Working Conditions and Maternal Health Challenges in Lagos State, Nigeria

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Abstract

Endemic maternal health has been a major concern in sub-Saharan Africa with Nigeria occupying a position among the countries with the highest maternal and child mortality rates in the world. Although there are numerous studies on maternal health, there is no consensus on the implications of urban health conditions on safe motherhood. This paper, therefore, examines the influence of working conditions on maternal health in the face of poor provision of amenities and infrastructural decay pervading urban centres in sub-Saharan Africa using Nigeria as a case study. The study specifically investigated the plight of women in Lagos State, Nigeria. The data for the study were obtained from a survey conducted between 2011 and 2012 using a structured questionnaire and key informant interviews. Issues relating to working conditions were measured by the nature of work, time for rest, means of transportation, duration and timing of maternity leave, relationship with boss and a host of others. The data ware analysed using univariate and binary logistic regression analysis. The findings show that socio-environmental conditions including poverty, inefficient transportation system, gender bias, work stress and poor quality of life expose a large proportion of women to morbidities, poor nutrition and repeated pregnancies that can increase maternal mortality in the study area. The paper concludes that adverse working condition is positively related to maternal health complications and this calls for urgent policy intervention to address work related pressures on potential mothers. The authors suggest that employers of labour must develop humane health-friendly policies in the work place that favour maternal well-being before, during and after pregnancy.

Keywords: Working conditions, poverty, stress, maternal health

1. Introduction

Maternal and child health are crucial measures of progress in developing nations especially in the monitoring and evaluation of various developmental agenda such as Millennium Development Goals 4 and 5 (MDG-4 & MDG-5). Poor maternal health remains a major concern in sub-Saharan Africa with Nigeria occupying a position among the countries with the highest maternal and child mortality rates in the world. The influence of working conditions on maternal health in the face of poor provision of amenities and infrastructural decay ravaging developing countries, particularly those of sub-Saharan Africa, have seldom been recognized as important factors in maternal health. Non-Governmental Organizations (NGOs), government health ministries and international organizations such as WHO, have adopted many strategies in an attempt to improve maternal health outcomes around the world. These have mainly been through the provision of maternal and child health (MCH) programmes, aimed at improving primary prevention through education and services, early detection and treatment. Specific programme interventions include emphasizing prenatal attention, clean and safe deliveries, postnatal care, family planning, and essential obstetric care (Fadeyi, 2007; Lubbock & Stephenson, 2008). While these programmes encourage women's access to maternal health services, women continue to be susceptible to health complications due to some extraneous social and cultural factors. Various studies have increasingly pointed out that urban health conditions are not as rosy as many people may assume (Friel *et al*, 2011; Takano, 2003). Takano (2003) specifically noted that urbanization triggers new problems and issues bearing on multiple aspects of urban life, including food security, housing, living environment, health of future generations, etc. The conditions of the diverse health determinants in urban areas are becoming increasingly complex especially in developing nations. On the whole, the varied health problems challenging cities are intricately interrelated with

the background of general urban problems. The fast pace of urban growth has affected different groups of people in different ways. Urban life is most fascinating but it is also demanding especially on pregnant women who do not only contend with their own health but also with the life they are foisted to carry for nine months. Such experience is especially daunting for pregnant women in Lagos State, Nigeria, who are faced with poor provision of social amenities and infrastructural decay. The paper examines the influence of working conditions in Lagos State, Nigeria. It describes the extent to which urbanism has impacted on maternal health in the face of poor provision of amenities and infrastructural decay ravaging the city of Lagos.

2.   Conditions of Work and Maternal Health

Endemic maternal health has been a major concern in Nigeria as the country has one of the highest maternal and infant/child mortality rates in the world. Health care facilities and services are concentrated in Lagos, but big hospitals do not necessarily improve people's health. Maternal mortality rate in Lagos State was put at 650 per 100,000 live births in 2012 and this high rate is a source of concern to the Lagos state government. Health care is about identifying the health problems of a population and designing an integrated health policy to improve the challenge (National Mirror, 2012; Radio Lagos 2009). The health of a pregnant woman working in Lagos could be compromised by a wide range of factors.

