Pregnancy and childbirth are generally a time of joy for parents and families. However, they are also periods of great risk to the health and survival of women and newborns. Worldwide, half a million women die from complications related to pregnancy and childbirth and four million newborns die within the first 28 days of birth. The causes of such deaths are almost always preventable and thus avoidable.

The average lifetime risk of a woman in a least developed country dying from complications related to pregnancy or childbirth is 300 times greater than a woman living in an industrialised country.

The State of the World’s Children Report 2009 calls for urgent interventions and actions to prevent the death of mothers and their newborn babies. The report argues that these deaths can be slashed significantly with good and wholesome nutrition, regular and quality antenatal care, and skilled health workers assisting at births, available and functional emergency obstetrics care facilities and proper hygiene practices at household level.

Globally for the first time ever the total number of deaths among children under five has fallen to below the 10 million figure – 9.7 million in 2006 compared to the 20 million in 1960. Deaths from measles have also fallen from over 750 000 in 2000 to less than 250 000 in 2006.

This positive trend has, however, eluded sub-Saharan Africa where child and infant mortality figures have risen slightly. This situation is attributed to the high disease burden of HIV and AIDS. According to the report, sub-Saharan Africa will require a 10-fold increase in the annual rate of progress between today and 2015 if the Millennium Development Goal (MDG) targets are to be met.
But the overwhelming evidence of the report is that there has been no progress worldwide on MDG 5 of reducing maternal mortality by three-quarters. The rate at which women die during and after childbirth has in fact increased, especially in sub-Saharan Africa, including Namibia where maternal deaths have doubled in the last six years. Moreover, the reduction of under-five mortality, which is inextricably linked to the survival and well being of the mother, has only made limited progress.

**Namibia’s challenging situation**

In Namibia, the situation of pregnant women is precarious. According to the Demographic and Health Survey of 2006/07, the number of maternal deaths has increased substantially since the mid-1980s. Between 2000 and 2006 the number of deaths have almost doubled – from 271 to 449 deaths per 100,000 live births. This translates to about 180 women dying every year from pregnancy related complications. For every woman who dies, 30 more suffer from serious complications and lifelong morbidities. Many newborn babies who are left without a mother are 3 to 10 times more likely to die within two years of their mother’s deaths compared to those whose mothers survive.

And yet Namibia has the commitment, the professional and managerial expertise and the medical technology and resources to save the lives of mothers and newborn babies.

While there has been progress in the provision of services with over 91% of pregnant women having access to antenatal care, and 88% of all deliveries assisted by trained personnel, maternal deaths continue to occur within the health facilities and communities.

The question therefore is, “Why are pregnant women still dying?” This happens while the country has created a conducive environment to ensure the safety of pregnant women.

Recent Government reports reveal that maternal deaths can broadly be ascribed to obstetric complications and complications arising from especially unsafe abortions. The situation is worsened by HIV and AIDS and communicable diseases like malaria that combined form the most common causes of indirect maternal deaths accounting for close to 40% of maternal deaths in Namibia.

The challenges/dangers of maternal health continue to be reflected during the peri-natal (before and immediately after birth) and infant period. Out of every 1,000 live births in Namibia, over 91% of pregnant women have access to services.

### Regional distribution of maternal deaths*

**Maternal deaths, 2005**

<table>
<thead>
<tr>
<th>Region</th>
<th>Maternal Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America/Caribbean</td>
<td>15,000 (3%)</td>
</tr>
<tr>
<td>Eastern/Southern Africa</td>
<td>103,000 (19%)</td>
</tr>
<tr>
<td>South Asia</td>
<td>187,000 (35%)</td>
</tr>
<tr>
<td>West/Central Africa</td>
<td>162,000 (30%)</td>
</tr>
<tr>
<td>CEE/CIS, 2,600 (&lt;1%)</td>
<td></td>
</tr>
<tr>
<td>Industrialized countries 830 (&lt;1%)</td>
<td></td>
</tr>
<tr>
<td>East Asia/Pacific 45,000 (8%)</td>
<td></td>
</tr>
</tbody>
</table>

* Percentages may not total 100% because of rounding.


