

FACTORS AFFECT OF INFANT AND MATERNAL MORTALITY RATES IN WEST NUSA TENGGARA PROVINCE

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ABSTRACT

This research tries to analyze the infant mortality rate; the maternal mortality rate in NTB Province; and factors that cause infant and maternal mortality in NTB Province. This paper is expected to provide benefits in the form of input in the context of decision making to determine policies in improving the quality of services, especially the Maternal and Child Health Program (MCH) and efforts to reduce the Maternal Mortality Rate (MMR) in NTB Province. This study uses a qualitative approach using literature studies. The most common cause of maternal death in West Nusa Tenggara is caused by bleeding 30.97%, eclampsia 21.24% which is the direct cause of maternal death, followed by birth canal infection 1.77%, and the lowest cause of death is old parturition 0.89%. Maternal deaths by other cases when added up also become large at 45.13% which is usually motivated by indirect causes.

Key words: death numbers, baby and mother

INTRODUCTION

Health development is an inseparable part of national development that must be continuously pursued by the government. The health status of a country can be seen from the main health indicators, such as Infant Mortality Rate (IMB) or Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR). It must be admitted, that health development in Indonesia is quite far behind compared to other countries in the Asian region whose socio-economic conditions are not much different, such as Malaysia, Thailand, Sri Lanka and China. Comparison of Indonesia's IMR with the four countries shows unfavorable results. Indonesia's IMR based on the 2007 IDHS is 34 per thousand live births.

In addition to the low equity and affordability of health services, socioeconomic factors also greatly affect infant and under-five mortality rates. This can be seen from the still large gap in infant and under-five mortality rates between educations, socio-economic, inter urban and rural levels. IMR in uneducated population is still three times greater than those with higher education, as well as IMR at a low socioeconomic level is still greater than a high economic level. The same thing happens between urban and rural areas, where the IMR in rural areas is higher than in urban areas. The gap can also be seen from the province. The highest IMR is found in West Sulawesi (74 per thousand live births) and West Nusa Tenggara (72 per thousand live births), reaching almost four times the province with the lowest IMR, namely Yogyakarta (19 per thousand live births). This shows the unevenness and the low access and quality of maternal and child health services.

The high infant and toddler mortality rate cannot be left unnoticed, bearing in mind the survival of the child will largely determine the quality of human resources in the future. Therefore, the right intervention is needed to reduce the mortality rate. Effective interventions can only be carried out, if significant factors are known to affect children's survival. Empirical studies in other developing countries, such as India and Kenya, regarding child survival, show that not only factors within the health sector, such as the number of puskesmas, midwives, and health infrastructure that affect children's survival, but also factors outside the health sector, such as the level of parental education and the level of household income. Maternal and infant deaths are correlated. This is due to the provision of the same health care facilities for pregnant women and their babies to be born. There are several triggers regarding the high maternal and newborn mortality rates as stated by Kusumaningtyas, namely the quality of health services, the health referral system, the implementation of the National Health Insurance, and local government policies related to health. In addition to these factors, there are also cultural factors that develop in certain societies, where the decision to get help in the hospital or not depends on the husband's decision. In other words, there is a kind of gender imbalance that occurs in a part of Indonesian society. Other factors that also influence are educational background, socio-economic family, community environment and politics.

Millennium Development Goals (MDGs) are global development declared by 189 UN member states in New York. Based on the declaration, it was agreed on a package of global development directions that had several goals, including reducing the maternal mortality rate (MMR). The reduction in MMR is an indicator of the quality of public health services and an indicator of the success of development in a country. Besides AKI is also used as a basis for consideration in determining the Human Development Index. Maternal death by WHO definition is the death of every woman during pregnancy, childbirth or within 42 days after the end of pregnancy by any cause, regardless of age and location of pregnancy, by any cause related to or exacerbated by pregnancy or its treatment but not by accident or incidental (accidental factors). A high IPI in an area basically represents a low degree of public health and has the potential to cause economic and social setbacks at the household, community and national levels. However, the greatest impact of maternal death in the form of a decrease in the quality of life of infants and children causes shocks in the family and subsequently affects the child's development. The maternal mortality rate (MMR) and infant mortality rate (IMR) in Indonesia are high because labor is still mostly done at home and the age of mothers giving birth is too young. Therefore, the government must pay attention to maternal and child health because the two MDG indicators are still far from the target that must be achieved. The country of Indonesia is huge, the number of mothers giving birth is too much.

Although there has been progress in family planning but it is still lacking, there are still too many mothers giving birth at a young age. The main causes of death in mothers giving birth are bleeding and infections that are not helped because many still choose to give birth at home, not in hospitals or health centers. This bleeding occurs a lot in young women, 15-16 years have given birth. Then usually in a fairly remote area, the distance from home to the health center is far.

