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A BROKEN CALABASH: SOME CAUSES OF MATERNAL DEATHS IN SIERRA LEONE

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This is an essay on the proposed causes of maternal death in Sierra Leone in 2010 based on findings in five districts for an exploratory film documentary developed and produced for the United Nations Population Fund (UNFPA) agency in Sierra Leone entitled: "A Broken Calabash: Maternal Deaths in Sierra Leone: the causes and interventions".

The global maternal death ratio fell by 44 per cent between 1990 and 2015. The total number of maternal deaths around the world dropped from about 532,000 in 1990 to an estimated 303,000 in 2015. This equates to an estimated global maternal death ratio of 216 maternal deaths per 100,000 live births, down from 385 in 1990 [1]

In 2010, when the film documentation project was undertaken to explore and study the causes of maternal mortality in Sierra Leone, the country population, according to the last population and housing census taken in 2004, was 5.0 million. During this period, statistics revealed the rise of maternal deaths in Sierra Leone to 857 deaths out of every 100,000 living. It motivated the government to revise its population policy.

In 2009, the Government of Sierra Leone launched its revised National Population Policy. The revised policy addressed many of the fundamental issues of population, health, sexual and reproductive rights, education, gender equality, equity and empowerment of women and their interrelated development challenges; [2]. to progress towards a complete demographic transition of a considerably reduced level of low birth and death rates, and the resultant low population growth rates through the spread of voluntary family planning and small family norms, so as to facilitate the attainment of national economic and social targets.

The policy goal was to increase birth rates, decrease death rates that were affecting population growth. The high mortality rate of women when giving life, in a population of five million inhabitants (2004 census), reflecting a decline in growth when compared to results of previous censuses indicate an annual population growth rate of 1.8 percent during the 1985–2004 period, which was a decline from the 2.3 percent annual rate reported for the 1974–1985 period [3].

According to the Demographic and Health Survey (DHS) of 2008, traditional surveys and compilation of maternal mortality estimates was determined by answers from a questionnaire presented to siblings for information on the health and status of their sisters [4]. The method of ascertaining the statistics was based on the United Nations model. Sierra Leone adopted to convert the statistics to maternal mortality ratio (MMR), expressed per 100,000 live births, by dividing the rate by the general fertility rate associated with the same time period. This brings out the obstetrical risks of pregnancy and childbearing. Using this method, the MMR was estimated to be 857 maternal deaths per 100,000 live births for the period 0-6 years preceding the survey. The estimated age-specific proportions of deaths due to maternal causes for the period 2001-2008 display a plausible pattern, being higher for age group 30-34, when more than four in ten deaths (41%) were related to maternal causes. Unlike the other measures of mortality presented earlier, these proportions are not affected by under reporting because it can be assumed that under reporting does not affect maternal deaths any more than deaths due to other causes. Therefore, it can be estimated that about more than one in four deaths (27%) among women of childbearing age (15-49) was due to maternal causes [4, 5] (Table 1).

Table 1: Maternal mortality

Maternal mortality rates for the period 2001 to 2008, based on the survivorship of sisters of survey respondents, Sierra Leone 2008 [4, 5]

Age groups (yrs)	Maternal deaths	Years of exposure	Mortality rates (%)	Proportion dying of maternal causes
15 – 19	21	12,094	1.7	29.3
20 – 24	19	13,239	1.4	26.6
25 – 29	19	12,633	1.5	28.2
30 – 34	24	10,135	2.3	41.2
35 – 39	9	7,382	1.2	20.5
40 – 44	4	4,230	0.9	11.3
45 – 49	1	2,368	0.5	10.0
15 – 49	97	62,082	1.5	27.1
General Fertility Rate (GFR)*			173	
Maternal Mortality Ratio (MMR)**			857	

*Age adjusted

**Per 100,000 births; calculated as maternal mortality rate divided by the general fertility rate.

The direct estimates of maternal mortality obtained from reports of sister survivorship are presented in Table 1. The number of maternal deaths among women age 15-49 is estimated at 97 for the period 0-6 years preceding the survey. Age-specific proportions dying of maternal causes display, with the exception of the age group 15-19 a consistent pattern, increasing with age, up to age 30-34, then decreasing in the older age groups. Given the relatively low number of events, the method used was to estimate a single rate corresponding to the reproductive years. The estimate for all mortality due to maternal causes, expressed per 1,000 women-years of exposure to maternal risk, is 1.5 for the period 2001-2008 [4, 5].

The Office of the First Lady, undertook the advocacy campaign to reduce the mortality rate in Sierra Leone. The Office was supported by the UNFPA. The Agency's Communication office under the consultancy of Isa Blyden initiated the production of a film documentary to explore and document the causes of maternal deaths in Sierra Leone and what interventions had been made.

