

Internal migration status and the uptake of reproductive and maternal health services in Nigeria.

Background

Despite the decline in maternal mortality rate (MMR) across the globe between the years 2000 and 2017 by 38 percent, maternal mortality is still high with about 295,000 women reported to have died in the year 2017 due to pregnancy or childbirth complications (WHO, 2019a). In the quest for a better quality of life, people most often migrate to other areas in search of adequate health services and care. Hence, migration is increasingly being recognized as a social determinant of health (IOM, 2017) and there is a need to appraise the influence of migration status on access to reproductive and maternal health services, especially in developing countries such as Nigeria. Approximately, 20% of all global maternal deaths occur in Nigeria while the country's estimated maternal mortality ratio in 2015 was over 800 maternal deaths per 100,000 live births; meanwhile, about 58,000 maternal deaths occurred in Nigeria in the same year (WHO, 2019b). The high rate of maternal death in Nigeria is largely attributed to lack of access to reproductive and maternal health facilities, lack of access to skilled health workers as well as their inability to access adequate antenatal care services (NPC and ICF-NDHS, 2014; Olonade et al., 2019; Sageer et al., 2019). Studies abound to show some existing relationship between migration status and access to and use of reproductive and maternal health services. Several studies from different countries have shown that rural-urban migrants were more likely to use contraceptives than rural non-migrants and urban-rural migrants (Chen et al., 2010; Yang et al., 2005; Lindstrom and Hernández, 2006; Omondi, 2003; Omondi and Ayiamba, 2003). In Nigeria, some findings obtained across studies have shown that migration determines the uptake of reproductive and maternal health services. The study by Antai (2010) shows that rural mothers who are non-migrants compared to mothers who are rural-urban migrants likely to access full reproductive and maternal health care services. This is consequent upon the inability of the poor rural-urban migrants to afford and utilize more improved urban health care services. In Lagos state, Kunnuji et al. (2013) found that non migrants have more knowledge about uptake of reproductive and health services and thereby utilize these services more than non-migrants. Going further, the study by Odimegwu and Adewoyin reveals that Hausa and Yoruba migrants are likely to uptake reproductive health services Igboland than in their lands while Igbo and Yoruba migrants usually accept maternal and reproductive health in Hausa land than in Igbo land. As the number of internal migrants in Nigeria increases each year, it appears that few studies, which were carried out using datasets of more than ten years ago focused specifically on either only the use of contraceptive among women (Akinyemi et al., 2017), or only on sexual initiation among youth (Mberu and White, 2011) as well as on only fertility differentials (Omoyeni, 2013). Thus, this study used a recent nationally representative dataset to comparatively explore the influence of migration status on the different indicators of reproductive and maternal health services in Nigeria.

Methods

Data source

This study made use of data from Demographic and Health Surveys (DHS) conducted in 2018. Subsequently, a nationally representative sample of 39,733 women aged 15-49 years comprising of 16,192 urban and 23,541 rural respondents were used for this study. This study made use of three dependent/outcome variables of (i) use of modern contraceptives (ii) Antenatal care visits (ANC), and (iii) place of delivery. The different patterns of internal migration status were used as the exposure variables. These exposure variables were generated from the question which asked "How long have you been living continuously in the current place of residence?" Those women who answered "always" are treated as "non-migrants", while those women who reported, "number of years lived in current place of residence" are considered as "migrants" if they changed place of residence across district boundaries.

Two further questions were asked on respondents' (i) previous place of residence and (ii) respondents current of residence. The responses to these questions on previous and present places of residence were subsequently used in the generation of six categorization of internal migration status. In this context, a respondent who reported previous place of residence as rural and current place of residence as urban was classified as a rural-to-urban migrant while a respondent who reported previous place of residence as urban and current place of residence as rural was classified as urban-to-rural migrant. Also, a respondent who reported previous place of residence as rural and current place of residence as rural was classified as a rural-to-rural migrant while a respondent who reported previous place of residence as urban and current place of residence as urban was classified as urban-to-urban migrant. On the other hand, a respondent who reported always lived in the current place was considered as a non-migrant, either urban or rural. These six categories are urban-to-urban (U-U), urban-to-rural (U-R), rural-to-urban (R-U), rural-to-rural (R-R), urban non-migrant, and rural non-migrant. The independent variables used in this study included age groups, education, wealth index, number of living children, union type, ethnicity (Hausa/Fulani/Igbo/Yoruba), religion, and region.

Data analysis

The data were weighted for under sampling and oversampling errors as per the survey design using the stata svyset command before data analyses. Subsequently, the analysis of the data involved univariate analysis of the characteristics of the study population and the nature of the uptake of reproductive and maternal health services by the population. Furthermore, bivariate analyses, which utilized chi-square statistic, was used to test for significant differences in the uptake of reproductive and maternal health services by different population groups. Finally, logistic regression models were used to estimate the factors, which influenced +ANC visits, place of delivery, and use of modern contraceptives.

