

MATERNAL MORTALITY: CURRENT SITUATION

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INTRODUCTION

According to World Health Organization (WHO), Maternal Mortality is the death of a woman while pregnant or within 42days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Mortalities during but unrelated to a pregnancy are accidental or incidental. There may be other definitions which include accidental or incidental causes as maternal mortality, but for us in developing countries, the WHO definition is our concern. Indeed some definitions have extended the period of observation after 42days. Yet others have defined it as the death of a pregnant woman irrespective of the cause.

Statistical measurement of maternal mortality

Maternal mortality ratio: This indicator measures the obstetric risk (death) a woman faces when she becomes pregnant. It is the number of maternal deaths per 100,000 live births during a given period usually one year. Ideally, the number of pregnancies rather than live births should be used as a denominator, but the total number of pregnancies especially early abortions and molar pregnancies including ectopic gestations are usually not known. Therefore, the numbers of live births are used as an approximation.

Even at this, it is difficult to register live births in Nigeria as proper vital registration system is lacking. So, in the University of Port Harcourt Teaching Hospital, the number of deliveries is used as a denominator. Community-based vital registration will make published figures reliable.

Maternal mortality rate: This indicator measures the burden of maternal mortality in the adult female population. It is the number of maternal deaths per 100,000 women of reproductive age in a given period usually one year. If fertility in a given population is high, many women are at risk of death when pregnant.

Lifetime risk of maternal death: This measures the risk of maternal death throughout the life period of a woman in a specific population. It reflects the chance of maternal death over a woman's 35 years of reproductive life.

Pregnancy and childbirth have always threatened a woman's life from time immemorial. In Genesis 3:16 “unto the woman He said, I will greatly multiply thy sorrow and thy conception, in sorrow thou shall bring forth children”. Sorrow which was meant to be translated as pain has unfortunately turned to a tragedy—death.

Historically, some women who were either famous by themselves or closely associated with famous persons died during childbirth. They are: Joana of Austria, Grand Duchess of Tuscany (1578); Princess Maria Luisa of Bourbon-Parma, mother of Tsar Boris III of Bulgaria (1899); Eleanor of Portugal, Queen of Denmark (1231); Mutnedjmet, wife of Pharaoh Horemheb in Egypt (13th Century BC); Constance of Castile, second wife of Louis VII, King of France; Mary , Queen of Hungary (1319) ; Mumtaz Mahal, wife of Mughal Emperor Shah Jahan-Her memorialis the Taj Mahal (1631); Julia, daughter of Julius Caesar (54BC); Princess Zorka of Montenegro, mother of King Alexander I of Yugoslavia (1890); Christina of Norway,princess of Norway(1213);Benedicta Ebbesdothor of Hvide , Queen consort of King Sverker II of Sweden (1200); Princess Charlotte Augusta of Wales , only legitimate child of the future King George IV of the United Kingdom(1817) – the obstetrician later committed suicide; Florence Kendrick, mother of Neville Chamberlain, Prime Minister (1875); Sarah Lincoln Grigsby , sister of Abraham Lincoln (1828); Alice Hathaway Lee Roosevelt, the first wife of Theodore Roosevelt.² These countries have taken appropriate steps and strong commitments and the mortality is now low and makes a headline news if it occurs.

Globally, the total number of maternal deaths decreased from 543,000 in 1990 to 287,000 in 2010. A decline of 47% from 1990 levels. Also maternal mortality ratio declined from 400 in 1990 to 210 in 2010 representing an annual average decline of 3.1%.³ Sub-Saharan Africa and Southern Asia accounted for 85% of the global burden (245,000) of maternal deaths in 2010. At the country level, India (56,000), 19% and Nigeria (40,000), 14% account for a third of global maternal deaths.

The millennium development goal (MDG) 5, focuses on improved maternal health and the two targets for assessing MDG5 are reducing maternal mortality ratio (MMR) by three quarters between 1990 and 2015, and achieving universal access to reproductive health by 2015.⁴

The MMR in developing regions is 15times higher than that of the developed regions. Sub-Saharan Africa had the highest MMR at 500 per 100,000 live births while Eastern Asia had the lowest among MDG developing regions at 37 maternal deaths per 100,000 live births. In other developing regions; Carribean (80), North Africa (78) and Central Asia (46). Nigeria with MMR of 630 is among the 40 countries of the world with high maternal mortality ratio defined as =300 maternal deaths per 100,000 live births in 2010. Mauritius (60), Sao Tome and Principe (70) and Cape Verde (79) had low MMR defined as 20 – 99 per 100,000 live births. Lao' Peoples Democratic Republic (470), Afghanistan (460), Haiti (350) and Timor Leste (300) are the only four countries outside the Sub-Sahara Africa with high MMR.

Nigeria contributes 2% of world's population but accounts for 10% of the world's maternal death. The risk of a woman dying in Nigeria from childbirth is 1 in 18 compared to 1 in 29,800 for Sweden.

In a period of 10 years from 1989 to 1998, the maternal mortality for the booked and unbooked mothers was 280 and 14,806 per 100,000 deliveries respectively in the University of Port Harcourt Teaching Hospital, a tertiary institution in the Niger Delta region of Nigeria.⁵ Also in the last year before the new millennium, the maternal mortality ratio for the booked and unbooked was 340 and 23,121/100,000 deliveries respectively.⁶ In the last 10 years (2003-2012), the maternal mortality ratio in the University of Port Harcourt is shown in the table.

