Postpartum Hemorrhage: A challenge for safe motherhood
Background

Complications of pregnancy and childbirth are among the leading causes of death and illness for women around the world. Over half a million women die each year, and millions more suffer from serious injuries. Most maternal deaths and disabilities occur in developing countries, especially among women who are poor, uneducated, or live in rural areas.

The five major causes of maternal death are: bleeding, infection, unsafe abortion, eclampsia, and prolonged/obstructed labor. Indirect causes contributing to maternal mortality include anemia, malaria, heart disease, and HIV/AIDS.

![Causes of Maternal Death Diagram](Image)

Almost all of these life-threatening complications can be prevented or treated if women have access to high-quality and appropriate health care during pregnancy, abortion, childbirth, and immediately afterwards. A skilled provider, when properly equipped and supported, can provide critical life-saving interventions to avert the major causes of maternal death and disability.

A range of social, cultural, and economic factors also contribute to women’s ill health: gender inequality and discrimination; costs (including direct fees for services as well as for transportation, drugs, and supplies); and distance, lack of transport, and other logistical barriers. Ensuring safe motherhood therefore depends on improving women’s status, promoting equitable distribution of resources, and protecting basic human rights as well as ensuring the availability of skilled medical care.

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1 A maternal death is defined as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes”. World Health Organization, International Statistical Classification of Disease and Related Health Problems, 10th rev. Geneva: WHO, 1992.
What is postpartum hemorrhage?

Excessive bleeding after childbirth (postpartum hemorrhage or PPH) is the single largest cause of maternal death worldwide. While some bleeding after childbirth is normal and expected, blood loss greater than 500 ml is commonly defined as a marker for PPH.\(^2\) Severe blood loss is dangerous and potentially life-threatening.

The World Health Organization (WHO) estimates that 150,000 women bleed to death each year as a result of childbirth.\(^3\) PPH accounts for a quarter of all maternal deaths, with individual countries reporting percentages of up to 60%.\(^4\) A woman suffering from PPH can die quickly (often within 2 hours) unless she receives immediate and appropriate medical care. Every minute of delay raises the likelihood that a woman suffering from hemorrhage will die.

Although many medical conditions can cause hemorrhage, the majority of severe bleeding occurs because the uterus (or womb) is unable to contract properly after delivery of the baby.\(^5\) Other causes of excessive bleeding include: tears of the vagina and cervix, clotting disorders, and problems with the placenta. Certain factors are associated with developing PPH (for example, previous PPH, previous multiple pregnancies); however, most cases (about two-thirds) take place in women with no known risk factors. All women must therefore have access to prevention and to emergency treatment for severe blood loss after childbirth.

\(^2\) While 500 ml blood loss is the standard definition for PPH, the amount of blood lost is often difficult to measure accurately and is often underestimated.


Why do women die from severe bleeding?

In developed countries, severe bleeding rarely results in a maternal death. Women in developing countries face a greater risk of dying from PPH because:

- many women deliver at home, and are often attended by unskilled providers (traditional birth attendants, family members) unable to recognize the signs of excessive bleeding;
- once the problem is recognized and the decision to take the woman to a health facility is made, emergency transportation may not be available; and
- even if a woman arrives at a health facility or hospital in time, the facility may not have trained staff available or the necessary supplies and equipment to treat her.

Caring for women with hemorrhage is often beyond the capacity of developing country health systems and communities, since medication used for standard treatment requires refrigeration and injection. In addition, specialized emergency services and personnel (for surgery, blood transfusion, and other higher-level care) are often only available in limited areas. The speed with which death from PPH occurs presents a major challenge in settings with poor communications and referral systems and shortages of necessary drugs and equipment.

Preventing deaths from postpartum hemorrhage

Most maternal deaths from PPH could be prevented if women received care from a skilled provider during childbirth. A skilled provider, if properly supported and equipped, can recognize the onset of excessive bleeding, stabilize the woman, and refer to a higher-level facility or administer the necessary treatment.

350 women die each day from severe bleeding.
In countries with high maternal mortality and limited specialized emergency services, efforts should focus on preventing and managing cases of PPH before higher-level care becomes necessary. Promising technologies have been shown to reduce PPH. They are simple to administer and inexpensive; can be provided by a range of health providers; can be delivered at the clinic or community-level; and thereby can reduce the need for costly treatments such as blood transfusion, surgery, and intravenous therapy:

- Certain **clinical procedures** performed by skilled providers after the delivery of the newborn, collectively termed “active management of the third stage of labor”, have been shown to prevent PPH. These procedures cause the uterus to contract and speed the delivery of the placenta (afterbirth), thereby reducing the potential for severe bleeding.

- The **administration of a uterus-contracting drug** (uterotonic) immediately after delivery of the baby can also prevent excessive bleeding. Drugs for this purpose include oxytocin, ergometrine, and possibly misoprostol. Each of these medications offers potential advantages (in terms of effectiveness, route of administration, cost, and stability in hot climates) that need to be considered when introducing them as part of obstetric services.

Further clinical and operational research is needed to demonstrate these technologies’ relative effectiveness before their introduction in large-scale, national programs.

*In developed countries, such as the United Kingdom, the risk of dying is 1 in 100,000 deliveries.*
What can policy makers do?

To meet the global target set by the Millennium Development Goals of reducing maternal mortality by 75% by the year 2015, governments must act now to mobilize the financial resources and political will to make pregnancy and motherhood safer for all women.

Specific actions include:

For achieving safe motherhood:

- Ensure that a skilled health provider with midwifery skills attends every birth. National policies need to support training and deployment of skilled personnel, especially in rural and underserved areas.

- Upgrade health facilities with adequate transportation and communication structures, and the necessary supplies, drugs, and equipment.

- Address the multiple socio-economic and cultural barriers that prevent women from accessing necessary health care during pregnancy and childbirth. Gender equality and women’s empowerment enable women to make decisions regarding their health and well-being.

- Promote community education and mobilization strategies that raise awareness of poor maternal health and increase recognition of danger signs.

99% of all maternal deaths take place in developing countries; almost all can be prevented.
For reducing maternal mortality due to PPH:

- Invest in simple, low-cost health technologies that can contribute to reducing maternal deaths from excessive bleeding, and promote their wide-scale adoption and greater availability within the health care system.

- Support research to assess the role of different medications for preventing and treating PPH, particularly at primary-level facilities and in home birth settings.

- Promote the uptake of updated, accurate clinical information on PPH among health professionals (clinicians, pharmacists, and others) through training and outreach activities.

- Raise awareness among women, community health workers, and others regarding the availability of simple health technologies for PPH.

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There is no time to lose. Every minute is critical in the fight to save women’s lives.

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