

## **INFLUENCE OF PREGNANT WOMEN HEALTH CARE ON INFANT MORTALITY RATE IN INDONESIA**

Cindy Eka Pratiwi, Erika Yulinda, Arum Cahyaning Utami, Fahmi Arif kurnianto,  
Fahrudi Akhwan Ikhsan  
Email : Cindyekapратиwi99@gmail.com

### **Abstract**

Health development is an inseparable part of national development that aims to increase awareness, willingness and ability to live healthy for every person to realize the highest degree of public health. Health has a dual role in national development, therefore health is one of the goals of development while on the other hand health is the basic capital in national development. Health development efforts are reflected in health programs through promotive, preventive, and rehabilitative. Health development is one of the efforts to improve community health status. Achieving optimal health status is not only the responsibility of health personnel, but other sectors such as education, economy, social and government sectors also have a significant role in efforts to increase health insurance in Indonesia. Using secondary data sourced from BPS 2013 and DG of Disease Prevention and Control, Ministry of Health 2017. Data analysis used is product moment correlation to know strength of relation between 2 variables. Based on the results of the calculation of the data obtained a correlation of 0.608085 which indicates that the data meets the criteria of a strong correlation relationship so that service delivery facilities at the puskesmas that provide delivery services are in accordance with the standards in Indonesia, so that service delivery facilities in Indonesia show criteria that are strongly correlated. increasing deficiencies which have been a health problem in Indonesia.

Key words : Health development, facilities, public health

### **1. INTRODUCTION**

Health development is an inseparable part of national development that aims to increase awareness, willingness and ability to live healthy for every person to realize the highest degree of public health. Health has a dual role in national development, therefore health is one of the goals of development while

on the other hand health is the basic capital in national development (MOH, 2006).

Healthy understanding as stated in Law No. 36 of 2009 is a healthy state that includes physical, mental, spiritual and social that allows everyone to live productively socially and economically. A healthy definition of WHO, that is, perfect physical, mental and social conditions, is not only free from disease or weakness. To assess the health status of the WHO nation and other international institutions establish various measuring instruments or indicators, such as disease morbidity, mortality of vulnerable groups such as infants, toddlers, and mothers during childbirth. Measuring tool most used by countries in the world is, life expectancy, maternal mortality rate (MMR), infant mortality (IMR). These figures are also an important part in forming the Human Development index (HDI), which describes the level of a nation's progress.

Maternal death by WHO definition is death during pregnancy within the period 42 days after the end of pregnancy, due to all causes associated with or aggravated by pregnancy or treatment, but not caused by accident or injury. Based on Indonesia's demographic and health surveys (IDHS) in 2012, maternal mortality in Indonesia is still high 390 per 100,000 live births. This number is slightly decreased though not very significant. The 5th Global Millennium Development Goal is to reduce the Mortality Rate of Mother (AKI) 102 per 100,000 births by 2015. Infant mortality is one of three demographic components other than fertility and migration affect the number, structure and composition of the population of a region. In addition to affecting the number of population structures and compositions, the mortality rate is also used as an indicator relating to health and human development.

Indonesia as a major country with the fourth largest population after India, China and USA is still lagging behind in health sector development, as can be seen from HDI rank among countries in the world, Malaysia (64), Thailand (103) and Singapore (26) while Indonesia is ranked 121 out of 187 countries in the world in 2011 (BAPPENAS, 2011). Population as one of the main components of development needs to receive serious attention from the

government. Development programs including development in health should be based on population dynamics.

Health development efforts are reflected in health programs through promotive, preventive, and rehabilitative. Health development is one of the efforts to improve community health status. Achieving optimal health status is not only the responsibility of health personnel, but other sectors such as education, economy, social and government sectors also have a significant role in efforts to increase health insurance in Indonesia. Health is the right of all citizens, so set the target and target of health development. Table 1.1 shows population data of 2016 health development programs by sex.

**TABLE 1.1**  
**POPULATION TARGETS OF HEALTH DEVELOPMENT PROGRAMS**  
**IN INDONESIA IN 2016**

Number	Program Goals	Group Age / Formula	Gender		amount
			Man	Women	
1	Born Life	-	-	-	4.867.813
2	Baby	0 Years	2.435.848	2.334.596	4.770.444
3	Toddlers (Under Three Years)	0-2 Years	7.314.055	7.019.460	14.333.515
4	Toddler	1-4 Years	9.785.782	9.404.084	19.189.866
5	Toddler (Under Five Years)	0-4 Years	12.221.630	11.738.680	23.960.310
6	Pre School	5-6 Years	4.911.455	4.691.718	9.603.173
7	Children Age 1 SD / Level	7 Years	2.397.183	2.279.486	4.676.669
8	Primary School Children / Level	7-12 Years	14.141.268	13.433.460	27.574.728

9	Young People	<15 Years	35.863.014	34.233.847	70.096.861
10	Population Age Productive	15-64 Years	87.650.697	86.724.311	174.375.008
11	Population of Nonproductive Age	65 Years	6.474.979	7.758.138	14.233.117
12	Elderly people	60 Years	10.722.224	11.908.658	22.630.882
13	High Risk Elderly Residents	70 Years	3.694.220	4.796.136	8.490.356
14	Female Age Fertile (WUS)	15 - 49 Years	-	69.739.202	69.739.202
15	Female Age Fertile Immunization	15 - 39 Years	-	52.172.843	52.172.843
16	Pregnant mother	1.1 X is alive	-	5.354.594	5.354.594
17	Maternity Mother / Childbirth	1.05 X was born alive	-	5.111.204	5.111.204

