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Towards improving the measurement of unsafe abortion:  
substantive estimates and methodological insights from  
Zambia

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Thesis submitted in accordance with the requirements for the degree of  
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**Declaration by candidate**

I, Onikepe Oluwadamilola Owolabi confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm this has been indicated in the thesis

Signed:



Date: 5<sup>th</sup> January 2016

## **Abstract**

**Background:** Measuring unsafe abortion is essential to understand the magnitude of the problem and monitor progress in women's reproductive health. However, legal and societal constraints in high-burden contexts foster underreporting of induced abortions which makes obtaining accurate estimates challenging. My PhD examines the methodological challenges around defining and measuring unsafe abortions using Zambia as my country context.

**Methods:** First, I conducted interrupted time series analysis on admissions for abortion-related complications and deaths from 2007-2015 at University Teaching Hospital (UTH), Lusaka to assess the impact of key contextual changes. Second, I collected data from women hospitalized for abortion-related complications in three provinces to estimate the incidence of abortion-related near-miss in 2014. Third, I compared estimates of the incidence of induced abortion in the three provinces using data from 3 methodological approaches.

**Results:** The prevalence of unsafe and induced abortion is high in Zambia. Following the release of clinical guidelines in May 2009, there was an immediate decline in the absolute number of abortion complications by 86 cases ( $p=0.003$ ). The abortion-related near-miss incidence rate was 72 per 100,000 women, and it was feasible to apply the adapted WHO near-miss criteria in Zambia. Estimates of the incidence of induced abortion per 1000 women ranged from 30 to 80. There was variation in the proportion of women estimated to seek facility care for abortion-related complications in each approach.

**Conclusion:** The burden of unsafe abortion is high in Zambia despite its liberal law. Although there is no gold standard method to measure the burden of unsafe abortion, my findings suggest there is scope to improve use of available data to describe the burden of the most unsafe abortions and evaluate the impact of interventions on abortion-related indicators in restrictive contexts.

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## **Acronyms and Abbreviations**

AICM	Abortion Incidence Complications Method
ATPR	Anonymous Third Party Reporting Method
CAC	Comprehensive Abortion Care
DHS	Demographic and Health Surveys
EVA-PMDUP	Evaluation of the Prevention of Maternal Death from Unwanted Pregnancy program
FP	Family Planning
HFS	Health Facility Survey
HPS	Health Professional Survey
MA	Medical abortion
MVA	Manual vacuum aspiration
PAC	Post abortion care
PMDUP	Prevention of Maternal Death from Unwanted Pregnancy
PMM	Prospective Morbidity Survey
SSA	Sub-Saharan Africa
TOP	Termination of pregnancy
UTH	University Teaching Hospital
WRA	Women of reproductive age
WHO	World Health Organization
ZDHS	Zambia demographic and health survey