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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 Doctor of Philosophy of the
University of London

## **JULY 2016**

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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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# **Table of contents**

Abstract	3
Acknowledgements	4
List of tables	8
List of figures	10
Acronyms and abbreviations	11
CHAPTER 1. INTRODUCTION	13
1.1 OUTLINE OF THESIS	15
CHAPTER 2. DEFINING AND MEASURING UNSAFE ABORTION	17
2.1 Definition of terms	17
2.2 The evolution of the WHO definition of unsafe abortion	18
2.3 Inconsistencies between the wording of the WHO definition of unsafe abor	
WAY IT HAS BEEN USED TO GENERATE ESTIMATES	18
2.4 RECENT UPDATES ON HOW THE WHO DEFINITION OF UNSAFE ABORTION SHOULD BE IN	
2.5 MEDICAL ABORTION, ITS IMPACT ON HOW WOMEN ACCESS ABORTIONS, AND ON THE D	
MEASUREMENT OF UNSAFE ABORTION.	27
2.6 Indicators and methodological approaches frequently used to measure the	
UNSAFE ABORTION IN RESTRICTIVE CONTEXTS	30
2.6.1 Data sources	31
2.7 RECENT IDEAS ON THE DEFINITION AND MEASUREMENT OF UNSAFE ABORTION	51
2.8 Conclusion	52
CHAPTER 3. AIM, OBJECTIVES AND DESIGN OF PHD THESIS	54
3.1 STUDY AIM AND OBJECTIVES	54
3.2 STUDY CONTEXT, PROJECT SETTING AND ROLE OF THE CANDIDATE	55
3.2.1 STUDY CONTEXT	55 55
3.2.2 PROJECT FRAMEWORK	58
3.2.3 ROLE OF THE CANDIDATE IN EVA-PMDUP	60
3.3 ETHICAL APPROVAL	61
3.4 FUNDING	62
3.5 RESEARCH TIMELINE	62
<u>CHAPTER 4.</u> HOW DO CONTEXTUAL CHANGES AFFECT TRENDS IN ABORTION- COMPLICATIONS? A TIME SERIES ANALYSIS OF ZAMBIAN HOSPITAL DATA	
	64
4.1 Introduction to the paper	66
4.2 Methods	69
4.2.1 Setting	69
4.2.2 Study design	69
4.2.3 Data collection tools	69
4.2.4 Data collection	70
4.3 Analysis	70
4.3.1 OUTCOME MEASURE:	70
4.3.2 MISSING DATA	71
4.3.3 KEY INTERVENTION EVENTS	71
4.3.4 Data analysis	72
4.4 Results	73
4.5 Discussion	77

4.5.1 METHODOLOGICAL STRENGTHS AND CHALLENGES	80
4.5.2 CONCLUSION	81
CHAPTER 5. INCIDENCE OF ABORTION-RELATED NEAR-MISS COMPLICATIONS IN ZAMBI	A:
CROSS-SECTIONAL STUDY IN CENTRAL, COPPERBELT AND LUSAKA PROVINCES	82
5.1 Introduction	86
5.2 METHODS	87
5.2.1 Design, setting, and population	87
5.2.2 DATA COLLECTION	90
5.2.3 Data analysis	91
5.3 RESULTS	91
5.4 Discussion	95
5.4.1 Strengths of this study	97
5.4.2 METHODOLOGICAL CHALLENGES	97
5.5 CONCLUSIONS	101
CHAPTER 6. HOW DO THE NUMBERS COMPARE? ESTIMATING THE INCIDENCE OF INDU	JCED
ABORTION IN ZAMBIA USING INDIRECT METHODOLOGIES THAT RELY ON COMMUNITY-BA	
AND FACILITY-BASED DATA	107
6.1 Introduction to the paper	109
6.2 OBJECTIVE	110
6.3 Methods	110
6.3.1 Study design	110
HEALTH FACILITY BASED METHODS	110
COMMUNITY-BASED METHOD	117
6.4 Results	119
6.4.1 AICM	119
6.4.2 PMM	121
6.4.3 COMPARISON OF AICM AND PMM	121
6.4.4 ATPR	122
6.5 DISCUSSION	125
6.5.1 Main findings	125
6.5.2 METHODOLOGICAL CHALLENGES	126
6.5.3 STRENGTHS OF THE STUDY	130
6.5.4 Interpretation	131
6.6 CONCLUSION	131
CHAPTER 7. DISCUSSION	133
7.1 SUMMARY OF THE KEY FINDINGS	134
7.1.1 Summary of background- defining and measuring unsafe abortions	134
7.1.2 SUMMARY OF SUBSTANTIVE ESTIMATES IN RESULTS CHAPTERS	135
7.1.3 Internal consistency of substantive estimates and limitations of the study	136
7.2 INTERPRETATION WITHIN THE LITERATURE ON ABORTION	138
7.2.1 Trend study	138
7.2.2 NEAR-MISS STUDY	140
7.2.3 ABORTION INCIDENCE HOSPITAL STUDY AND CONFIDANTS STUDY	142
7.3 IMPLICATIONS FOR UNDERSTANDING AND MEASURING ABORTION SAFETY	144
7.3.1 MEDICAL ABORTION IS CHANGING HOW WE CAN MEASURE THE BURDEN OF UNSAFE ABORTIONS	146
7.4 IMPLICATIONS FOR PROVISION OF ABORTION CARE IN ZAMBIA	147
7.5. RECOMMENDATIONS FOR RESEARCH AND POLICY	148