Source: Data and Information Center, MoH RI, 2016, Estimation of Population Data Target Health Development Program 2015-2019

Based on the above table data is expected to improve the target sector of health development programs in Indonesia. Population target data of the health development program is needed for program managers, especially to plan and evaluate the achievement of health efforts that have been implemented. One other component of development that needs attention is the family. In addition, the family also can not be separated from the community, because the family has a significant role in health status. Law Number 52 Year 2009 on Population Development and Family Development defines the family as the smallest unit in society consisting of husband and wife, or husband, wife, and child, or father and child, or mother and child. Salvicion and Cells (1998), describes in the family that there are two or more persons who are affiliated with blood relationships, marital relationships or rapture in their lives in one household, interact with each other, and in their respective roles and create and maintaining a culture.

There is Government Regulation No. 87 of 2014 on Population and Family Development, Family Planning and Family Information System, stating that family development is done in an effort to realize quality families living in a healthy environment. In addition to a healthy environment, still according to government regulations, the health conditions of each family member itself is also one of the requirements of a quality family.

The family plays a role in optimizing the growth, development, and productivity of all its members through the fulfillment of nutritional needs and ensuring the health of family members. Inside the family component, mother and child are vulnerable groups. This is related to the phase of pregnancy, childbirth and postpartum in the mother and the growth phase in children. This is the reason for the importance of the effortmaternal and child health is one of the priorities of health development in Indonesia.

Mothers and children are family members who need to be prioritized in the implementation of health efforts, because mothers and children are vulnerable

to family circumstances and surrounding areas in general. Thus, an assessment of the health status and performance of maternal and child health efforts is essential. Maternal and child mortality rates during and post-birth in Indonesia are still relatively high. The problem of health service especially infant mortality rate still high enough in Indonesia hence the researcher take theme about the influence of delivery service facility to infant mortality rate in indonesia which become study material in this research.

### **1.2 Research Objectives**

1. To know the effect of delivery service facility on infant mortality rate in Indonesia.

### **1.3 Research Benefits**

1. Analyze the effect of delivery service facilities on mortality in Indonesia and the impact of health service facilities that have not met the maximum target within the specified limits.

### **1.4 Operational Definition of Variables**

In order for research can be done with the expected, it is necessary to understand the various elements that become the basis of a scientific research contained in the operationalization of research variables. Variables are constructs, concepts or traits to be studied, their values may vary. In research activities, research variables will be measured, collected, analyzed and summarized. The value of the measurement results can be: 1) the quantitative value and 2) the qualitative value. Quantitative value is a variable whose measurement results can be expressed in terms of numbers. While the qualitative variable or category variable is a variable that can not be expressed in the form of numbers.

The types of research variables we take include:

## 1. Independent Variable (free)

This variable can also be called the predictor variable, the antecedent variable (which precedes). In this research we take health care facility as independent variable.

## 2. Dependent Variables (Bound)

The dependent variable is a variable that concerns the researcher because it is often considered as a research problem. In this study we took the infant mortality rate as a dependent variable.

The operational definition of each variable is:

### 1. Health Service Facilities

Facilities are a means to facilitate and facilitate the implementation of functions. Facility is an individual component of an offer that is easily grown or reduced without changing the quality and service model. Facility is also a tool to differentiate one institution's programs from other competitors (Lupiyoadi, 2006: 150). In some types of services, perceptions are formed from interactions between customers with service facilities have a significant effect on the quality of services concerned (Tjiptono& Chandra, 2005: 93).

Service becomes a must that the company must do in order to survive and still get customer trust. Success in providing quality services can be determined by the quality of service approach that has been developed (Lupiyoadi 2006: 70). For the measurement of service quality variable according to Tjiptono (2001), the indicators are as follows: (a) Reliability is the ability to provide services in accordance with the promise offered by the hospital; (b) Responsiveness is easily accessible; not long to wait; responsive to demand, (c) Empathy is to know the customer's name; considering the problems and

preferences of service users - Direct evidence ie facilities; the waiting room; equipment.

Health infrastructure facilities can be defined as a process of cooperation of all health facilities and infrastructure effectively and efficiently to provide professional services in the field of facilities and infrastructure in the process of effective and efficient health services as well (Muhammad: 2010). Completeness of good infrastructure is very important in creating customer satisfaction. Clow (1998) in Febriani (2012) states that the quality of services is more difficult to evaluate than the quality of the goods. AzrulAzwar (2008) defines health services as any effort that is carried out by itself or together in an organization to maintain and improve health, prevent and treat disease and restore the health of individuals, groups and or society.

## 2. Infant Mortality Rate

Infant Mortality Rate (IMR) is the number of infant deaths in the first 28 days of life per 1000 live births. Infant Mortality Rate according to WHO (World Health Organization) (2015) in ASEAN countries (Association of South East Asia Nations) as in Singapore 3 per 1000 live births, Malaysia 5.5 per 1000 live births, Thailand 17 per 1000 live births, Vietnam 18 per 1000 live births, and Indonesia 27 per 1000 live births. The infant mortality rate in Indonesia is still high from other ASEAN countries, compared to the 2015 MDGs (Millennium Development Goals) target of 23 per 1000 live births.

