Epsom and St.Helier University Hospitals NHS Trust

Saving Mothers' Lives in Developing Countries: Lessons learned from the UK and Ireland's latest Confidential Enquiries report

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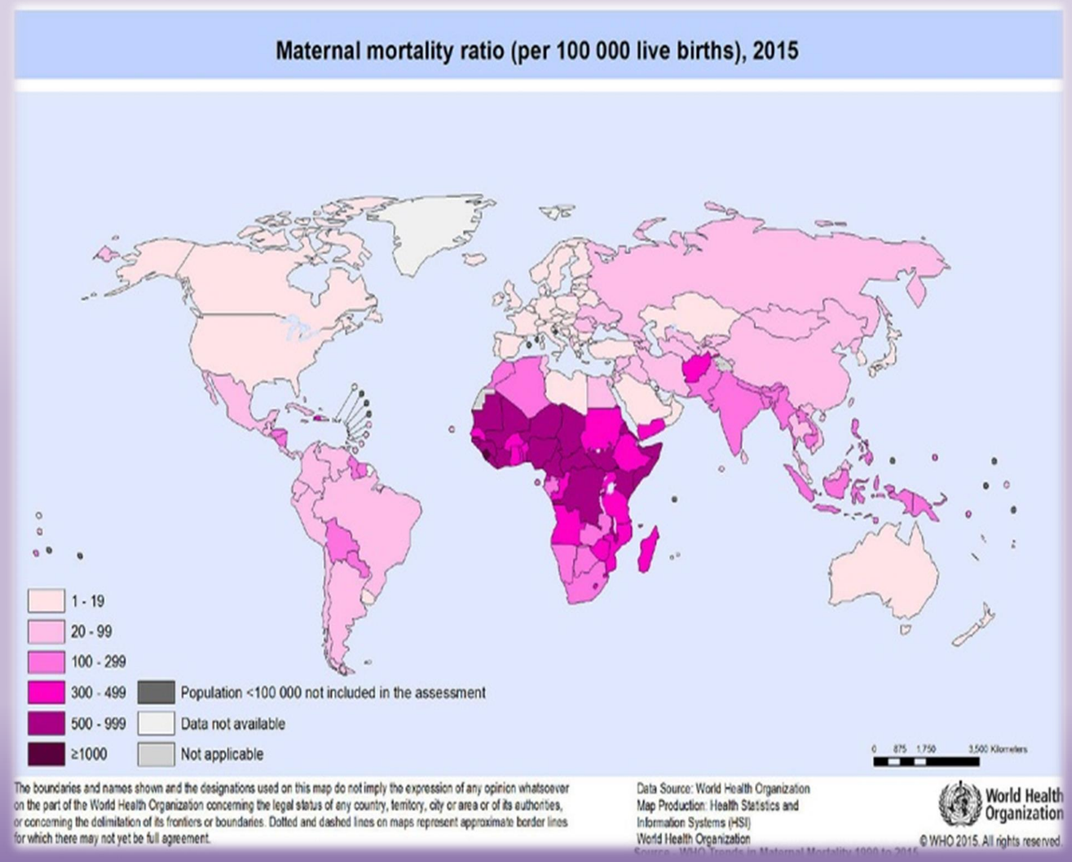
Background

Motherhood should be a joyful and positive experience, however for many women across the world pregnancy and childbirth are a dangerous and frightening time in their lives. Death of mothers as the result of complications in pregnancy and childbirth is devastating.

Maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy. Death can be from any cause related to or aggravated by pregnancy or the management of pregnancy, however not from accidental or incidental causes. For this the term pregnancy-related death is used, which is the death of a woman while pregnant or within 42 days of termination, regardless of the cause of death. Maternal death can be divided into direct and indirect causes. Direct obstetric death results from obstetric complications of the pregnant state, whereas indirect obstetric death results from previous existing disease or disease that developed during pregnancy and was aggravated by the physiologic effects of pregnancy.
The maternal mortality ratio is the number of maternal deaths per 100,000 live births, providing a measure of the risk of death when a woman becomes pregnant. Maternal mortality rate is a measure of the number of maternal deaths in a period per 100,000 women of reproductive age during the same time period [1].



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The Situation in Developing Countries

Almost all of maternal deaths can be prevented as evidenced by the huge disparities found between the rich and poor countries. Most injuries and deaths are preventable if women have access to information, quality of health care, family and community support. The maternal mortality ratio in developing countries in 2015 is 239 per 100,000 live births versus 12 per 100,000 in developed countries [2]. There is a large disparity between the rates in developed countries compared to developing countries. A WHO systematic analysis found Sub-Saharan Africa and southern Asia account for 83.8% of all maternal deaths [3].