On one hand, economic pressures on the households have led more women to seek paid work. Many households find that two incomes are required in order to sustain a desired lifestyle (Giddens, 2002). Countless women lack access to decent work and work in safe conditions that would enable them to rise above poverty. Many women workers have traditionally been concentrated in poorly paid, routine occupations many of which fall outside traditional legal and social protection systems that safeguard against vulnerability and provide access to health care (ILO, 2010). Regions in which the highest rates of maternal mortality are reported have more than 80 percent of women workers considered to be working in precarious and vulnerable conditions, mainly; either in the informal economy, lacking maternity protection at work, or certain industries that are always predominantly staffed with women. The nature of these jobs is part time and they are such that women work longer hours for less pay. The need to bring in or supplement family income forces women to submit to these conditions and this is nothing but double exploitation (Cheeqitita, 1999; ILO, 2010).

The condition of poverty has forced women to increase the number of hours in extra-domestic activities and household task. The International Labour Organization (ILO) has noted that, while most attention to maternal health and mortality has justifiably focused on health services and family planning, mothers are also workers, with particular need of support to protect their health while working and to ensure their economic security during pregnancy and after childbirth (ILO, 2010). Available evidence shows that in many developing countries, women, on the average, work more hours per week than men when unpaid work and household activities are taken into account (United Nations, 1991; Basu, 2001). The problems associated with maternity and child birth are closely linked to poverty, inadequate working conditions and gender inequality (ILO, 2010). For instance, for a woman, work demands more time and the more the time spent at work the less the time available for family life and rest. Where women have paid jobs, and companies are attempting to become more efficient and streamlined, jobs are cut or 'downsized', and many employees experience anxiety about the security of their positions (Giddens, 2002). High expectations for job performance (either self-imposed or imposed from above) mean that employees have to work harder and put in longer hours. The stress on the individual behaviour of women tends to create unrealistic expectations for mothers and can result in increased demands on their time.

The importance of paid work in the lives of so many makes the quality of working conditions paramount to the reproductive health of women as well as men (ILO, 2010). Hostile working environment affects both men and women workers. However, there are gender specific dangers to which women workers, because of their biological makeup, are exposed. These dangers severely affect their physical and reproductive health. Women work in environments and conditions that threaten pregnancy (Cheeqitita, 1999). Indeed, poor working condition; such as low wage, long working hours and lack of adequate weekly and annual rest; in addition to unhealthy and hazardous

workplaces and lack of social protection, can have negative effects on maternal health. As the International Labour Organization aptly puts it,

Working during pregnancy is not in and of itself a risk. But women around the world continue to face considerable maternity related threats to their health and economic security. Work place environments can pose hazards (e.g. exposure to pesticides, solvents and other chemicals); requirement of physically demanding work, and irregular or long working hours; all can have potentially negative effects for the health of pregnant women and their fetuses, including greater risk of preeclamsia and hypertension, complications during pregnancy, miscarriage and stillbirth, foetal growth retardation, premature birth and other problems. Tasks requiring being in one position for long period of time, can adversely affect reproductive health (ILO, 2010. www.2.ohchr.org/englis/issues/women/docs).

Oxaal and Baden (1996) have also observed that the last three months of pregnancy should be a time when the mother rests and gains weight. However, many women in developing countries continue with their full workload until the time of labour and resume work shortly after giving birth. This is considered to be extremely detrimental to their health and even the baby.

Life style determines health and the environment in which one finds him/herself determines the lifestyle. Most pregnant women in Lagos city do not have a healthy life style. Urban areas are often unhealthy places to live in because they are characterized by heavy traffic, pollution, noise and violence (WHO, 1991). According to the United Nations (1991), women who become pregnant in developing regions face a risk of death due to pregnancy. The reasons are that there are few backup services for pregnancy while malnutrition is endemic among pregnant women. Apart from the fact that many do not seek antenatal care, taking time to rest and eating balanced diet which are essential to safe pregnancy are absent (Lanre-Abass, 2008).