### **2.1 REVIEW OF REFERENCE**

Health care facilities are one of the important things that must exist in the health sector. This is due to an increasingly advanced era and an increasingly difficult disease if only using the facilities that the equivalent. Good service facilities will make the users feel more secure, as is the case with childbirth if adequate facilities are unlikely to have an accident during labor.



Health Service Facilities is a tool and / or a place used to carry out health service efforts, whether promotive, preventive, curative, or rehabilitative which is administered by the Central Government, Local Government and / or the community. To achieve good public health, it is necessary to provide health services that can provide affordable health services to all levels of society in order to improve health, health care, disease treatment, and health restoration.

Health care facilities are the responsibility of the central government. Health Manpower is everyone who devotes himself in the health field and has knowledge and / or skills through education in the field of health which for certain types require authority to make health efforts.

Good health service facilities according to standards include: hospitals, , doctors, nurses, nurses and equipment used are sufficient and standard for use. In Indonesia, health service facilities are not evenly distributed. Due to the lack of supply that is compensated due to the distance between regions with a fairly difficult road terrain. Another lack of contributions from local governments will cease the health service facilities. In rural or remote areas the average community still uses traditional facilities. Known things described above, besides the high cost is also one factor that makes people prefer to use traditional facilities. Togive birthalsoprefersoaking, because it is easier to find and the cost is not too expensive. This is what causes the infant mortality rate in Indonesia is quite high because the mindset of the community is still traditional and because of factors from outside that make it happen.

## **2.2 Infant Mortality Rate**

Mothers and children are family members who need to be prioritized in the implementation of health efforts, because mothers and children are vulnerable to family circumstances and surrounding areas in general. Thus, an assessment of the health status and performance of maternal and child health efforts is essential. Maternal and child health status expressed in maternal mortality (MMR) and infant mortality rate (IMR) in Indonesia is currently high and high in comparison

to other Association of Southeast Asian Nations (ASEAN) countries. Infant mortality rate is an indicator used to see the health status of children, health status and economic conditions of the population as a whole.

Infant mortality is an incidence of death occurring in the period from birth to infant until the age of one year. Infant mortality is affected by the number of neonatal deaths. Neonatal problems are still a problem in infant mortality. While the cause of neonatal mortality among others is due to infection (pneumonia, tetanus, diarrhea) 36%, premature or BBLR 27%, and congenital abnormalities by 7%. The existence of the effect of preterm birth is the largest cause of infant mortality this is related to the incidence of neonatal death. Various factors can cause early neonatal mortality such as infant biological factors such as birth weight and sex also affect neonatal mortality. In addition, in the northern rural region of Tanzania found the cause of early neonatal mortality is due to various complications experienced by infants such as asphyxia, congenital malaria, septicemia, and pneumonia. In addition, neonatal mortality is also influenced by maternal biological factors (age, history of abortion, and complications during pregnancy). This is consistent with the infant and infant mortality pattern known as the two thirds of under five infant mortality is affected by the number of deaths during the first year of life (infant mortality), infant mortality is affected by the number of deaths during the first month period (neonate).

Based on maternal social demography factors such as residence, employment, welfare, maternity, Ante Natal Care (ANC) behavior, and birth attendant also have an association with early neonatal mortality. Early neonatal deaths in developing countries such as Indonesia are caused more by unresolved maternal complications, poor postpartum care, and poor home care. In Indonesia, health services can be quite good. This is based on a 2007 IDHS report showing 93% of pregnant women had received ANC and 73% were assisted by professional health workers.

### **2.2.1 Baby Condition**

More than 50% of infant deaths have been identified, babies who die are premature infants. Infant mortality caused by the condition of the baby itself, was not separated from the condition of the mother during pregnancy, causing premature infants. The majority of maternal activity during pregnancy is heavy work and information obtained during antenatal care is unclear and incomplete. On the other hand the physical condition of the accompanying mother infant mortality caused by the condition of the baby itself, was not separated from the condition of the mother during pregnancy, causing premature infants. The condition is one of the physical condition is heavy working mother during pregnancy (87,5%), information obtained during antenatal service is unclear and incomplete (68,2%)

On the other hand there are also unhealthy environments, mothers taking the drug, have a history of weak content, a history of multiple pregnancies, and insufficient nutrition. The demographic characteristics of the accompanying mother include maternal age at the time of pregnancy, parity and distance of birth which is at risk for pregnancy. Because for pregnant women aged over 40 years is at risk. Conditions that are no longer prime to be one cause of infant deaths during pregnancy at the age mentioned above.

Infant mortality that is suspected due to congenital abnormalities, can be seen that the baby's mother has a risk to its contents. Among babies born prematurely with the birth of twins, infants who died have very small jaws so that the milk given can not be swallowed smoothly, in addition the baby gets formula milk from the hospital. But this can not be proven exactly what causes of congenital abnormalities themselves.