2003	236	12,110
2004	266	13,907
2005	416	11,875
2006	138	9,130
2007	201	8,669
2008	132	8,645
2009	214	6,562

2010	38	2,500
2011	109	3,900
2012	638	10,118

Source: Departmental Annual Reports.

Causes of maternal mortality are multifactorial. The medical causes are the direct and indirect causes as shown by the World Health Organizations definition of maternal death. The 3 major direct causes are: Severe pre-eclampsia /eclampsia, sepsis and haemorrhage⁷, in that order. Indirect causes from pre-existing diseases or diseases arising during pregnancy which were aggravated by the physiological effects of pregnancy like malaria, anaemia, HIV/AIDS and cardiovascular diseases also play a role in maternal deaths.

Maternal deaths are not uniform in Nigeria.⁸ It varies according to geographical zones. It is higher in North East 1549 and lowest in South West (165). With the present ratio, the Millennium Development Goal (MDG 5) target of 250,000 for Nigeria in 2015 has eluded the country.⁸ MDG 5 was aimed at improving maternal health and reduce maternal mortality by 75% between 1990 and 2015. Maternal death was chosen as the outcome with which to judge progress towards the goal.

Beyond the medical causes are the social, economic, political and cultural conditions which can only be addressed by the Government. According to Harrison, following the launching of Safe Motherhood in Nairobi (1987), nobody expected miracles overnight nor did anybody expect disasters of such immensity.⁹ Sadly, high maternal death has continued to remain with us. From the data presented on the table, childbirth has become hazardous, risky, and horrifying experience for women in the Niger Delta region of Nigeria. The death of a mother brings misery to the family especially the motherless children.

Complex as it is, reduction of maternal deaths is all encompassing and possible. It does not require rocket science. The solution requires interventions well beyond the healthcare providers. Bold, well determined and structured steps are needed by the society, the government and the political leaders. Generally, there is extreme poverty in the land and poor health seeking behaviour among the women brought about by the society. Poverty is linked unambiguously with maternal death¹⁰. Canon and Hartfield pointed out that where socio-economic deprivation exists on a large scale and maternal deaths are high, maternal death cannot be brought under control permanently until living conditions of the general populations are improved¹¹.

The government must develop a strategy targeted at the poor. Users fee both antenatal and delivery should be eliminated to allow women access to health care. Sustainable means of livelihood should be addressed. The high mortality ratio seen among the unbooked mothers is not unconnected with financial affordability. Hence, they present in a moribund state with poor maternal and fetal outcome. The situation in unbooked patients reflects the true position of health care in the state.

Reliable health information and vital registration must commence and be sustained in both urban and local government areas. Skilled and facility based care should be encouraged. The facility must have the right and functional equipments. Primary Health Care as in Rivers State is a good step in the right direction but commitment on the part of the healthcare provider is crucial. It must be made effective and functional. There should also be regular monitoring and supervision. In all other regions where maternal death is either low or non-existent, traditional birth attendants (TBA) were not involved. Skilled birth attendants (trained midwives), with the ongoing midwives services scheme and community health extension workers would have immense positive contribution. In Nigerian, the 2008 NDHS reports coverage of 39% for skilled birth attendants at delivery.¹²

Reduction of maternal mortality appears to be an uphill task due to its complexity, but it has been done in other countries including developing ones. Addressing pervading poverty, provision of health care facilities and access and utilization of antenatal care (39% of Nigerians have no form of ANC), education (both formal and informal), presence of skilled attendants at delivery, political will and above all commitment by all health care providers are some measures that will reduce maternal mortality.

References

1. Application of ICD-10 to deaths during pregnancy, childbirth and the puerperium: ICD maternal mortality(ICD-MM).Geneva,World Health Organisation,2012.
2. Wikipedia, the free encyclopedia, updated 22 October,2013.
3. WHO,UNICEF,UNFPA,World Bank(2012) Estimates.Trends in Maternal Mortality:1990-2010.
4. The millennium declaration, Resolution A/RES/55/2. United Nations, 2000.
5. Uzoigwe SA,John CT. A ten-year review of maternal mortality at Port Haarcourt, Nigeria.Nig J clin Pract 2000;3(2):80-84.
6. Uzoigwe SA,John CT. Maternal mortality in the University of Port Harcourt Teaching Hospital,Port Harcourt in the last year before the new millennium. Nig J Med 2004; 13(1):32-35.

7. Uzoigwe SA, Akani C. Severe Pre-eclapsia/eclampsia and maternal death at UPTH, UPTH, Port Harcourt: a ten-year review.JOMIP 2003;4:26-29.
8. Nwosu J,Odunbajo MO, Osunisi B(eds). Reducing maternal mortality in Nigeria(Workshop summary). The Nigerian Academy of Science.West African Book Publishers, Lagos, Nigerian.2009.
9. Harrison KA.Maternal mortality in Nigeria. The Real Issue.Afr J Reprod Health,1997.
10. Harrison KA. Child bearing, Health and Social Priorities.Br J Obstet Gynaecol 1985,Suppl 55: 14-22.
11. Canon DSH, Hartfield VJ.Obstetrics in developing country.J Obstet Gynaecol Br Common W 1964; 940-950.
12. National Population Commission (NPC) [Nigeria] and ICF Macro. Nigeria Demographic and Health Survey2008, Abuja, Nigeria. 2009