In Indonesia, the IDHS data shows that the IMR has declined, and the same is the case with the MMR which has decreased. Even though it has experienced a significant decline, the IMR and MMR indicators in the MDGs are still far from the targets that are set and must be achieved. The government still has to work hard to achieve the MDG target according to the agreement, namely IMR 24 per 1,000 live births and MMR 102 per 100,000 live births. The government through the Ministry of Health has cooperated with other parties such as mass organizations and businesses to help achieve the MDGs, for example through places of worship to persuade mothers to go to the puskesmas. There are still mothers who are reluctant to go to the puskesmas, want to give birth at home. This is not yet affordable so sometimes help is late. This is why it is very important through places of worship to convey to the public so that it is not too late. The government has also made breakthroughs to reduce MMR and IMR such as the implementation of labor guarantees (Jampersal) as well as the integrated emergency response system (SPGDT).

Many studies on maternal deaths have been carried out, including Pertiwi (2012), stating that the percentage of deliveries assisted by a dukun, the percentage of households having healthy hygiene behaviors, and the percentage of health facilities in each district / city significantly influence the number of maternal deaths. Aristia (2011) states that the percentage of households with healthy hygiene behavior significantly influences the number of maternal deaths. This paper is written in the hope that it can provide an overview of infant and maternal mortality rates and its causal factors. Based on the background description the research problem can be formulated as follows: What is the infant mortality rate and maternal mortality rate in NTB Province, and what are the factors causing infant and maternal mortality in NTB Province?

METHODOLOGY

This study uses a qualitative approach using literature studies. The infant mortality rate is one important indicator in determining the level of public health because it can describe the general health of the population. This figure is very sensitive to changes in the level of health and well-being. The infant mortality rate can be defined as death that occurs between the time after the baby is born until the baby is not exactly one year old (BPS). Infant Mortality Rate shows the ratio between the number of babies who die before reaching the age of one year in a given year and the number of babies born alive in the same year. Maternal Mortality Rate (MMR) is used to describe the level of awareness of healthy living behaviors, nutritional status and maternal health, environmental conditions, the level of health services especially for pregnant women, health services during childbirth and the postpartum period.

RESULT AND DISCUSSION

1. Development of Infant and Maternal Mortality Rates in West Nusa Tenggara 2009-2018

Under-5 Mortality Rate is the number of deaths of children aged 0-4 years for a certain year per 1000 children of the same age in the middle of that year (including infant mortality). Toddler Mortality Rate is often used to identify the economic difficulties of the population because this indicator is a socioeconomic reflection that is directly related to the child's survival target, nutritional status and the environment of children in residence including health care.

The infant mortality rate in West Nusa Tenggara Province is relatively high, compared to the national infant mortality rate, although it has decreased from year to year. In 1997 the infant mortality rate reached 110.5 per 1000 Live Births (KH), down to 74 per 1000 KH in 2002 then to 72 per 1000 KH in 2009. In 2012 there were 1,502 cases of under-five deaths (consisting of 1,432 cases infant mortality and 82 cases of infant mortality) of 103,524 live births. In 2013, there were 1,306 cases of under-five deaths (consisting of 1,297 infant deaths and 76 under-five deaths) of 103,495 live births. Routine reports (recording) of health workers in NTB Province noted that cases of under-five deaths in 2017 experienced a decrease compared to 2016. Cases of under-five deaths in 2017 were 1,012 consisting of 953 cases of infant mortality and 59 cases of under-five deaths from 103,926 live births, while cases underfive deaths in 2016 were 1,084 cases, consisting of 1,006 infant mortality cases and 78 underfive deaths from 103,132 live births.

Infant Mortality Rate (IMR) is a sensitive benchmark of all intervention efforts carried out by the government, especially in the health sector. IMR can describe the socioeconomic conditions of the local community because infants are the most vulnerable age groups affected by environmental and socio-economic changes. IMR is a number that shows the number of deaths of babies aged 0 years from every 1000 live births in a certain year or it can be said also as the probability of babies dying before reaching one year of age (expressed as per thousand live births).

NTB Province's IMR has decreased in the 2003-2012 period, but is still above the national rate. According to data from the Indonesian Demographic and Health Survey (SDKI) in NTB Province in 2007 72.2 million live births declined to 57/1000 live births according to the 2012 IDHS data. The NTB Province's IMR is still above the national rate, so breakthroughs are needed or programs that have a strong leverage to reduce IMR. IMR has a significant effect on Life Expectancy (UHH), decreasing IMR will increase UHH. Based on reports, in 2017 the number of cases of infant deaths was 953 cases of 103,926 live births, down compared to 2016 with the number of cases of infant deaths being 1,006 cases of 103,132 live births.