The Word Health Organization's definition of health suggests a holistic interpretation of health linking the complex interrelationships between social, economic, political and cultural health determinants with the natural environment (Rattle and Kwiatkowski, 2003). Thus, it is evident that day-to-day activities in an imperfect environment have the potential to create significant human health impact, especially for pregnant women whom by virtue of pregnancy are already exposed to risk of health complications.

3.   Lagos State and the Attendant Problems

Nigeria is urbanizing rapidly. The country's population was estimated to be 173.6 million in 2013 by the Population Reference Bureau (PRB, 2013). It was also estimated that the population will be 440.4 million by mid-2050 which will place the country as the third most populous country in the world, behind India and China (PRB, 2013). Although Lagos State is the smallest state in Nigeria, with an area of 356,861 hectares of which 75,755 hectares are wetlands, it has the highest population, second only to Kano State, according to the National Population Commission (2009), a claim that is highly contested by the Lagos State Population Commission and has given an estimated figure of 17 million. The difference in population outcome still stands as a bone of contention between the National Population Commission and the Lagos State government.

According to UN estimates, Lagos will be the third largest mega city in the world by year 2015 after Tokyo in Japan and Bombay in India. The rate of population growth is about 600,000 per annum. Over 91 percent of the population in the state lives within the metropolis with a population density of about 20,000 persons per square kilometre (Lagos State Ministry of Housing, 2010; Alufohai, 2013). With rapid population growth, public and private resources have been stretched as Lagos citizens struggle to get by (Compass, 2009).

The issue of livability has become very pressing, especially with the increasing environmental deterioration. According to Morka (2007), this involves not only living conditions but also ease of circulations in the city. There is tremendous pressure of population on limited facilities and this is manifested in the growth of squatter settlement, overcrowded habitation, inadequate water and power supply, bad roads and generally poor

environmental sanitation. By world standards, Lagos, the largest of Nigeria's metropolitan centres, is relatively small. But its traffic problems are greater than those of cities many times its size. The traffic situation is already making Lagos almost an unliveable city, apart from gradually raising its level of air pollution (Mabogunje, 1995). In a statement credited to Emdin-Umeh (2011), twenty five thousand (25,000) people from across the world are still moving into Lagos for various reasons on a daily basis, with little or no commensurate infrastructure to match the influx thereby posing more challenges to the health of the population. Even the structure sometimes results in a relative decline in health levels in urban areas, and these health levels are closely related to the quality of urban living environments (Brigida, 2002).

4. Data and Methods

The study adopted both quantitative and qualitative research techniques. The quantitative segment employed structured face-to-face interviews among women of child bearing age (who have a child below one year or at least pregnant) in Lagos State. A multi-stage sampling technique was used in the choice of target population drawn from households and the maternity section of existing general hospitals in four randomly selected Local Government Areas (LGAs) out of the 20 LGAs in the state. The selected LGAs were Alimosho, Ikorodu, Ibeju_Lekki and Lagos Island. The choice of the state was purposive though guided by proximity. Besides, the state is the economic nerve centre and has the most heterogeneous city in the country with diverse social, economic, political and cultural characteristics (Adeyemo, 1984; Adeyemi, Waziri, Atere & Amoo, 2009). The state was stratified into low maternal death areas (Maternal Mortality Ratio (MMR) of less than 650 per 100,000 live births) and high maternal death areas (areas that had above 650 per 100,000 live births. Only four Enumeration Areas (EAs) and two streets from a listing of all major streets in the selected LGAs were selected. Systematic random sampling procedure was then used to select every 9th housing unit and only one eligible woman was selected from a house. Where there was more than one eligible woman in the house, a simple random sampling technique was used to select only one respondent.

