Challenges to maternal mortality reduction in Sierra Leone

Introduction

Sierra Leone has been rated as having one of the highest maternal mortality ratios in the world at 2,100 per 100,000 live births. The country is just emerging from a protracted 10 years of war, which greatly disrupted most social services.

Although the war may have contributed to this high maternal and perinatal morbidity and mortality, there are some complex factors, which have evolved over the years leading to a gradual deterioration in the whole health delivery system. Female illiteracy rate of about 80%, high total fertility rate (about six children per mother on the average), low percentage of births attended by trained health workers (only 41.7%) and low contraceptive prevalence rate (2.7% in 2002) are underlying factors that contribute significantly to the poor health status of women, young people and children.

The past 15 years have seen a rise in the Maternal Mortality Rate (MMR) in the country, although there have been great strides in implementing primary health care programmes.

Current situation

There has been a progressive increase in maternal mortality and a fall in the utilization of the maternity facilities in Sierra Leone since the mid-1980s. At the Princes Christian Maternity Hospital (PCMH), the National Maternity Teaching Hospital (Table 1), the average of annual live births from 1969 to 1976 was 6,407 compared to only 1,026 for the period 2002-2003. The MMR in 2003 (9,937) has increased by more than 16 times compared with the 1976 level (589). The performance of the PCMH has also deteriorated over the years. The number of hospital deliveries has also drastically declined despite the increase in the population.

In 1976, there were 14,493 live births and 123 maternal deaths reported from all hospitals in Sierra Leone, representing a maternal mortality rate of 849 deaths per 100,000 live births. In 2003 (Table 1), there were 2,116 live births and 195 maternal deaths.

Table 1 - Baseline Data from the Maternity Units of Six Project Hospitals, Sierra Leone, Jan-Dec 2003

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PCMH</th>
<th>BO</th>
<th>KENEMA</th>
<th>PORT LOKO</th>
<th>MOYAMBA</th>
<th>MAGBURAKA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caesarean Sections</td>
<td>278</td>
<td>158</td>
<td>210</td>
<td>31</td>
<td>34</td>
<td>296</td>
<td>1,007</td>
</tr>
<tr>
<td>Stillbirths-Total</td>
<td>229</td>
<td>92</td>
<td>106</td>
<td>24</td>
<td>13</td>
<td>141</td>
<td>605</td>
</tr>
<tr>
<td>FSB</td>
<td>113</td>
<td>52</td>
<td>30</td>
<td>3</td>
<td>5</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>MSB</td>
<td>116</td>
<td>40</td>
<td>76</td>
<td>21</td>
<td>8</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Live births</td>
<td>829</td>
<td>285</td>
<td>369</td>
<td>62</td>
<td>97</td>
<td>474</td>
<td>2,116</td>
</tr>
<tr>
<td>Maternal deaths</td>
<td>95</td>
<td>22</td>
<td>39</td>
<td>8</td>
<td>4</td>
<td>24</td>
<td>195</td>
</tr>
</tbody>
</table>

NB: FSB- Fresh Stillbirth
MSB- Macerated Stillbirth
Source: Reproductive Health Report 2003, MOHS, DRH Division
Operational obstacles

There are serious operational problems in most of the maternity units, including inadequate basic necessities like water, electricity, drugs, supplies and sterilizing equipment. Availability of safe and adequate blood remains a serious challenge. Apart from the reluctance (based on local culture) of members of the community to donate blood, storage and adequate screening and cross-match of blood remain a major problem.

The main problem in the provision of quality maternal care is insufficient resources, which has resulted in poor remunerations, creating an exodus of valuable skilled professionals abroad and a resurgence of unprecedented levels of private practice by all categories of health providers, including nursing aides and volunteers who have no formal training. The health professionals who decide to stay and continue to work in these institutions are basically doing so to ensure their survival, more or less in a private capacity.

Traditional Birth Attendants

For now, the Traditional Birth Attendants (TBAs) seem to be the backbone of maternal health care in Sierra Leone. The country has a long history of training TBAs and maternal and child health aides (MCHAs). Their training dates back to 1977 and is still being supported to this day. The TBAs command high respect and trust from the community in the country, even in areas of relative affluence and urbanisation like Freetown.

Although the majority of patients attend antenatal clinics in Primary Health Care Units (PHUs) and hospital-based prenatal clinics, the majority shy away from these institutions when it is time for them to be delivered of their babies. This has resulted in serious under-utilisation of recognised maternity units, in the PHUs and hospitals, rendering the operations of these units economically unviable. The result is that most of the deliveries take place in the home. Almost 80% of all deliveries take place outside recognised health units and the majority of these deliveries are conducted by TBAs. With no organised backup system, women who develop complications usually arrive at the basic or comprehensive Emergency Obstetric Care (EOC) units too late to be saved.

The large numbers of trained TBAs and MCHAs, most of whom are not on regular payroll, the official recognition of their services, coupled with the lack of regulatory mechanisms or well-defined criteria on who is eligible to run private maternity services, have led to the proliferation of substandard home maternity services. These initiatives, though started with good intentions, have unfortunately resulted in many unsupervised, health workers who cannot be held accountable, working among communities and causing serious delays through failure to recognise complications. These services have virtually become death traps for many pregnant women and their foetuses. Steps need to be taken to regulate and streamline their activities.

