An exploration of Perceived impact of Water, Sanitation and Hygiene (WaSH) on Maternal Health and implications among women of reproductive age in Rural Communities of Akwa Ibom State, Nigeria

Extended Abstract

Introduction

The increasing attention given to maternal health globally has been concentrated on the reduction of maternal mortality. In developed countries, where women have access to basic health care, childbirth is a positive and fulfilling experience, whereas in developing countries the reverse is the case (Kistiana, 2009). For most women in low resource countries, delivering a child is associated with suffering, morbidity and in most cases maternal mortality (Kistiana, 2009). Nigeria is faced with a number of public health problems. These include high maternal mortality, high teenage pregnancy rates, and poor maternal health-care-seeking behavior (National

Population Commission [NPC] & Inner City Fund [ICF] Macro, 2009). Despite significant improvements in the health of women worldwide, the maternal mortality rate and poor maternal health conditions have remained high has remained high in Nigeria as it has in other developing countries in the sub-Saharan African region. Estimates indicate that 59,000 maternal deaths occur in Nigeria annually (Babalola & Fatusi, 2009). Globally, Maternal mortality ratio (MMR) is estimated at 216 per 100,000 live births (WHO 2016). This translates into approximately 830 women dying every single day due to the complications of pregnancy and childbirth most of which are preventable. About 99% of all these deaths occur in developing countries and 66% in sub-Saharan Africa. With an estimated MMR of 1047 per 100, 000 live births(UNICEF, 2024).
 Nigeria still ranks high in the list of countries with high maternal mortality rates.

The SDG target on maternal mortality forms an integral part of The Global Strategy for Women's Health, 2016–2030. Thus, accelerated progress is needed in order to achieve the SDG Target 3.1 and it will require a global annual rate of reduction of at least 7.3% (World Health Statistics, 2016). However, acceleration in reducing maternal mortality may not be possible without clinical and non-clinical interventions (including WaSH interventions.) Evidence showed that WaSH impacts on maternal and newborn health at the time of pregnancy, delivery and the immediate postpartum period through multiple direct and indirect mechanisms (

Clinical studies have shown that the major complications that account for nearly 75% of all maternal deaths are: severe bleeding after childbirth (27%), infections usually after childbirth (11%), high blood pressure during pregnancy (preeclampsia and eclampsia) (14%) complications from delivery, Puerperal sepsis, unsafe abortion (8%) (World Health Statistics, 2016). While the rest are associated with diseases such as malaria, and AIDS during pregnancy (29%). Notably there is little evidence from non-clinical and qualitative studies on the impact of WaSH on maternal health. The importance of WASH in maternal mortality reduction and improvement of reproductive health cannot be overemphasized. Without access to safe drinking water and basic sanitation such as safe toilet facilities, women face dangerous health risks in pregnancy, during childbirth and in the postpartum period which could consequently lead to maternal deaths.

The links between maternal health and water and sanitation are multiple and occur not only during the continuum of care from pregnancy, to delivery, and the postpartum period, but also throughout the life of the mother and her child (Adogla, 2015). Quantity and the quality of water used can also have an impact on the pregnant woman. Water quality refers to both its microbiological and chemical (salinity, arsenic, fluoride) quality. Hepatitis E (HEV), for instance is an illness which has a tremendous impact on pregnant women and is transmitted usually through faecal

contamination of drinking water (Songa et al 2015). Borehole contamination through septic tank, and latrines are also pathway of transmission as found by a study in Uyo which documented 38% and 45% non Standard Organization of Nigeria (SON) and ARGOSS compliant respectively.

A large number of studies focused on women and girls have demonstrated that women practice poor WASH and mensural hygiene management practices (MHM), primarily due to lack of resources (Khan et al. 2022. Others have found association between While safety and usability of a facility are critical, sometimes women may experience sanitation insecurity despite having a safe and functional toilet. Furthermore, there is also suggestive evidence that WASH may have impact on reproductive, maternal and newborn health through multiple direct and indirect mechanisms (i.e. throughout the life course) (Mills & Cumming 2016). There is a paucity of researchE that explore the experiences of rural women on the impact of on maternal health outcomes The present study seeks to explore the practices of WASH and its perceived implications on the maternal health of women residing in the rural communities in Akwa Ibom, State, southern Nigeria. Studies that link WASH exposures to maternal health outcomes and also seek to explore maternal health disease burden that is specifically associated with poor WASH is important in understanding the needs of disadvantaged rural women and support the development of more nuanced, targeted guidelines.

Data and Methods

The study utilizes free-list interviews and focus group discussions (FGDs) to collect data from women of reproductive age (15-49) years in rural communities of Akwa Ibom State Nigeria, to understand their experiences on WASH practices, it's implications for maternal health and what maternal disease-burden is associated with poor WASH. The interview is used to learn about women's concerns of WASH practices and perceived maternal health disease-burden associated with poor WASH and also maternal diseases indirectly associated with WASH. FGDs aim to elicit

details about concerns reported in interviews. This will help to confirm if concerns reported in interviews were widely held by the participants. FGD tools were developed based on free-list interview results. The women were asked to discuss their WASH practices and what they perceive about the difficulties experienced and other concerns mentioned in the interviews if not discussed previously. FGDs lasted for 60 minutes and were held in a private convenient venue. Both interview and FGDs were conducted in native language (Ibibio) recorded and translated to English language and then transcribed for analysis.

Data analysis

To analyze the transcribed data, first analytic codes from the concerns are generated and applied to both interview and FGD transcripts and thematic analysis was conducted to examine themes, and present participant's narratives based on experiences of WaSH practice and associated maternal health diseases.

Preliminary results

The narratives indicate low water supply and sanitation coverage in the study area. Mother and child hygiene is compromised as most of the women delivered in TBA homes under serious unhygienic conditions and lack safe water for drinking, cleaning and hand washing. Open defecation is common due to inadequate toilet facilities occasioned by poor WASH. There were also indications of perceived maternal health diseases associated with poor WaSH and these include anaemia. malaria, diarrhoeal and typhoid due to water storage and contaminated water. This suggests that WASH is integrally linked to maternal and reproductive health disease-burden, and women in rural Nigeria are disproportionately burdened by WASH inadequacy. WASH should be considered in global and national strategies and also prioritized for maternal and newborn health