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INFORMED COMMUNITY PARTICIPATION IS ESSENTIAL TO REDUCING MATERNAL MORTALITY IN NIGERIA

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ABSTRACT: *Women in Nigeria face significant socio-cultural inequities resulting in poor health indices especially during pregnancy and after child birth because of society's defined gender roles that may not consider the changed status of a pregnant woman. Current research is focused on clinical, institutional/policy level deficiencies with little community involvement and not much is said about culture, beliefs and practices that may negatively impact on maternal health. Under the current Primary Health Care model, community involvement is represented by a Community Health Committee (CHC) made of a chief, police officer, health professional and a school principal. This committee composition is supposed to aid access to community level data on issues related to maternal health such as; intimate partner violence including rape, girl child education/ educational resources for women and community level resources for female wellbeing, socio-political participation and entrepreneurship. In reality though, community-level data is collected by health workers who may not be part of the CHC and may not be properly trained in community participatory needs/assets assessments. The CHC has become a symbol of token community involvement and data collection is often done to meet funders' needs, which often may not capture the intricacies involved in the daily lives of women that negatively affect their health before, during and after childbirth. Recommendations include developing a community participatory, women-centered data collection model aimed to inform, educate and promote a better understanding of sociocultural factors that influence maternal morbidity and mortality with the aim of developing culturally appropriate interventions and policies.*

KEYWORDS: Maternal Mortality, Community Participation, Tokenism, Sociocultural Factors

INTRODUCTION

The World Health Organization (WHO) estimates that about 536,000 women die of pregnancy-related causes annually, and close to 10 million women suffer complications related to pregnancy or childbirth(WHO, 2007). In 1994, WHO adopted the following definition of maternal mortality: "a death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related or aggravated by the pregnancy or its management, but not from accidental or incidental causes"(WHO, 1994).

With less than two years to 2015, the target year for achieving the Millennium Development Goals (MDG), many developing countries especially in sub-Saharan Africa are yet to meet their goals especially MDG5 which is to improve maternal health with two targets; the first being that of reducing maternal mortality ratios (MMR) by three quarters between 1990 and 2015 and the second to have universal access to reproductive health by 2015.

Maternal Mortality: The Nigerian Context

The current implementation of free health care to pregnant women and under-five children seem to be yielding some positive results but Nigeria's MMR however is yet to reach the reduction rates as recommended by the MDGs. Although Nigeria saw a 27% decline in MMR between 2005 (820 per 100,000 live births) and 2010 (630 per 100,000 live births), the

country is still among the top 13 highest MMR in the world. The WHO estimates that over a million children worldwide lose their mothers annually and the children who lose their mothers are 10 times more likely to die prematurely. This shows that countries with high maternal mortality ratios also record high infant and child mortality rates as well.

Due to the crucial role a mother plays in the life of a child, Nigeria's current MMR of 630 per 100,000 live births is indicative that critical aspects of the healthcare delivery system like financial and geographic access to care and good quality healthcare delivery services in Nigeria continue to fail women and children. According to a United Nations Children's Fund (UNICEF) report, some of the major causes of high MMR in Nigeria include haemorrage, obstructed labour, puerperal infection, malaria and complicated abortions (WHO, 2012). Some researchers argue that haemorrage has historically been over reported while puerperal sepsis is always under reported (Hanson, 2010). One of the main reasons being that hospital staff gets blamed for poor hygiene and clinical services when a higher percentage of puerperal sepsis is reported, therefore some mortality due to sepsis is reported as haemorrage (Hanson, 2010). Researchers in Nigeria have reported that puerperal sepsis accounts for 12% of maternal deaths in Nigeria and that till date, little is known about the background hospital factors that predispose pregnant women to puerperal infection that leads to mortality (Okonofua et al., 2012). High maternal mortality has been explained by some researchers to be caused by a combination of individual level factors such as attending ante natal clinics but choosing to deliver at home, at a church or by a traditional birth attendant (Igberase & Ebeigbe, 2007). Others identified women who never attended ante natal clinics but show up at the hospital as emergency cases with varied degrees of complications(Guerrier, Oluyide, Keramarou, & Grais, 2013)