In the qualitative aspect, current literature was reviewed in conjunction with in-depth interviews with selected stakeholders such as health officials, local government administrators as well as religious and community leaders. Information on maternal deaths in each of the LGAs was obtained. The variables of interest include indicators of working conditions and maternal health status. The maternal health complications include pre-eclamsia, excessive bleeding, convulsions/eclamsia, sepsis, foul-smell/vaginal discharge, low movement of baby, prolonged/obstructed labour, torn uterus, placenta previa, fistula, high fever, etc. All variables were dichotomized into 0 and 1. Where 0 means the absence of complications and 1 denotes suffered/suffering from one or more of the complications. All indicators of maternal heath were given scores from 15 to 1 on the basis of intensity. Those who ever experienced prolonged/obstructed labour, pre-eclamsia, excessive bleeding (hemorrhage), convulsions/eclamsia, sepsis, placenta previa and fistula were coded as 1(Experienced maternal health complication) while others were apportioned 0 (No maternal Health complication). This makes the dependent variable to satisfy the condition for logistic regression. Data were analysed using univariate and multivariate statistical techniques. The univariate analysis featured selected socio-demographic characteristics of the respondents while the multivariate tested the hypotheses formulated. This is denoted as: $\text{Ln} = \{p/(1-p)\} = \alpha o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots \beta_n X_n + e$. Where, e is the residual value/error term, the βs are the coefficients of the independent variables, ρ implies probability of health complication while (1-ρ) and $\text{Ln}\{\rho/(1-\rho)\}$ indicate the probability of no health complication and the log-odds of maternal health complications.

5. Results

5.1 Demographic Characteristics of the Respondents

The respondents' local governments of residence were analysed. The findings (panel 1of Table 1) revealed that 380 respondents representing 27.9% were from Alimosho LGA, 337 respondents representing 24.7% were from Ikorodu LGA, 311 respondents representing 22.8% were from Ibeju Lekki LGA and 334 respondents representing 24.5% were from Lagos Island LGA.

A total of 1,362 respondents took part in this study. The age characteristics revealed the mean age of the respondents as 30 years. The age distribution (panel 2) shows that 133 participants (9.8%) were within 15-19 years, 382 participants (28%) were within 20-24 years, 589 (43.2%) were within 25-29 years, 244 (17.9%) were 30-34 years, 12 (0.9%) were 35-39 years and 2 (0.1%) were 40-44 years. No respondent fell within ages 45-49 years. The age distribution clearly reveals that women continue childbearing until their early 40s. The higher a woman's age, the higher the likelihood of having complications during pregnancy.

Table 1: Selected Socio-demographic characteristics of the respondents

Selected Variables

1.Local Government Area	Frequency	%	5.Educational Qualification	Frequency	%
Alimosho	380	27.9	No formal education	362	26.6
Ikorodu	337	24.7	Primary	70	5.1
Ibeju Lakki	311	22.8	Secondary	160	11.7
Lagos Island	334	24.5	Tertiary	737	54.1
Total	**1362**	**100.0**	Koranic education	33	2.4
2.Age of Respondents			**Total**	**1362**	**100.0**
15-19	133	9.8			
20-24	382	28.0			
25-29	589	43.2	**6.Occupation**		
30-34	244	17.9	Petty Trading	667	49.0
35-39	12	0.9	Farming	20	1.5
40-44	2	0.1	Civil Service	297	21.8
45-49	0	0	Housewife	111	8.1
			Unemployed	82	6.0
Total	**1362**	**100.0**	Other	185	13.6
3.Marital Status			**Total**	**1362**	**100.0**
Single	43	3.2			
Married	1224	89.9			
Divorced	45	3.3	**7.Income per month**		
Widowed	22	1.6	₦5000-10000	319	23.4
Cohabiting	28	2.1	₦10001-20000	306	22.5
Total	**1362**	**100.0**	₦20001-30000	284	20.9
4.Religion			₦30001-40000	155	11.4
Christianity	787	57.8	₦40001-50000	91	6.7
Islam	545	40.0	₦50001-60000	82	6.0
Traditional	17	1.2	Above ₦60,000	125	9.2
Free Thinker	13	1.0			
Total	**1362**	**100.0**	**Total**	**1362**	**100.0**

