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Misoprostol: Saving Women's Lives in Pakistan

A Fact Sheet for Policy Makers and Programme Managers

Pakistan has the highest Maternal Mortality Ratio (MMR) in South Asia, at 276/100,000 live births (PDHS 2012-13). Nearly 16,000 women die of pregnancy and childbirth-related complications each year. It is estimated that a woman dies every 30 minutes due to childbirth-related complications.

Post-partum Haemorrhage (PPH) and post abortion complications are among the common reasons for women dying during childbirth. Postpartum Haemorrhage (PPH) is the leading cause of maternal death (27%), with over 5,000 women dying each year in Pakistan (PDHS 2006-07). Abortion contributes to 11% of the MMR (Jafarey 1992) in hospital-based studies, while the Pakistan Demographic and Health Survey (PDHS 2006-07) reports it at 5.6%. Most of the women who die are in the prime of their lives, poor, live in rural areas, and have no skilled attendance at birth (PDHS 2006-07).

One effective strategy to address and prevent these maternal deaths is the use of Misoprostol, a simple, easy to administer medicine that has been included in the World Health Organisation's List of Essential Medicines. Recently, due to efforts made by the National Committee of Maternal and Neonatal Health and other organizations such as Mercy Corps, Misoprostol has been included in the Provincial Essential Medicines Lists of Pakistan. Due to its proven effectiveness, the WHO and other recognised technical and professional bodies have recommended its use, especially in low resource settings. Misoprostol is low cost, and can be administered orally, sublingually, vaginally and rectally.

What You Need to Do

- Include Misoprostol for reproductive health indications and develop training curricula for SBAs
- Make a policy decision for Lady Health Workers (LHWs) to give information on Misoprostol and its role in the prevention and treatment of PPH in the community
- Include Misoprostol in the LHW curriculum for its use in the prevention and treatment of PPH

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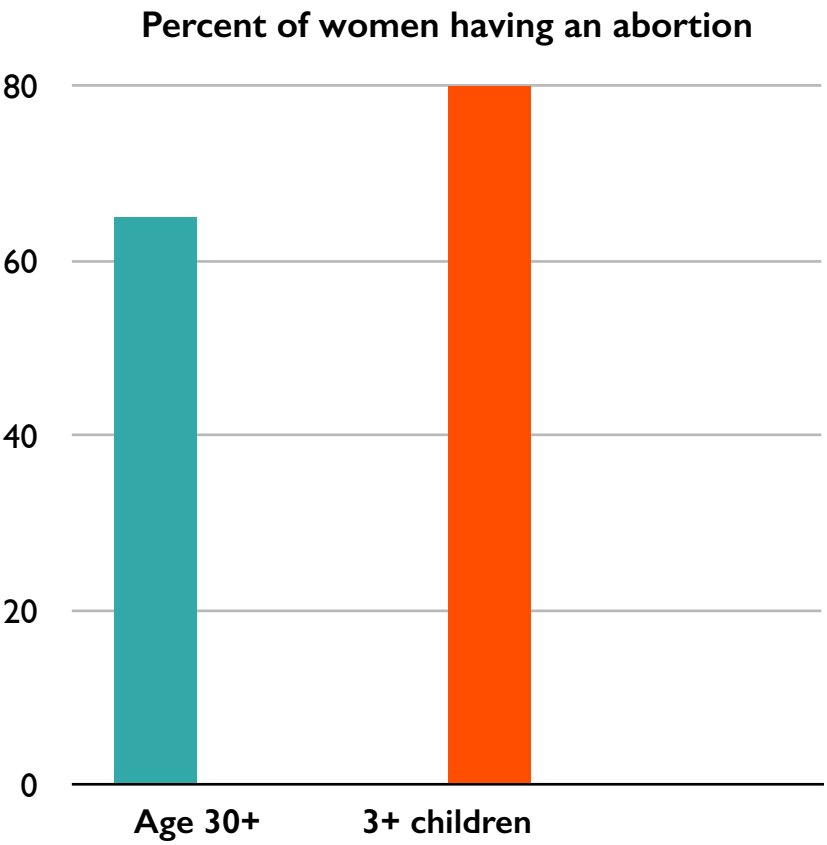
4-5 million births take place each year in Pakistan, of which 52% take place at home. In rural areas, 60% of births take place at home. Of these home births, only 5% are conducted by Skilled Birth Attendants (SBAs); the rest are attended by Traditional Birth Attendants (TBAs), friends and relatives (PDHS 2012-13). The MMR in rural areas is 319, double that in urban areas, which is 175 (PDHS 2006-07). When a baby is delivered by a non-skilled attendant in a home setting, a medicine such as Misoprostol can prevent deaths due to PPH.