MMR Reduction: Perspectives on how to reduce MMR in Nigeria

In the past five years Nigeria has invested in the training and re-training of doctors, nurses and midwives to meet the needs of the population. Despite this positive trend, the doctor-population ratio is still one to 6000; a far cry from the WHO recommended one doctor to 650 people. The doctor-population ratio is even worse in 24 of the 44 nations in sub-Saharan African where there is an estimated 10 doctors for 100,000 people (Weeks, 2007). These nations also have the following in common; high fertility rates, low GDPs and high MMR (Table 1). It has been argued that the higher a nation's GDP, the more quality healthcare is made available and better access to this higher quality healthcare by a larger proportion of the citizenry is achieved. It is also a good indicator that the socio-economic status of the citizens is high.

This co-linearity between the nations high GDP and better socio-economic status of the citizens translates that the more affluent citizenry can afford better quality healthcare which could be the reason behind the lower MMR. It therefore is no surprise that more affluent countries have considerably lower MMR than most of the developing countries. For example as at 2005, the United States, which has the highest GDP in the world and spends the most in healthcare per capita, had a MMR of 17 per 100,000 live births in 2005 while Nigeria which has the 47th highest GDP in the world and spent about US$62.00 per capita had a MMR of 800 per 100,000 live births within the same period (IMF, 2006; WHO, 2004). In spite of the widely held view that a nation's GDP is inversely related to its MMR, there are however some (disparities among developed countries). For example, the United States has a higher GDP than Sweden, yet Sweden recorded a MMR of 2 while US' was 17 per 100,000 live births in 2005. Current MMR values (2010) stand at 2 for Sweden and 21 for the US ((IMF, 2006; WHO, 2007)

	2005			2010		
	Fertility Rate	**Expenditure per Capita**	**MMR**	**Fertility Rate**	**Expenditure per Capita**	**MMR**
Country Name						
World	**2.5**	**686.0**	**260.0**	**2.5**	**949.0**	**210.0**
Angola	6.2	36.1	650.0	5.4	123.2	450.0
Botswana	**3.0**	**420.1**	**330.0**	**2.8**	**614.6**	**160.0**
Cameroon	4.8	45.4	720.0	4.5	61.3	690.0
Egypt, Arab Rep.	3.0	63.4	78.0	2.7	123.2	66.0
Equatorial Guinea	5.5	229.1	270.0	5.2	896.2	240.0
Gambia, The	5.3	18.5	430.0	4.9	26.1	360.0
Ghana	**4.4**	**35.0**	**440.0**	**4.2**	**67.0**	**350.0**
Guinea	5.6	16.3	800.0	5.2	23.0	610.0
Guinea-Bissau	5.5	11.9	890.0	5.1	46.9	790.0
Kenya	**4.9**	**22.3**	**450.0**	**4.7**	**36.8**	**360.0**
Liberia	5.6	15.3	1100.0	5.2	29.2	770.0
Libya	2.9	217.3	61.0	2.6	483.7	58.0
Madagascar	5.0	10.6	310.0	4.7	15.9	240.0
Malawi	6.0	16.4	630.0	6.0	25.6	460.0
Namibia	**3.6**	**264.5**	**310.0**	**3.2**	**361.3**	**200.0**
Niger	7.3	15.3	720.0	7.1	18.3	590.0
Nigeria	**5.7**	**52.6**	**820.0**	**5.5**	**62.8**	**630.0**
Rwanda	5.5	20.4	550.0	5.4	55.5	340.0
Sierra Leone	5.4	35.9	1000.0	5.0	42.5	890.0
Tanzania	5.6	14.1	610.0	5.5	30.9	460.0
Togo	**4.6**	**28.2**	**370.0**	**4.1**	**40.6**	**300.0**
Zambia	6.1	42.8	500.0	6.3	72.9	440.0

Table 1: Fertility Rates, GDP and MMR of selected Nations
Data Source: Trends in Maternal Mortality: 1990-2010. Estimates Developed by WHO, UNICEF, UNFPA and the World Bank.