Source: Field Survey, 2011-2012

The distribution of the respondents by marital status (panel 3) shows that 43 respondents representing 3.2% were single mothers, 1,224 respondents representing 89.9% were married, 45 respondents representing 3.3% were divorced, 22 respondents representing 1.6% were widowed and 28 respondents representing 2.1% were cohabiting. The implication of the distribution by marital status is that some women still find themselves either taking care of their pregnancy or children alone as single mothers, widows or divorcees. These situations increase the possibility of not having good health care because most women may not have the economic power to survive alone. The distribution by religion (panel 4) shows that Christians accounted for 57.8% of the sample while 40% were Muslims. Adherents of other religions constituted about 2%.

The distribution by level of education (panel 5) shows that 26.6% had no formal education, 5.1% had primary education, 11.7% had secondary education, 54.1% had tertiary education and 2.4% had other forms of education. The distribution by occupation (panel 6) reveals that 49% were petty traders, 1.5% were farmers, 21.8% were civil servants, 8.1% were housewives, 6% were unemployed and 13.6% engaged in other occupations. The distribution of the respondents by income (panel 7) reveals that 23.4% of the women reported a monthly income of 5,000-10,000 naira, 22.5% had income of 10,001-20,000 naira, 20.9% had income of 20,001-30,000 naira, 11.4%

reported income of 30,001-40,000 naira, 6.7% reported income of 40,001-50,000 naira, 6.0% reported income of 50,001-60,000 naira, while 9.2% reported income of over 60,000 naira.

5.2 Bivariate analysis showing relationship between working conditions and maternal health

Table 2 shows associations between working conditions and maternal health. Working conditions appear to affect maternal health. Housewives, who were preoccupied with only house chores, for example, reported good maternal health (94.3%) and entrepreneurs or owners of establishment equally reported good maternal health (95.9%). Women in employment of private or government establishments who combined house chores with official assignments

Table 2: Distribution of respondents by Working Conditions and Maternal Health

Selected indicators of working conditions			Maternal health Conditions	
Working conditions	**Categories**	**Number (%*)**	**Good (%**)**	**Poor (%**)**
Position	House Wife/Working from Home	157 (11.5)	148(94.3)	9(5.7)
	Owner	638 (46.8)	612(95.9)	26(4.1)
	Employee	567 (41.6)	102(18.0)	465(82.0)
Nature	Marketing	680(49.9)	46(6.8)	634(93.2)
	Tailor	130 (9.5)	113(86.9)	17(13.1)
	Hair Dresser	110 (8.1)	96(87.3)	14(12.7)
	Administrative	253 (18.6)	112(44.3)	141(55.7)
	Banker	15 (1.1)	5(33.3)	10(66.7)
	Teaching	92 (6.8)	90(97.8)	2(2.2)
	Business	25 (1.8)	12(48.0)	13(52.0)
	Hawking	13 (1.0)	-	13(100.0)
	Casual Worker	43 (3.2)	2(4.7)	41(95.3)
Time of leaving home	Before 6am	314(23)	96(30.6)	218(69.4)
	After 6am	128(9.3)	44(34.4)	84(65.6)
Distance of home to office	Less than 10km	124(9.1)	102(82.3)	22(17.7)
	10km or more	548(40.2)	115(21.0)	433(79.0)
Closing Hours	Before 5pm	248(18.2)	198(79.8)	50(20.2)
	After 5pm	462(33.9)	212(45.9)	250(54.1)
Relationship with Boss	Good	1005 (73.8)	986(98.1)	19(1.9)
	Fair	261 (19.2)	242(92.7)	19(7.3)
	Not Good	18 (1.3)	4(22.2)	14(77.8)

Source: Field Survey, 2011-2012
*Column percent
** Row percent

reported poorer maternal health (82.0%) when compared with other categories mentioned earlier. There are categories of jobs that pose more danger to pregnant women. For example, marketers reported poorest maternal health when compared to women that owned their businesses. Bankers reported poor maternal health just as hawkers and casual workers. The reasons for this may be due to the nature of job and rigor involved in carrying out their activities. The time a pregnant woman leaves for office in the morning and the time she returns home also serves as a determinant of pressure on a pregnant woman as she may not have enough time to rest. Women who travel long distance to get to work (10 kilometres or more) reported poor maternal health. The relationship with boss is also a determinant of maternal health. The women who cited good relationship with their bosses reported good maternal health.