### Health facilities assessed by EmOC Classification

<table>
<thead>
<tr>
<th>EmOC Classification</th>
<th>State Hospitals</th>
<th>Private Hospitals</th>
<th>Health Centres</th>
<th>Health Clinics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEmOC</td>
<td>4 (11.8%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>4 (4.0%)</td>
</tr>
<tr>
<td>BEmOC</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Non CEmOC</td>
<td>CEmOC1</td>
<td>5 (14.7%)</td>
<td>32 (100.0%)</td>
<td>27 (100.0%)</td>
<td>88 (88.0%)</td>
</tr>
<tr>
<td>EmOC</td>
<td>Others</td>
<td>25 (73.5%)</td>
<td>32 (100.0%)</td>
<td>27 (100.0%)</td>
<td>88 (88.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>34 (100.0%)</td>
<td>7 (100.0%)</td>
<td>32 (100.0%)</td>
<td>27 (100.0%)</td>
<td>100 (100.0%)</td>
</tr>
</tbody>
</table>
births registered during the 2006 DHS, 46 of the infants died during the first one year of their life. The leading causes for the deaths among infants are reported to have been due to pneumonia, gastroenteritis, HIV and AIDS, prematurity, low birth weight, all exacerbated by underlying malnutrition.

The tremendous achievements made by the health sector, especially through the Ministry of Health and Social Services (MOHSS), in providing services for maternal and child health is commendable. However, the gains made by the country since independence are being compromised by the impact of HIV and AIDS in development and more so on the health sector.

A national assessment conducted in 2006 showed some gaps in provision of emergency services. All pregnant women need to have access to emergency life saving services and yet the assessment revealed that only 4 of the 34 hospitals provided that critical service that would save a mother’s life when she is admitted at the health facility with complications. The study further showed that a portion of the health facilities where mothers deliver do not have the standard equipment and/or skilled health personnel that can prevent a mother or newborn baby from dying at the time of delivery. The same study showed that this situation could be remedied at most facilities at minimal cost.

### Proportion of health facilities missing signal functions in the last 3 months

<table>
<thead>
<tr>
<th>Function</th>
<th>All facilities</th>
<th>Health Centres</th>
<th>State Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform CS</td>
<td>75.0%</td>
<td>42.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Perform blood transfusion</td>
<td>25.0%</td>
<td>42.4%</td>
<td>96.7%</td>
</tr>
<tr>
<td>Perform assisted vaginal delivery</td>
<td>62.5%</td>
<td>25.0%</td>
<td>84.0%</td>
</tr>
<tr>
<td>Removal of retained products (D&amp;C/MVA)</td>
<td>78.3%</td>
<td>53.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Manual removal of placenta</td>
<td>63.8%</td>
<td>53.3%</td>
<td>96.6%</td>
</tr>
<tr>
<td>Administration of parental anticonvulsants</td>
<td>38.7%</td>
<td>38.7%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Administration of parental oxytocics</td>
<td>52.1%</td>
<td>62.5%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Administration of parental antibiotics</td>
<td>5.9%</td>
<td>46.9%</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

### Why do many Namibian pregnant women die?

The causes of maternal deaths can be classified under three delays: delay in recognising the need of seeking healthcare; delay in reaching a health facility especially in the rural regions; and delay in receiving appropriate care. On average, maternal deaths occur at the prime age of 30 among women who are already mothers, and with those living at distances more than 20 kilometers from a health facility at increased risk.

Although most of these women have made four antenatal visits on average, they tend to delay seeking help on time because of lack of knowledge and information to recognise the danger signs, and in most instances, the lack of effective mechanisms (including community financial and transport schemes) is part of the cause. Twenty-six percent of those who died have been referred to other health facilities, in many instances, a bit too late.
What women die of

Reports have shown that of the pregnant women who die in Namibia, most die in the first four days after childbirth. These deaths are directly linked to the pregnancy, or are aggravated by the pregnancy. The table below shows the most common and direct causes of maternal deaths in Namibia. However, most of these causes can be prevented or treated.

Impact of HIV and AIDS on women

Namibia is amongst the five countries with the highest HIV prevalence in the world with the estimated national adult prevalence of 15.3%. The HIV pandemic is disproportionately affecting women. With an HIV prevalence rate amongst pregnant women attending antenatal care (ANC) of 19.7%, it is estimated that 12,600 HIV positive pregnant women deliver every year in Namibia. HIV causes maternal deaths in a number of ways. It contributes to anaemia and post-partum sepsis (infection during and after delivery). Anecdotal reports state that, a known HIV positive mother may be stigmatised by the health workers and not receive appropriate care. The mother may be reluctant to deliver in a health facility due to stigma.

A comparison of the HIV prevalence rates by region, and the number of maternal deaths show that the regions with the highest prevalence such as Caprivi (36.4%), Omusati (32.6%) and Ohangwena (27.6%) also have the highest mortality rates. Data from the 2005 EmOC assessment revealed that HIV/AIDS was the leading cause of all causes (both direct and indirect) of maternal mortality (37%) in health facilities. It is, therefore, safe to argue that without HIV, maternal mortality would be at the levels of 2000.