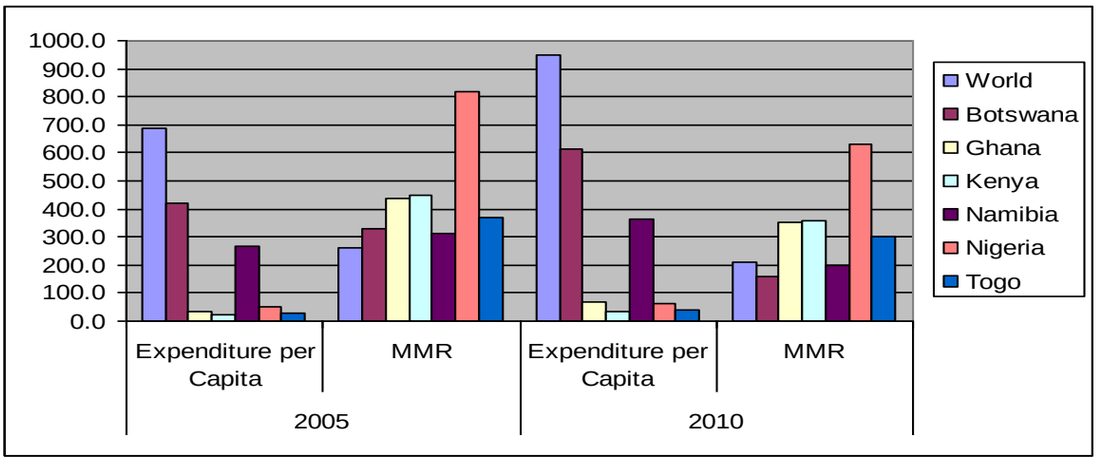

Figure 1: Nigeria's MMR and healthcare expenditure per capita in comparison with poorer African Nations
Data Source: Trends in Maternal Mortality: 1990-2010. Estimates Developed by WHO, UNICEF, UNFPA and the World Bank.

Similarly, among the less developed countries, Nigeria has a higher GDP than Ghana yet her MMR is almost double that of Ghana (Figure 1). How then, can these disparities be explained? WHO (2012) reports show that improved healthcare services delivery including better training for midwives, improved sanitary conditions and access to skilled care before during and after the birthing process could reduce MMR considerably. Additionally, the fewer younger women especially adolescents get pregnant the less the risk of dying due to pregnancy-related issues. As at 2010, Nigeria still records a high fertility rate of 5.5, a drop from 5.7 in 2005; therefore women in Nigeria are currently exposed to a higher risk of dying due to childbirth-related issues than women in some poorer African countries such as Botswana, Ghana, Namibia and Togo (Table 1).

Apart from Togo, which spent the least in both 2005 and 2010 on healthcare per capita, Botswana, Ghana and Namibia spent more than Nigeria (Figure 1). While there are observed differences in MMR among under-developed nations, the emphasis for MMR reduction is still on improved quality of care and access to good quality healthcare for the majority poor and rural-dwelling population.

Having identified some of the key policy-related issues that influence maternal mortality, Shiffman and Okonofua (2007), noted that with the current consistent democratic rule in Nigeria since 1999, the stage is set for real governmental involvement in efforts to help reduce maternal mortality. They insist that governments should promote high quality healthcare at the grassroots level with special emphasis on rural areas (Shiffman & Okonofua, 2007).

Real meaningful health-related change at the grassroots level however has eluded many African countries and Nigeria is no exception. Using a top-down approach to policy formulation and implementation has failed to bring about the much needed change. According to Adindu et al, (2012), true community participation is essential to achieving the kind of change that governments and organizations seek and for programmes to successfully and sustainably achieve their goals (Adindu, Ndep, & Peter, 2012).