5.3 Logistic Regression estimating the influence of working conditions on the odds of experiencing maternal health complications

Below is the model specification estimating the influence of working conditions on the odds of experiencing maternal health complications.

Ln= {p/(1-p)}=αo+$\beta_1 X_1$ + $\beta_2 X_2$+$\beta_3 X_3$+…$\beta_n X_n$ + e

Where, e   = the residual value/error term;

      β = the coefficient of $X_1…X_n$;

      ρ = the probability of health complication;

    (1-ρ) = the probability of no health complication; and

Ln= {ρ/(1-ρ)}=log-odds of maternal health to log-odds of maternal health complications.

Hence, parameters in the model are denoted as follows:

αo = intercept;

β_1= change in log-odds of maternal health complication with woman's nature of work;

β_2= change in log-odds of maternal health complication with time woman leaves home for work in the morning;

β_3= change in log-odds of maternal health complication with time woman returns home from work;

β_4= change in log-odds of maternal health complication with means of transportation;

β_5= change in log-odds of maternal health complication with stage at which woman commences maternity leave; and

β_6= change in log-odds of maternal health complication with woman's relationship with boss.

Respondents were stratified into ever and never experienced complications (at the time of the survey). The variable was later dichotomized to satisfy the condition for logistic regression. The model thus tested, and the result of the logistic regression analysis (Table 3), shows the accuracy of the prediction of women's working conditions with respect to the maternal health. The overall percentage for the prediction of the outcome variable indicates 68.9 percent level of accuracy. The result of Hosmer and Lemeshow Test also supports this model as logical. For the Hosmer and Lemeshow Goodness of fit Test, poor fit is indicated by a significance value less than .05 (Pallant, 2007). In this model, the chi-square value for the Hosmer and Lemeshow Test is 10.439 with a significance level of 0.236. This value is larger than 0.05, therefore indicating support for the model. This also provides confidence that the model is relevant in demonstrating the influence of working conditions on maternal health.

The coefficients for these predictors (the independent variables) show the direction of correlation between each independent variable and the dependent variable. The test used is known as Wald test, and it shows the value of the statistic for each predictor. The usefulness of the information on the table is provided by the Exp(B) column. The values are the odd ratios for each of the independent variables, which represent the change in odds of being in one of the categories of outcome when the value of a predictor increases by one unit. A value less than 1 points out that an increase in the value of the predictor variable is related with a decrease in the odds of event. In this model, the nature of work such as marketing, tailoring, business and hawking are significantly associated with maternal health complications. While marketers, business women, and hawkers would be 1.705, 7.427 and 4.284 times more likely to report health complications respectively, tailoring is negatively associated and would only be less than one time likely to report complications as indicated by Exp(B) of 0.370. Surprisingly, working in a bank was negatively related to maternal health complications and would be less than one time (0.925) likely to report maternal health complications. This could be accounted for by other factors that were not included in this model.

The time a woman leaves home for work and the time she returns back home are also indicators of working conditions. Table 3 shows that women who leave home very early are prone to health challenges. Specifically, those who leave home for work between 5 and 7am are 1.138 times more likely to have maternal health challenges than those who leave for work thereafter. However, the Wald values indicate weaker points of 0.365 and 0.190 respectively. This means the time of leaving for work is a weak variable in describing the odds of having health challenges. However, returning home from work after 4pm is positively associated with health complications and statistically significant (p-value = 0.003) with odds ratio 1.719 and Wald value 8.757. This result supports the findings in Giddens (2002), which showed that more time spent at work means less time available for family life and rest.