Post-partum Haemorrhage and Complications of Abortion

PPH is excessive blood loss after childbirth. In 70-90% of cases, this is due to failure of the uterus to contract (Atony). Uterotonic medicines (Oxytocin, Ergometrine, Misoprostol) help the uterus to contract and reduce blood loss after childbirth, thereby preventing PPH.

Among the major causes of maternal death is complications arising from abortion. The incidence of abortion in Pakistan is about 900,000 per year (The Population Council 2004). In 2012, 696,000 women presented at health facilities for treatment of complications of induced or spontaneous abortions (The Population Council, 2013). This incidence is believed to be significantly under-reported due to the stigma attached to abortion. Many abortions are attended to by unskilled providers and take place in settings with unhygienic conditions, with Midlevel Health Care Providers and TBAs being mostly responsible for the high levels of morbidity and mortality associated with abortions (Zaidi 2009). Complications such as haemorrhage, infection and injury to internal organs are mainly due to lack of skilled providers and use of unclean instruments. Training health care providers on the use of Misoprostol is a cost-effective way of saving women's lives.



- 900,000 abortions take place in Pakistan every year (Population Council, 2004)
- Almost 700,000 women report to hospitals with complications

Misoprostol

All women should receive a uterotonic during the third stage of labour to prevent PPH. Oxytocin given by injection is the uterotonic of choice. However, effective administration of oxytocin may present a challenge, particularly in low resource settings. Oxytocin requires administration by a trained provider, since it needs to be given via an intramuscular injection, and needs to be refrigerated to maintain its efficacy.

The need for refrigeration is not only in the provider's clinic; it is essential to maintain the cold chain from the point of manufacture to wherever it will eventually be used. In a country such as Pakistan, a majority of the population resides in remote areas and temperatures in summer are often high. There are frequent power breakdowns, and even if this is not the case, refrigeration for storage or for transportation may not be available or providers may not be aware of the need for proper storage. Therefore, in settings where giving oxytocin is not available or feasible, Misoprostol, a synthetic analogue of Prostaglandin E2, has emerged as an alternative uterotonic.

Misoprostol is also useful for treating abortion-related complications. It is an alternative to Dilatation and Curettage (D&C), which, while still in practice, is recommended (by WHO) to be replaced by vacuum aspiration techniques or medications such as Misoprostol.

Misoprostol:

I. Has an excellent safety profile

II. Is extremely effective

III. Has minimal, if any, side effects

IV. Is ideal for prophylaxis and treatment of PPH because it is:

- Inexpensive;
- Stable at room temperature. No need for refrigeration;
- Administered in tablet form, with no need for injections; and
- Unskilled providers (TBAs) can be easily trained in its use.

Maternal deaths are...

- Mostly PREVENTABLE
- Reflective of women's status in society
- Indicative of the quality of health care services
- Detrimental to families, communities, nations

Inclusion of Misoprostol in the National Essential Medicines List

At present, Misoprostol is registered in Pakistan and has recently been included the Essential Medicines Lists of all provinces. The need now is to ensure that it is used during all births to prevent PPH, specifically those attended by unskilled birth attendants.

Lady Health Workers should be trained in its use to prevent PPH so it can be used if the child birth is not attended by SBAs.

Advantages of Misoprostol over Oxytocin

	Misoprostol	Oxytocin	Ergometrine
Stability	Heat Stable	Not heat stable	Not heat stable
Storage	Stable at room temperature	Requires refrigeration at 2-8℃	Requires refrigeration at 2-8℃ and storage in dark closed containers
Administration	Skilled provider not necessary	Requires skilled provider	Requires skilled provider
Route of administration	Tablets can be given orally, vaginally and rectally	Needs to be administered by injection	Needs to be administered by injection
Suitable for home births	Yes	No	No
Serious side effects	No	No	Yes

As for its use by women themselves, a study in Pakistan has shown that it is feasible for rural women to self-administer with a little guidance and information (Mir 2010).

