Comparative Analysis of determinants of use of health facility for childbirth in selected Southern African Countries

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Abstract:

The need to minimize maternal deaths following the continued existence of non-institutional births in Southern African compelled a comparative analysis of determinants of use of health facility for childbirth in Lesotho, Malawi, Namibia, and Zimbabwe. Study uses latest DHS data from Lesotho (N=2596), Malawi (N=13448), Namibia (N=3974) & Zimbabwe (N=4833). Using binary logistic regression, parity, wealth index and adequate use of prenatal care were associated with use of health facility for childbirth among all 4 countries. However, maternal age, household family size and whether pregnancy was wanted were found to be significant only in Lesotho. Marital status played a significant role in Lesotho and Zimbabwe. Level of education and place of residence were not significant in Malawi and Zimbabwe respectively. The link between socioeconomic and demographic factors and use of health facility does vary between the 4 countries except for parity, wealth index and adequacy of ANC use.

Key words: *Childbirth, use of health facility, Southern Africa*

Introduction

Maternal health care seeking behaviour is an important policy concern in most countries due to the avoidable pregnancy, related deaths and infant deaths. More than half of maternal deaths occur in Sub-Saharan Africa. Countries in southern Africa have a significant share of the deaths. The use of health facility for childbirth has been acknowledged as one of the reproductive health interventions to minimize maternal deaths. Southern African countries continue to experience cases of unskilled childbirths occurring outside the health facilities though at varying levels. This study seeks to make a comparative analysis of factors associated with use of health facility for childbirth among selected Southern Africa countries such as Lesotho, Malawi, Namibia, and Zimbabwe.

Methodology

Data Source: Secondary data from Demographic and Health Surveys (DHS) from 4 selected Southern African countries was used for this study. Samples included women who had their last birth within five years preceding the survey. The samples involved 2596 women from the Lesotho, 13448 women from the 2015/16 Malawi DHS, 3974 women from the 2013 Namibia DHS and 4833 women from the 2016 Zimbabwe DHS.

Dependent Variable: The outcome variable for this paper was the place of birth (delivery) of last child which is binary. Any women reporting to have had their last birth in a hospital, clinic, health centre or any health facility would be regarded to have used the health facility for delivery of last child.

Explanatory Variables/Determinants: Explanatory variables that were compared between the four countries included maternal age, marital status, parity, family size, whether pregnancy was wanted, level of education, place of residence, household wealth index, religion and adequate use of Antenatal care (ANC).

Statistical Approach: Statistical package for Social Sciences (SPSS) version 25 was used to analyse the data. Univariate, bivariate and binary logistic regression models (appropriate for binary (dichotomous) outcome variables) were used to determine socioeconomic and demographic factors associated with use of health facility for childbirth.

Results

Use of health facility for delivery of last child is relatively high for southern African countries. In this paper, the highest proportion of women who reported to have used the health facility for delivery is 93.1`% in Malawi. This is followed by 87.2%, 82.3% in Namibia and Zimbabwe respectively. Although lowest among the selected countries, about 8 in ten women in Lesotho do report using a health facility for delivery of their last child. Figure 1 indicates the proportion of women utilizing the health facility for delivery by country.

Multivariate analysis indicated that maternal age is an important determinant of use of health facility delivery in Lesotho but not in Malawi, Namibia and Zimbabwe. Women aged 30 to 39 years were more likely to utilize the health facility for delivery as compared the other age groups in Lesotho. Marital status is an important predictor of use of health delivery in Lesotho and Zimbabwe only. In this two countries, being married seem to increase the odds of use of health facility for delivery. Parity,

household wealth index and adequacy of use of ANC are important determinant of health facility for delivery in all the four countries. The odds of using the health facility for delivery decreased with an increase in the number of children ever born in all the four countries whereas on the other hand, it increased with an increased in the household wealth index. Adequate use of ANC services was a protective determinant in use of the health facility for delivery. Whilst residing in urban areas was a protective factor in Lesotho, Malawi and Namibia, it did not differ significantly with residing in rural areas in Zimbabwe. Use of health facility increased significantly with an increase in the women's level of education except for Malawi.

Conclusions

The link between socioeconomic and demographic factors and use of health facility does vary between countries in Southern Africa region except for parity, household wealth index and adequacy of use of ANC. Maternal health programs aimed at encouraging women to use the health facility for childbirth should use a country context approach to target various socioeconomic and demographic groups of women.

Figure 1: Percentage distribution of women who reported using health facility for delivery of their last child by country.