The same observation goes for means of transportation. Transportation by private/official vehicle shows a negative association with maternal health complications. That is, women who use public transport are 2.143 times more

likely to report complications compared to their counterparts who use private means of transportation. Public transportation is 0.015 statistically significant with odds ratio 2.143 times more likely to report complications. The same observation goes for the periods at which pregnant women commence maternity leave. Those delivered of a baby before they commence maternity leave are statistically significant at p-value=0.098 and 7.059 times more likely to have complications. This is not surprising because Cheequitita (1999) and ILO (2010) had earlier observed that in sub-Saharan Africa, where the highest rates of maternal mortality are reported, more than 80 percent of women workers are considered to be working in precarious and vulnerable conditions. However, surprisingly, being a house wife is statistically significant at p-value 0.051. This can be accounted for by other factors that are associated with women empowerment that are not considered in this model.

The relationship with the boss where applicable, was also considered in this model. The data show that those that are not in good relationship with their bosses are 4.702 times more likely to have heath complications at p-value 0.014.

6. Discussion

The findings indicate a negative significant influence of women's working conditions on maternal health. While working has many health benefits especially for pregnant and nursing mothers, hazardous working conditions such as engaging in manual/unskilled jobs or less secure and low pay jobs can have adverse effects on maternal health. These can be direct hazards that arise from the physical environment or indirect hazards associated with job insecurity, low pay or limited access to pensions or career progression. Discrimination against pregnant women was reported to be prevalent in earlier studies and this represented a large portion of claims brought against employers by women.

One of the major factors influencing women's labour force participation is economic necessity (Fadayomi, 1991; Amoo, Ola-David, Ogunrinola & Fadayomi, 2012). With their peculiar roles in the family, the tendency for them to be prone to maternal health challenges increases. Also, other factors such as lack of rest, excessive work and other forms of stress can aggravate their exposure to health challenges. The urban situation in Lagos further makes the situation worse. The combination of poorly planned cities, poor state of roads amidst high traffic density and traffic jam as well as ineffective law enforcement contribute to the increasing burden of pregnant women's working conditions in Lagos state. Working policies require early resumption to work. With the traffic situation, a pregnant woman wakes up as early as 4 am to avoid getting to the office late due to heavy traffic. Also, she would return home late because of the same traffic. The following statement was given by one of the in-depth interview respondents:

Table 3: Logistic regression estimates of the influence of working conditions on maternal health

Selected Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Nature of Work						
Unemployed	RC	-	-	-	-	-
Marketing	0.533	0.278	3.673	1	0.055	1.705
Tailoring	-0.995	0.365	7.428	1	0.006	0.370
Hair Dressing	0.105	0.214	0.240	1	0.624	1.110
Administrative	0.263	0.557	0.223	1	0.636	1.301
Banking	-0.078	0.275	0.079	1	0.778	0.925
Teaching	0.349	0.472	0.548	1	0.459	1.418
Business	2.005	1.046	3.674	1	0.055	7.427
Hawking	1.455	0.510	8.152	1	0.004	4.284
Time Leaving Home for Work						
Unemployed	RC	-	-	-	-	-
5-7 am	0.129	0.214	0.363	1	0.547	1.138
After 7 am	0.096	0.220	0.190	1	0.663	1.101
Time Returning Home						
2-4 pm	RC	-	-	-	-	-
After 4 pm	0.542	0.183	8.757	1	0.003	1.719
Means of Transportation						
Official/Private	RC	-	-	-	-	-
Public	0.762	0.314	5.895	1	0.015	2.143
Commencement of Maternity Leave						
Self employed	RC	-	-	-	-	-
1-2 weeks before delivery	1.933	1.182	2.674	1	0.102	6.907
Leave starts at delivery	1.954	1.183	2.730	1	0.098	7.059
House wife	2.410	1.236	3.803	1	0.051	11.138
Relationship with Boss						
Good relationship	RC	-	-	-	-	-
Fair/bad relationship	1.548	0.629	6.048	1	0.014	4.702
Constant	-1.523	1.201	1.608	1	0.205	0.218