Preliminary Results

Characteristics of the study population

The population of study had more internal non-migrants (58.29%) compared to 41.71% of the population who were migrants. Furthermore, a greater proportion of the respondents were rural non-migrants (36.44%) while the urban-rural migrants constituted the least proportion of the respondents (4.84%). Almost half of the respondents (45.45%) had no formal education, while 39.50% of the respondents were aged 35+ years, and 44.80% of the women fell under the poor wealth index category. In addition, 46.89% of the women have 1-3 living children, 69.62% of the respondents were in monogamous unions, and 69.19% of the respondents were employed.

In the general population, 78.14% of the respondents attended at least four antenatal visits while only 10.07% of them reported use of contraceptives. With regard to migration status, 78.85% and 77.03% of migrants and non-migrants respectively recorded 4+ANC visits. On the other hand, 13.20% of migrants and 7.73% of non-migrants made use of contraceptives. The results also showed that while 91.60% of the urban-urban migrants recorded 4+ANC visits, 69.48% of the rural non-migrants attended 4+ANC visits. Furthermore, 18.01% of the urban-urban migrants compared to 5.88% of the rural non-migrants used modern contraceptives. Finally, the proportion of respondents who used a health facility for birth delivery ranged from 22.68% of rural non- migrants to 73.61% of the urban-urban migrants. (Figure 1)

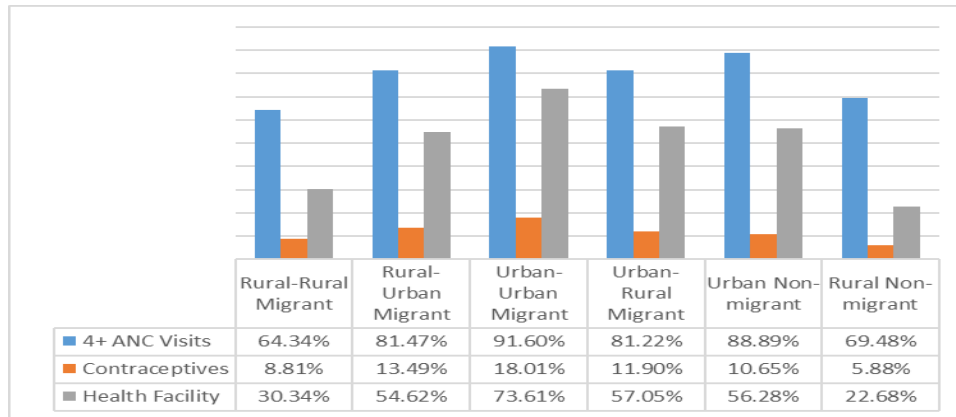


Figure 1: Uptake of Reproductive and Maternal Health Services According to Migration Pattern

Bivariate results of reproductive and maternal health indicators

The bivariate results of the three reproductive and maternal health indicators of 4+ANC visits, health facility delivery, and use of modern contraceptives showed significant differences in all the explanatory variables. With regard to 4+ANC visits, the results showed that greater proportion of the women from different sub-groups such as urban-urban migrants (88.66%), age 35+ years (79.01%), tertiary education (94.63%), and South West residents (93.69%) reported 4+ANC visits. Furthermore, the greatest proportion of women who used modern contraceptives included South West residents (24.33%), Christians (17.90%), people in monogamous unions (13.12%), the rich wealth index (19.15%), those with tertiary education (22.24%), and the urban non-migrants (15.09%). Finally, the proportion of women who reported the greatest use of health facilities among the different groups included the urban-urban migrants (73.53%), those with tertiary education (87.55%), Christians (65.67%), women who earn the same income with their husbands (59.80%) and residents of South East region (82.80%).

Predictors of reproductive and maternal health in Nigeria.

The results of the regression analysis in 4+ANC visit model indicated that being a rural-urban migrant (OR=1.21; p=0.05), urban-urban migrant (OR=1.50; p=0.001), urban non-migrant (OR=1.31; p=0.002), and rural non-migrant (OR=1.23; p=0.05) significantly increased the odds of 4+ANC visits. Furthermore, being a rural-urban migrant (OR=1.38; p=0.002), and an urban-urban migrant (OR=1.37; p=0.002) were significantly associated with increased likelihood of the use of health facility for delivery. Conversely, being a rural non-migrant (OR=0.72; p=0.001), significantly decreased the odds of modern contraceptive use.

Other independent variables that significantly increased odd of 4+ANC visits were increases in educational attainment, increases in age of the women, the middle and rich wealth index categories, being a resident of North West region and being a resident of South West region. In addition, the other independent variables, which significantly increased the odds of modern contraceptives use, were increases in educational attainment, the middle and rich wealth index categories, and increases in the number of living children. Finally, the other independent variables, which significantly increased the odds of use of health facilities for birth delivery, were increases in educational attainment, the middle and rich wealth index categories, and being a resident of South West region.

Conclusion

Based on these findings, this study recommends that increased and effective enlightenment campaigns on the importance of use of reproductive and maternal health facilities by religious bodies especially in mosques, in rural areas, and in the different regions of the country where the uptake of these reproductive and maternal health services is relatively low. Moreover, more contraceptive services should be provided for the rural non-migrants who may not know the importance of its use or who may not be able to regularly afford it. Finally, there should be sustained education during ANC visits, of women who have given birth to more two children, on the great importance of regular ANC visits and health facility deliveries.

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