HIV Prevalence
Adult HIV prevalence (15-49) in Africa, 2007

Low MMR (<100)
Moderate MMR (100-299)
High MMR (300-549)
Very High MMR (550+)
Data not available
Neonatal mortality refers to the probability of a newborn dying between birth and the first 28 days of life. Most recent estimates from the World Health Organisation (WHO) in 2004 indicated that there were around 3.7 million neonatal deaths worldwide. Such deaths are largely because of two broad factors: the difficulty to reach many babies born at home with effective and timely interventions.

Neonatal deaths in Namibia decreased from 28 to 24 deaths per 1,000 live births. While relatively low, half of the children die during their first month of life. The deaths of children at this stage are closely linked to the health of the mother during pregnancy, the process of delivery and the care of the newborn in the immediate period after delivery.

The country has made tremendous gains in the provision of vaccinations to all children under five since independence. According to the 2006/07 Demographic and Health Survey (DHS), more than two-thirds of Namibian children between 12 and 23 months have received all of the recommended childhood vaccinations. Only 2% have received no vaccinations at all, with vaccination coverage between urban and rural areas varying only slightly, but with marked differences by regions.

The main causes of newborn deaths are linked to poor childcare practices, poverty, distances to health facilities and weakening immunity of a child due to HIV. More direct causes have been attributed to asphyxia, low birth weight, birth defects and prematurity. All these are preventable and treatable.

Although Namibia’s neonatal deaths are among the lowest rates in sub-Saharan Africa, chances of survival and the health of young babies depend a lot on the mother’s health and survival during and after pregnancy. A child born with low birth weight has increased risk of dying within the peri-natal and neonatal period. Therefore a mother’s health and nutrition status is a major determinant of weight of a newborn. In malaria areas of the north, infection in pregnancy leads to low birth weight and pre-term delivery, and severe malaria and death in the mothers. High blood pressure or diabetes in pregnancy results in fetal growth retardation.

To prevent some of these illnesses in children, tetanus toxoid vaccination during pregnancy, supplementation with folic acid, and iron, presumptive malaria treatment during pregnancy and regular monitoring of blood pressure, weight and urine, can help ensure a healthy pregnancy and delivery.

According to the 2006/07 DHS, over 90% of pregnant women were weighed, had their blood pressure measured, and gave urine and blood samples. Eighty percent took iron tablets or syrup to prevent anaemia. However, only 60% of these women have learned about pregnancy complications, and 50% were protected against neonatal tetanus, a leading cause of death among children less than one month of age.
Using PMTCT programme to prevent newborn infections

HIV prevalence among pregnant women – estimated at 12,600 out of 64,134 (19.9%) in 2006 – means that about a third of babies born from HIV-infected mothers would have been infected with HIV without any intervention. The good news is that Namibia has rolled out its commendable Prevention-of-mother-to-child-transmission (PMTCT) programme since March 2002. Since then, all 35 State and subsidised/church hospitals and 153 health facilities and clinics in the public sector have implemented the programme. According to the MOHSS Guidelines for the PMTCT (July 2008), 79% of pregnant women who delivered, knew their HIV status, and of all of the HIV-positive women who delivered, 64% took anti-retroviral prophylaxis. Due to this form of intervention, infants born to HIV-positive mothers can now be detected as early as six weeks after birth.

Impact of Nutrition on Child Survival

About one-third of Namibia’s children under the age of five are malnourished and stunted. Regular floods and droughts mean that about one-third of the population often needs food assistance, and HIV/AIDS makes it more difficult for families to secure stable incomes. While the levels of malnutrition are still high, 2006 DHS indicates an improvement in the nutritional status of children compared to earlier findings. The proportion of children under five who are underweight has declined from 26% in 1992 to 17% in 2006. However, the general prevalence of undernourishment among the poorest households in Namibia is high compared to other countries in the southern African region.

The caring and feeding practices in Namibia contributes to high malnutrition rates in the country. Exclusive breastfeeding at five months has declined from 25% in 2000 to 24% in 2006. Furthermore, the onset of the continuing global financial crisis has worsened the food security situation for particularly rural poor communities. Although the Namibian Government has embarked on a massive feeding initiative to assist marginal groups and families, this programme has had its fair share of setbacks. There can be no doubt that these challenges have intensified child malnutrition. In addition, girls and women in many parts of Namibia are not fed appropriately. Poor nutrition leads to poor health of the mother, contributing to obstetric complications and poor pregnancy outcomes.
The survival and well being of mothers and newborns depend on the healthcare women receive during pregnancy, at the time of delivery, and in the first two months after giving birth.

The primary healthcare approach has been successfully implemented by the Ministry of Health and Social Services over the past decade, with progress made in various areas. The first area where progress has been tallied is the proportion of children that have been vaccinated against measles, slightly surpassing the national district target of 80%. The immunization programme has had a major impact in Namibia, resulting in virtual elimination of neonatal tetanus by 2005, and a significant reduction of measles cases. More than two-thirds of Namibian children between 12 and 23 months have received all the recommended childhood vaccinations. Only 2% have received no vaccinations at all, with vaccination coverage between urban and rural areas varying only slightly.