Overall percentage = 68.9   Cox & Snell R Square = 0.040

2 Loglikelihood = 1037.796   Nagelkerke R Square = 0.057

Chi-square = 10.439, Sig. = 0.236   **RC =** Reference Category

Source: Field Survey, 2011-2012

You need to understand the traffic situation in Lagos. If you miss or you are late for 5 minutes it can cost you 4 hours on the road. That is why I leave home as early as 5am to work.
Similarly, another respondent remarked as follows:
I am 24 years old. I have primary education and I am a fruit seller. Sometimes I need to go very early to the fruit market in Ketu to get better ones. I came here to stay with my mother in-law to take care of me. At the fifth month into pregnancy I was very sick. I had a threat of abortion. They told me it was because I was not resting well.

This finding supports Mordi and Ojo's (2011) finding on work life balance. The work suggested flexible working arrangement for workers. The emerging evidence underscores the need to pay more attention to pregnant women's working hours. Most women continue to go to work until the day of delivery. The respondents, as they reported, continue to work due to various reasons including the fact that some enjoy half salary during the period of

maternity leave and they would like to avoid that. To some, starting leave early means resuming early too after delivery. Although women expressed dissatisfaction with the working conditions in Lagos state, they were less likely to report any intentions to stop working because they need the work for economic buoyancy and independence.

Working during pregnancy is not a risk in itself. However, working in a risky environment poses danger to the health and safety of the expectant mother and/or her fetus (SOHAS, 2007). For instance, working in an establishment where maternity leave would only be granted a week or two before delivery is inimical to the health and safety of the mother and the baby. The study specifically shows that where the above situation prevails, mothers are about 6.907 times more likely to be exposed to health challenges. Women around the world continue to face considerable maternity-related threats to their health and economic security. Women continue to face dismissal and discrimination in recruitment on the basis of maternity. Workplace environments can pose hazards (e.g. exposure to pesticides, solvents and other chemicals); requirements of physically demanding work (e.g. heavy lifting); and irregular or long working hours: all can have potentially negative effects for the health of pregnant women and their fetuses, including greater risks of preeclampsia and hypertension, complications during pregnancy, miscarriage and stillbirth, fetal growth retardation, premature birth and other problems.

As Salihu, Myers and August (2012) have observed, the importance of paid work in the lives of so many makes the quality of working conditions paramount to the reproductive health of women as well as men. Indeed, poor working conditions such as low wages, long working hours and lack of adequate weekly and annual rest in addition to unhealthy and hazardous workplaces and lack of social protection, can have negative effects on maternal health. In addition, discrimination based on gender is often passed on from generation to generation by cultural stereotypes and economic, social and political norms. This also has multiple adverse consequences on access to maternal health. Gender discrimination at work, constraining women's earning capacity, is particularly prejudicial. In general, standard working conditions presented little hazard to infant health; however, pregnancy could significantly impact a mother's psychosocial well-being in the workplace (Salihu, Myers & August, 2012).

7.   Conclusion

The fact that adverse working condition is positively related to maternal health complication calls for urgent policy intervention. Employers must realize that they have a social responsibility to address the issue of maternal health complications. In particular, there should be targeted health policies toward maternal wellbeing during pregnancy in the work place. This could be developed in the light of urban poor infrastructure and the double pressure which the body experiences during pregnancy. Policies establishing flexible working hours for pregnant women, such as closing earlier than others to avoid the pressure on the road and to be able to attend to home activities as well as have enough time to prepare and rest for the next day's activities can be established. This is to enhance protective factors, as well as buffering and moderating risk factors identified in this study. Finally, while we acknowledge the importance of biological factors and health care utilization in the reduction of maternal mortality and morbidity, the focus of this study helps to chart a new understanding of maternal health within a socio-cultural framework.

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