives is breast milk. Therefore, giving the baby breast milk as soon as possible after delivery is highly recommended. Every baby has right to get adequate nutrition and care including the correct nutrition after delivery (IBFAN, 2007).

Early initiation of breastfeeding defined as the first time for mother to breastfeed the baby after delivery. According to WHO (2006), within one hour baby after the baby is born is the best time for mother to start breastfeeding. The baby's sucking reflex becomes most active during this time. Early breastfeeding have many benefits, one of them is preventing neonatal and infant mortality thus impacts under five mortality (Unicef, 2007).

I am a nurse, although currently I am working for the school of nursing, in the previous 6 years I have been practicing mother and baby care unit and also in the community. During my practice in the hospital, particularly in delivery room, I often found practices which delayed early breastfeeding. Many health workers do not have the knowledge and skill about early breastfeeding practice. There are perceptions amongst health workers that infant feeding is more important. Waiting for mother's breast milk will harm the baby. However, many other determinants influence this situation. The determinants can come from the mother herself and her family, hospital guidelines even the national policy, etc. Therefore, a strong government program and clear intervention guidelines are needed to tackle the problem.

This thesis will be organized in sixth chapter. Chapter I will discuss the background information about the study site; Chapter II will outline the problem statement, objective and methodology; Chapter III will discuss various determinants influencing early breastfeeding practice; Chapter IV will discuss various interventions on early breastfeeding implemented in Indonesia and other Low Middle Income Countries (LMIC); Chapter V is the general discussion and Chapter VI will provide conclusion and recommendation.

CHAPTER I BACKGROUD INFORMATION

This chapter will explain background information about Indonesia and West Sumatra. The background information will cover: geography, demography, social-economy and education situation of the study site as well as health system and policy information.

1.1. GEOGRAPHY

Indonesia is a developing country located in Southeast Asia and is the largest archipelago in the world. It has diverse cultures and customs. Indonesia covers an area of 1.919.440 sq km. The Minangkabau ethnic which is the majority and also the endogenous ethnic group in west Sumatra province is count for 2.7% of all ethnic groups in Indonesia. About 86% of the population of Indonesia are Moslem (Indonesian Health office, 2005), the Minangkabau ethnic is also largely are Moslem (Wes Sumatra CBS, 2006). (See annex 1 for maps of country of Indonesia)

Since decentralization policy was enacted in 2001, the number of province and districts/municipalities has increased in Indonesia. Nowadays, Indonesia is divided into 33 provinces including the province West Sumatra. West Sumatra province is located on the island Sumatra. West Sumatra has a total area of 42.899 sq km which is divided into 12 districts and 7 municipalities (West Sumatra CBS, 2006). Padang is the capital city of the province. (See annex 2 for maps of country of Province West Sumatra).

1.2. Demography

The total population of Indonesia is 218.086.288. Indonesia has the fourth largest population in the world after China, India and the United States. The population in the rural area is higher than the urban area. The percentage of the population in the rural area is 56.88% and for the urban area it is 43.12%. The age composition of the population is as follow: 0-14 years are 29%, 15-24 years are 18%, 25-59 years are 45% and the age of 60 years and above are 8%. The estimated rate of the population growth is 1.175%. The male population is basically relative in balance with the female population with a sex ratio of 100: 101.1(Indonesian Health Profile, 2005). The life expectancy for male is 66 years and for female is 69 years (WHO, 2008a).

In 2005, the total population in West Sumatra was considered to be 4.555.810 with a population growth of 1.49%. The population density in the province is 106 head per Km^2. The population in the rural area is higher than the urban area, with 64.31% of the population living in rural area. The sex ratio between male and female was 100:98. The life of expectancy in 2003 for male was 64 years and for female was 68 years. The total number of

female within reproductive age (between 15 to 45 years old) is 1.087.235 (CBS West Sumatra, 2006).

1.3. Socioeconomic Situation and Education

Indonesia is categorized as a lower-middle-income country. The national income per capital was US $1280 in 2005 (WHO, 2008c). There is an increase in total income percapita compared to the time before the economic crisis in 1997, which used to be US $1063. From 1990 until 2005, the proportion of population living below US $1 a day was 7.5% and below US$ 2 a day was 52.4% (UNDP, 2008). Therefore, poverty remains a big problem for Indonesia. Indonesia has developed its own national poverty indicator, based on that in the year 2007 the proportion of population who live below the national poverty line was 37.2 million (16.58%). While, in West Sumatra, 11.90% of the population is living below the poverty line. The highest percentage of poverty is in the rural area (MoH, 2007).

According to the National Socio-economic Survey, poverty is measured by Food Poverty Line (FPL) and a Non Food Poverty Line (NFPL). Regarding proportion of employment, about one third of the total population in Indonesia is employed and 30% of those who are employed are women. Most women are working as servant or private employee (MoMT, 2008).

The Human Development Index (HDI) in year--- which reflects on the basic human capabilities (Life expectancy, educational attainment, literacy and income) in Indonesia was 69.6 and in West Sumatra was 71.2. The HDI in West Sumatra was ranked number 9 out of the 33 provinces in Indonesia. The literacy rate in Indonesia is 90.9% while in West Sumatra 96.0%. The literacy rate for men is 97.23% as for women it is 94.62% (CBS, 2008). Most people with a certificated education in Indonesia are graduated from primary school (32.34% of all graduation level across educational level). In West Sumatra the primary education graduation level for urban and rural area are the same which is 25%. The percentage of people who have had certificated education of senior high school or higher in West Sumatra is 26.27% (Indonesian Health Profile, 2005).

1.4. Health System and Policy

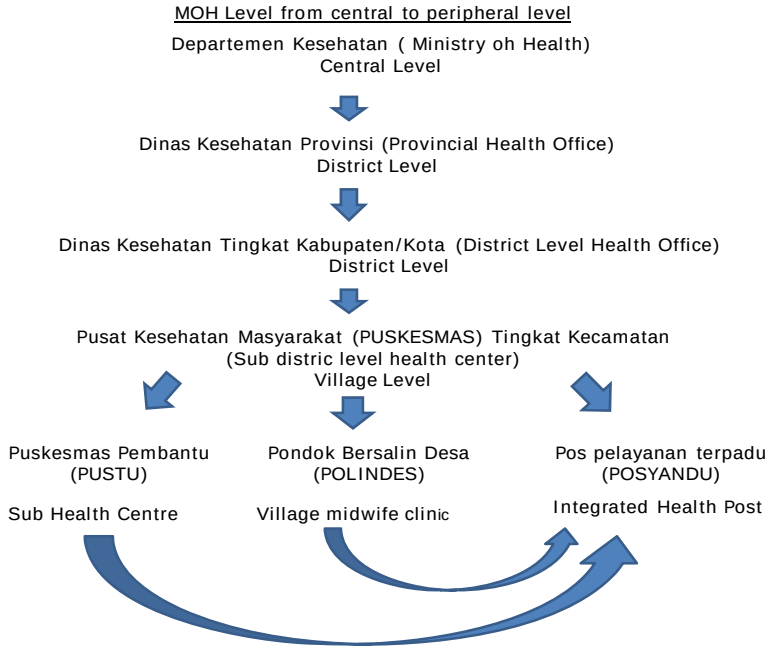
Decentralization is implemented in Indonesia since the year 2001. This was implemented in the Health sector as well. After decentralization began in Indonesia, each district has the responsibility for implementing their health program and services in their own area, this role including the financing and budgeting function. In the other hand, the responsibility of the national government limited on providing policy guidance and setting up various standard and also epidemic control (Indonesia health profile, 2005).

The health sector in Indonesia is divided into public sector and private sector. Each province in Indonesia including West Sumatra has its own health office and referral hospital which is also the teaching hospitals. In each district there is a district health office as well as a district hospital. In sub districts, there is at least one primary health centre (puskesmas) (reference).

There are Health Posts in each village which provides preventive services and health promotion. One health post covers about 50-100 households. Health posts support the health paradigm which was introduced by the government in the year 1998. The focus of health paradigm lies on health promotion and prevention of diseases rather than curative and rehabilitative (reference)

Besides the public health sectors there are also many private practitioners (traditional healer, professional health workers), clinics and hospitals in the operating in health care sector. These clinics and hospitals in the private sector should also support and promote health paradigm, (Indonesia health profile, 2005). The following (figure 1) organogram will show the arrangement of Indonesia Health System care

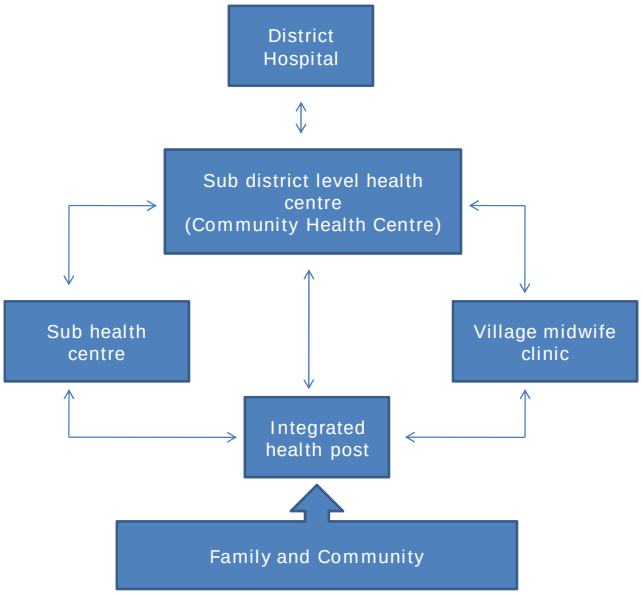
Figure 1 Organizational Structure of Health System



(SEARO, WHO, 2008)

In each province in Indonesia there is as child health program integrated within the mother health program, this program is named Mother and Child Health program. In this program, the family and community have the responsibility for early detection. This program also target on promotion of healthy practices such as the breastfeeding practice (Figure 2).

