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The Characteristic of Several Infant Mortality Risk Factors in Batang District

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ABSTRACT

Background: Sustainable Development Goals (SDGs) contain a set of transformative goals which is agreed and applicable to all nations without exception containing 17 goals, which carrying 14 indicators are not achieved. Some of the indicators that are not reached include Infant Mortality Rate, IMR in Batang Regency is ranked as the sixth highest in Central Java with 13.42 per 1000 births. The purpose of this study was to investigate the characteristics of several risk factors for infant mortality in Batang Regency. The research method was descriptive analytic design, using questioner to 19 public health centers with 266 respondents. The research results showed that 106 (39.8%) respondents had poor knowledge about pregnancy and labour, 49 (18.4%) respondents had history of maternal diseases, 42 (15.8%) respondents are ≤ 20 years old when labour, 44 (16.5%) respondents had medical history in previous pregnancies, and 83 (31.3%) respondents had current medical history of pregnancies. There are 59 (22.2%) respondents were found labour with risky conditions, such as asphyxia and LBW (Low Birth Weight), and the age of the baby at preterm birth. 51 (19.2%) respondents chose non-health services maternity place with a birth attendant.

Conclusion: Maternal knowledge about pregnancy and healthy labour, labour obstacle conditions, neonatal health status, and birth attendant are risk factors for infant mortality. **Suggestions** are needed for massive EIC on MCH (Maternal and Child Health) material on primary target, pregnancy screening high risk in pregnant mother class, and massive education for health personnel as birth attendant.

Keywords*: characteristics, risk factors, infant mortality*

INTRODUCTION

Starting in 2016, sustainable development goals (SDGs) 2015-2030 replace formally the Millennium Development Goals (MDGs) 2000-2015. SDGs contain a set of transformative goals that are agreed upon and applicable to all nations without exception. SDGs contain 17 Goals. The 17 goals are [(1)] :

1. Eliminating poverty,
2. Ending hunger,
3. Health and wellbeing,
4. Good education quality,
5. Gender equality,
6. Clean water and sanitation,
7. Access to affordable energy,
8. Economic growth,
9. Innovation and infrastructure,
10. Reducing inequality,
11. Sustainable development,
12. Sustainable consumption and production,
13. Preventing the impacts of climate change,
14. Maintaining marine resources,
15. Maintaining terrestrial ecosystems,
16. Justice,
17. Revitalization and global partnership which have 169 targets with approximately 300 indicators.

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Sustainable development (SDGs) 2015-2030 replace formally the Millennium Development Goals (MDGs) 2000-2015 [2]. However, in 8 Millennium Development Goals that have 63 MDGs indicators, 13 indicators have been achieved, 36 indicators are in the process of achievement, while 14 indicators are not achieved. Some of the indicators that are not achieved on MDGs related to health namely the reduction of maternal mortality rate (MMR), infant mortality rate (IMR), neonates mortality rate (NMR), HIV / AIDS, TB and malaria, access to reproductive health services, family planning, and scope of drinking water and sanitation.

The infant mortality rate (IMR) in Batang regency was ranked the sixth highest in Central Java with an IMR of 13.42 per 1000 births. Both maternal mortality and infant mortality rates in Batang regency indicate that an in-depth study of these two mortality indicators is needed since these two indicators are a benchmark for the good quality or not of health services in an area. The higher degree of maternal and child health, the higher degree of public health in the area.

There are two causes of infant mortality namely endogenous and exogenous. Endogenous infant mortality or neonatal mortality is caused by factors brought by the child at birth, obtained from the parents at the time of conception [3,4]. According to [5] infant mortality caused by the condition of her own baby that is LBW (Low Birth Weight), premature baby, and congenital abnormalities. [3] said, infant mortality brought by baby from birth is asphyxia. While exogenous infant mortality or post-neonatal mortality is caused by factors related to the influences of external environment [4]

METHOD

The design of this study is descriptive analytic, using questionnaires in 19 public health centre in Batang Regency [6] with 266 respondents in 19 public health center, those were :

1. Wonotunggal
2. Tersono
3. Bandar I
4. Gringsing I
5. Bandar II
6. Gringsing II
7. Blado I
8. Limpung
9. Blado II
10. Banyuputih
11. Reban
12. Subah
13. Bawang
14. Pecalungan
15. Batang I
16. Warungasem
17. Batang II
18. Batang IV
19. Batang III

Research ethics is guaranteed by filling in informed consent by respondents. The study variables included maternal factors, neonatal factors, and health services. Maternal factors consist of maternal knowledge about pregnancy and childbirth, history of maternal diseases, maternal age at labour, medical history in previous pregnancy, and current medical history of pregnancy. Neonatal factors include the condition of the baby born, such as asphyxia and LBW (Low Birth Weight), and the baby's age at birth.

RESULT

Characteristics of respondents involve the age, occupation, income, number of family members, based on the results of data collection are described below.