### **2.2.2 Mother Factor**

Characteristics of most pregnant women are at age 20-34 years, parity (number of children) 2-3 years, the birth distance of children who died with children (82.6%) did not get breast milk from their mother after birth or mixed formula ( MP-ASI) from the hospital. Mortality of breastfed infants with low

maternal education 2 people (16.7%) and high maternal education (2) (18.2%). At a safe age for pregnancy with sufficient parity there is a phenomenon behind the occurrence of a disease that indirectly affects the condition of the baby, one of which is past maternal health history (eg allergies, hypertension, etc.) and family history (eg hypertension, diabetes, history of twinning, etc.).

Conditions acquired during pregnancy include health status at risk, poor nutrition status, staying up late, and pregnant out of wedlock / unexpected pregnancy. In addition there are factors outside the mother's condition during pregnancy that may affect the baby's condition, including physical burden, family conflicts, economic problems, and lack of attention and affection from the family. On the one hand, many babies are born prematurely and even LBW. In the study it was found that most birth spots were less than 2 years. With a birth spacing of less than 2 years, the physical and maternal health of the mother still needs enough rest and there is a possibility that the mother is still breastfeeding. As for the background of why pregnant women with a distance of less than 2 years, including the husband wants to have more offspring and the history of abortion.

Nearly half of infant deaths are experienced in underprivileged communities. Thus the ability of purchasing power and consumption for the mother during pregnancy is less fulfilled. However, when the antenatal examination the majority of pregnancy checks on a midwife or village midwife. Because they use jampersal. This study is in line with Yandrida (2005) study in Padang Pariaman District in 2004. The study suggests that as many as 75.2% of neonatal deaths occur in poor families. A mother's habit that pregnancy is a common thing has a low education history and a low economy. So these factors are indirectly suspected to affect pregnancy, labor and postpartum.

Double pregnancy or twin pregnancy is a pregnancy with two or more fetuses. The condition of mothers who have multiple pregnancies with a past mother's health history, such as hypertension and family history, such as a history of multiple breeds, may pose a risk to the baby they conceive. Also found in

multiple pregnancies there are breech born infants and congenital abnormalities. In addition, the weight of one twin pregnancy fetus averaged > 2500 gr and prematurely. Weight that is still below the standard so that the baby cannot be born with healthy need to require treatment in advance to get the ideal body weight. Weight loss is less appropriate because the mother at the time of pregnancy is less to maintain their diet.

The need for good nutrition is absolutely necessary by pregnant women to be able to meet the nutritional needs for the growth and development of the baby it contains and the physical preparation of the mother to deal with childbirth safely. Findings in the community that they are more concerned with tastes by ignoring the food they consume, such as the mother's favorite ice tea, the pleasure of eating salty foods. So that the intake of nutrients for babies contained very less and can be bad for the baby to be born. In addition to diet associated with the lifestyle of today's society, it turns out there are some other lifestyle is quite detrimental to the health of a pregnant woman is a habit of staying up. The habit of staying up late by the mother can reduce the rest time to the mother and baby it contains. This condition is not good for a pregnant woman. Such conditions are likely for pregnant women to give birth to infants who have not enough months (premature babies) and can also cause death in infants due to low birth weight and followed by conditions of unhealthy infants. Breastfeeding should be done after the baby is born (within 30 minutes after the baby is born) because the suction power at that time is strongest to stimulate further breastfeeding (Kamila, 2005).

In the case of infant mortality most babies are not breastfed. This is due to breast milk that has not come out at all when the baby is born, milk is produced very smoothly but the baby did not get breastfed, and the baby get a mixture of formula milk from the hospital. The cause of breast milk that can not come out is suspected because the baby is born prematurely so that the physical and psychological conditions can affect the expenditure of breast milk, mothers are sick, depressed mothers, anxiety is a problem, the baby's mouth is small and lack of support from his husband or family in breastfeeding the baby. So the milk that

produced less smoothly or even can not come out at all. The pattern of baby care that includes breastfeeding and breast milk in infants, on the results of the study showed that infants who get breast milk with low or high education level results are not much different. At the mother's level of education, whether low or high, does not guarantee that mother's knowledge of parenting patterns is good enough. On the other hand the information provided by health workers around pregnancy, especially about breast milk is unclear and incomplete.

### 3. RESEARCH METHODS

#### 3.1 Data Collection Techniques

Using secondary data sourced from BPS 2013 and DG of Disease Prevention and Control, Ministry of Health 2017.

#### 3.2 Data Analysis Techniques

Data analysis used is product moment correlation to know strength of relation between 2 variables.

$$r = \frac{n \sum xy - (\sum x) \cdot (\sum y)}{\sqrt{\{n \sum x^2 - (\sum x)^2\} \{n \sum y^2 - (\sum y)^2\}}}$$

Where :

r : The coefficient of validity

n : Number of subjects

y : Value of comparison

$\sum x^2$  : The square of the total number of variables x

$\sum y^2$  : The square of the total number of variables y

$\sum xy$  : The multiplication of the total number of variables x and y

variables

To conclude the relationship between the two variables above, it is necessary to meet the following criteria, if:

a) 0,00 – 0,199 the correlation relationship is very weak.

- b) 0,20 – 0,399 the correlation relationship is weak.
- c) 0,40 – 0,599 the correlation is moderate.
- d) 0,60 – 0,799 strong correlation relationship.
- e) 0,80 – 1,0 the correlation relationship is very strong.

