Conference Paper

**Neonatal Deaths in the North Buton Regency Based on Coverage of Neonatal Visits**

Dwiana Binti Suryaningtyas¹, Ramadhan Tosepu²*, Devi Savtitri Effendy²

¹Student of Postgraduate Program of Public Health, University of Halu Oleo, Indonesia
²Faculty of Public Health University of Halu Oleo, Southeast Sulawesi province, Indonesia

**Abstract.**

In the neonatal period, babies’ health is vulnerable. In that period, the baby may have the possibility to experience pain. For this reason, a neonatal visit is needed to monitor the baby’s health. Neonatal visits are one of the prevention methods to reduce IMR (Infant Mortality) by making direct contact with health workers at least three times. This study aims to describe the neonatal mortality rate based on the coverage of neonatal visits, both neonatal visit 1 and neonatal visit 3. This is a survey research utilizing the health report data of the Health Office of North Buton Regency in the period 2018-2020, which includes data on neonatal mortality and coverage of complete neonatal visits (neonatal visit 1 and neonatal visit 3). The type of research data is numerical. The research data is presented in the form of graphs with narration. The conclusion of the study is that the neonatal mortality rate is not always in line with the number of complete neonatal visits 3. It is recommended that health workers be more active in offering counseling about neonatal visits to the community.

**Keywords:** Neonate, Neonate Visit, Neonate Death

1. introduction

Neonates or Newborns are the first period of life outside the womb until the age of 28 days, where there is a very big change from life in the womb to outside the womb [1, 2]. Life in this neonatal period is very vulnerable because it requires physiological adjustments so that babies outside the womb can live as well as possible [3]. The biggest problem of neonatal mortality occurs in the first 24 hours of life, the first week of the first month [4].

Neonatal visits are one of the interventions to reduce newborn mortality [5] by conducting Neonatal Visits for 3 (three) visits, namely Neonatal Visits I (KN1) at 6 hours to 48 hours after birth, Neonatal Visits II (KN2) on days 3 to 7 days, and Neonatal Visit III (KN3) on days 8 to 28 days [6].

In Indonesia, the coverage of the First Neonatal Visit (KN1) in 2012 reached 88.99%. In 2013 it increased to 93.34% [7]. In Southeast Sulawesi Province, the coverage of KN1...
in 2012 reached 94.4% but decreased in 2013 to 84.33%. This is not in reached the strategic plan target of 89%. This target has not been achieved. One of the reason is due to the lack of knowledge of mothers about the importance of checking newborns, the assumption that if their children are healthy they do not need to have their health checked. They should not take babies out of the house before the age of 40 days and the lack of support from families to check new babies born to a health care center [8].

Reducing the Neonatal Mortality Rate requires the joint efforts of health workers by involving traditional birth attendants, families and the community in providing quality health services for mothers and newborns [9]. To measure the success of implementing effective and efficient interventions, it can be monitored through service coverage indicators that reflect the reach and quality of newborn health services. Reduction in neonatal mortality can be achieved by providing quality and continuous health services from the time the baby is in the womb, at birth to the neonatal period [10].

The low number of neonatal visits to health facilities has an impact on the health of neonates, because health problems that should be detected at the time of the visit are not detected. It can lead to death [11].

Neonatal mortality is babies who die within 0-28 days after birth in 1,000 births at the same time. On this neonatal period is a vulnerable life time for child survival. The neonatal mortality rate is one indicator of health status according to the third SDGs, "Ensure healthy lives and promoting well-being for all at all ages" explains that ending infant and under-five mortality through targeted prevention by 2030 is one of the impacts expected [12]

The infant mortality rate in Indonesia in 2019 was 21.12%, it decreased from the infant mortality in 2018 which was 21.86% and in 2017 22.62% deaths [12]. This study aims to describe the neonatal mortality rate in North Buton Regency based on the coverage of neonatal visits

2. METHODOLOGY

This type of research is a survey research by utilizing the health report data of the Health Office of the North Buton Regency for the period 2018-2020 involving data on neonatal mortality and complete coverage of neonatal visits neonatal visit 1 and neonatal visit 3. The research sample was neonates. The type of research data is numerical, and the research data is presented in the form of a graph with narration.
3. RESULT OF THE STUDY

The research results can be presented using a bar chart with explanation that can be presented as follows:

The highest number of deaths in 2018 was at the Labaraga Health Center as many as 4 neonates, the lowest at the Lakansai and Kambawo health centers 0 deaths, in 2019 the highest death at the Lambale health center was 4 neonates, then in 2020, the highest was at the Kulisu health center as many as 6 neonates.