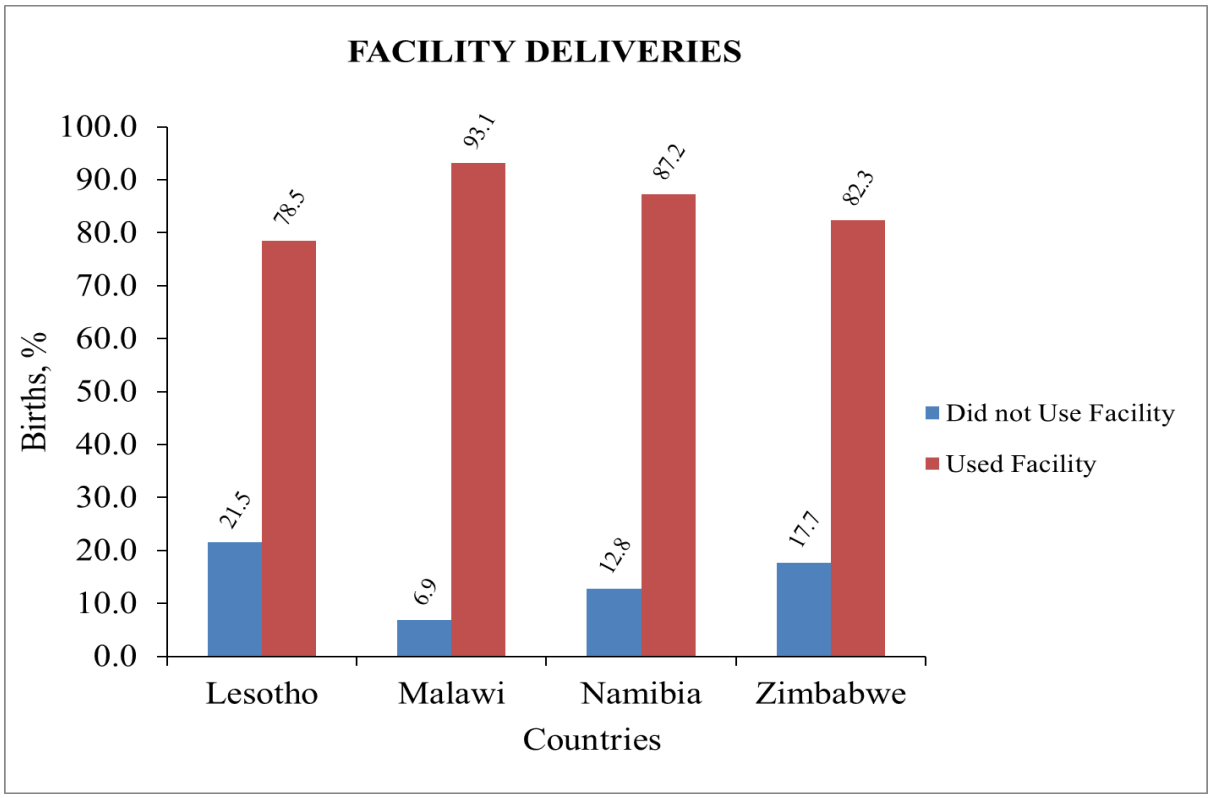

Table 1: Logistic regression analysis showing odds of using health facility for delivery by selected background characteristics and country.

Background Characteristics		ODDS RATIOS			
		Lesotho	Malawi	Namibia	Zimbabwe
Maternal Age	15 to 19 years	1.378	1.222	0.749	1.335
	20 to 29 years	1.235	1.113	0.820	1.013
	30 to 39 years	1.558***	1.161	1.140	1.168
	40 years & above	1	1	1	1
Marital Status	Single	1.117	1.035	1.365	1.385
	Married/Living together	1.449***	1.156	1.092	1.466***
	Previously Married	1	1	1	1
Parity	1	2.627***	2.204***	4.358***	2.413***
	2 to 3	1.618***	1.315***	1.940***	1.456***
	4 +	1	1	1	1
Household (HH) Size	Less than 5	0.648***	1.069	1.217	1.199
	5 to 6	0.842	1.159	1.093	1.201
	7 +	1	1	1	1
Pregancy Wanted	Wanted Then	1.528***	1.297	1.224	0.827
	Wanted Later	1.122	1.118	1.088	0.697***
	Not Wanted	1	1	1	1
Level of Education	None/Primary	0.423***	0.466	0.069***	0.146***
	Secondary	0.675	0.801	0.222	0.246***
	Higher	1	1	1	1
Residence	Urban	1.531***	1.343***	2.538***	1.415
	Rural	1	1	1	1
HH Wealth Index	Poorest	0.272***	0.414***	0.287***	0.211***
	Poorer	0.371***	0.503***	0.454***	0.292***
	Middle	0.639	0.505***	0.459***	0.363***
	Richer	0.944	0.679***	0.809	0.645***
	Richest	1	1	1	1
Religion	Catholic	1.447	1.007	0.878	1.101
	Protestants	1.380	0.953	1.235	1.122
	Muslims & Others	1	1	1	1
Adequate ANC	Inadequate	0.410***	0.502***	0.578	0.289***
	Adequacy	1	1	1	1