Figure 2 Mother and Child Health System Services



(MoH, 2008a)

CHAPTER II PROBLEM STATEMENT, OBJECTIVE AND METHODOLOGY

This chapter will explore the core of the problem in problem statement; it will also outline study question, objective (general and specific objective), methodology, and study limitation.

2.1. Problem Statement

Initiation of breastfeeding is defined as the first time when the mother breast feeds the baby after the delivery. In 1991, WHO advised mothers to breast feed the baby within a half hour after the birth, this is part of the program on 'ten steps to successful breastfeeding'. In 2006 there was a change in this program, WHO recommended mothers to initiate breastfeeding within one hour after delivery. WHO revised this program based on evidence from research in many countries (WHO, 2006). Early breastfeeding is related with neonatal morbidity and mortality.

There are 130 millions babies are born every year in the world, where 4 million of them are dying in the first month of live. From those 4 milion, 99% is living in low-middle income countries (LMIC). Yearly, around 1.1 million neonatal died because of sepsis, meningitis and pneumonia which can be prevented with early breastfeeding (UNICEF, 2007., Lawn, 2005). This fact is supported by a study done by Edmond in Ghana. She studied 10947 breastfeed singleton infants which were born in the period of July 2003 to June 2004. She found out that early breastfeeding in one hour after delivery can reduce 22% of all causes of neonatal mortality (Edmond, 2006). A correlation study done by Mullany on 23662 mothers who delivered between August 2002 and January 2006 in Nepal also show that breastfeeding in one hour after birth could prevent neonatal deaths up to 19%. Low birth weight and prematurity are the most important confounding factors found the correlation study mentioned (Mullany, 2008).

37% of all under-five Mortality Rate (U5MR) is due to mortality during neonatal period (UNICEF, 2007). The national NMR in Indonesia based on the Demography and Health Survey (DHS) 2002-2003 that cited in Indonesian Health Profile (2005) was 20 per 1000 live births. As the IMR was 35 per 1000 live births and U5MR was 46 per 1000 live births. In West Sumatera, the NMR was 26 per 1000 live births, IMR was 48 per 1000 live births and U5MR was 59 per 1000 live births. This rate is higher compared to the national rate. Indonesia has a target to decrease the U5MR to 26 per 1000 live births to attain the Millennium Development Goals (MDGs) in 2015 (MOH, 2008). The progress to achieve the target is slow since it also incorporated within the healthy Indonesia 2010 strategy (MOH, 2003).

Infection is the most common cause of neonatal morbidity and mortality in Indonesia, thus can be prevented with early breastfeeding. Delaying breastfeeding can increase the risk of infection (Huffman, 2001). A study in Ghana show that a neonatal which is not being breastfed within one hour after delivery is more likely to die because of infection compared to those who are breastfed. Ninety three neonates died because of infection out of one hundred forty neonates during the second day, this went up until twenty neonates on the eight days. The overall delay of breastfeeding after the first day was associated with a 2.6 time increase in risk (Edmond, 2006). Iswarati (2007) has done a research in Indonesia concerning Demography and a Health Survey 2002-2003. The conclusion of this research was breastfeeding is one of the most frequent factors relate to neonatal, infant and under five mortality.

Early breastfeeding is important for the baby's growth and development. It also increases the baby's antibody, which further will protects the baby from diseases and mall nourishesment. Therefore, early breastfeeding can be considered as a key for child life survival (Edmond, 2006., IBFAN, 2007). Soon after delivery the birth attendance should place the baby on the mother's chest and assist the baby in sucking the breast milk from the mother. Skin to skin contact between the mother and baby immediately after delivery also facilitates initiation of early breastfeeding. The baby feels comfort and safety with skin to skin contact with their mother during the first moments of life. It also makes the mother-baby relationship stronger (Awi, 2006). Apart from this, skin to skin contact also has the benefit of a better thermal regulation. The temperature in the uterus environment of the mother is warm. If the birth attendance does not assist the baby in the similar temperature—which can be obtained through skin to skin contact--the baby could suffer from thermal trauma after delivery. By sucking the mother's breast the body temperature of the baby will increase (UNICEF, 2005). Therefore, early breastfeeding will also prevent the baby from hypothermia and hypoglycemia which can occur after child birth (Huffman, 2001).

Colostrum is a sticky and yellowish substance which the mother produces in a short first time after the delivery. Colostrum looks diffrent with mature milk and is rich of protein and immunoglobulin. It is lower in fat and lactose, therefore colostrum is needed to protect the baby from infection and important for the baby's prosperity (Myles, 1999., Bobak & Jensen, 2000; Lang, 2002; Sidi, 2004).

The benefit of early breastfeeding is beyond the baby, but also for the mother, family and the country (Lang, 2002). The benefit for the mother is that by sucking the mother's breast, it will stimulate ocxitocin hormone in

the hipofisis, which eventually could help accelerate uteri involution and prevent postpartum bleeding. Postpartum hemorrhagic some times are associated with delayed early breastfeeding. Early breastfeeding can also facilitate placental delivery (UNICEF, 2007).

Bobak and Jensen (2000) claim that early breastfeeding after delivery stimulates the mother's breast milk production, because the hipofisis makes prolactin which is necessary for breast milk secretion in earlier stage. Also at this time, the baby is ready for feeding especially because the baby's already has stronger sucking reflex. For the family, breastfeeding is a cost effectiveness nutrition source. The family can save money because breast milk is for free. The baby which is breastfed early is rarely gets sick, which of course will decrease the cost of medicine and nursing expenses. The benefit for the country would be the benefit of decreasing neonatal and infant morbidity and the under-five mortality rate. It also will increase the quality of the next generation, because the children are breastfed will grow and develop more optimally (MOH, 2006).

The duration of breastfeeding will be longer if the mother initiate the breast feeding earlier, such as within one hour after delivery (Sinusas, 2001). The breastfeeding will be successful if it is followed by the desire of the mother, therefore mothers should have self confidence to breastfeed. (GUPTA, 2007., Sinusas, 2005). Early breastfeeding influences exclusive breastfeeding until up to 6 months.

Many countries over the world do not have a report about early breastfeeding practice. IBFAN ASIA has tried to collect data about early breastfeeding in some countries during 2006 and 2007. The IBFAN ASIA collected data by providing a card to the already contacted countries to report early breastfeeding data. The data was pooled based on a national data basis. This activity done during the period World Breastfeeding Week celebration (WBW) in 2007 with the theme: 'Breastfeeding in the first hours will save 1 Million babies'. Sixty two countries did have a report including Indonesia. The IBFAN collected data from all provinces in Indonesia and calculated the average afterwards. Indonesia was ranked number 38 out of 62 countries in early breastfeeding rate. The rate of early breastfeeding in Indonesia is 39%. Norway has the highest percentage with 95% and Cambodia has the lowest percentage with 11% (IBFAN, 2007). The rate of early breastfeeding in Indonesia was higher compared to Demography and Health Survey (DHS) in 2002-2003. The rate of early breastfeeding practice in the DHS was 37% both in rural and urban area.

In 2002, Pee in collaboration with Hellen Keller worldwide has done a nutrition and health surveillance among 6080 mothers in West Sumatera.

This study found out that only 13% of the mothers gave early breastfeeding to their baby in the rural area and about 7-14% in the urban area. The other conclusion based on the study was that 20% of the mothers still did not give any breastfeeding especially in the rural area. According to Indonesia's Health Profile in 2005, both Urban and Rural area in West Sumatra had a rate of early breastfeeding of only 21%. This rate was slightly increased in 2007, from a total of 102.829 babies which were born and remained alive, around 40% of the mothers gave early breast feeding to the baby within one hour after delivery (West Sumatra Health Province Report, 2007). Nevertheless this data is more likely to be overestimated. According to my own experience during my practices in the hospital, community health centre and a private clinic, I often found the practices actually did not happen. Only small proportion of mothers actually breastfed their baby within one hour after delivery or that the baby was put on the chest of the mother, which is an indication of early breastfeeding.

According to the above explanation and consider that 'Healthy Indonesia 2010' will be due within two years, it is important to improve neonatal survival. This is also an important step in order to reach the fourth goal of MDGs. Many research proved that early breastfeeding practice is one of the most important ways to increase neonatal health status and to prevent mortality. However, the rate of early breastfeeding in West Sumatra is low even lower then national rate, while in the other hand the NMR and IMR are high. Compared to other countries in IBFAN survey, the rate of early breastfeeding in Indonesia is low. The government is not capable to solve the problem by themselves in order to achieve 'Healthy Indonesia 2010' and the MDGs targets. The government needs support from the community. The interventions will be successful if there is a good collaboration between the government and community with the goal to solve the problem and to implement the program. Therefore the author is interested to study about the determinants of early breastfeeding, but also to review the intervention in Indonesia especially in West Sumatra.

2.2. Study Question

- What are the determinants which influence early breastfeeding practice in Indonesia and in other countries?
- What are the interventions to promote early breastfeeding practice in Indonesia and elsewhere in Low Middle Income Countries (LMIC)?
- What should be done to improve the early breastfeeding practice in Indonesia particularly in West Sumatra?
- How to develop the recommendation, which will assist on improving early breastfeeding practice in Indonesia and especially in West Sumatera?

2.3. Objective (General and Specific)

General Objective

The overall objective of this thesis is to identify the determinants related to early breastfeeding practice and to review available interventions. This will help the development of recommendations to improve the situation in West Sumatera, Indonesia.

Specific Objective

a. To describe the existing situation of early breastfeeding practice in Indonesia, particularly in West Sumatra.
b. To describe determinants which influence early breastfeeding practice in Indonesia and other countries
c. To make an inventory of interventions on improving early breastfeeding practice in Indonesia and other Low Middle Income Country (LMIC)
d. To reflect upon these interventions about their applicability in West Sumatra
e. To develop recommendation in which will assist on improving early initiative of breastfeeding in Indonesia.

2.4. Methodology

The methodology in this thesis is literature review.