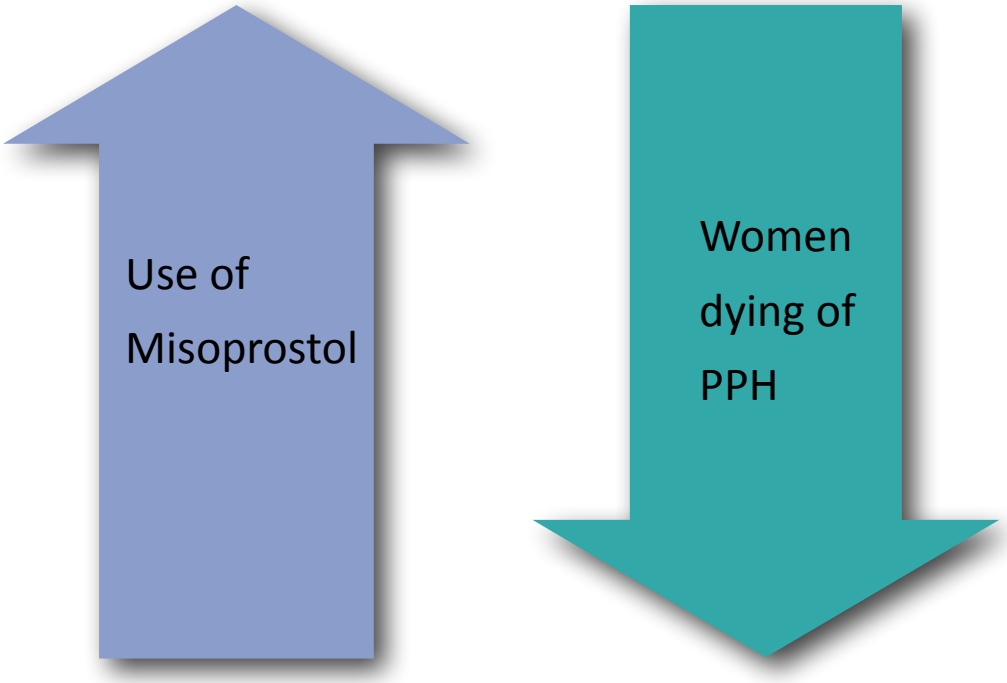
WHO and the International Federation of Gynaecology and Obstetrics (FIGO) suggest further research should be done before recommending self administration

"… in home births without a skilled attendant, Misoprostol may be the only technology available to control PPH." - International Federation of Gynaecology and Obstetrics (FIGO), the International Confederation of Midwives (ICM), etc.

WHO and Misoprostol

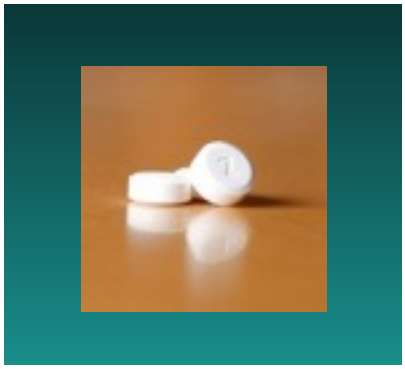
In May 2011, the World Health Organisation moved Misoprostol from its Complementary list to the Core Model List of Essential Medicines for prevention of PPH. WHO stated that: "….[N]ew evidence submitted showed that Misoprostol can be safely administered to women to prevent PPH by TBAs or assistants trained to use the products at home deliveries" (2011).

The WHO also added Misoprostol to its List of Essential Medicines in March 2009 for treatment of incomplete and missed abortion. It was added to the WHO Complementary List in 2005 for termination of pregnancy (together with Mifepristone; where legally permitted and culturally appropriate) as well as for induction of labour.



Action needed to promote use of Misoprostol for prevention and treatment of PPH, and prevention and treatment of post abortion complications:

- Provincial Departments of Health to issue notification to ensure supply of Misoprostol at all public health facilities, in rural as well as in urban areas.
- Pakistan Medical and Dental Council to ensure inclusion of Misoprostol for reproductive health indications and develop appropriate training curricula for SBAs. SBAs include skilled medical providers (doctor, nurse, midwife, Lady Health Visitor). The Pakistan Nursing Council has already included Misoprostol in its curriculum and trainings and sensitisation sessions on its use for midwifery tutors have already been initiated.
- Professional bodies such as Society of Obstetricians and Gynaecologists of Pakistan (SOGP), Pakistan Medical Association (PMA), College of Family Physicians, etc., and the Midwifery Association of Pakistan (MAP) to raise awareness and train their members on the role and use of Misoprostol in the prevention and treatment of PPH and post abortion complications.
- Provincial Departments of Health and other allied organizations providing health care at the community level to ensure supply of Misoprostol tablets to the target population through Community Midwives, (CMWs), Lady Health Workers (LHWs), Social Marketing networks, and the Rural Support Programme Network. The same organisations need to make a commitment to provision of training and education to ensure proper use.
- Policy makers should support inclusion of Misoprostol for PPH prevention and treatment in the “Best Practices” package.
- Include Misoprostol in Clean Delivery Kits at the community level so that they become Safe Delivery Kits.



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