
LIVHUVANI ELLEN MUKONDELELI
Student Number 11561830

Research Dissertation for Master’s Degree in Statistics

Department of Statistics

School of Mathematical and Natural Sciences

University of Venda

Supervisor: Prof A.K.A Amey

Co-Supervisor: Dr. K. A. Kyei
Abstract

Maternal death is the death of woman during pregnancy or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or external causes. Health complications during pregnancy and childbirth are a major challenge worldwide. Statistics South African reports mortality data for South Africa classified according to various demographic characteristics and causes. The causes are classified using ICD10. Using the Statistics South Africa data, this study focused on the death of a women aged between 15 to 49 over the period of 2003 to 2008.

The purpose of this study is to identify the level, trends, leading causes and factors associated with death due to maternal related causes among women aged 15-49 in South Africa and to explore the relationship between the socio-demographic and clinical factors on one hand with maternal deaths over the period 2003 to 2008. Logistic regression and log linear analysis were used to explore the relationships.

The results show that the maternal mortality ratio of South Africa increased from 114 per 100 000 live births in 2003 to 195 per 100 000 live births in 2008. Free State province had the lowest maternal mortality ratio and the Western Cape province had the highest ratio. Northern Cape had the same levels of maternal mortality as Western Cape in 2003 – 2004, but increased at a faster rate afterwards. By 2008, the rate of maternal mortality in Northern Cape was about twice that of Western Cape. The top five causes of maternal death were eclampsia (O15), puerperal sepsis (O72), postpartum hemorrhage (O85), maternal infectious and parasitic diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium (O98), other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium (O99).

There is a significant association of maternal mortality with socio demographic variables (Marital Status, Age, Death Province, Place of Death) and other illnesses (HIV, TB, pneumonia and diarrhoea). There was no significant association between maternal deaths and educational level. When four or five causes of death were listed on the death notification form, maternal mortality is not directly associated with HIV. The link to HIV is only through the opportunistic diseases associated with HIV. When only two or three causes are listed, direct association exist.