Table 1: Respondents' characteristics

Variable	Category	Total
The average age	29,53 ± 7,23 (15-45)	
Occupation	Unemployment	226 (85%)
	Employment	40 (15%)
Income	≥ UMR	151 (56,8%)
	< UMR	115 (43,2%)
The average number of family member	4 ± 1,5 (2-9)	

The study of the determinants of IMR in this study included maternal factors, neonatal factors, and intermediate factors. Maternal factors studied include: maternal knowledge and condition at labour. Neonatal factors studied were the condition and age of the baby at birth. Intermediate factors studied were maternity and birth attendant.

1. **Maternal factors:** Maternal factors of infant mortality studied in this study are shown in Table 2 below.

Table 2: IMR maternal factors

Variable	Category	Total
Mother's knowledge	Bad	106 (39,8%)
	Good	160 (60,2%)

Conted…

Complication at labour	Negative	217 (81,6%)
	Positive	49 (18,4%)
Maternal age at labour	≥ 20	224 (84,2%)
	< 20	42 (15,8%)
Pre-pregnancy medical history	Not at risk	222 (83,5%)
	at risk	44 (16,5%)
Current pregnancy medical history	Not at risk	182 (68,7%)
	at risk	83 (31,3%)

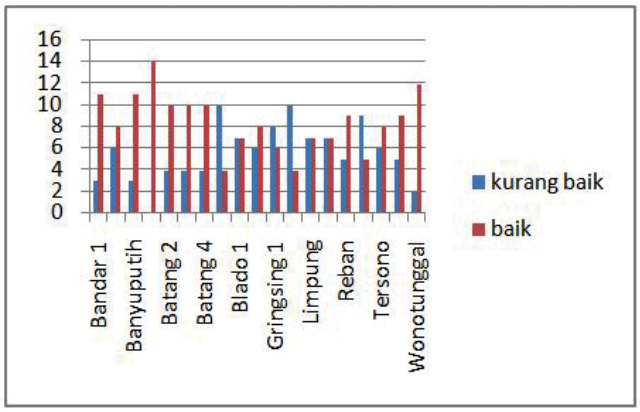

Figure 1: Distribution of respondents' knowledge in 19 public health centers in Batang District

A total of 49 (18.4%) of respondents had history of maternal diseases, 42 (15.8%) of respondents were less than 20 years old when labour, 44 (16.5%) had medical history in previous pregnancies, and 83 (31, 3%) of respondents had current pregnancy medical histories. The maternal complications studied include labour obstacles, fetal distress, breech, and bleeding. Medical histories at previous pregnancies studied were abortion, premature, cesarean, and preeclampsia. Current medical histories of pregnancy include hypertension, anemia, diabetes, and obesity.

2. **Neonatal & intermediate factors:** Neonatal and intermediate factors of infant mortality rates studied in this study are shown in Table 3 below.

Table 3: Neonatal & Intermediate factors

Variable	Category	Total
Neonatal factors	Not at risk	207 (77,8%)
	at risk (babies born at risk/less birth age)	59 (22,2%)
Intermediate factors	Not at risk	215 (80,8%)
	at risk (non health service place of birth/ birth attendant	51 (19,2%)

A total of 59 (22.2%) of respondents were found to labour with risky conditions, such as asphyxia and LBW, and the baby's age at birth is less (premature). A total of 51 (19.2%) of respondents chose a non-health service maternity place and or use a birth attendant.

DISCUSSION

The determinant research of IMR was done in 19 public health centers with the number of respondents as many as 266 women of childbearing age and fertile age couples. The average age of respondents when the study are mature, 29.53 ± 7.23 with the youngest respondent is 15 years old, and the oldest is 45 years old. There were 85% unemployment respondents, but 56.8% family income more than or equal to UMR. It was found that the average family of respondents is still ideal, ie 4 ± 1.5 although still found the most number of family members were 9 people.

The result of the study of maternal factors, the characteristics of PUS WUS respondents in the working area of 19 public health centers in Batang regency showed both the average knowledge, the history of maternal complications during labour, maternal age at labour, previous medical history of pregnancy, and current pregnancy history showed good or not at risk of IMR. Although it was good, still found that 39.8% of respondents were less knowledgeable, 18.4% had history of labour complications, 15.8% were under 20 years old when labour, 16.5% had at risk previous pregnancy history, and 31.3 % have risk current pregnancy history. This will likely reappear infant mortality if the program is not monitored properly. The maternal complications studied include labour obstacles, fetal distress, breech, and bleeding. Medical histories in previous pregnancies studied were abortion, premature, cesarean, and preeclampsia. Current medical histories in pregnancy include hypertension, anemia, diabetes, and obesity.

Referring the knowledge distribution of respondents in 19 public health centers, there are 4 public health centers those are actually respondents' knowledge are still not good, namely Bawang, Gringsing 1, Gringsing 2, and Subah public health centers. Meanwhile, there are also 100% of well-informed respondents, namely Batang 1 public health center.