![Figure 1: Number of neonatal deaths in the North Buton Regency for the 2018-2020 period.](image1)

Figure 2 Shows that in the year 2018 the highest neonatal visits 1 (KN1) were at the Kulisu, Lambale and Boneguru health centers respectively at 100% and the lowest at the North Wakorumba Public Health Center at 96.3%. In 2019 the highest was in 3 health centers namely Lakansai Public Health Center, Kambawo and Labaraga respectively at 100% and the lowest at the Boneguru Health Center at 96.2%. In 2020 the highest was at the Boneguru Health Center at 115% and the lowest was at the Kambawo Health Center at 78.9%.

![Figure 2: Number of neonatal deaths in North Buton Regency for the 2018-2020 periods.](image2)

Figure 3 shows that in 2018 the highest neonatal visits 1 were at the Kulisu, Lambale and Boneguru health centers respectively at 100% and the lowest at the North Wakorumba Public Health Center at 96.3%. In 2019 the highest was in 3 health centers.
namely Lakansai Public Health Center, Kambawo and Labaraga respectively at 100% and the lowest at the Boneguru Health Center at 96.2%. In 2020 the highest was at the Boneguru Health Center at 115% and the lowest was at the Kambawo Health Center at 78.9%.

4. DISCUSSIONS

The coverage rates for neonatal visits, both neonatal visit 1 and neonatal visit 3 in North Buton Regency, vary by health center. In 2020 is showing very different numbers. The researcher assumes that there are many factors that make the complete neonatal visit at the Health Center of North Buton Regency not reach the target, especially in 2020. Fanny Audia's research [13] found that there was a significant relationship between educational status, parity and completeness of neonatal visits, with each each \( p=0.027 \), \( p=0.05 \). Furthermore, Fanny Audia stated that mothers who have a high level of education have a higher awareness than mothers who have a low level of education about the importance of checking the health of their newborns. According to Fanny Audia, the low number of visits is influenced by maternal parity, where mothers who have high parity or those who have many children are assumed to be able to take care of newborns properly so they do not need health workers anymore.

Apart from the characteristics of the mother, health workers also have an important role in running one of these MCH (Mother and Child Health) programs. Health workers who are less than optimal in providing counseling to the community about the importance of conducting complete neonatal visits or health workers who rarely make home visits to carry out neonatal checks. Research [14] found that several respondents
admitted that after the respondent gave birth at a health service place, the respondent did not get re-monitoring from the health worker so that the respondent was indifferent to carrying out neonatal visits.

Neonatal visits are important because the greatest risk of neonatal death occurs during the first 24 hours of life, the first week of life and the first month of life. The research data that has been collected shows that the lowest neonatal visit is relevant to the neonatal mortality rate. In the North Wakorumba Public Health Center in 2018 there were 2 deaths, at that time the coverage of neonatal visits was 85.3%. In 2019 there were 6 deaths at the Kulisusu Public Health Center. When we viewed from the coverage of the complete neonatal visit 3 (KN3) at the Kulisusu Health Center it was 98%, 4 neonatal deaths at the Lambale Health Center with a complete neonatal visit 3 (KN3) coverage of 93.3%.

The research of La Ode Alifariki [15] found that the results of the bivariate statistical analysis with the odds ratio test obtained an OR = 4.545 (95% CI; 1.932-10.692). This means that accessibility is less at risk of causing neonatal death by 4.5 times compared to good accessibility. It can be studied that the lack of access to the Public Health Center after the mother gives birth will automatically reduce the neonatal visit (KN3) so that the baby does not get maximum care.

5. CONCLUSIONS

The result of the research is concluded that neonatal mortality is not always as in the line with complete neonatal visit (KN 3). In 2018 the highest mortality was 4 neonates in 2018 at Labaraga Health Center, the lowest was at the Lakansai Health Center and Kambawo was zero deaths. In the year 2019 the highest death was at the Lambale Health Center was 4 neonates, and in 2020 the highest was at the Kulisusu Health Center as many as 6 neonates.

The results of this study will bring implications for improving service quality in order to reduce neonatal mortality in the North Buton Regency.

6. AUTHOR CONTRIBUTION

The authors have contributed on this research.
7. ACKNOWLEDGMENTS

The author would like to thank all those who have contributed to this research, especially the Head of the North Buton Regency Health Office.

References