Most infant deaths over the past 5 years have occurred in East Lombok. The largest population and area in NTB Province is one of the factors that influence the high infant mortality rate in East Lombok Regency. Getting closer and facilitating access to health care facilities for people who are scattered in areas that do not have health facilities, improving the skills of health workers through continuous training, especially about reproductive health and more intense socialization are some of the efforts expected to reduce infant mortality.

Maternal death according to WHO is death during pregnancy or in the 42 day period after delivery or the end of pregnancy, due to all causes related to or exacerbated by pregnancy or treatment, but not caused by accident / injury. The number of maternal deaths in West Nusa Tenggara Province in 2010 was 113 people, consisting of 35 maternal deaths, 28 maternal deaths and 50 postpartum maternal deaths. Based on the 2012 IDHS, the maternal mortality rate in Indonesia is 359 per 100,000 live births. While the maternal mortality rate in NTB in 2012 was 251 per 100,000 live births. Based on reports from districts / cities, the number of cases of maternal deaths in NTB Province during 2017 was 85 cases, down from 2016 with 92 cases. The number of maternal deaths in NTB Province during the last 5 (five) years showed a declining trend. During the period of 2013-2017 there was a decrease in the number of maternal deaths in NTB Province by 32 people, in the same period the average number of deaths decreased to 8.45% per year. Compared to 2016, the number of maternal deaths has decreased by 7 people in the past year. For 2017, most maternal deaths remain in Central Lombok District with 24 cases and no district has yet been designated as AKINO District (Zero Maternal Mortality Rate). The highest incidence of maternal death in 2017 occurred when maternity was 42.35%, puerperium by 40% and when pregnant women was 17.65%. Based on age group, maternal mortality mostly occurs at age 20-34 years as much as 64.71%, age ≥ 35 years as much as 30.59% and age < 20 years as much 4.70%. Information about the high number of maternal deaths is useful for developing reproductive health programs, especially pregnancy services and making safe pregnancies free of high risk (making pregnancy safers). One of the efforts is through the preparation of the National Action Plan (RAN) program for the acceleration of the reduction in MMR, which includes an increase in the number of births assisted by health workers, preparation of a referral system in handling complications of pregnancy, and even the preparation of family and husband to prepare for birth.

2. Factors Causing Infant and Child Mortality Rate in West Nusa Tenggara

Causes of Neonatal Death (0-28 days) are due to cases of Low Birth Weight (LBW) 45.06%, cases of asphyxia 24.78%, congenital defects 7.99%, the lowest tetanus 0.10%. The following is the highest cause of infant death due to acute respiratory infections (ARI) 52.23%, the lowest due to dengue hemorrhagic fever (DHF) 0.30%.

The most common cause of maternal death in West Nusa Tenggara is caused by bleeding 30.97%, eclampsia 21.24% which is the direct cause of maternal death, followed by birth canal infection 1.77%, and the lowest cause of death is old parturition 0.89% . Maternal deaths by other cases when added up also become large at 45.13% which is usually motivated by indirect causes.

3. Regional Government Policies to Reduce Infant and Childbirth Mortality in West Nusa Tenggara

The efforts of maternal and child health services aim to improve the health of pregnant women and the fetus in the womb until birth, the postpartum period and the growth period of infants and children, among others through improving antenatal services according to standards for all pregnant women in all health facilities and increasing childbirth assistance by competent health workers who are directed to health facilities. Antenatal services are health services by health professionals. Antenatal care for pregnant women is carried out according to the standards of midwifery services.

The government must take action to immediately improve women's reproductive health services. Policies to provide reproductive health service facilities for women and adolescents must be provided immediately. In addition, health budget policies, especially women's health must also be a commitment of the government to carry out the mandate of the Health Act. The slower the policy is given, it is certain the number of IMR and MMR in Indonesia will continue to increase.

Health development that has been carried out so far has succeeded in significantly increasing the degree of public health even though there are still many problems and obstacles encountered. Development of public health really requires health resources which are the hardware and software needed to support the implementation of health efforts. Health service facilities consist of public hospitals, special hospitals, health centers and their networks, pharmaceutical production and distribution facilities and other service facilities (such as medical clinics / clinics, joint doctor's practices, private doctor practices and traditional medical practices).

The government is committed to allocating 5% of the APBN health fund and ensuring regions to budget 10% of the APBD for health excluding salaries. The government can also make policies regarding budgets to improve women's health, for example by requiring 20% of the health budget for maternal and child health (MCH) activities and ensuring the budget is right on target. Provision of comprehensive emergency neonatal obstetric care facilities (PONEK), basic emergency neonatal obstetric services (PONED), posyandu and blood transfusion units that have not been evenly distributed and are not yet entirely covered by the entire population.