In neonatal factors, there were 59 (22.2%) respondents found to have babies with risky conditions, such as asphyxia and LBW, and the age of infants at

birth is less (premature). Neonatal factors are included in endogenous factors. Endogenous infant mortality or neonatal mortality is caused by factors brought by the child at birth, obtained from the parents at the time of conception (4,7). The endogenous factors appear related to maternal health during pregnancy. Infant mortality caused by the condition of the baby itself is usually LBW, premature infant, congenital abnormalities and asphyxia [4].

According to [7–9] mother's knowledge is very important to guarantee the health of mother and baby, since as foundation of mother awareness to see midwife; planning a pregnancy; distance of pregnancy; nutritional intake for mother and baby; food hygiene consumed by mother; as well as adequate sanitation and hygiene facilities.

Besides maternal internal factors related to IMR, there are maternal factors that are difficult to identify which also have an opportunity for infant mortality, such as physical factors; psychological factors; environmental, social, and cultural factors. [3,5,10]

While the intermediate factors, there are still 51 (19.2%) of respondents chose a non-health services maternity place and or with a birth attendant.

CONCLUSION AND SUGGESTION

Several factors of IMR in Batang Regency include pregnant mother's knowledge about pregnancy and healthy labour, labour complication condition, neonatal health status, and birth attendant.

Massive KIE is required on MCH (Maternal and Child Health) materials on primary targets, pregnancy screening high risk in the class of pregnant women, and massive education health personnel as birth attendants.

Ethical Clearance: Ethical clearance was issued by Ethic Commission of Health Sciences, Pekalongan University

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Conflict of Interest: The authors declare no conflict of interest

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REFERENCES

1. Johnson SA, Perspectives C. Challenges in Health and Development. springer International Publishing; 2017.
2. Raffer K. Debt Management for Development, Protection of the Poor and the Millennium Development Goals. Cheltenham, UK: Edward Elgar Publishing Limited; 2010.
3. Senter L, Sackoff J, Landi K, Boyd L. Studying Sudden and Unexpected Infant Deaths in a Time of Changing Death Certification and Investigation Practices: Evaluating Sleep-Related Risk Factors for Infant Death in New York City. Matern Child Health J [Internet]. Springer US; 2011 Feb 23 [cited 2018 Oct 3];15(2):242–8. Available from: http://link.springer.com/10.1007/s10995-010-0577-8
4. Brown HL, Smith M, Beasley Y, Conard T, Musselman AL, Caine VA. Infant Mortality Lessons Learned from a Fetal and Infant Mortality Review Program. Matern Child Health J [Internet]. Springer US; 2017 Dec 11 [cited 2018 Oct 3];21(S1):107–13. Available from: http://link.springer.com/10.1007/s10995-017-2384-y
5. Paul DA, Mackley A, Locke RG, Stefano JL, Kroelinger C. State Infant Mortality: An Ecologic Study to Determine Modifiable Risks and Adjusted Infant Mortality Rates. Matern Child Health J [Internet]. Springer US; 2009 May 13 [cited 2018 Oct 3];13(3):343–8. Available from: http://link.springer.com/10.1007/s10995-008-0358-9
6. Salazar LF, Crosby RA, Diclemente RJ. Research methods in Health Promotion. 2nd ed. Salazar LF, editor. San Francisco: Jossey-Bass A Wiley Brand; 2015.

7. Alam N, van Ginneken JK, Timaeus I. Determinants of Perceived Morbidity and Use of Health Services by Children Less Than 15 Years Old in Rural Bangladesh. Matern Child Health J [Internet]. Springer US; 2009 Jan 20 [cited 2018 Oct 3];13(1):119–29. Available from: http://link.springer.com/10.1007/s10995-008-0320-x

8. Abdullah A, Hort K, Butu Y, Simpson L. Faktor Risiko Kematian Neonatal Di Provinsi Nusa Tenggara Timur: a Matched Case-Control Study. 2015;(April). Available from: http://www.aipmnh.org/ web_id/ images/ reports/ Book_ Case_ Control_ Study_ Risk_ Factor_ Neonatal_ Deaths_ FINAL_ June_ 2015.pdf

9. WHO. MATERNAL MORTALITY IN 2000: Estimates Developed by WHO, UNICEF and UNFPA [Internet]. Genewa; 2004 [cited 2018 Oct 4]. Available from: http://apps.who.int/iris/ bitstream/ handle/ 10665/ 68382/a81531.pdf; jsessionid = 976F484 A89C6 C225B133 F14EEED C6502? sequence = 1

10. Malqvist M. Neonatal mortality: an invisible and marginalised trauma. Glob Health Action [Internet]. 2011 [cited 2018 Oct 4]; Available from: www.globalhealthaction.net/index.php/gha/article/view/6360

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