## 4. RESULTS AND DISCUSSION

### 4.1 Results

Number	Province	IMR	Percentage(%)
1.	Jawa tengah	502	95,06
2.	Jawa Barat	499	88,71
3.	Jawa Timur	455	94,18
4.	Kalimantan Selatan	177	59,3
5.	Sulawesi Selatan	111	71,78
6.	DI Yogyakarta	100	75,58
7.	Sulawesi Utara	88	78,48
8.	Aceh	82	78,53
9.	Banten	80	73,22
10.	Sumatera Selatan	69	81,06
11.	Nusa Tenggara Barat	66	100,02
12.	Bali	60	92,69
13.	Sumatera Barat	59	79,64
14.	Lampung	55	86,48
15.	Kalimantan Barat	54	60,15
16.	Sulawesi Tengah	49	64,93
17.	Kalimantan Timur	47	81,19
18.	Gorontalo	30	79,64

19.	Riau	28	59,87
20.	NTT	22	60,24
21.	DKI Jakarta	19	97,29
22.	Sumatera Utara	18	75,73
23.	Jambi	17	63,03
24.	Maluku	13	25,71
25.	Bangka Belitung	12	86,32
26.	Maluku Utara	11	17,79
27.	Papua Barat	8	47,74
28.	Kalimantan Tengah	8	42,08
29.	Kep. Riau	6	59,87
30.	Kalimantan Utara	4	76,7
31.	Sulawesi Barat	2	64,88
32.	Bengkulu	1	71,35
Average		86	71,53875
Correlation Results		0,608085	

Based on the above data calculation results obtained correlation 0.608085 which indicates that the data meet the criteria of a strong correlation relationship so that service delivery facilities at puskesmas that provide delivery services in accordance with the standard in Indonesia, thus if the delivery service facilities in Indonesia showed criteria that strongly correlated then Indonesia can improve the deficiencies that have been a health problem in Indonesia.

#### **4.2 Discussion**

Infant mortality at antenatal check <4 times with low maternal education by 25% and high maternal education by 36.4%. A total of 78.3% of respondents said that the information they received during the antenatal examination to health workers (doctors and midwives) was unclear and incomplete. 21.7% of



respondents said it was clear and complete. Information obtained during antenatal care is unclear and incomplete at maternal age <20 years and> 34 years (age at risk) of 100% and maternal age of 20-34 years of 93.8%.

Variable is free	Frequency (n = 23)	Percentage(%)
Birth helpers		
Midwife	10	43,5
Doctor	12	52,2
Shaman	1	4,3
Total	23	100,0

Basically infant mortality is caused not from maternal factors but there are also infant factors as well as research done in the district of Surabaya city Sidoarjo explain the results of his research that the age of safe age of 21-34 years for pregnancy with sufficient parity was a phenomenon behind the incident a disease that indirectly affects the condition of the baby, one of which is a past mother's health history (eg allergies, hypertension, etc.) and family history (eg hypertension, diabetes, history of multiple breeds, etc.). In addition there are factors outside the mother's condition during pregnancy that may affect the baby's condition, including physical burden, family conflicts, economic problems, and lack of attention and affection from the family. On the one hand, many babies born prematurely and even LBW (Low Birth Weight is a newborn who weighs <2500 grams regardless of gestational age)

In the study it was found that most birth spots were less than 2 years. With a birth spacing of less than 2 years, the physical and maternal health of the mother still needs enough rest and there is a possibility that the mother is still breastfeeding. As for the background of why pregnant women with a distance of less than 2 years, including the husband wants to have more offspring and the history of abortion. This study is in line with the results of the study in Naragwal,

Northern India. These results indicate that neonatal death and infant mortality is highest when birth spacing is less than 1 year (Istiarti, 2000).

Information relating to pregnancy care is needed by all pregnant women and their families. Most of the education level of high school graduates. The phenomenon found in the field associated with the level of education is the child who was born is the first child owned by the mother <20 years of age and ideal age (21-34 years). Although education is quite high, when viewed by age, the likelihood of maternal knowledge about pregnancy is still very low and not enough time to seek service as much as possible. So the mother is less attention to his condition during pregnancy.

Nearly half of infant deaths are experienced in underprivileged communities. Thus the ability of purchasing power and consumption for the mother during pregnancy is less fulfilled. However, when the antenatal examination the majority of pregnancy checks on a midwife or village midwife. Because they use jampersal. This study is in line with Yandrida (2005) study in Padang Pariaman District in 2004. The study suggests that as many as 75.2% of neonatal deaths occur in poor families.

A mother's habit that pregnancy is a common thing has a low education history and a low economy. So these factors are indirectly suspected to affect pregnancy, labor and postpartum.

Double pregnancy or twin pregnancy is a pregnancy with two or more fetuses. The condition of mothers who have multiple pregnancies with a past mother's health history, such as hypertension and family history, such as a history of multiple breeds, may pose a risk to the baby they conceive.

Also found in multiple pregnancies there are breech born infants and congenital abnormalities. In addition, the weight of one twin fetus pregnancy averaged <2500 gr and prematurely. These things are thought to cause death in

infants. Adequate nutritional needs are absolutely necessary by pregnant women to be able to meet the nutritional needs for growth and development of the baby it contains and the physical preparation of the mother to deal with childbirth safely. Findings in the community that they are more concerned with tastes by ignoring the food they consume, such as the mother's favorite ice tea, the pleasure of eating salty foods. So that the intake of nutrients for babies contained very less and can be bad for the baby to be born.