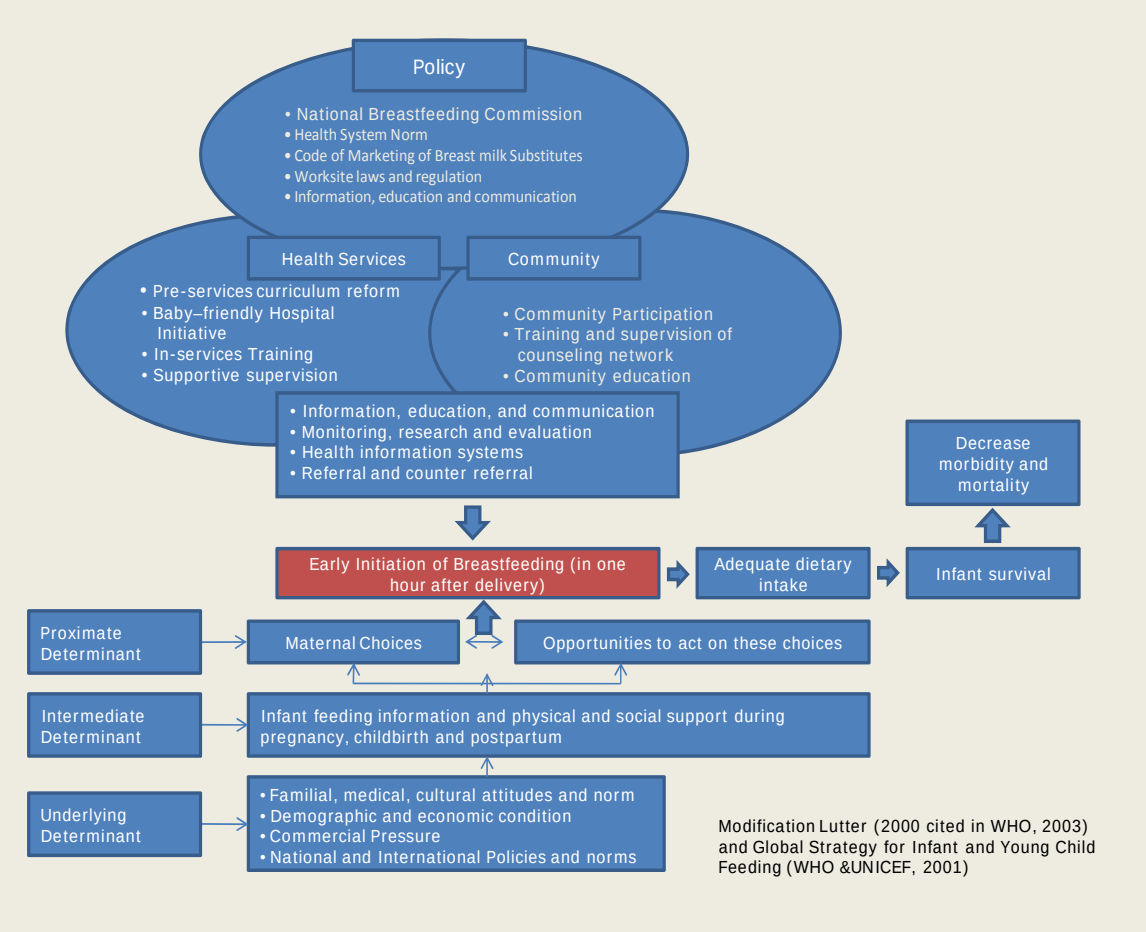
The data is gathered trough searching on public health reports of WHO, Unicef, MOH in Indonesia, CBS in Indonesia and West Sumatra, UNDP, and IBFAN. The search strategy for other collected data, especially scientific literature is done using pubmed portal. Keywords applied in the searching process are: early breastfeeding, breastfeeding initiation, breastfeeding promotion, neonatal mortality, infant mortality, under five mortality, promotes breast feeding, health education, existing programs, determinant, socio-economy, education, socio-culture, health care, formula milk, Baby Friendly Hospital Initiation (BHFI), with single word or combination word.

Information about early breastfeeding in West Sumatra was collected trough an interview with coordinator of mother and child health program in West Sumatera. Further many personal experiences during my practice working in the mother and health care unit in the health services and in the community are also used.

Conceptual Framework of Early Breastfeeding

The model below (figure 3) will be used as the conceptual framework in assessing the early breastfeeding parctices in this paper.

Figure 3: Conceptual Framework on Early Breastfeeding



Based on scientific evidence from many studies neonatal morbility and mortality rate can be reduced by early initiation of breastfeeding. Many determinants are influencing the practices of early breastfeeding. The Lutter (2000) list of determinants is the one use in this paper. In order to assess the intervention on early breastfeeding the author use Wellstart International framework (1996, cited in WHO, 2003) which devide the intervention into four group. These interventions are based in the community. WHO (2003) recommend the developing countries to implement it. The intervention are in policy, health services, community and Information, Education and Communication(IEC).

2.5. Study Limitation

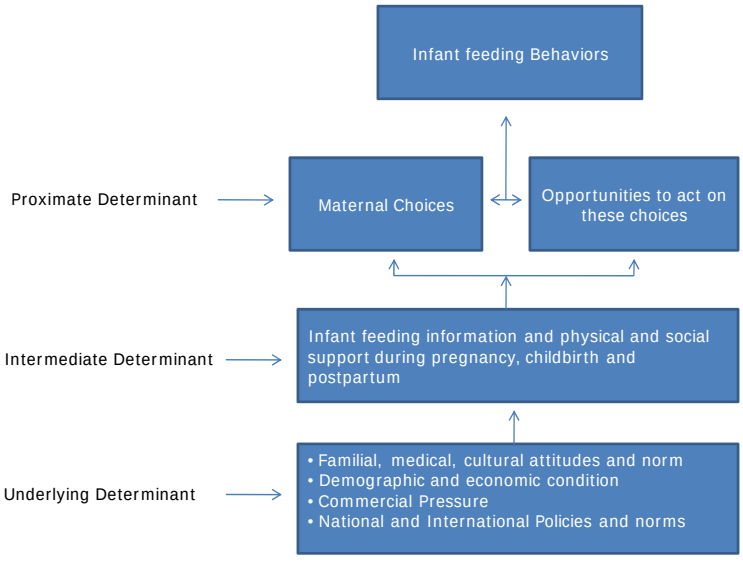
There are some limitations within this study. The access to non-English and Indonesian literature is limited about early breastfeeding practices in Indonesia and other low middle income countries; therefore the author include studies from high income countries as well. This action limits the generalization of result found from the high income country, which further will need some adjustment.

CHAPTER III DETERMINANTS OF EARLY BREASTFEEDING

This chapter will describes about the determinant of early breastfeeding according to Lutter's framework in 2000

According to Lutter (2000) many factors have an influence on the mother to make the decision to give breastfeeding. Lutter's framework will be used in this chapter to discuss the determinant of early breastfeeding (figure 4). The determinants are divided in three levels. The first level is social, physical and policies factors, which consider as the underlying determinants. This level directly based on the mother's personal experience. It is influenced by cultural practices and national policies, which eventually persuade the mother to give breastfeeding practice. The second level are intermediate determinants like; acceptance, encouragement, timely and salient information about breastfeeding. In this level the mother has the knowledge about breastfeeding, but also need physical and social support during perinatal periods (pregnancy, childbirth and post-partum). Social support consist of emotional, informational and education (Raj, 1998). The last level is the proximate determinant. In the last level, it is the mother which has the choice to make the decision for breastfeeding based on intermediate and underlying determinants. Some of the factors can be changed, while other factors cannot or just slightly.

Figure 4 Model of Determinants of Breastfeeding Behavior



(Lutter , 2000)

3.1. Proximate determinant

Mother should choose and make the decision about breastfeeding practice, which then followed by action. The mother also looks at the opportunity on the choices. The opportunity to act on these choices such as, a baby born from mother with HIV(+)/AIDS. The mother choice will always depend on the intermediate and underlying determinants (Lutter, 2000).

3.2. Intermediate Determinant

3.2.1. Infant Feeding Information

The accurate information about breastfeeding will help mother to make the decision to breast feed the baby. The information of infant feeding can be given through media (electronic and print) and education (WHO, 2003). Educating the mother about early breastfeeding should start before pregnancy or during pregnancy and antenatal care (Sinusas, 2005). Mothers need support to learn practical skills to breast feed the baby (Marshall, 2007). Health workers should have accurate knowledge about breastfeeding, as well as good practical skill. Arora (2000) and Kerr (2007) conclude that education is not only for the mother, but for the family as well especially father and grandmother. Support and information about breastfeeding practice also can be given by community health workers trough home visit (Kronborg, 2008).

Information and knowledge about breastfeeding are the strongest to influence mother on taking the decision for early initiation and the duration of giving breastfeeding (Shirima, 2001). Providing information about early breastfeeding and the benefits in the community are important this decision making process (Edmond, 2006). The accessibility to breastfeeding information is important for the mother, particularly access for people with the right skills and ability to support breastfeeding (WHO, 2003).

In Indonesia including in West Sumatera, a health professional supposed to educate the mother about breastfeeding since the start of antenatal care. Unfortunately not all of the health workers are doing this, because of poor knowledge on breastfeeding practices. Based on interview with the coordinator of the mother and child health program in West Sumatera, it was confirmed that health workers do give information about breastfeeding during antenatal care, but only to mothers. The information given to the mother is not comprehensive since it is not concerning the benefits of early breastfeeding. No information is given about effects of neglecting early breastfeeding or about nutrition related to increase production of breast milk after delivery. Furthermore, the time constraint also plays a role as they have to attend a lot of patients at the same time therefore they do not have enough time to educate the mother.

Information on breastfeeding is also given through media (electronic and print). The information mostly are available in the internet but rarely in television and radio. Print media such as newspapers, magazines and posters are also important mean. This approach is supported by the high literacy rate in West Sumatra: 96% (Indonesian Health profile, 2005).

