

RESEARCH REPORT

**ANALYSIS OF MATERNAL RISK FACTORS FOR PRETERM BIRTH IN
AIRLANGGA UNIVERSITY HOSPITAL 2017-2018**



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INTERNATIONAL CLASS MEDICAL EDUCATION PROGRAM

FACULTY OF MEDICINE AIRLANGGA UNIVERSITY

SURABAYA

2020

RESEARCH REPORT

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Research Report

To fulfil the obligation of Research Methodology and Biostatistics Module

Faculty of Medicine Airlangga University

Writer :

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FORM OF APPROVAL

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UNIVERSITY HOSPITAL 2017-2018**

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Surabaya, 07 Januari 2021



Almira Maharani

DETERMINATION OF EXAMINING COMITEE

This research report has been examined and scored by examiners
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SUMMARY**ANALYSIS OF MATERNAL RISK FACTORS FOR PRETERM BIRTH IN
AIRLANGGA UNIVERSITY HOSPITAL 2017-2018**

Due to the high rate of morbidity and mortality, Preterm birth becomes a global problem. Indonesia is on the 5th place of the highest premature birth rate. In 2010 that is estimated approximately 15 premature birth cases per 100 lives birth in Indonesia. There are several factors that affect preterm delivery, such as idiopathic, iatrogenic, infection, multiple pregnancy, maternal factors, reproductive history, and sociodemographic. In 2015, their main causes of neonatal deaths in Indonesia such as; prematurity (35.5 percent), birth asphyxia (21.6 percent), and congenital anomalies (17.1 percent). The morbidities that caused by preterm birth such as cerebral palsy, autism spectrum disorder, intellectual disability, behavioral-conduct disorders, attention deficit hyperactivity disorder, learning disability, and another developmental delay. This study aims to analyze the maternal risk factor towards preterm birth at Airlangga University Hospital 2017-2018.

This research is an observational analytic study to analyse the underlying risk factors of preterm birth. This study is using a case control approach for analyzing secondary data (medical record) from Airlangga University Hospital in Surabaya. The dependent variable of this research is preterm birth. The independent variables of this research are maternal age, maternal education, maternal occupation, haemoglobin levels, history of obstetric complications, parity, and multiple pregnancy. This study was conducted during May 2019 - April 2020. This research used case control study and Lemeshow's formula to calculate the sample size and based on this formula it is needed 178 samples. Data analysis by logistic regression was used to identify preterm risk factor. The information was collected by visiting the medical record installation and took the data. Data collected was arranged in the form of a table. The descriptive statistical analysis was performed on each variable in the form of

mean, standard deviation, and median. The significance value is $P \leq 0.05$. The statistical analysis is calculated by SPSS 25 computer program for macOS.

The case sample characteristic is 36% patients have overweight BMI; 62.9% patients have normal/hypotension; 69.7% patients gave a birth male baby; 82% patients have no history of disease; There's no patient have drugs and substances abuse (0%). The mothers younger than 20 years and older than 35 years has OR=2.13 (95% CI : 1.106-4.11) to become preterm birth. However, the primiparous women have risk for preterm birth 2.978 folds (95%, CI : 576-5.625) higher. There is no relationship between maternal education ($p=0.112$), maternal occupation ($p=0.084$), hemoglobin levels ($p=0.131$), history of obstetric complications ($p=0.666$), and multiple pregnancy ($p=0.477$) to preterm birth. It is necessary to investigate the risk factors of preterm birth and give particular clinical attention.