This is reflected in the realization of public hospitals in the province of NTB until the end of 2017 to 28 hospitals. The distribution of hospitals in NTB Province is uneven. The hospital unit in NTB Province is more than enough where recorded in terms of ownership as many as 16 government hospitals and 12 private hospitals. But the spread or layout of the hospital is still uneven. There are still hospitals that do not reach or are inadequate in terms of bed adequacy services because more hospitals are

on the island of Lombok than on the island of Sumbawa. According to the type of service, besides the General Hospital there are also Special Hospitals. Special Hospital organizes health services based on certain types of diseases and disciplines or has a primary function. In NTB Province there are 2 Special Hospitals namely Mutiara Sukma Mental Hospital and Permata Hati Mother and Child Hospital. According to Permenkes Number 75 of 2014, Puskesmas have the task of implementing health policies to achieve the goals of health development in their working area in order to support the realization of healthy sub-districts. With a catalyst the Puskesmas has the authority and responsibility for maintaining public health in its working area. Puskesmas in NTB Province in 2017 numbered 165 Puskesmas consisting of 137 inpatient Puskesmas and 28 non-inpatient Puskesmas. There was an increase in the number of Puskesmas in Central Lombok, East Lombok and Bima City and there were changes in the type of Puskesmas in 2017. In 2016 there were 27 inpatient Puskesmas, while in 2017 there were 28 inpatient Puskesmas. There are non-in-patient health centers that turned to inpatient health centers in 2017 but there are also new health centers that are still in-patient health centers.

The government regulates the planning, procurement, utilization, guidance, and supervision of the quality of health workers in the context of providing health services. Health workers can be grouped according to their expertise and qualifications, including medical staff, pharmacy staff, nursing staff, community health staff, sanitarian staff, nutrition workers, physical ignition force, medical engineering staff, and other health workers. The number of health workers in health facilities in NTB Province in 2017 was 16,964 people. This number represents the number of staff at the Puskesmas, Government Hospitals and Private Hospitals and there is a small proportion of health workers in the District / City Health Office. The highest proportion is nurse staff as much as 75% and midwives as much as 23% of health workers in existing health facilities in NTB Province.

There are 436 specialist doctors working at the hospital. This condition is increasing compared to the condition in 2016 where specialist doctors were 315 people. The ratio of specialist doctors per 100,000 population in NTB Province in 2017 was 8.80 per 100,000 population. The ratio of specialist doctors is below the target ratio set based on the Kepmenko Bid. Kesra No.54 of 2013 which is 11 per 100,000 population (target 2019). The number of general practitioners in health facilities in NTB Province in 2017 was 717 people and the ratio of general practitioners was 14.47 per 100,000 population. The ratio of general practitioners in the NTB Province is still below the target ratio set based on the Kepmenko Bid. Kesra No.54 of 2013 which is equal to 45 per 100,000 population (target 2019).

Nurses in health facilities in NTB Province are 5,779 and the ratio of nurses is 118 per 100,000 population, still below the target ratio set based on the Kepmenko Bid. Kesra No.54 in 2013 which is 180 per 100,000 population (2019). The number of midwives in health facilities in NTB Province was 3,207 people with a ratio of 65 per 100,000 population, still below the target ratio set based on the Kepmenko Bid. Kesra No.54 in 2013, amounting to 120 per 100,000 population (2019).

NTB Province health development financing for 2017 was obtained from various sources, namely district / city APBDs in NTB, NTB Province APBD, APBN (Deconcentration Fund) and Foreign Loans / Grants (PHLN). In 2017 the NTB Province's health budget was recorded at Rp.2,236,402,197,786 or Rp. 451,468 per capita / year. When compared with WHO's statement that the ideal health budget to guarantee the implementation of essential health programs / services is US \$ 34 / capita or around Rp.461,040 / capita (1 US \$ = Rp. 13,560), it means that the health budget in the district / city is still below the benchmark about the adequacy of the health budget in the district / city.

The health budget comes from the district / city APBD, namely from the Health Office and the Regional Hospital as much as Rp.2,128,264,016,904 (95.16%) of the total NTB Province health budget. Law number 36 of 2009 mandates that the budget for the health sector is 10% of the regional budget excluding salaries. If Direct Expenditures from the Regency / City and Province APBD in 2017 amount to Rp. 1,647,064,599,127, - and the total District / City and Province APBD in 2017 is Rp.20,809,194,366,283, - meaning the budget for the health sector outside of salary has not met the target of around 7.92%.

CLOSING

1. Conclusions

In 2018, there was a decrease in maternal mortality cases from previous years, as well as cases of infant and toddler mortality also declined when compared to cases of infant and toddler deaths in the previous year for the past 10 years. In addition, there are still some shortcomings in the implementation of health development which can be seen from the unachieved coverage of several programs and activities according to the expected targets.

2. Suggestion

Based on these performance results it is necessary to further explore the successes and shortcomings of implementing health development as a material for health development planning and decision making in West Nusa Tenggara Province.

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