3.2.2. Social and Physical Support

Raj (1998) claims that social support for breastfeeding is divided into informal and formal support. Informal support is described as support from the partner (husband), family members and friends. Formal support is the support given by professional such as health care professionals and lactation consultants. According to WHO (2003), the mother needs people who are able to encourage the breastfeeding practice. Most likely these people are the partner (husband), family, community, and also skilled practical (trained health workers, lay and peer counselors, and certified lactation consultants for initiation breastfeeding). Scoot (2006) mentioned psychosocial support is an important factor for initiating breastfeeding besides parental attitude.

Family

The strong dominated social support comes from the family, especially the husband. Study done by Duong (2004) in Vietnam found out that the husband and grandmothers of the husband and the mother have a strong effect to encourage the mother for breastfeeding practice, including early breastfeeding. Nevertheless not all husbands have a good attitude to support the mother to breastfeed. By all means the husband will support and influence the mother concerning breastfeeding if he has good knowledge about it (Lawrence, 2004). In Malawi the grandmother has the power as a decision maker for the breastfeeding practice (Kerr, 2007). Study among a Vietnamese refugee mother in Australia done by McLachlan (2006) explained that most partner has a negative attitude about breastfeeding mainly colostrums. The partner has limited knowledge about the health benefits of colostrums, therefore the partner proposes the mother to give formula milk to their baby.

Study among urban the predominantly African-American population found out that the mother deals with breastfeeding in relation with social behavior influenced by father, family and friends. The method of infant breastfeeding is mostly influenced by the father and family. Lack of knowledge of the mother is a barrier for influenced breastfeeding; therefore the role of the husband becomes important. The husband which has knowledge about breastfeeding will encourage the mother to breastfeed. As a result the mother will feel comfortable and convenient during the breastfeeding practice (Rose, 2004).

Study by Vari (2000) in the United Stated explained that the assistance from professionals is needed to mediate the peer group as a social support to influence early breastfeeding practices. The peer group can be defined as husband, mother, partner, etc. Social support also has effect on the satisfaction to breastfeed and the duration of breastfeeding.

In West Sumatra where the Minangkabau forms the major ethnic group, the husband in this population has a superior position even though the line of is matrilineal (on mother way). Health and education is mainly the mother's responsibility. In the other hand the husbands just focus on the job and hobbies. The decision maker in the family is remains the husband, which considered to be his right. Usually if a decision should be made concerning a health issue, the husband always asks the mother, discuss it together and make a decision together. When it is about breastfeeding practice, both father and mother need the grandmother's advice in order to make a decision, especially for primiphara (women having the first child). Usually the grandmother is the most dominant person in making the decision on breastfeeding. Other family members and friends just give some advice to the mother. For the practice of breastfeeding, the mother remains in need of support from the people surrounding such as the husband, family, friends and the community.

Health Professional

Support from health workers is also an important factor for early breastfeeding. Study in the United Kingdom (UK) by Earle (2002) found out that mother often initiate breastfeeding because of early contact with health professionals during their pregnancy. Health workers give information about the benefits of breastfeeding, but the decision is still lays with the mother them self. Therefore sometimes good knowledge about breastfeeding is not always followed by the right practice.

Health professional also is major factor to influence the decision of the mother concerning early breastfeeding. It is one of the reasons why health workers should be able to give health education during antenatal care to the mother. Breastfeeding education during the antenatal period is crucial and extremely important. Health workers including the physician should anticipate the barriers of breastfeeding such as; lack of support from the family (including husband), concern to go back to work, breastfeeding in public and concern about the body image (Meyers, 2001).

Knowledge, skills and the attitude of health workers are important in order to support the breastfeeding practice including early breastfeeding. The health worker should have accurate knowledge about breastfeeding. The knowledge can be obtained through formal education. If the health worker

has good knowledge about early breastfeeding, this knowledge together with appropriate skills could lead to a good attitude toward early breastfeeding support. Study by Marshall (2006) in England found out that health professionals do not have similar sources concerning the knowledge of breastfeeding. The obtained knowledge comes from formal and informal education. For instance out of their own experience as a mother, as midwife or health visitor, training, continued education, reading professional journals, personal research, policies and guidelines.

In Indonesia, particularly in West Sumatra not all of health worker have the sufficient knowledge and skill about breastfeeding, especially about early breastfeeding. Based on the interview with coordinator of the maternal and child health program, in West Sumatra most of health workers do not know the recommended time for early breastfeeding. The time of early breastfeeding was revised by WHO in 2006.

According to the health workers view, early breastfeeding should take within half an hour after delivery. Therefore there is a perception that the time is too limited to start early breastfeeding, which is not true. This miss perception can lead to impatience attitude among health workers which hinder their willingness and ability to initiate early breastfeeding.

In the other hand some of the health workers are often confused about the definition of early breastfeeding. Which lead to the opinion that early breastfeeding is the first time the mother breastfeed the baby and it should not only be within one hour after the delivery.

Health Services

The setting where the women delivers the baby also impact on early initiation of breast feeding (Foster, 2007). The health services or hospitals which have accreditation on Baby Friendly Hospital Initiation (BFHI) are usually good in practice of early breastfeeding. One of the ten steps of BHFI is to encourage the mother to start breastfeeding within one hour after delivery (McLachlan, 2006). Foster (2007) said based on literature study, BFHI has a strong impact on influencing early breastfeeding practice in health services. Awi (2006) claims that more than one assistant during delivery has positive effect for the initiation on early breastfeeding.

However, delivers the baby in the hospital, is not guarantee that the baby will be breastfed right after delivery. Many routine nurseries in hospitals obstruct the early initiation breastfeeding practice. The routine nurseries are weighing and measuring the infant, giving of vitamin K and ocular antibiotic (Lawrence, 2001). Based on my experience, there is still hospital do similar nursery routine activity after baby born in West Sumatra. These activities

occasionally need more time than one hour. Study by Scott (2006) done in Scotland found out that nursery routine after delivery often delays early breastfeeding and influences the mother to not give exclusive breastfeeding in time of hospital discharge. In other countries such as Tanzania, bathing the newborn soon after the delivery is a common practice until nowadays. Besides the fact that this is delaying early breastfeeding, it also could harm the baby by increasing the risk of hypothermia (Thairu, 2008).

Duong (2004) did a study in Vietnam and found out that mother which deliver the baby in a district hospital or community health centre have a better practice on early breastfeeding compared to mother which deliver their baby at home with the help of traditional Birth Attendance (TBA). The study also mentioned that mother who gave early breastfeeding also tend to continue breastfeeding until six months (exclusive breastfeeding).

Nutrition and Health Surveillance which is done by Pee in collaboration with Helen Keller (2002) in Indonesia in West Sumatra found that more than 50% of the mothers delivered their baby at home in the rural area. Where as 50% of the mothers delivered at a midwife's house in the urban area. In the 2007, around 80% of babies were born in health facilities, especially in private clinics (midwives house), Community Health Centers (puskesmas), and Health Post Services (Polindes) with a skilled birth attendance. Mother delivers their baby in the hospital usually only if either mother or the baby has a complication. 20% baby birth took place with the help of a traditional birth attendance (TBA) (West Sumatra Health Province Report, 2007).

3.3. Underlying Determinant

3.3.1. Medical

There are two types of delivery, normal vaginal delivery and cesarean delivery by a surgical operation. The cesarean delivery takes place due to medical problem of the mother or the baby. Normal delivery is when the baby is born spontaneous or with induction, episiotomy or by the use of vacuum extraction and forceps trough the vagina. Mother who delivers the baby spontaneously has the tendency to breast feed the baby as soon as possible after delivery (referency). This is supported by a study done in Nigeria by Awi (2006) The study found that mothers who delivered the baby by vaginal has the intention to give early breastfeeding. Similar findings also found by a study done by Duong (2004) among Vietnamese mothers. The study found out that the rate of early breastfeeding was higher among mothers with a vaginal delivery compared to mothers with the delivery by a cesarean operation.

The mother which delivers the baby with induction, medication and long labor has less intention to breastfeed their baby. The mother tends to delay breastfeeding due to tiredness. This is very common among mothers who gave birth with cesarean operation. The mothers will have the feeling of pain and discomfort after the operation (Kelleher, 2006). In Nigeria no mother gave early breastfeeding after delivering the baby by a cesarean operation, general or spinal anesthesia correspondingly (Awi, 2006). Based on my own experience, in West Sumatra, delayed breastfeeding also occurs amongst mothers who deliver by a cesarean. After birth most of the health workers take the baby to the neonatal unit without facilitating the babies for early breastfeeding.

Study in Canada found that some of the mothers which deliver their baby for the first time do feel more painful than mothers with a second deliverance, this also due the fact of less experience. If a mother is not able to tolerate pain during the delivery, the chance will be greater that she will delay the early breastfeeding. Besides most primiphara do not have the confidence to breastfeed their since it is their first experience (Kelleher, 2006). In Europe, the mother will breast feed the baby quickly after the delivery if they have successfull experience with breastfeeding in the past (Yngve, 2001).

3.2.1. Familial, Cultural Attitude and Norm

Some cultures in Asian countries believe that colostrum is not healthy. So, they do not give the colostrums to the baby which is often the reason why they delay the early breastfeeding. Study done by McLachlan (2006) among Vietnamese women who migrated to Australia found most of them did not give the colostrum because in their value, colostrum is not good for the baby. Then, they also do not know about the health benefits of colostrum. In the other hand, mother do not practice breastfeeding, it is one kind of effect on modernization in health attitude. This fact is supported by study done by Abada (2001) among Philippines mother. Decision to initiate breastfeeding is often due to change of lifestyle. Effect of modernization influence mother to adopts the western behavior such as the use formula milk for baby feeding especially among younger mother.

Breastfeeding practices are strongly mediated by norms and value in the community. Kasnodiharja (1998) reported in Indonesia, the norms and values that exist in the community influenced mother to breastfeeding or not. Low breastfeeding practice including early breastfeeding is also influenced by some perception growing in the community such as there is similar quality between formula milk and breast milk, the breast will not look good anymore, breastfeeding is out of fashion, and formula milk is a symbol of modernization. Based on my own experience, about the other perception of culture, the community think that is not important to give the baby breast

milk earlier because most of the breast milk is not coming up yet right after delivery.