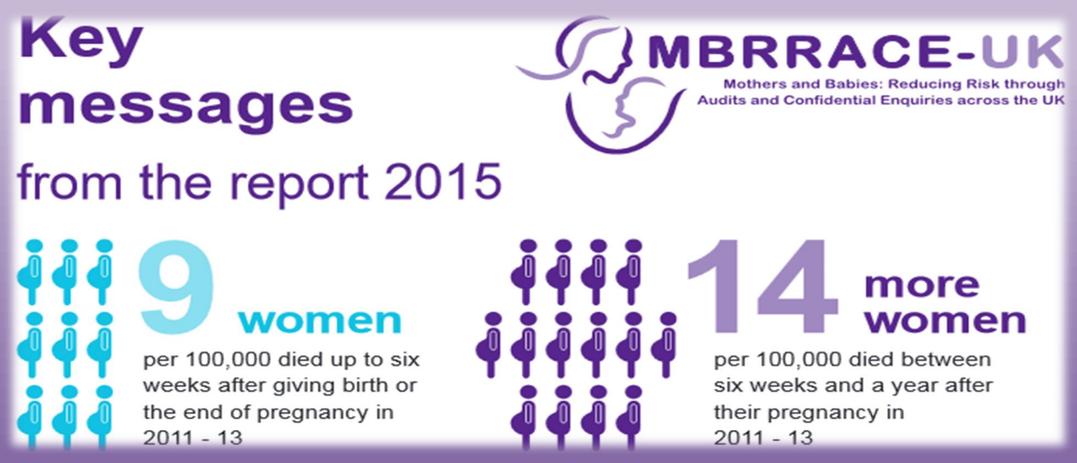
At the Millennium Summit in September 2000 a series of time-bound targets were developed to reduce extreme poverty. One of the 8 Millennium Development Goals was to improve maternal health, MDG 5. The target set was to reduce maternal mortality by 75% from 1990 to 2015. The progress in developing countries in reducing maternal mortality has been too slow to achieve this so far [4]. According to the World Health Organisation maternal deaths worldwide dropped by 43% from 1990 to 2015.

UK Confidential Enquiry into Maternal Death 2015

The UK Confidential Enquiry into Maternal Death has provided an international gold standard for detailed investigation and improvement in maternity care for over 60 years [5]. The enquiry recognises how each woman's death should provide a lesson, for the staff as well as family and friends. It is the second report to be developed by MMRRACE-UK and includes data on maternal death surveillance from 2011-2013 as well as Confidential Enquiries from 2009-2013.
Overall, there has been a decrease in maternal death rate to just 9 women per 100000 giving birth. Maternal deaths from direct causes - complications of pregnancy such as haemorrhage, DVT, pre-eclampsia or infection - continue to decrease. Indirect causes, however, remain a challenge. These include pre-existing conditions such as heart disease, epilepsy and mental health. There has been no significant change since 2003.

Key messages from the report:
Mental health: 1 in 5 of the women who died had a mental health problem. Women are at a higher risk of experiencing a severe mental illness in the early days and weeks after birth than at any other time in their lives.
Thrombosis and thromboembolism: all women should undergo a documented assessment of risk factors for VTE in early or pre-pregnancy
Women with cancer: cancer should be treated the same in pregnancy as in non-pregnant women.
Domestic abuse: pregnancy and the puerperium represent periods of higher risk of domestic abuse. Women with a history of domestic violence should be considered high risk. Women presenting to the emergency department repeatedly or with unusual symptoms should be discussed.

The report concluded for direct maternal death thrombosis and thromboembolism remains the leading cause whereas cardiac disease was the leading cause of indirect maternal deaths. Almost a quarter of maternal deaths occurring between 6 weeks and one year after birth were due to mental-health problems.



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Conclusion

Development of a strong national maternal mortality surveillance system would provide timely maternal mortality data. This would allow targeting of future development.
A national clinical protocol and guideline would ensure all women receive a standard level of care. To ensure this is being met clinical training for regular drills and skills could be arranged. Improving the number of midwives available would allow better individual care for woman during pregnancy.
Specific measures include injecting oxytocin immediately after childbirth to reduce risk of severe bleeding and identifying and addressing potentially fatal conditions like pregnancy-induced hypertension.

References

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