Hospitals are also relying heavily on the services of Nurse Aides and Volunteers who have no basic midwifery skills. They are often left to run entire maternity wards at night, and this often results in tragic events. Tolerance of such practices has inevitably lowered the standard of care in most of the health institutions in the country.

There is minimal or no supervision of all categories of medical and nursing/midwifery staff in most public and private health institutions. The maternity units are not well organised and are without proper duty rosters, which are designed in such a way as to ensure that that junior staff are always supervised. Indiscipline is common and, often, staff do not report for their shift of duty. Disciplinary measures are seldom taken. Attempts by the Reproductive Health Division to ensure there is a 24-hour EOC cover of the maternity units have been frustrated. Sometimes, the hospitals are not staffed at night and over weekends.

Senior doctors are not readily available to give guidance to junior doctors. The maternity hospitals have no resident doctors. This leads to delays and many maternal deaths. Peer reviews and teamwork are lacking. There are no mandatory continuing education programmes, hospital audit or clinical meetings by doctors and midwives. Promotion of professional responsibility and accountability is hardly considered a priority.

Uncontrolled access to Oxytocin and Ergometrine, which are being administered without proper indication, is probably responsible for the high incidence of ruptured uterus and intra-uterine foetal deaths. The incidence of ruptured uterus in the country is not known. However, 15% of the recorded maternal deaths in 2003 were due to ruptured uterus. Stillbirths constitute 29% of births.

Poor infrastructure

In general, the entire infrastructure is decrepit due to many years of neglect. Most units need urgent repairs. Although there is a critical shortage of staff, there is no accommodation for medical personnel willing to take up positions in these hospitals; and where staff houses are available they are in a state of disrepair. Almost all the labour wards need some equipment and renovations. Essential items such water, electricity, and oxygen are not available on a 24-hour basis. The hospitals face critical shortage of
transport. Most of them have no general utility vehicles, ambulances and communication equipment.

**Support of development partners**

There have been commendable attempts by the UN agencies and some NGOs such as *Médecins Sans Frontières* (MSF) and Medical Emergency International (Merlin) to complement the efforts of the Government. For example, while UNFPA donated ambulances and partially renovated hospital infrastructure, WHO donated blood bank facilities, and UNICEF has been coordinating activities in PHUs and carrying out major renovations of the maternity wing of Kenema Government Hospital.

The number of peripheral clinics operating and conducting antenatal, natal and postnatal services is not known. Their relationship with the hospital maternity units is not clearly defined. There is no direct communication between these clinics and the hospital. The district maternal and child health services appear to be operating on their own and do not see themselves as complementary to the hospitals. There is however concerted effort to harmonise the operations of the two divisions.

It is almost impossible to ascertain the number of deliveries in this country because of the fragmentation of the maternal health care system. There is urgent need to harmonise the operations of the reproductive health services.

**Main challenges and the way forward**

Among the main challenges that need to be addressed are:

- **Empowerment of Medical, Nurses/Midwifery and Pharmaceutical Regulatory Boards/Councils** to be able to inculcate a high degree of discipline and accountability among health workers. The Sierra Leone Medical and Dental Council and other health professional associations need to safeguard the right of the public to considerate and competent attention from doctors and other health workers.

- Ensuring supervision of all categories of medical, nursing/midwifery staff in private and public health institutions and empowering their administrators to discipline staff, when necessary.

- **Training, motivation and retention of health staff.**

- Involvement of key medical/nursing staff in major policy matters affecting the running of hospitals.

- **Having a national Reproductive Health policy in place.**

- **Promoting an end-user-driven budgeting system.**

- **Prioritizing and coordinating activities and programmes of the cooperating UN agencies and NGOs.**

A reduction in maternal morbidity and mortality can be achieved through the provision of accessible quality health care, which ensures availability of a network of skilled community health care providers, and a functioning basic and comprehensive EOC in health units.

Accessibility is not only the availability of well-equipped maternity units with skilled attendants within reasonable distance from the patients’ homes, but includes the removal of impediments to the provision of essential obstetric care such as hospital service charges prior to the provision of treatment, the discarding of harmful traditional or cultural beliefs and practices.

In order to reduce maternal mortality rate in a relatively short time in Sierra Leone, there is need to evolve a cohesive national strategy to address the above challenges. All stakeholders must be involved in addressing different facets of the problems and must agree on the way forward.

**Conclusion**

There are very many problems contributing to the high maternal and perinatal morbidity and mortality in Sierra Leone. A realistic approach is needed, taking into account the enormous financial implications, the broad strata of individuals involved, and the legal and social implications.

For now, there is no quick solution to the high maternal mortality rate in Sierra Leone. However it is not a hopeless situation. The problems and solutions are known. With concerted effort, commitment from the Government and the medical regulatory bodies and coordinated interventions by the UN agencies such as WHO, UNFPA, UNICEF and NGOs, this dismal picture will begin to change for the better.

The resources are limited, but with prioritisation and full community participation, steady progress can be expected. Clear definition and targeting of interventions and integrating the Safe Motherhood Initiative with other health programmes is also desirable. The challenges are enormous but surmountable.

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