Generally in Indonesia and also in West Sumatera, in some remote and rural area, the people is still practice to give water, water and sugar or honey to the baby before the mother give breast milk to the baby. The grandmother is also having power to influence that based on their experience especially in rural area. Based on interview with two midwives in West Sumatra, the reason for delaying early breastfeeding is the baby should be fasted in six hours after delivery. The family believes, it is good for baby's health.

3.3.3. Demographic and Economic Condition

The age of the parent often influence their decision for their live and attitude, including in breastfeeding and early breastfeeding (Rose, 2004., Heinig, 2002). Reseach done by Brownell (2002) in urban African-American population found that mother's age when they deliver their baby influence them to make decision to breastfeed. Most of older mother show better attitude toward breastfeeding practice than younger mother. Beside, most of young mother is not interested to breastfeed. This fact also suported by study done by Rose in 2004 in urban predominately African-American population. The study shown the older mother morelikely to breastfeeding than the younger one.

Another study among adolescence African-American mother done by Brownell in 2002 mentioned the reason why the mothers do not want to breastfeed is because it is inconvenience, pain, embarassment, and fear of breast damage. According to my experience, in West Sumatra, the mother who deliver in the age less than 20 years old, they tend not to breastfeed the baby with common reason they fear that their breast will be damaged.

Study done by Abada (2000) in Philippine shows the women who has high education tend to reject breastfeeding. But, Ertem (2001) said initiation of breastfeeding is increasing among mother who has good knowledge about breastfeeding in United State. Study done in India by John in 2005 found that only 15% of employed mother have good knowledge about breastfeeding and less than 50% of them knew breastfeeding should be initiated within one hour after delivery. The study found significant association between education and knowledge about breastfeeding. The mothers who have higher education often also have a good knowledge in breastfeeding.

Study done in Nigeria by Awi in 2006 concludes that mother who has high socio economy class, tend to practice early breastfeeding. But in Riau, one of province nearby West Sumatra, the population have opinion that

breastfeeding is only for the people who are poor because they cannot buy formula milk. Giving formula milk to the baby is indicating the family economic status. So, there is competition amongst the people to purchase the expensive formula milk (Sugianto, 2008). In West Sumatra, 11.90% of total population was categorized living below poverty line (CBS West Sumatra, 2006). According to my experience in maternal and child health services, some of mother who gave formula milk to their baby was not only from the higher economy class but also from the lower class. They give formula milk to the baby because they believe the content of formula milk is similar with breast milk.

3.3.4. Commercial Pressure

In 2005, it was more than 118 countries in the world implemented the International Code of Marketing of Breast-milk Substitute that being recommended by WHO and UNICEF since more than 20 years ago. Indonesia is one of these countries that take its action since 1985 and adopted the code as a regulation for controlling in marketing of breast milk substitutes. But, the government has difficulties control the practices with the code. This is caused by millions baby birth every year and brands of infant formula is a lot, more than 24 brands. There is also competition among the companies in order to obtained bigger market (IBFAN, 2004).

The advertisements of formula milk are very exhaustive in Indonesia. This is has effect in breastfeeding practice. Many health workers have formula milk advertisement in their private clinic. Some of health workers give sample of formula milk to mother and their family when they discharge from their private clinic. Moreover, a lot of sales promotion girl who aggressively persuades mothers for using formula milk, there are also formula milk which contain colostrums (Judarwanto, 2008). According to WHO (2003), the mother who had have baby with age 6 months and under should free from commercial pressure. In Philippines, health worker who believe that formula milk is better than breast milk, they will encourage mother for using formula milk (Abada, 2000). For the couple years, the rate of baby who is feed with formula milk is higher than those who is feed by mother breast milk in Philippines (Beasley, 2007).

In Indonesia, based on Nutrition and Health Surveillance System in 2002 by Pee aith Helen Keller Worldwide found 20-53% infant receives formula milk during delivery in health facilities. In West Sumatra, in rural area, 22% of mother who delivered at midwife's house, 10% got free sample of formula milk and 20% purchased a sample. But, in urban area, from 44% mother who delivered at midwife's house more than 50% received the sample and most of them bought the formula milk because of the sample.

3.3.5. International and National Policies and Norms

International policy about breastfeeding practice is needed as a guide for each country worldwide. Since 2003, WHO and UNICEF launch the global strategy as an international policy for Infant and Young Child Feeding (IYCF) (annex 3). The global strategy is based on the program foundation in the past and is continued for improvement. The program from WHO which is the basic program in term of supporting breastfeeding practice including early breastfeeding are the International Code of Marketing of Breast-milk Substitute that introduced in 1981 and to push the implementation of the code. WHO launched the Innocenti Declaration on the Protection, promotion and support of breastfeeding in 1990 followed by introduction of The Baby-Friendly Hospital Initiative (BFHI) program in 1992.

There are two indicators for assessing infant and young child feeding practices since 2007. The indicators are core indicators and optional indicators, for elaborate explanation of both indicators see annex 4. Early initiation of breastfeeding is one of the core indicators (WHO, 2008b). Indonesia also has adopted the program recommended by WHO and UNICEF as part of the national program. Indonesia has issued decree Number 450/2004 of Ministry of Health (MoH) about exclusive breastfeeding but it does not mention about early breastfeeding and decree Number 237/1997 about marketing of complementary feeding. For couple of years, early breastfeeding is in low priority on breastfeeding practice let alone as health concern in Indonesia.

After WHO and UNICEF recommended that early breastfeeding should be initiated within one hour after delivery in 2006, Ministry of Health has sent a letter to all hospital in Indonesia which suggest the hospital to follow WHO and UNICEF recommendation (MoH, 2007).

The government is still discussing about the national strategy on the regulation of infant and child food and it is in draft until now. This draft aims to support and increase the power of the MoH decree related with breastfeeding practice and marketing of breast-milk substitute. This draft is covering approaches to increase breastfeeding practice, increase complementary food, breastfeeding in special and emergency situation such as low birth weight, adopted baby, mother with medical condition and HIV/AIDS and also mother with mental diseases (Ina cited in Eman, 2007).

CHAPTER IV INTERVENTION OF EARLY BREASTFEEDING PRACTISE IN INDONESIA AND OTHER LOW MIDDLE INCOME COUNTRIES (LMIC)

This chapter will analyze intervention of early breastfeeding practice recommended by WHO in Indonesia and literature review of best practices in other low middle income countries (LMIC). The framework used to assess the intervention is Wellstart International 2006 recommendation.

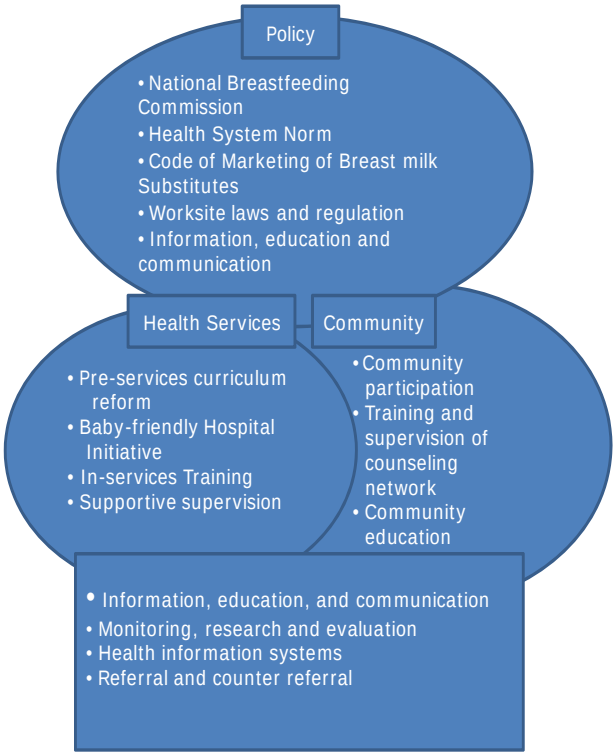
4.1. INTERVENTION OF EARLY BREASTFEEDING PRACTICE

Breastfeeding as the global strategy for Infant and Young Child Feeding (IYCH) is recommended by WHO and UNICEF since 2001. The global strategy is a guideline to establish positive impact of breastfeeding practice. At household level, this strategy encourages mothers and families to increase role of breast feeding in their baby's feeding pattern. Mean while it also proposed ways on how government and international organizations and other concerned parties facilitate promotion of breast feeding as their obligation and responsibilities, in order to improve nutritional status, growth and development and survival of infant and young children (WHO, 2003). This integrated strategy covers all elements needed to accomplish optimal infant and young child feeding. Community participation is the basic approach used to promote, support and protect breast feeding. The present policy that recommendated from WHO and UNICEF and health service especially maternity care is also important to encourage breastfeeding practice.

According to Wellstart International (1996 cited in WHO, 2003), there are four elements of breastfeeding program which also covers early initiation of breastfeeding (see figure 4). The mentioned elements are: policy, health services, community and Information, Education and Communication (IEC). The policy provides guidelines for early breastfeeding program implementation and to lay foundation for evaluation of the program such as The code of Marketing of Breast-milk Substitutes (annex 5). In health services setting, the early breastfeeding practices are determined by the status of capacity and capability of the health services and their health workers. Initiation of early breastfeeding in the health care setting can be implemented trough adopting ten steps of Baby Friendly Hospital Initiation (BFHI), especially the first four steps. For the whole ten steps of BFHI see annex 6. This has to be supported by health workers who have knowledge and skill to help mothers initiate the early breastfeeding. The knowledge and skill can be obtained during their formal education (e.g school of nursing or midwife) as part of curriculum or trough special training. Mean while, supervision is also important to monitor and evaluate implementation of early breastfeeding.