In less developed countries where there are great inequities in the distribution of wealth, only a privileged few can afford the access to and the quality of healthcare that could reduce a woman's risk of dying due to complications associated with pregnancy and childbirth. Weeks (2007) proposed that the quality of healthcare should be how effectively good quality health care is made available to the country's poor living in rural areas (Weeks, 2007). This view is particularly important for Nigeria because, majority of the population is still very much in the rural areas.

The current PHC Model and community-level data collection

The adoption of the Primary Health Care model by Nigeria since 1987 has ensured that every rural community has a primary health centre or health post, bringing healthcare almost to the doorstep of the rural dwellers. This model has an in-built mechanism for community ownership and participation in the healthcare delivery at the health center specifying who should be involved in the community meetings. According to the PHC model, the chief, a police officer, a headmaster of a school and the primary care coordinator (usually a nurse; in charge of the primary health care centre) constitute the Community Health Committee (CHC) of the health centre. This committee is supposed to be representative of the community served by the health centre. Adindu et al (2012) state that, the level of community participation required in healthcare policy formulation should help individuals, families and the communities take responsibility for defining priority health needs and dealing with both their chronic and emergent problems to promote development at the individual and collective levels. Yet how the community health committee gathers the community-level data to guide their decision making is not clearly defined.

According to Egwu (2006), the CHC was originally meant to promote community participation in broadening the community's inputs to decision making that influences their health. Instead, it has become a symbol of tokenism. The members of the CHC have become token community representatives who attend meetings and workshops to "legitimize predetermined objectives and activities"(Egwu, 2006). It is critical therefore to reverse this trend of community tokenism and to develop grassroots systems of effective collection of data as well as train members of the CHC on effective use of these data to develop policies and to report on health indices within their community.

Adindu et al (2012), argue that an effective system for collecting and managing data to assess progress or failure is a critical element in effective management of interventions to achieve the primary healthcare goals as well as the MDGs. The training curriculum for community heath extension workers who are the main data collectors in the current PHC model, should embrace community participatory methods in data collection, management, analysis and result dissemination. They should fully understand the need for and use of accurate data rather than just being data collectors (Adindu et al., 2012).

The Current PHC Model and the Incongruity Paradigm

In her classic case study of Nigeria health care system, Adindu (2012) discussed the incongruity paradigm in which lack of knowledge on the use and need of accurate data and the rush to meet funders deadlines, incomplete and most times inaccurate data are forwarded onward to the state and federal levels for analysis and policy formulation. It should be noted that the composition of the Community Advisory Committee; the Chief, Police officer, headmaster or principal of a school and the coordinator of the community health centre were chosen with the following assumptions:

- Access to current data on women's health (Nurse)
- Access to current data on intimate partner violence, rape and other negative women's health indices (Policeman)
- Access to data on girl child education and educational resources for women (Principal)
- Access to data on community level resources for female socio-political participation and entrepreneurship (Chief)

In reality however, community level data is often collected by community health extension workers (CHEWs) which is then forwarded to the local government through the primary health centre(Adindu, 2008).