In addition to diet associated with the lifestyle of today's society, it turns out there are some other lifestyle is quite detrimental to the health of a pregnant woman is a habit of staying up. The habit of staying up late by the mother can reduce the rest time to the mother and baby it contains. This condition is not good for a pregnant woman. Such conditions are likely for pregnant women to give birth to infants who have not enough months (premature babies) and can also cause death in infants due to low birth weight and followed by conditions of unhealthy infants.

Breastfeeding should be done after the baby is born (within 30 minutes after the baby is born) because the suction power at that time is strongest to stimulate further breastfeeding (Kamila, 2005). In the case of infant mortality most babies are not breastfed. This is due to breast milk that has not come out at all when the baby is born, milk is produced very smoothly but the baby did not get breastfed, and the baby get a mixture of formula milk from the hospital.

The cause of breast milk that can not come out is suspected because the baby is born prematurely so that the physical and psychological conditions can affect the expenditure of breast milk, mothers are sick, depressed mothers, anxiety is a problem, the baby's mouth is small and lack of support from his husband or family in breastfeeding the baby. So the milk that produced less smoothly or even can not come out at all. The pattern of baby care that includes breastfeeding and breast milk in infants, on the results of the study showed that infants who get

breast milk with low or high education level results are not much different. At the mother's level of education, whether low or high, does not guarantee that mother's knowledge of parenting patterns is good enough. On the other hand the information provided by health workers around pregnancy, especially about breast milk is unclear and incomplete.

More than 50% of infant deaths have been identified, babies who die are premature babies. Infant mortality caused by the condition of the baby itself, was not separated from the condition of the mother during pregnancy, causing premature infants. The majority of maternal activity during pregnancy is heavy work and information obtained during antenatal care is unclear and incomplete. On the other hand the physical condition of the mother that accompanies premature infant mortality due to the mother taking the drug, weak content, multiple pregnancy, and insufficient nutrition. The demographic characteristics of the accompanying mother include maternal age at the time of pregnancy, parity and distance of birth which is at risk for pregnancy.

Infant mortality that is suspected due to congenital abnormalities, can be seen that the baby's mother has a risk to its contents. Among babies born prematurely with twin births, infants who died have very small jaws so that the milk given can not be swallowed smoothly, in addition the baby is getting formula milk from the hospital. But this can not be proven exactly what causes of congenital abnormalities themselves. Judging from the maternal health history, the time to give birth to blood pressure increases, and the baby's heart condition begins to weaken, and the birth is done by cesarean section. Thus, the possibility of such a phoktor can cause the baby with birth asphyxia and cause death in infants.

It is possible that infant mortality assisted by health personnel has constraints during pregnancy check up to delivery, including incomplete medical devices, long distance at delivery, and limited / limited transportation. Besides,

there are factors of mother and family that can influence selection of helper delivery, such as decision making which is not or less appropriate when will give birth and also economic factor in family. An antenatal examination has been performed by the mother for more than 4 times. However, birth is still not enough months and can cause premature births with various factors that encourage premature birth to occur. The birth of maturated causes death in infants. The baby's death occurs due to congenital abnormalities, LBW, a history of pregnancy that is at risk eg hypertension during pregnancy. When viewed by frequency, pregnancy checks are in accordance with existing theories.

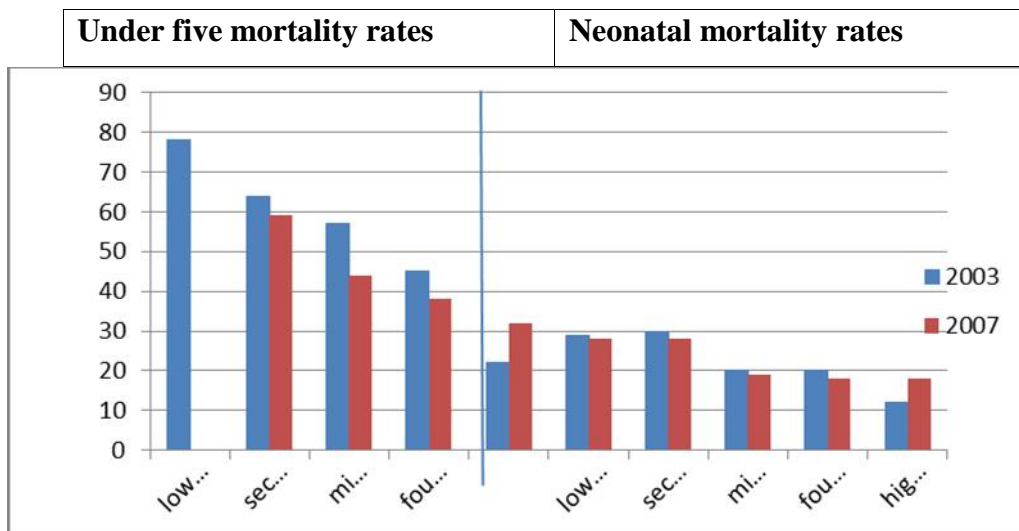
At each of these antenatal visits, it is necessary to obtain very important information. Seen from the results of research that risky mothers feel never got clear and complete information about pregnancy. Most mothers who first come to health services just to check whether they are positively pregnant or not. After that health workers only recommend to keep the content, eat-nutritious food. From these results, the information provided is still less detailed. For example, health workers provide samples of nutritious food for pregnant women, so that pregnant women know what kind of food should be eaten and should not be eaten. Another fact in the field is that many mothers always affirmed what the health worker said, but actually the mother did not understand what the health worker said and the mother was reluctant to ask again; if the result of the examination is considered good enough / what is said by the health worker that mother and child are healthy, then the mother immediately leave the health service; if the mother does not ask or more actively ask about pregnancy, then the health worker does not provide any information. As explained before, that although the education of pregnant women graduated from high school / equal. However, mother is not enough knowledge about pregnancy and labor process. Besides, the lack of transportation, and also the lack of mother or family to access information.