Outside the health services facilities, the program on early breastfeeding is promoted in the community. Educating the community about early breastfeeding is important to make the community aware about the benefits of early breastfeeding. People who have capability to educate mother in the community, such as community health workers and village volunteer need to be trained. The program will be successes if there is participation from community. Mother also gets early breastfeeding support with Information, Education and Communication (IEC) system such as by media (electronic and print) or during antenatal care by health workers. For the full explanation, see annex 7.

Figure 5 Element of A Comprehensive Breastfeeding Programme



(Wellstart International, 1996 cited in WHO, 2003)

4.2. INTERVENTION OF EARLY BREASTFEEDING PRACTICE IN INDONESIA

4.2.1. Policy

Policy on National Breastfeeding Commission

Indonesia does not have National Breastfeeding Commission. Since 2007, the government already discussing about national policy on breastfeeding which is still in draft now. In 2008, the Department of Medical Care of MoH proposes the director of all hospital to make breastfeeding commission in the hospital level which should be in written policy of the hospital (MoH, 2008).

Policy on Health System Norms

In 2005, Department of Medical care in MoH enacted a decision letter No. YM.00.03.3.5.1456 about revitalization of BFHI, it also mentions the need of counseling on breastfeeding to expecting mothers. In 2007, the Ministry of Health (MoH) sent a notification letter No.00.03.3.5.22.19 to all hospital in Indonesia, the message is for all the hospital should practice early initiation of breastfeeding in one hour after delivery. But, there were not letter sent to private clinic and Community Health Centre (CHC) about early initiation of breastfeeding (MoH, 2007). The letter was sent by MoH because the regulation on early breastfeeding is still on draft now. In the letter, the government also advised the health workers who are working in the hospital especially in mother child care unit to inform all mother who they will come in contact with about early initiation of breastfeeding during delivery period (MoH, 2008).

The limited policy implies only to hospitals hinder the accessibility to the service. In West Sumatra, it was only 8% mother who delivered in hospital from totally 80% mother who delivered in health services while 20% still deliver their baby at Traditional Birth Attendance (TBA) (Health West Sumatra Province Report, 2007). Therefore, the government should not only revitalized the hospital with BFHI accredited but also encourage all mother and child health services facilities to adopt ten steps in BFHI including TBA.

Policy on the Code of Marketing of Breast Milk Substitutes

Indonesia does not have a law on breast-milk substitutes marketing. However it has Ministry of Health (MoH) decree number 237/1997 which prohibit promotion, giving sample and free formula milk in the health services. After couple of years, there are many violations done by formula milk companies. The promotion of formula milk is too exhaustive and which often not under control of government. The companies are free to advertise their product in media and also in health facilities using baby picture. One example of advertisement in private clinic is giving a goodie bags with the name of the company which sponsored the clinics printed on the bag. Mostly

of these sponsors are formula milk companies. The campaign on breastfeeding is already running, but the campaign of formula feeding is more intensive. The company also gave samples to the mother and health workers in the health facilities. The company often becomes a sponsor for mother and baby health seminar, giving the impression that they are behind the healthy baby and mom. Between the sessions, the company usually presented their product (Hadad in Siswono, 2004).

The MoH decree No. 237/1997, does not tackle the commercial pressure as one of the underlying determinant on influencing early breastfeeding practices. Within the decree, the sanction given is merely administrative, for example pulling the formula milk from market. Meaning if the companies violate the decree there is no significant consequence bared by the companies. The poor monitoring and evaluation for the decree implementation also add up to the problem. This fact also effect maternal choices on infant feeding in the proximate determinant, where mothers push to believe that the content of breast milk is similar with formula milk. Thus result in delaying or not to breastfeed, even if they have the opportunity to do so. For demographic and economic condition determinant, the use of formula milk is massive. Parents give the baby formula milk, even if they coming from the lower socio-economic class. This attitude relates to the success of image building of formula milk, formula milk often symbolized modernization and wealth.

Policy on Information, Education and Communication (IEC)

In 1990, the first national movement on breastfeeding is declared. In 1999, Indonesia launched a Breastfeeding National Strategy which is a guidance to engage all political entities such as central government, local government, Non Governmental Organization (NGO), community organization and professional organization (doctor, pediatrician, midwife) in breastfeeding practice. The strategy mentions about the policy, strategy and program of breastfeeding practice but it does not mention about early breastfeeding. Then the government is developed and pertained information, education and communication (IEC) as a part of breastfeeding campaign (INN, 2000).

This intervention can tackle the intermediate determinant of the problem especially on infant feeding information. Although, the program of early breastfeeding is still on draft now, some of province in Indonesia already starting early breastfeeding program. Mostly, the province has a campaign program to promote early breastfeeding practice. But, West Sumatra does not have.

4.2.2. Health Services

Pre-service Curriculum Reform

Doctor, nurse and midwife are people who have competency to give information about breastfeeding. Nurses learn about breastfeeding during their school but it is not specific on early breastfeeding. This subject is also not independent instead it is integrated with other subject such as Maternal and Infant Health Nursing and it is not in depth. Doctor is also learning about breastfeeding during school but, only superficial and integrated with child health skill (MoNE, 2008). There is no curriculum about breastfeeding and early breastfeeding during the school for midwife (Sihaan, 2008).

Baby-friendly Hospital Initiative (BFHI)

In Indonesia, the adoption of BFHI was starting since WHO launch the program in 1991. According to Ministry of Health (2007), the government is doing revitalization on Baby Friendly Hospital Initiation (BFHI) in general and private hospital that had accredited of BFHI before. The revitalization is based on supervision and evaluation that was done by health office province and district. In 2006, there were 149 hospitals with BFHI from totally 1292 hospitals in Indonesia and 19 out of the 149 hospital have exclusive breastfeeding policy. In West Sumatra, from totally 40 hospitals, there are 5 hospitals with BFHI. Based on my own experience, there is no early breastfeeding practice in the community health centre (CHC) in West Sumatra and also in Traditional Birth Attendance practicing.

Since WHO and UNICEF renew the ten step of BFHI in 2006, especially in fourth point which is “early breastfeeding should be initiated in one hour after delivery”, MoH sent notification letter to all hospital in Indonesia to do initiation of breastfeeding according to the recommendation (MoH, 2007). After MoH sent the letter to all hospital in Indonesia, the referral hospital in West Sumatra made it as standard operating procedure (SOP) on early initiation of breastfeeding. The referral hospital mentioned is currently one out of five hospitals with BFHI in province level. Within the SOP, it does not mention the time that it should be done within one hour after delivery. So, if the early breastfeeding cannot be initiated within one hour after delivery in operation or delivery room, the mothers can breastfeed their baby after they are moved to the nursing room. In four other hospitals, I do not have information.

In private clinic such as in midwives’ house, they do not use ten steps in BFHI as a regulation in their clinic but they have their own regulation from their organization. According to midwifery organization, the midwives have standardization in delivery services especially on exclusive breastfeeding up to 6 months. Since the government ask to all health services to do early

breastfeeding, the midwife is try to implement it but it also no explanation about the timeframe of initiation (Koesno, in Moedjiono. 2007).

The BFHI is not tackling the mother choices in proximate determinant. Mothers have the opportunity to choose whether to breastfeed their baby or not after delivery, it is an important message especially for mother with special condition such as mother with HIV. According to my own experience, for this example the baby is separated with their mother directly after delivery.

In-Service Training

People who have competency to give information about breastfeeding in health services in West Sumatra are doctor, nurse, and midwife. Some of them learn about breastfeeding during school but it is not enough because it was superficial and not focusing on early breastfeeding. Knowledge and skill are always developing every time. Therefore, breastfeeding training is important in term of to get new knowledge and skill. Ministry of Health has a breastfeeding training program. Since 2006, MoH collaboration with UNICEF has trained health workers and village volunteer about breastfeeding counseling which aims to increase breastfeeding practice in order to decrease nutrition problem and child mortality in Indonesia. Then, in 2007, the government was included the early breastfeeding as a subject on breastfeeding training (Amori, 2007)

The government trains the counseling breastfeeding team in the referral hospital like obstetrics and gynecologist, pediatrician, and midwives. For the district hospital, nutritionist is also trained (Rosita in Moedjiono, 2007). They are two types of training, training for counselor (training for trainer) and for counseling (training for health workers who give counseling to mother). In 2007, the target of breastfeeding training is at least one of breastfeeding counselor in each province that had training (Amori, 2007). Even, the target from government is at least one counselor in each provinces, it is not enough compare to total the number of health workers. In West Sumatra, there are 3000 health workers that include doctors, nurses, midwives, and nutritionist (Indonesia Health profile, 2005).

The perception on early breastfeeding is still different among health workers until now, especially about the definition when early breastfeeding should be initiated. Since 2007, people who followed training of early initiation of breastfeeding in west Sumatra are four health workers, one medical doctor and two midwives from health province office and then one midwife from referral hospital. The health workers trained become the member of counselor team. The province health office has a program on breastfeeding

training to 30 health workers from 10 districts in West Sumatra which the trainer is from four health workers that been trained before. But, the program is not running until now because of budget problem. In service training is also important to tackle intermediate determinant. After they were trained, the counselor can train the other health workers in the province level. With training for counseling, they can also directly educate mother and family members with the relevant knowledge and skill in comprehensive manner.

Supportive Supervision

The MoH ask all hospital to do periodic meeting for monitoring and evaluation of BFHI implementation in the hospital. Evaluation and monitoring of program was done by vertical system from district to province and then to central (MoH, 2008). In private clinic, particularly in midwives practices, it is difficult to monitor and evaluate on early initiation of breastfeeding because there is no budget (Sihaan, 2008). One other reason, it might due to the organization of the services that do not report to government, because the organization wants to cover up the clinic practices such as due to give sample of formula milk to mother and family. Therefore, supervision including to private practices is important to ensure the implementation of early breastfeeding program.