Five districts were selected: Bo (South), Koinadugu (Northwestern), Bombali, Tonkolili (North), Western Urban and Rural Area (Western Peninsula including the Capital Freetown).

The Maternal Health Facilities:

The Ministry of Health and Sanitation is the major health care provider in Sierra Leone. The Ministry operates all government health facilities in the country. The public delivery system starts from the peripheral health units, which include the Community Health Centres (CHC) at chiefdom headquarter towns and Community Health Posts (CHP) and Maternal and Child Health Posts (MCHP) in other villages within chiefdoms. The next level comprises hospitals at the district headquarter towns. The third level of care is provided in hospitals at the regional headquarter towns. There are two national hospitals – the Connaught Hospital and the Princess Christian Maternal Health Hospital.

Our objectives were to collect information, conduct interviews of maternal death incidents from local health authorities in these districts or village communities, indicated causes of maternal mortality, the age of the women, infant mortality resulting from such deaths and the prevalence. We visited the hospitals in district headquarter towns, Community Health Posts and Maternal Child Health Posts in villages within chiefdoms and hospitals in regional headquarter towns, in north and southern districts.

The population of the districts according to the 2004 census data was as follows:

Population for North, South Districts and Western Urban area: Tonkolili: 347,197; Bombali: 606,544; Koinadugu: 409,372; Bo: 575,478; Western Rural: 444,270 and Western Urban: 1,055,964.

District Maternal Health Units and Hospitals visited and documented:
Magburaka Government Hospital, Tonkolili District; Government Hospital in Makeni Town; Kabala Government Hospital; Bo Government Hospital; Princess Christian Maternal Hospital, Freetown; Goderich Maternity Clinic at Funkia; Tokkei Community Health Center; Maternal child health posts in Magbasse, Tonkolili and in Bombali.

The health facilities we visited varied in size and resources.
Magburaka Hospital in Tonkolili District had poor infrastructure. The Pediatric wing for example, though well staffed with a pediatrician, chief and assistant nurses, did not have enough beds; sanitation was poor and we were informed that infant mortality was often prevalent. The Maternity ward had seven beds, an operating theater and post-operating room. It was served by one obstetrician and two nurses. No midwife was present. Electricity was provided by a small generator. The number of beds was inadequate.

In Magbasse Village, the maternal child health post was a devastated structure that lacked water, utilities and equipment for delivery. It was manned by a station nurse. It had one station nurse, in a devastated structure to which women were required to attend for delivery. It lacked beds, equipment and was unsanitary.

Bombali District - In Makeni Town, we visited Makeni Hospital. It was better equipped, sanitation was better. When asked whether they had had incidences of maternal mortality, we were informed there had been none. The Swedish-run maternity hospital was operated by a rotating European staff. It had a total of 35 beds and received women for delivery from remote rural areas and nearby Makeni Town. The head of the section informed me that cases of maternal death had been reported. During the time of this filming, there had been five maternal deaths caused in part by malaria.
The Maternal Child Health Post in Gbendembu Village outside of Makeni Town, that we filmed, consisted of a head nurse and a traditional (Sowei) midwife. It was an experimental intervention introduced by the UNFPA Agency that had proved successful. The goal was to encourage the attendance of the women in this rural fishing village to attend the clinic. Because of the traditional midwife, more deliveries were done and complicated cases were taken by an ambulance (supported by UNFPA) to Makeni

Hospital. The successful traditional midwives were selected for training in nursing and midwifery in the formal health sector.

Koinadugu District Kabala Government Hospital:

The Government Hospital in Kabala Town is twenty miles away from Fadugu and surrounding villages where there is a prevalence of multiple birth pregnancies. Women with complications during traditional delivery will walk to the hospital or are transported at the expense of the chief of Fadugu. When we arrived at the maternity ward, we encountered a situation in which a 35 years old woman had delivered triplets. She was emaciated from loss of blood and could not afford the fee of 60,000 Leones (USD 15) to get blood from the blood bank. Her relatives that had accompanied her over fifteen miles from her village did not believe in giving blood. We paid for the blood and it was administered (she received the blood transfusion). However, we were later told that the patient and one of the triplets died. The two babies were adopted by the District Medical Officer. The UNFPA took over the support and education of the twins.

Kasumpeh is a hilly village about sixteen miles from Kabala Town and the government hospital. It is very rural and isolated. A maternal child post constructed by National Commission for Social Action (NACSA) during the civilian restoration period stands intact and empty. No doctor or midwife has ever reported for duty. The villagers are dependent on traditional healing and medicine. One traditional midwife serves ten surrounding villages in addition. Being unskilled in the rare case of a hemorrhaging patient is her only challenge. She reported that she did not have a high maternal death rate. The women interviewed explained they had not means of transportation to take them to the maternity clinic located at the foot of the hill, and carrying women in labour on the backs of their husbands often resulted in loss of blood and even death. Many of them could not afford the fee of 10,000 Leones (USD 3) to pay the hospital.