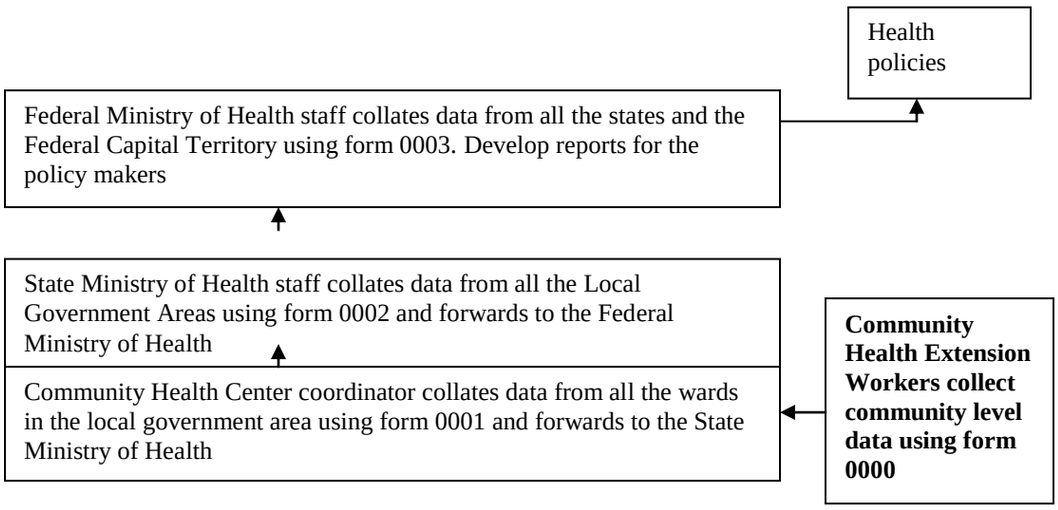

Figure 2: Data flowchart under current PHC model

Although, this is a well thought out process, often, lack of reporting forms, increasing data demand from officials at the state and federal levels, and excess workload on health facility staff lead to what Adindu (2008) appropriately termed the Incongruity Paradigm. Incongruities in structure at the district and primary health facility levels are found in

organizational functional responsibilities (OFR) and organizational social responsibilities (OSR). According to Adindu (2008), OFR and OSR often include the following:

i. Design of health information system inconsistent with local information needs;
ii. Lack of objectives for local information systems;
iii. Tools and data collection only for national requirements;
iv. Federal timetable for data collection did not consider local constraints;
v. Health workers collecting data did not receive training on the Health Management Information Systems; and
vi. Supervision and community involvement is minimal (Adindu, 2008)

The CHEWs who are often responsible for community level data collection lack the training adequate for participatory data collection. Community participation is not a new concept in development work across the world. It has been used successfully among minority groups as well as socio-politically marginalized groups in the Americas, Asia, and Britain (Wallerstein & Duran, 2006; Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004; Wu, Burris, & Li, 1995).

We recognize that true community participation in identifying and assessing the effects of socio-cultural as well as socio-economic factors on MMR in Nigeria may touch on our traditional cultural extremist views, gender biases, socio-political and religious views. However, if the country has to make the required progress in addressing the unacceptably high maternal mortality indices, there would be a need for a drastic paradigm shift in the socially and culturally-entrenched norms that define gender roles and dynamics, and subjugate women by denying them the right to determine their reproductive health.

Thus, for Nigeria to achieve the high quality healthcare provision at the rural level that will ultimately reduce MMR, it is expedient that a full understanding of the healthcare needs from the women and the rural dwellers' point of view be incorporated into the national healthcare policies with the aim of entrenching a practice that is patient-centered, culturally acceptable, gender-sensitive and socially equitable healthcare delivery system. Therefore full informed community ownership and participation rather than tokenism should be encouraged.

The Proposed PHC Model: Informed Community Participation

"Tell me and I forget, teach me and I remember, involve me and I learn."

– Benjamin Franklin

The proposed informed community participatory model of the PHC places emphasis on the community's involvement in their needs/assets assessments. It should be an integrative system that engages community members in the collection of meaningful and reliable qualitative and quantitative data through community forums, observations, interviews, town hall meetings, focus groups, and video/photo voice methodologies for community groups, community health workers as well as the CHCs of all health centres. Above all this informed community participatory model of data collection and use, should engage women, men, the youth (within schools and out of school) and ensures their full participation in the health decision making processes at both the family and community levels.