4.2.3. Community

Community Participation

In West Sumatra, the village volunteer is also having power to increase awareness of mother about breastfeeding. Power of village volunteer and community leader as community participation are more helpful on supporting mother on early breastfeeding and convincing mother and family about the effect of cultural practices that harmful for mother and baby. It will tackle the cultural attitudes and norms as an underlying determinant to improve the health of the baby. But the problem is most of them does not have enough knowledge about early breastfeeding.

Training and Supervision of Counseling Network

There is no specific training about breastfeeding to people in the community or village volunteer in West Sumatra. The collaboration program of breastfeeding training between government and UNICEF to community health workers and village volunteer in 2006, it was not covered all province in Indonesia. West Sumatra was not including one for village volunteer training. There is only breastfeeding training for community health workers. The objective on the training is about exclusive breastfeeding, the benefits and the method of breastfeeding and no topic about early breastfeeding. This intervention is important on tackling underlying and intermediate determinant problem in culture attitude and infant feeding information.

Community Education

There is no specific program about breastfeeding education in the community in Indonesia including in West Sumatra. Education about breastfeeding usually given by the community health worker during activity on integrated health post (posyandu). Education in for the community is important, because it will not only the understanding and knowledge of mother but also the other family members such as husband and grandmother. Therefore, community education is an important intervention to tackle the early breastfeeding problem especially in infant feeding information on intermediate determinant.

4.2.4. Information, Education and Communication (IEC)

According to National Strategy on Breastfeeding practice in 2000, information, education and communication (IEC) was developed as a part of breastfeeding campaign. The campaign of breastfeeding practice is using media and methods which consider appropriate such as one day seminar, training, electronic and print media. Central government is using the famous people to become the ambassador of early breastfeeding practice. The famous people can come from actress or politician. For example, when the first grandchild of president of Indonesia was born, the media (television, radio, internet, magazine, newspaper) put the news in their outline that the daughter in law did early breastfeeding practice.

In province level, MoH ask local government to do campaign about the important of breastfeeding including early breastfeeding intensively, even they have competition with formula milk promotion (Amori, 2007). In Jakarta, for example, there was campaign for early breastfeeding following 1001 pregnant women in 2008 (Jakarta Provincial Government, 2008). The health office in Cirebon, one district in Java Island, did one day seminar about early initiation of breastfeeding with participants from the leader of women group in the community, local Non Governmental Organization, the leader of Community Health Center, medical doctor and dentist in 2008 (Health District Report Cirebon, 2008).

If West Sumatra province decides to do the same, maybe it will influence early breastfeeding practice. Involving husband in this campaign is better to improve early breastfeeding practice. Providing information of early breastfeeding through print media (leaflets and poster) was done by health province office, but it cannot distribute to all area in West Sumatra. It might to demography situation. There is no seminar on early breastfeeding until now.

This intervention is tackling the infant feeding information and physical and social support on intermediate determinant. Therefore, breastfeeding

campaign is helping mother to get early breastfeeding information besides from health workers.

The monitoring and evaluation of breastfeeding in national level is done every five years trough the demography and health survey. In province level, including West Sumatra, the evaluation and monitoring is done annually. The evaluation and monitoring measure the level of practice and the rate of early breastfeeding at the hospital that adopted BFHI and the total of health workers trained. But it is not enough because it is also have some bias during data was collected due to different perception about early breastfeeding among health workers. The monitoring and evaluation was focused on the program and the practice of early breastfeeding (West Sumatra Health Office, 2007).

4.3. REVIEW ON INTERVENTION OF EARLY BREASTFEEDING IN OTHER LOW MIDDLE INCOMES COUNTRY (LMIC)

4.3.1. Policy

Sri Lanka

According to IBFAN (2007), the rate of early initiation of breastfeeding in Sri Lanka was 75% and become the best country on early breastfeeding practice in South Asia. Based on study that done by Agampodi (2007) about breastfeeding practices in a public health field practice area in Sri Lanka with a survival analysis on 219 mothers, found that all mother was initiate breastfeeding. Since 2005, Sri Lanka launched national infant feeding policy about exclusive breastfeeding that enormous in planning and a quite strong in implementation. The good infrastructure in public health, make it easier for the government to take policy into action. Sri Lanka has breastfeeding committees. Then, in 2006, the Infant Young Child Feeding was introduced. Training of lactation management was done by Family Health Bureau (FHB).

80% BFHI was revitalized and the hospital has lactation management. The Code of Breast-milk substitutes was redrafted by committee of breastfeeding (Haider, 2006). The revitalization of BFHI hospitals includes improvement on: training of health workers which has standard monitoring, assessment and reassessment system, plan of action, funding and coordinating issues. Then breast-milk substitutes is controlled by law and monitored. In the community level, government involved the skill of counseling services on infant and young children during prenatal and postnatal. For the information, education and communication (IEC) about breastfeeding program, responsibility is given to the local government (Kesavan, 2007).

4.3.2. Health Services

India

In 1999, UNICEF and BPNI did a study about breastfeeding practice due to ten steps of Baby-friendly Hospital Initiation among 600 hospitals in 13 states which 306 of them are BFHI hospital and 294 non BFHI. The study found highly positive change in early breastfeeding practice and breastfeeding education during antenatal care. Early breastfeeding practice was higher in BFHI than non BFHI, the rate was 54.4% for BFHI compare to 36.5%. Education of breastfeeding during antenatal care was 53% in BFHI compare to 44% in non BFHI. For the training, 44% doctors and 30% nurses were training in BFHI (BPNI, 1999).

India started BFHI in 1993. The BFHI has a program on breastfeeding education during antenatal care. The mother is educated about why and how to breastfeed the baby. In-Services Training was done for health workers with focus on breastfeeding counseling and management lactation. More than 50% of health workers who were trained help mother with early breastfeeding in BFHI. This training is important because most of health workers, they did not learn about breastfeeding during school (BPNI, 1999). For monitoring and evaluation system is using management and information system (MIS) and also interview mother.

4.3.3. Community

Bolivia and Madagascar

The LINKAGES had a project to change individual and community norm due to breastfeeding practice especially early breastfeeding and exclusive breastfeeding during 1999-2003, the sponsor of the program is The United States Agency for international development (USAID) and collaboration with some NGOs. This project used ‘community-based model’ as an intervention to implement the program. The community-based model utilized advocacy and policy, training for healthcare workers and community members, it scatters message on health promotion trough home visits and mother to mother support. It also used mass media to increasing early initiation and exclusive breastfeeding rate. In Bolivia, after the intervention the rate of early initiation breastfeeding increased significantly from 56% in 2000 to 74% in 2003. In Madagascar, the early initiation breastfeeding increased from 69% in 2000 to 78% in 2003 after intervention (Baker, 2006).

Bolivia

The LINKAGES is in collaboration with PROCOSI (an organization of international private volunteer organizations) and Local NGOs to implement the program in terms of increasing early initiation of breastfeeding. Training was done for NGOs staff, Ministry of Health (MoH) counterparts, doctors, nurses, auxiliary nurse and community health workers. 1600 from 1700

community health workers were having refreshment training, 200 of them were doctors and nurses and 350 were auxiliary nurse. The training is about breastfeeding knowledge and technical skill. The technical content are: skill on counseling (home-visit, how to talk to community and facilitating mother to mother support) and technique of negotiation. The approaching used to send the message to the community are counseling cards, education by video, radio spot and testimonial, a radio call program and radio drama series.

Madagascar
The LINKAGES is using Behavior Change Communication (BCC) approach to increase early initiation of breastfeeding. The LINKAGES involved mother and family to develop material especially on health booklet and health cards. The job aids and counseling cards was develop by health workers. The program trained health workers about breastfeeding in district level, supporting women's group in the community level, educating and motivating family. For supporting the program, The LINKAGES did interpersonal communication, community mobilization (village theater and festivals), and mass media (electronic and print) such as newspaper, radio and television.

Dhaka, Bangladesh
Haider (2000) did study about effect of community-based peer counselor on exclusive breastfeeding practice using a randomized controlled trial. This study was done among 363 women in intervention group and 363 women in control group. 64% women did early breastfeeding in intervention group and only 15% women did in control group.

The study selected people in the community to become a peer counselor of breastfeeding with criteria that they have personal breastfeeding experience, at least four years schooling, willingness to help each other and living in the intervention area. After that, the people who have all criteria were trained. The training is about skill on counseling, and knowledge of breastfeeding. After two weeks training, the people who were trained practiced they knowledge and skill directly to the community. Counseling was done at home to mother and involved the other family members as well.

4.3.4. Information, Education and Communication (IEC)
Guatemala
Study was done by Dearden (2002) about impact of mother to mother support program on early initiation of breastfeeding and on exclusive breastfeeding. The study did a population census to identify all mothers who have infant with age less than 6 months then did survey about their breastfeeding practice. The survey used La Leche League Guatemala (LLLG) program. LLLG trained unpaid volunteer as a breastfeeding counselor which

aims to promote breastfeeding and support breastfeeding activity in the community. The activity was focusing on mother to mother support group.
One year after the baseline census and survey, data was collected among 337 eligible households in community program and 431 eligible households in control communities, The result found that 27.4% mother among households in the community program did early initiation of breastfeeding compare to 19.6% among households in control community 31% of mother who had home visits and support group did early breastfeeding within one hour compare 28% of mother who did not had home visits and support group. The program on supporting breastfeeding like a mother to mother is important in improving early breastfeeding practice.

India
Dhandapany (2008) did study about antenatal counseling to support breastfeeding among 108 primigravida who had antenatal visit at least three times. It was only 23 (21%) mothers had received antenatal care has received counseling from 108 primigravida, and 85 (79%) others mother were not received any such counseling. Among mother who received breastfeeding counseling during antenatal care, 87% of them aware that initiation of breastfeeding should be immediately after birth compare to 19% of mother who did not get any counseling during antenatal care. During antenatal visit, the health workers educate mother about the benefits of breastfeeding and breast examination.

CHAPTER V DISCUSSION

This chapter will discussed intervention on early initiation breastfeeding in Indonesia compare to others Low Middle Income Countries (LMIC) and what should be done to improve early breastfeeding practice in Indonesia, especially in West Sumatra.

