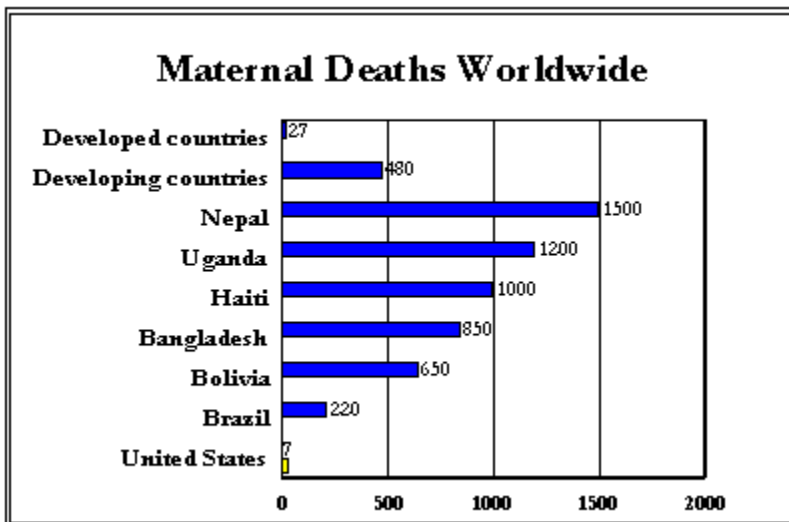


Executive Summary - Maternal Mortality and Morbidity

Maternal mortality adds up to 600,000 women each year. Every minute, at least one woman dies from complications of pregnancy and childbirth.

Maternal mortality represents one of the widest health gaps between developed and developing nations, with 99 percent of all maternal deaths occurring in developing countries. That under one percent of maternal deaths worldwide occur in developed countries indicates that maternal deaths could be avoided if the proper health resources and services were available to women in developing nations.

In developed countries, there are approximately 27 maternal deaths per 100,000 live births each year. In developing countries, the average is 18 times higher, at 480 deaths per 100,000. Country-level differences in maternal mortality are even more dramatic.



Source: World Health Organization

Maternal Mortality and Morbidity - The Situation

Maternal mortality is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management. Maternal morbidity is any illness or injury caused or aggravated by, or associated with, pregnancy or childbirth.

The majority of pregnancy-related deaths occur after delivery (61 percent), in comparison to 24 percent during pregnancy and 16 percent during delivery.

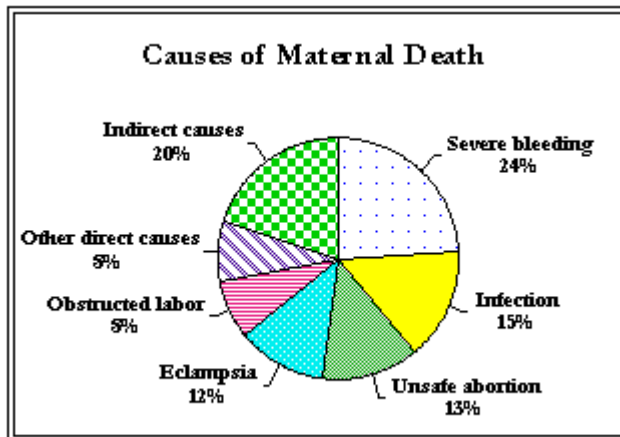
Forty-two percent of the 129 million women who give birth annually experience some complications during pregnancy. Approximately 15 percent of women worldwide develop potentially life-threatening complications, which include chronic pain, impaired mobility, damage to the reproductive system and infertility.

In developing countries, pregnancy and complications from childbirth account for 18 percent of disease among females.

Maternal Mortality and Morbidity - Medical Causes

About 80 percent of maternal deaths are due to causes that are directly related to childbirth and pregnancy. The five major direct causes of maternal death are

hemorrhage, sepsis, hypertensive disorders, prolonged or obstructed labor and unsafe abortion. Most of these conditions could be prevented with proper medical monitoring, information and services.



Source: National Research Council

Severe bleeding can be prevented by the prompt administration of drugs to stop the bleeding and by massage of the uterus.

Sepsis can be prevented with attention to clean delivery and testing for and management of STDs during pregnancy.

Hypertensive disorders, primarily convulsions, or eclampsia, can be prevented with monitoring during pregnancy and simple drug treatment.

Prolonged or obstructed labor often occurs where malnutrition is greater and where girls marrying at a young age are expected to prove their fertility. Access to low-cost, good quality contraceptives to prevent unwanted pregnancies and increased women's age at first childbirth can prevent prolonged labor. Improved nutrition and the reduction of harmful practices such as female genital mutilation may also reduce the risk.

Unsafe abortion can be prevented with access to family planning information and services, care for abortion-related complications and, where legal, safe abortion services.

Approximately 20 percent of maternal deaths arise from pre-existing conditions that are aggravated by pregnancy, such as anemia, one of the primary indirect causes, and malaria, hepatitis, heart disease and HIV/AIDS.

The risk of maternal mortality increases with each successive pregnancy. Shorter intervals between births also cause health risks to rise.

Adolescent girls are less likely to obtain prenatal care and other related assistance, and more likely to suffer from pregnancy-related disorders and complications. Women ages 15 to 19 are twice as likely to die from pregnancy and childbirth related causes as women in their twenties, while women ages 10 to 14 are five times more likely to die than women ages 20 to 24.

Maternal Mortality and Morbidity - Underlying Factors

Women in developing countries often lack the economic resources and education to make informed decisions about their health and nutrition. Some women are denied or lack access to reproductive health information and services because of logistical, social or cultural barriers. Lack of decision-making power, excessive physical labor and poor nutrition also affect maternal mortality.