The implementation of Integrated Management of Childhood Illness (IMCI) has been implemented in 47% health facilities. A total of 70% of the eligible 828 health workers have been trained on IMCI case management. These health workers have been deployed in various regions and districts, including those where IMCI was not formally introduced.

In May 2006, Namibia recorded its first polio cases after being polio free for more than 10 years. A total number of 32 people died as a result of the polio outbreak, but due to a massive national polio campaign, the outbreak was quelled. Since then sustained routine polio vaccinations, annual national polio campaigns and active vigilence to detect importations, the country has since late 2008 been certified polio free by the African Regional Certification Commission on Polio.

The biggest challenge for maternal and neonatal health remains the very limited access to emergency obstetric care.

Although professional healthcare is available to most Namibian mothers, there are gaps in services and accessibility that contribute to significant mortality among childbearing mothers. Access to care remains problematic. According to the Namibian DHS 2006/07 as much as 70% of women experience problems accessing healthcare facilities, or they do not have money to go for treatment. Others did not go to health facilities due to the long distances from their homes and/or an absence of transportation to take them there. Still others feared to go alone or not finding a female health provider to examine them. The most common reason for not seeking healthcare is a concern that no health provider will be in attendance. This scenario makes pregnant women turn to traditional birth attendants as an option.

But now we know that TBAs are not effective in preventing maternal deaths. They are not midwives or medical professionals and do not have the lifesaving skills necessary to deal with life-threatening problems. In addition, some TBAs mistakenly believe that certain practices help women during delivery, although these, in fact, cause harm. Examples of such procedures include pushing on the abdomen to hasten delivery. TBAs can be trained on how to recognise obstetric complications and where to refer the women with complications promptly. Such challenges have to be addressed cross-sectorally to make a meaningful impact on reducing maternal mortality rates.

While Namibia’s health workforce to population ratio is well above the WHO recommended 2.5/1,000 population, the workforce is not equitably distributed with over 80% of the health workforce in urban centres and in the private sector.
Way Ahead: Delivering and Integrated Package for Maternal and Newborn Health

The pressing health demands of pregnant women and newborn babies are numerous and require a continuum of care, a primary health care system that can respond to every stage of maternal, newborn and child health. This includes improved nutrition, safe drinking water, sanitation and hygiene, as well as the prevention or proper treatment of HIV/AIDS and malaria.

1. Promotion of Basic Hygiene Imperative to Child Survival

It seems clear that more emphasis should be placed on increasing access to essential primary healthcare services, or essential health care services. This includes, at a minimum, health education, adequate nutrition, maternal and child health care, basic sanitation and safe water, control of major infectious diseases through immunisation, prevention and control of locally endemic diseases, treatment of common diseases and injuries, and the provision of essential drugs.

2. Capacity to Deliver Quality Health Care

But having a skilled attendant at delivery – a key intervention for improving maternal and neonatal health and survival – is an extremely inequitably distributed health intervention in Namibia. An ideal situation would be a situation where 24-hour access to quality emergency obstetric and emergency newborn care services is provided to all women and babies.

While the HIV/AIDS epidemic remains a formidable obstacle to overcome, emergency obstetric care and the introduction of anti-retroviral treatment, as well as the expansion of PMTCT initiatives should be strengthened to contribute to the improvement of maternal health. A new target for reproductive health of the Millennium Development Goals reflects a need to improve reproductive health to curb incidents of reproductive tract and sexually transmitted infections, including HIV. Preventing HIV infections in women of childbearing age and treating infected pregnant women with available drug combinations greatly reduce transmission of the virus to children.

In addition, a supportive environment for maternal and newborn health requires that discriminatory practices against women and girls are addressed, and the adoption of healthy practices that safeguards them from disease and injury.

The African Union developed a ‘Road Map for Accelerated Reduction of Maternal and Newborn Morbidity and Mortality’, which amongst others involves the installation and correct maintenance of equipment at health facilities, with the addition of important drugs.

Also, inexpensive and immediate steps should be taken that can improve neonatal health substantially, such as the provision of clean delivery conditions, early and exclusive breastfeeding, as well as assuring that mothers are healthy when they give birth. It involves follow-up on newborn babies at 3, 7 and 10 days after delivery. This also includes access to emergency newborn care.

References:


Ministry of Health and Social Services, *Report on Needs Assessment for Emergency Obstetrics Care (EmOC)*, 2006

Ministry of Health and Social Services, *Namibia Demographis and Health Survey 2006-07*, 2008