This is because the examination is done only limited to general examination during pregnancy and less important information about pregnancy,

the mother did not really care what the health officer said. Taking note of the above then the related things and the incidence of infant mortality is the examination of pregnancy, the examiner of pregnancy, not given breast milk to the baby. Another thing that happens is the complicating factors of labor, infant's illness, and baby care at home, the condition of the mother during pregnancy. This is proven according to the data obtained that the factors causing death are very diverse, such as breech birth, abnormalities in the womb, maternal conditions during pregnancy that causes premature infants, LBW, and asphyxia.(Arief and Sudikno 2015), Sari (2018), Lestari (2019), Nuriyanto (2019), Zahroh (2019) variable of residence area, mothers living in urban areas prefer labor in health facilities compared to mothers residing in rural areas. This can be attributed to the fact that in addition to health workers prefer to provide services in urban areas, also because the urban areas have complete facilities such as roads and ease of transportation supported by the development of development and the increasing economy of the community. While the rural areas where people live are scattered, isolated with low socioeconomic status making it difficult to reach health facilities and the high cost of transportation. In addition, there are strong cultural traditions of each region. But not infrequently also mothers who reside in urban areas choose non-delivery of health facilities. This is likely due to the high cost of labor in urban areas. In this study found a significant relationship between economic status with the selection of delivery in health facilities, meaning that women with non-poor economic status have a tendency to choose delivery in health facilities compared with poor economic status. The same is also shown by research Sari, et al. (2011), Ifa (2019), Haryanti (2018), Pahlevy (2019), Umam (2019), Setyawan (2019), Kurnianto (2019) stating that family income levels are involved in determining the choice of delivery venues.<sup>8</sup> Economic factors play a significant role in determining the choice of delivery venues because the use of health facilities and facilities depends on the community's ability to pay. In this study the proportion of mothers with economic status is not poor in choosing delivery in health facilities higher than mothers with poor status.

The lack of facilities caused by the inability of the family to finance the delivery facility can adversely affect the health and even the safety of the baby. Most child mortality in Indonesia today occurs in the first month of birth (neonatal) of life. A 2007 demographic survey of health (IDHS 2007) shows that both infant and under-natal mortality rates have increased.

Diagram of mortality rate of toddlers and newborns according to wealth groups in the period of ten years before each survey



## **5. Conclusions**

Influence of delivery service facility to infant mortality rate caused by several factors that is factor of mother condition, baby condition and health service facility itself. This in Indonesia is still quite difficult to be addressed. The existence of services that adequately menyahi inland or periphery is still a problematika to be united in accordance with the targets that have been made. The economic situation that has not been so good also become a big enough factor, the traditional mindset of health to get a slightly better guarantee is also not fully met.

The infant mortality rate is something that is very difficult to repair even though there has been little improvement in the last few years. Maternal health at the time of pregnancy also needs to be considered in order to give birth to children and mothers can be born healthy and safe. Premature babies become one of the factors that cause the baby can not be born safely.



## BIBLIOGRAPHY

- Mongkaren, S., Dan, F., Services ..., K., Economy, F., Business, D., Management, J., ... Manado, R. (2013). Facilities And Service Quality Influence Against Satisfaction Pengguna Advent Manado Hospital Services. Journal of EMBA, 4931 (4), 493-503. Retrieved from <https://ejournal.unsrat.ac.id/index.php/emba/article/viewFile/2723/2276>
- Public, J. W. (2017). No Title, 1 (3), 40-49.
- Ministry of Health of the Republic of Indonesia.(2016). Indonesia Health Profile.Health Profile of Bali Province.
- Government Regulation. (2016). Government Regulation of the Republic of Indonesia No. 47 Year 2016 About Health Service Facilities.
- Ministry of Health.(2014). Infodatin Data and Information Center Ministry of Health RI. Data and Information Center Ministry of Health RI: Cause of Maternal Death. Retrieved from [www.depkes.go.id/resources/download/pusdatin/infodatin/infodatin-ibu.pdf](http://www.depkes.go.id/resources/download/pusdatin/infodatin/infodatin-ibu.pdf)
- Hermanto, D. 2010. Effect of Quality Perception of Midwifery Service on Patient Satisfaction of Midwifery Hospital in DR. H. SoemarnoSosroatmodjoBulungan East Kalimantan. Available from: [eprints.undip.ac.id/23741/1/Dadang\\_Hermanto.pdf](http://eprints.undip.ac.id/23741/1/Dadang_Hermanto.pdf) JNPK. 2008. Normal Birth Care. Jakarta.
- Department of health. 2006. Health Role.
- Kamila. 2005.
- Yandrida. 2005. Neonatal Death in Padang Regency In 2004.
- AzrulAzwar. 2008. Definition of Health Services.
- Muhammad. 2010. Health Service Infrastructure Objectives.
- Salvicion and Cells. 1998.
- Clow (1998) and Febriani (2012).
- Tjiptono& Chandra.2005: 93.Understanding Facilities.
- Lupiyoadi.2006: 70.Pengtingnya Services.