7.5.1	REFINE THE ASSUMPTIONS USED TO ADJUST HEALTH FACILITY OUTCOME DATA IN METHODS LIKE 1	THE
AICM	149	
7.5.2	EXPLORE APPROACHES TO IMPROVE REPORTING IN COMMUNITY-SURVEYS OF WOMEN TO GENER	ATE
DATA O	N PROVISION AND CARE-SEEKING FOR INDUCED ABORTIONS	150
7.5.3	REFINE THE CRITERIA USED TO DESCRIBE ABORTION-RELATED MORBIDITY AND THE WHO NEAR-N	1ISS
CRITERI	A TO INCREASE APPLICABILITY IN LOW INCOME CONTEXTS	152
7.6	Conclusion	153
APPEN	IDIX 1: ETHICAL APPROVAL LETTERS	176
ΔPPFN	IDIX 2: CONSENT FORMS FOR WOMEN OF REPRODUCTIVE AGE PARTICIPATING IN 1	ГНЕ
	MUNITY SURVEY	181
COIVIIV	MONTH SORVET	101
APPEN	IDIX 3: DATA COLLECTED FROM HOSPITAL REGISTERS FOR TREND STUDY	190
	IDIX 4: CORRELOGRAM AND PARTIAL CORRELOGRAM GRAPHS FOR DATA ON THE	191
/ (DOIN	HOW RELYTED COMILECTIONS	101
APPEN	IDIX 5: RESULTS OF INTERRUPTED TIME SERIES DESCRIBING TRENDS IN DEATH RAT	E
FOR C	HAPTER 4	_ 193
APPEN	IDIX 6: DATA EXTRACTION ALGORITHM FOR NEAR MISS STUDY	194
APPEN	IDIX 7: NEAR-MISS STUDY TOOL	195
<u>APPEN</u>	IDIX 8: DATA COLLECTION TOOLS FOR ABORTION INCIDENCE COMPLICATIONS MET	HOD
(AICM		197
<u>APPEN</u>	IDIX 9: ANONYMOUS THIRD PARTY REPORTING METHOD (ATPR)	221

# **List of Tables**

Table 2-1: Summary of WHO evidence-based standards-of-care for safe abortion	care
provision	23
Table 2-2 WHO Figa-Talamanca criteria used for reclassification of abortion cases	35
Table 2-3 How my proposed unsafe abortion near-miss indicator addresses the	
limitations of other abortion indicators	39
Table 2-4 Categories of indicators that have been used to measure near-miss:	
advantages and disadvantages	41
Table 2-5 WHO maternal near-miss identification criteria	44
Table 3-1 Summary table briefly describing each study in my PhD and how it will be	oe .
referred to subsequently	59
Table 3-2 Summary of the role of the candidate in EVA-PMDUP research activities	61
Table 3-3 Timeline of PhD research activities	63
Table 4-1 Admissions for abortion-related complications and gynaecological	
indications at UTH between 2006 and 2015	73
Table 4-2 Interrupted time series analysis on UTH admissions for abortion-related	ł
complications (count) between two important contextual events affecting ac	ccess
to abortion care	75
Table 4-3 Interrupted time series analysis on UTH admissions for abortion-related	l
complications per 1000 gynaecological admissions between two important	
contextual changes affecting access to abortion care	76
Table 5-1 Differences between WHO near-miss morbidity criteria and criteria use	d in
the study, adapted for abortion-related complications in Zambia	89
Table 5-2 Comparing between the level of morbidity amongst cases in the origina	.l
study and the validation study	92
Table 5-3 Sociodemographic and reproductive characteristics of 2406 women see	king
post abortion care	93
Table 5-4 Clinical conditions in abortion-related near-miss cases and abortion-rela	ated
deaths	94
Table 5-5 Overlap between blood transfusion and haemoglobin levels based on W	√HO
near-miss criteria and Zambia study adapted criteria	94
Table 5-6 Near-miss outcome indicators by province	95
Table 6-1 Comparing the sources of data for estimating abortion incidence	118
Table 6-2. Comparing the incidence of abortion using different weights for private	5
health centres	120
Table 6-3 Estimated number of cases admitted in each type of facility in different	
provinces using the AICM and PMM approaches	122
Table 6-4 Table comparing age distribution of respondents to ATPR with women i	n
2013/14 ZDHS	123
Table 6-5 Results for different measures using the 3 approaches	123

Table 6-6 Methods used to induce abortion by confidants where respondent knew	V
method (ATPR)	124
Table 6-7 HPS respondent's views on types of abortions obtained by different	
categories of women	125
Table 7-1 How the HPS questions were adapted for the Zambia AICM	213
Table 7-2 Sampling facilities achieved with hospitals included in the AICM study	216
Table 7-3 Distribution of facilities in Central, Copperbelt and Lusaka provinces cap	able
of providing PAC and samped according to ownership and level of facility	217
Table 7-4 HPS respondent's views on types of abortions obtained by different	
categories of women	219

# List of Figures

Figure 2-1 Approaches to defining unsafe abortion, and the common data sources	
and indicators for measurement	32
Figure 2-2 The spectrum of abortion-related morbidity: from non-complicated	
abortions to near-miss and maternal death	39
Figure 3-1 Map of Zambia showing where the study was conducted	55
Figure 4 Data series showing the segmented regression model examining the effec	t of
contextual changes between 2009 and 2015 on UTH admissions for abortion	
related complications (count)	75
Figure 4-2 Observed UTH abortion complication rate per 1000 gynaecological	
admissions and interrupted linear trends assessing the effect of contextual	
changes between 2006 and 2015	77
Figure 6-1 Flow diagram outlining how the sample for the AICM was achieved	113
Figure 6-2 Step-by-step analysis of AICM data	116
Figure 7-1 Flowchart showing how eligible hospitals were identified for the EVA-	
PMDUP study	215

## **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