

The Role of Statistics Quality Control (SQC) to Improve Quality of Maternal and Neonatal Examination

Dewi Anggraini

Lecturer

Department of Mathematics

Faculty of Mathematics and Natural Sciences

University of Lambung Mangkurat

Banjarbaru-South Kalimantan

de28383wi@yahoo.com

Australia Awards

MATERNAL MORTALITY RATE

- Maternal Mortality Rate (MMR)
- The Most Significant Factors Influenced MMR:
Iron Deficiency Anemia (IDA)
- Maternal IDA increases the risk of premature delivery and subsequent low birth weight, and may contribute to low iron status and poor health of infants
- Maternal death is, from an epidemiological perspective, a relatively rare event and mortality is difficult to measure accurately. Many low-income countries have no or very little data and modelling is used to obtain a national estimate (WHO, 2005)

Australia Awards

NEONATAL MORTALITY RATE

- Neonatal Mortality Rate (NMR): 2/3 of 8 million infant deaths each year
- The Most Significant Factors Influenced NMR:
Low Birth Weight of Newborn Babies
- The reliability of the neonatal mortality estimates depends on accuracy and completeness of reporting and recording of births and deaths. Underreporting and misclassification are common, especially for deaths occurring early on in life (WHO, 2005)

Australia Awards

STATISTICS QUALITY CONTROL

- Simple and accurate method to monitor and evaluate capability process of maternal and neonatal health
- Estimate newborn weight, proportion of maternal IDA, and model/investigate relationship between NMR and mother's characteristics
- In the case of low birth weight babies, there is a statistically significant relationship between newborn weight (dependent variable) and the mother's characteristics (independent variables): mother's age, mother's weight, gestation week, and hemoglobin level with a correlation coefficient of 80%

Australia Awards

IMPACT TO MEDICAL PRACTITIONERS (MIDWIFE IN A MATERNITY CLINIC)

- Estimate neonatal survival probabilities of premature newborns
- Intervene more often with appropriate invasive therapies
- Observe the Hb level of pregnant women during their pregnancy before and after IDA treatment
- Assess the association between maternal Hb level and pregnancy outcome
- Improve the quality of life and health for newborn case, especially for prematura, and the mother

Australia Awards

Continued.....

- Improve their health care systems more qualified, professional, excellent
- Put priority to patients (community based system/customer strategy)
- Regular monitoring will help identify any unusual symptoms cause MMR and NMR (control strategy)

Should every health care centre /maternal clinic in Indonesia and its practitioners be certified based on quantitative and qualitative criteria/qualification?