Tjiptono. 2001. Measurement of Service Quality Variables.

Arief, Melfayetty, and SudiknoSudikno. 2015. "THE LABOR ELECTION'S DETERMINATION IN HEALTH FACILITIES (Data Analysis of Basic Health Research 2010)." *Journal of Reproductive Health* 5 (3). <http://ejournal.litbang.kemkes.go.id/index.php/kespro/article/view/3892>.

Wandira, ArintaKusuma., Indawati, Rachmah. Factors Cause Infant Death in Sidoarjo Regency.Airlangga University

IFA, Hoday et al. ANALISIS SOSIAL EKONOMI TERHADAP TINGKAT KESEJAHTERAAN MASYARAKAT TENGGER GUNUNG BROMO. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 169-175, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/12305>>. Date accessed: 12 aug. 2019.

PAHLEVY, Fahrizal Novan; APRIYANTO, Bejo; ASTUTIK, Sri. KARAKTERISTIK SOSIAL EKONOMI MASYARAKAT DAERAH WISATA BROMO SEBAGAI PENGEMBANGAN KESEJAHTERAAN HIDUP. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 172-189, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/12177>>. Date accessed: 12 aug. 2019.

HARYANTI, Titik Umayyah. PERANAN PANTAI DALAM KONDISI SOSIAL EKONOMI MASYARAKAT DISEKITAR PANTAI BENTAR KABUPATEN PROBOLINGGO JAWA TIMUR. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 1, n. 1, p. 12-16, aug. 2018. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/8336>>. Date accessed: 12 aug. 2019.

UMAM, Muhammad Fikri; ALHIDAYAH, Yazid; FAUZIYAH, Rita. ANALISIS MATERIAL ENDAPAN VULKAN GUNUNG SEMERU KABUPATEN LUMAJANG. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 92-98, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/11522>>. Date accessed: 12 aug. 2019.

SETYAWAN, Muhammad Alif; APRIYANTO, Bejo; ASTUTIK, Sri. ANALISIS KARAKTERISTIK ENDAPAN MARINE DAN PENGARUHNYA BAGI SEKTOR PERTANIAN DAN PERAIRAN DI PESISIR SELATAN PANTAI PANCER KECAMATAN PUGER KABUPATEN JEMBER JAWA TIMUR. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 141-154, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/11760>>. Date accessed: 12 aug. 2019.

KURNIANTO, Fahmi Arif et al. THE ENVIRONMENT ANALYSIS OF POPULATION GROWTH, UNEMPLOYMENT, AND POVERTY LEVEL IN MAESAN DISTRICT BONDOWOSO REGENCY. **Geosfera Indonesia**, [S.l.], v. 3, n. 2, p. 113-121, aug. 2018. ISSN 2614-8528. Available at: <<https://jurnal.unej.ac.id/index.php/GEOSI/article/view/8439>>. Date accessed: 12 aug. 2019. doi: <https://doi.org/10.19184/geosi.v3i2.8439>.

SARI, Eva Kurnia; PRAMESTY, Dinda Ayu. THE EFFECT OF VEHICLES INTENSITY IN SUMBERSARI JEMBER REGENCY. **Geosfera Indonesia**, [S.l.], v. 3, n. 3, p. 50-58, jan. 2019. ISSN 2614-8528. Available at: <<https://jurnal.unej.ac.id/index.php/GEOSI/article/view/9300>>. Date accessed: 12 aug. 2019. doi: <https://doi.org/10.19184/geosi.v3i3.9300>.

LESTARI, Dwi et al. ANALISIS FENOMENA GEOGRAFI FISIK PADA PENGUKURAN PROSES DAN HASIL PROSES BENTANG ALAM JAWA TENGAH. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 110-118, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/11626>>. Date accessed: 12 aug. 2019.

ZAHROH, Faidatuz; ELFIANI, Vira; H, Arya Bagas. ASPEK SOSIAL DAERAH KARST PUGER DALAM PRESPEKTIF EKONOMI. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 155-160, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/11780>>. Date accessed: 12 aug. 2019.

NURIYANTO, Muhammad Zaid; FIRMANSYAH, Fahrul Agil; PRASETYONO, Ica. ANALISIS PERUBAHAN BENTANG GEOMORFOLOGI PANTAI BENTAR KABUPATEN PROBOLINGGO. **MAJALAH PEMBELAJARAN GEOGRAFI**, [S.l.], v. 2, n. 1, p. 99-109, june 2019. ISSN 2622-125X. Available at: <<https://jurnal.unej.ac.id/index.php/PGEO/article/view/11523>>. Date accessed: 12 aug. 2019.