Bo Government Hospital, Bo District:

The hospital was old but well kept. It has had some intervention from UNFPA Agency. The maternity ward received a considerable adolescent population of women from the surrounding villages and communities. Some came in with serious sepsis or malnutrition. There was one Gynecologist /Obstetrician serving the entire District. The obstetrician stated that the challenge facing district health institutions was being under the direction of a centralized health administration that operated from the Capital. It impeded the flow of emergency response, delayed medical supplies and deliveries. He reported that he did not

encounter many incidents of maternal deaths at the hospital. Those that occurred he explained were from women who had come in from remote rural areas presenting with fatal illnesses such as, Lassa Fever or Malaria.

A maternity clinic at Yamaha run by the Belgians (MSF-B) would not entertain a request for interview and filming. The clinic was noted for receiving considerable number of women who died in childbirth.

A community health post we visited in the Bo environs was clean and sanitary. It was run by two nurses. The head nurse explained that there was no ambulatory service; women in labour were taken by motorcycle to the hospital. The post received a population of adolescent (16-19) who dropped out of school opting for pregnancy as a means of gaining status in their community. No maternal deaths were reported.

The Western District, Freetown Peninsula:

The Princess Christian Maternity Hospital and Ola During Children's Hospital in 2009-2010 was newly renovated by the Japanese International Cooperation Agency (JICA). It served the female population in the capital and its immediate environs. The hospital complex also has a nursing school that trains midwifery and nursing. There had been no recorded maternal deaths in the period we were documenting.

In the Western Rural Area beginning with Lumley Maternity Clinic and the Goderich Maternity clinic at Funkia, service and human resource though available, shortages of basic items and restrictions impeded effective delivery of services. The Maternity Center at Lumley was much better facilitated than that of the Goderich Maternity Center which had dilapidated construction, poorly equipped interior and only three beds to serve the area we filmed. There was only one delivery room. It was staffed with a senior midwife and three nurses. The Tokkei Mother Child Post clinic was usually busy during vaccination periods.

SUMMARY OF FINDINGS:

Common findings in all the district health service centers we visited and filmed were: A collapsed health infrastructure inadequate number of maternity clinics serving the rural population; a rigid centralized health administration; poor water supply; inadequate public and maternal health education; difficult outreach to remote rural areas; Disconnect between the centralized and district health administration;

Inadequate number of beds; No recording mechanism of maternal deaths was available; Irregular inspection by the Ministry of Health of its district health service centers; Women in the rural areas who opted for traditional midwifery and maternal care were safer and ran less risk of maternal death; Women in the rural areas

who attended government health centers were at risk of maternal death;

The causes of maternal deaths appeared to result from poor health infrastructure and services. Non-existent ambulatory care and service for women in labor; Distances of village communities or remote rural areas from the main maternity hospital made it difficult, particularly in the rough, hilly and mountainous terrain of Koinadugu District for outreach services; Blood banks in the hospitals lack sufficient blood; Acute shortage of Obstetricians and Midwives serving in the districts.

CONCLUSION:

In April 2010, the President launched the Free Health Care Act for Pregnant Women, Lactating Mothers and children under five. Women in this category now have access to free health care for themselves and children under five. It has increased the number of women in rural communities who go to maternity clinics or hospitals for delivery. However problems of corruption and theft have arisen during distribution of medical supplies to the district hospitals and peripheral health units. An ambulatory service now exists in Kabala Town, and other environs. Since the completion of this project and production of the film, some improvements have been made by the Health Ministry services in district rural areas. However maternal death figures have continued to rise. Thus there is an urgent need to advocate for the allocation of resources to significantly improve the maternal and child health status in the country.

REFERENCES:

1. World Bank Group, “Trends in Maternal Mortality: 1990 to 2015: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division” Nov 2015, WHO/RHR/15.23 www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/
2. Mohammed King Koroma. Sierra Leone Demographic and Health Survey (DHS) 2013, Par. 1.3 Population,Statistician General Statistics, Freetown Sierra Leone, www.microdata.worldbank.org/index.php/catalog/2167/study-description,
3. Sierra Leone Statistics, 2013, www.statistics.sl/
4. Sierra Leone Maternal mortality ratio: www.aho.afro.who.int/.../Sierra_Leone: Analytical_summaryMaternal_newborn
5. Sierra Leone Demographic and Health Survey (DHS) 2008, www.dhsprogram.com/publications/publication-fr225-dhs-final-reports.cfm