Early breastfeeding is a fundamental base for neonatal to survival. Delaying early breastfeeding correlates to increase in neonatal morbidity and mortality and under five mortality by prolonging the duration of breastfeeding as result of early initiation. According to IBFAN (2007), the mortality caused by infectious diseases can be reduced if early initiation of breastfeeding is promoted during neonatal period. Early breastfeeding practice is influenced by many determinants. In Indonesia, particularly in West Sumatra, all of the determinants mentioned by Lutter (2000) in chapter III has influence on early breastfeeding practice. Program from government to increase the early breastfeeding practice is needed to select and implement the most appropriate, applicable and effective intervention for local context. Then program that succeed in the other Low Middle Income Countries can be adopted to influence early breastfeeding practice in Indonesia, particularly in West Sumatra.

5.1. POLICY

Sri Lanka is one success example in increasing early breastfeeding rate. Sri Lanka is having the highest early breastfeeding rate in South Asia. The country has breastfeeding committee (Agampodi, 2007). While in Indonesia such committee is absent. There is a proposal from MoH to encouraged breastfeeding commission in hospital level in 2008. However, there has been no report about the implementation until now. It is applicable in Indonesia to develop breastfeeding committee in national level because it is important for monitoring the early breastfeeding program in all mother child health services in Indonesia, not only in the hospital level.

In Indonesia, the regulation about early breastfeeding practice is still on draft now. It will be legalized as soon as, the local government knows what they will do with it, such as want intervention should take place at province level. Compare to Sri Lanka, the government just launched Infant Young Child Feeding (IYCF) two years ago, but the implementation of program is strong. This strong implementation is due to good infrastructure in health system. Therefore, it is not difficult for Sri Lanka government to take change policy into action. According to Huffman 2001, clear policy in maternity unit in health services is important to support early breastfeeding practice. 80% of total hospital is revitalized followed by introduction of lactation management in Sri Lanka. In Indonesia, it is not clear how many hospitals

are already revitalized until now. In 2007, MoH sent notification letter to all hospital to implement early breastfeeding. Where in 2008, MoH asked all health workers to help mother on early breastfeeding practice in intranatal period when mother is still in the hospital. These interventions are important but it might not be a priority in West Sumatra context because most of mothers deliver their baby in private clinic and midwife practices.

The implementation of MoH decree about the marketing of breast-milk substitutes is not strong enough. Many violations done by companies, but there is no significant sanction from government. In 2006, the committee of breastfeeding redrafted the code of Breast-milk Substitutes in Sri Lanka (Haider, 2006). It will be better if Indonesian MoH do the same. Violations done by the formula milk companies might due to weakness of the decree.

Information, education and communication (IEC) programs about breastfeeding is the responsibility of local government (Kesavan, 2007). In Indonesia, the IEC is part of breastfeeding campaign. The local government also has duty to implement IEC program.

5.2. HEALTH SERVICES

In Indonesia, none of the medical, nursing and midwife school have a curriculum about breastfeeding including early breastfeeding which will always be in the context of breastfeeding in general. Integration breastfeeding topic within the curriculum in the school is important as a basic knowledge before the health personnel conduct their practice in health services. This intervention is applicable in Indonesia but, it might not be a priority since it will takes a long time before such change in formal curriculum during school is adopted.

In India establishment of BFHI is quite strong. All of the health workers in maternal unit of BFHI in India were trained to support implementation of BFHI which then implemented during antenatal and intranatal care. Compare to Indonesia, there is only few hospitals adopted BFHI. The implementation is also not quite strong. The numbers of health workers trained is still too small. In West Sumatra, only one out of four health workers in BFHI hospitals were trained on early breastfeeding since 2007. This intervention is relevant with situation in Indonesia. The health workers, who were trained, can educate mothers about early breastfeeding because they know that is important and not only because it is part of the routine activity in the hospital (Sinusas, 2001).

In complementary to the use of Management and Information System (MIS) for monitoring and evaluation, in India the local government also conducted

interviews for mother. This interview on early breastfeeding practice will prevent bias result from monitoring and evaluation alone. This intervention is applicable in Indonesia especially in West Sumatra, interview mother about early breastfeeding is important for data validation.

5.3. COMMUNITY

In Madagascar, the LINKAGES projects involve mother and other family members within the breastfeeding community participation program. The mother and family developed the material for breastfeeding promotion campaign. The project used Behaviors Change Communication (BCC) approach. In Sudan, imam as a community religious leader advocate mother to breastfeed as a part of his talk in the mosque (Haroun, 2008). In West Sumatra, community religious leader and village volunteer are the people who can help government raised the community awareness about early breastfeeding. Therefore, Indonesia can adopt interventions done in Madagascar and Sudan.

In Indonesia, involving mother and other family members such as grandmother in development of the promotion material are important to make them aware about early breastfeeding. Moreover, based on the local culture most of the health problems are tackled by women.

In Bolivia and Madagascar, the strategies adopted are training of health workers about breastfeeding and improving skill on counseling. In so far, in West Sumatra, there is training for community health worker but not specific on early breastfeeding. This intervention is applicable in West Sumatra considering that community health worker is the closest health workers came in context with community members compare to other health professional.

Bangladesh is using peer counselor for breastfeeding promotion. Peer counselor is important for breastfeeding promotion not only for the mother but also for family member (Haider, 2000). The use of peer counselor is an approach that relevant for West Sumatra based on the cultural values of supporting and helps each other.

5.4. INFORMATION, EDUCATION AND COMMUNICATION

Guatemala is using mother to mother support program to increase early breastfeeding practice with unpaid volunteer as a breastfeeding counselor.
In the other low middle income country such as India, antenatal counseling was done to support breastfeeding practices. During antenatal visit, health workers educate mother about the benefits of breastfeeding and breast examination. Different from the two countries mentioned before, Indonesia has IEC program as a part of campaign on breastfeeding promotion.

However, it does not specifically address the issue on early breastfeeding trough seminars, and education during antenatal. Information in mass media (electronic and print) is sometimes focusing on early breastfeeding even it still not a lot.

Mother to mother support is relevant intervention which can be adopted in West Sumatra. This intervention is also highly compatible with the local culture. IEC through antenatal visit has been done already in West Sumatra. However, the topic on breastfeeding education is not yet comprehensive, this due to lack of knowledge and skill of health workers.

CHAPTER VI CONCLUSION AND RECOMMENDATION

This chapter will show the conclusion about early breastfeeding based on literature review. The author also will give some recommendation in order to improve practice on early breastfeeding in Indonesia.

6.1. CONCLUSION

- The rate of early breastfeeding practice in Indonesia is low compare to the other country in Asia. In West Sumatra the rate of early breastfeeding is similar with the national rate. Early breastfeeding has many benefits; some of the benefits are to decrease Neonatal Mortality Rate (NMR) and Infant Mortality Rate (IMR) and then have effect indirectly to reduce under five mortality rate (U5MR). Thus, early breastfeeding is important for child survival.
- The entire determinant mentioned by Lutter (2000) is present and influencing the early breastfeeding practice in Indonesia and also in West Sumatra. The determinants are familial, medical cultural attitudes and norm; demographic and economic condition; commercial pressure; national and international policies; infant feeding information and social support.
- WHO (2003) recommended that breastfeeding including early breastfeeding is an appropriate strategy for developing countries in order to improve child health Based on Wellstart International in 1996, the intervention includes policy level, health services, community and information, education and community (IEC) program. All the intervention mentioned above are important to improve early breastfeeding practice in West Sumatra. The interventions that already running in West Sumatra are hospital with BFHI even it is only five out of forty. Then, four health workers had been trained to become trainer since 2007.
- The interventions recommended by WHO and interventions learned from other low middle income countries are applicable in West Sumatra. But the problem is, the regulation of breastfeeding practice in Indonesia is still on draft now and has not been legalized yet. Therefore, it is difficult for local government to implement the program without guidelines from central government. Besides that, all this time early breastfeeding is not priority on health program in West Sumatra, so the local government is not allocate budget for the program.

6.2. RECOMMENDATION

6.2.1. Policy level

- The central government has drafted the breastfeeding regulation which includes early breastfeeding. The draft should be legalized as soon as possible because it will be needed by local government as guidance for implementation of early initiation of breastfeeding.

- The government should also develop breastfeeding committee in national level and not only in hospital level.
- MoH decree for the code of marketing on Breast-Milk Substitutes should be redrafted like in Sri Lanka and stronger sanction also encouraged.
- MoH should propose that all maternal and child health services implement early initiation of breastfeeding.

6.2.2. Health Services

- The government should reform the curriculum during school as curriculum reform is needed as a basic knowledge and skill for health workers to educate mother on breastfeeding.
- BFHI should be adopted in all maternal and child health services in Indonesia, and not only in the hospital, 80% mother delivered baby in the health services, mainly in private clinic like midwife house.
- All of health workers should be trained on breastfeeding including early initiation of breastfeeding. Besides training about knowledge on early breastfeeding, training on the skill is also important.
- Mother should be asked about the implementation of early breastfeeding practice during data collected in monitoring and evaluation system to prevent bias.

6.2.3. Community

The village volunteer should also be trained on knowledge and counseling skill on early breastfeeding, because they are closer to the community. Then involving committee leader such as in Sudan is also important due to majority the population is West Sumatra is Muslim.

6.2.4. Information, Education and Communication (IEC)

Breastfeeding education during antenatal care (ANC) as a part of Information, Education and Communication (IEC) should not only aims for mother but also for father and other family members. The content of such breastfeeding education and counseling should include benefits and management of early breastfeeding. Early breastfeeding information through print media such as leaflets and poster can do by collaboration with the Non Governmental Organizational (NGO)

6.2.5. Local Government in West Sumatra

- The local government should allocated special budget for the implement of the program.
- The local government should prioritize breastfeeding intervention in the community. Since it is the most culturally acceptable for Minangkabau ethnic in West Sumatra.

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