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections. Given that 15 percent of pregnant women experience life-threatening complications and 40 percent of pregnancies require special care, it is necessary to increase the births in medical facilities with trained attendees.

Only 53 percent of deliveries in developing nations are attended by a health professional and only 40 percent take place in a hospital or health center. According to the World Health Organization (WHO), training skilled attendants who are able to prevent, detect and manage obstetric complications as well as provide equipment, drugs and other supplies is the single most important factor in preventing maternal deaths.

Inadequate use of prenatal care has also been associated with increased risk of maternal mortality. In developing countries, 70 percent of births are preceded by at least one antenatal visit while 38 million women receive no antenatal care.

Additional factors that prevent women in developing countries from receiving the life-saving health care they need include distance from health services, costs, poor quality of available services and substandard treatment by health providers.

Maternal Mortality and Morbidity – Larger Implications

Maternal mortality has immediate and serious consequences for young children. The risk of death for a mother's children under age five can increase by as much as 50 percent if the mother dies in some less developed countries. Over three million neonatal deaths occur each year during the first week of life due to inadequate or inappropriate care in pregnancy and during and following delivery.

Maternal mortality continues to affect the woman's children as they become older. A recent study in Bangladesh, for example, found that children up to ten years old are three to ten times more likely to die within two years of their mother's death than their counterparts with living parents. Another study in the Kagera region of Tanzania demonstrated that the death of a prime-aged female adult resulted in delayed school enrollment for 7-11 year-old children and early dropout rates for 15-19 year-olds.

Maternal Mortality and Morbidity – Interventions

One in four maternal deaths could be prevented by family planning. Access to family planning has a great impact on maternal mortality. An estimated 150 million women in developing countries want to delay or stop childbearing, but are not using family planning.

The Safe Motherhood Initiative, launched by the United Nations Population Fund (UNFPA), the World Bank and WHO in 1987, is now further supported by the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the International Planned Parenthood Federation (IPPF) and the Population Council. The initiative incorporates many of the facets of comprehensive education, information and prevention services, and follow-up care. This model requires collaboration at numerous levels, between general women's health and reproductive health practitioners, between public and private health providers, and between community members and leaders. It is therefore implemented to varying degrees in different locations.

Impact of Family Planning on Maternal Mortality

Country	Lifetime risk of maternal mortality (1 in number)	Percent of women using modern contraception
Nigeria	13	3
Pakistan	38	13
Bolivia	26	17
Namibia	42	26
Botswana	65	32
Peru	85	41
Brazil	130	71

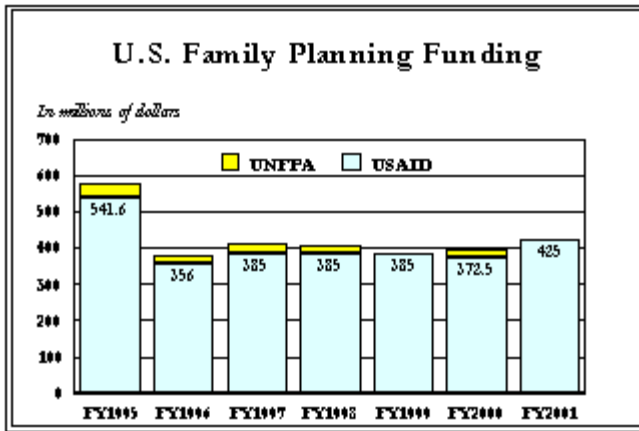
Source: Save the Children

The World Health Organization and World Bank's analyses estimate that the entire safe motherhood package costs about \$3 per person per year in low-income countries and \$6 in middle-income countries. The comprehensive package includes:

- **Education and information services** comprise community education about safe motherhood, education about pregnancy danger signs and complications, and reproductive health and family planning information and services for adolescents and adults.
- **Prevention services** include nutrition and vitamin supplement counseling, prenatal and general health care and monitoring, and screening and treatment for STDs, HIV and other infections.
- Subsequent to skilled assistance during childbirth, **follow-up care** encompasses care for complications and emergencies, and postpartum care.
- **Safe abortion and postabortion services** are also components

Safe motherhood and women's health initiatives have had great success. In Honduras, increased resources for maternal health contributed to a reduction of the maternal mortality ratio (MMR), from 182 to 108 deaths per 100,000 live births between 1990 and 1997. Sri Lanka's nationwide healthcare system expansion and improved midwifery skills contributed to a dramatic decline in the MMR. Although Sri Lanka has a low per capita income, over 94 percent of its births occur in hospitals, causing its MMR to decline from over 1,500 deaths per 100,000 live births between 1940 and 1945 to 239 per 100,000 in 1955-1965, 95 per 100,000 in 1980 and, finally, 30 deaths per 100,000 live births in 1999.

The United States, through the U.S. Agency for International Development (USAID), provides voluntary family planning and reproductive health services in over 60 developing countries. According to USAID, 50 million couples in the developing world use family planning directly as a result of its efforts. The U.S. also contributes to UNFPA, one of the founding organizations of the Safe Motherhood Initiative.



Source: USAID

This executive summary was prepared by Angela Bayer of the Population Resource Center in January 2001 and reviewed by Dr. Charles Westoff of Princeton University. Sources include: *The Consequences of Maternal Morbidity and Maternal Mortality*, National Research Council, 2000; *The State of World Population 2000*, UNFPA; *Women 2000*, Population Reference Bureau, Measure Communication Policy Brief; *State of the World's Mothers 2000*, Save the Children; and *Reproductive Health Interventions: Which Ones Work and What Do They Cost?*, USAID, POLICY Project, March 2000. For further information, please contact the Center at (202) 467-5030; 1725 K Street NW, Suite 1102 Washington, DC 20006.