These community engagements should be responsive in addressing in a holistic manner the concerns and expectations of the community, depending on the particular issue being addressed for a particular priority population. For the reduction of high maternal mortality rates, the proposed community participatory model engages women (women of child bearing age, mothers, grandmothers and mother-in-laws) in the health decision making at the grassroots level, addressing their concerns and expectations, for the protection of their physical, mental, psychosocial wellbeing and above all securing their health outcomes before, during and after pregnancy and childbirth, thereby reducing maternal mortality in Nigeria and achieving the MDG 5. With less than two years to get to the deadline for achieving the MDGs, the urgency of planning, developing, implementing and evaluating this new model of healthcare cannot be overemphasized.

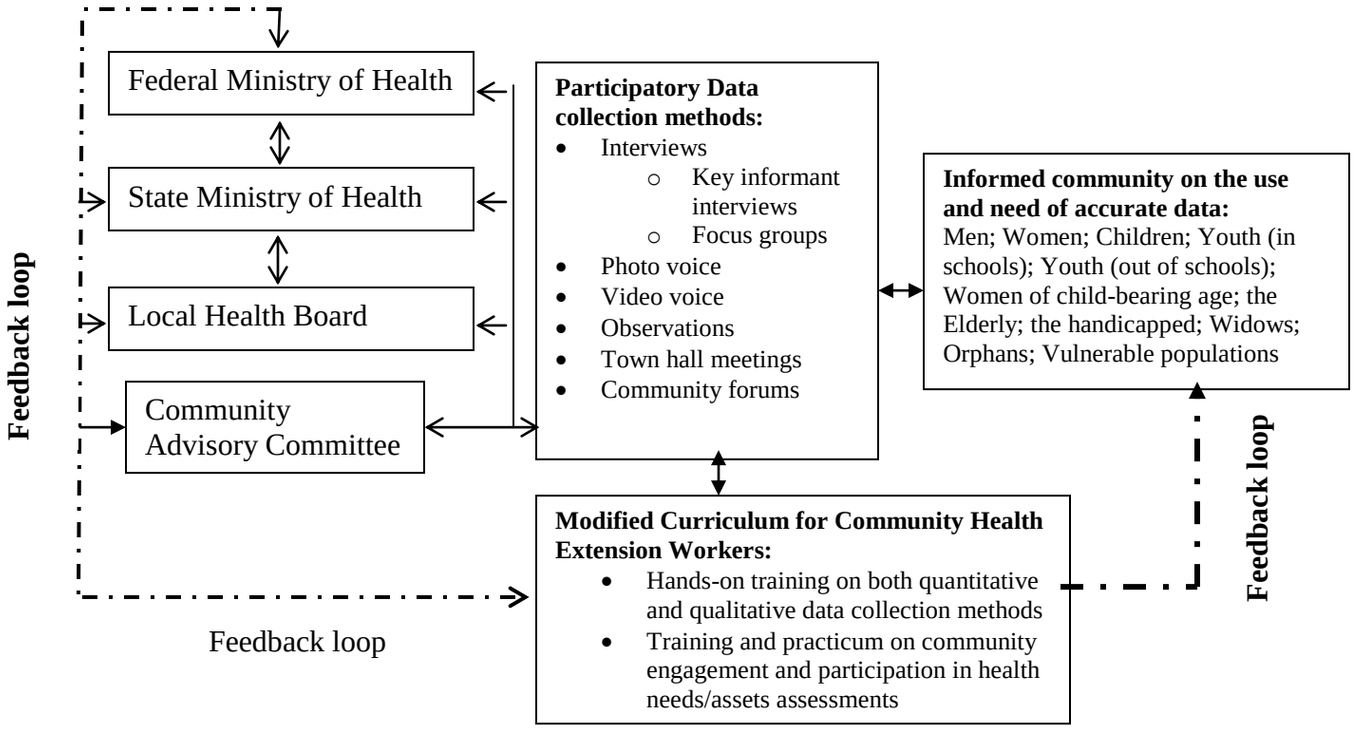

Figure 3: Modified data flow chart under proposed community participatory PHC model

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