Expanding Access to Postabortion Care Services in Mozambique

Final Report in Brief

Every year, 21.6 million unsafe abortions occur, resulting in the deaths of 47,000 women,[1] nearly all of which take place in developing countries.[2] While poor, rural women are more likely to turn to unsafe abortion and consequently experience health complications, they are less likely to receive postabortion care (PAC).[3] Mozambique has a maternal mortality ratio of 599 deaths per 100,000 live births,[4] and one study found that 55% of obstetric complications in one district in Maputo Province were due to incomplete abortion.[5] Misoprostol is a promising alternative to surgical methods of treating incomplete abortion, as it has minimal service delivery requirements, can be administered by mid- and low-level providers, and has efficacy rates of 91 to 99%.[6] Expanding the level of health facility and provider trained to treat incomplete abortion by introducing misoprostol can increase women's access to these services, especially in rural areas.

In July 2010, *Associação Moçambicana de Obstetras e Ginecologistas*, Venture Strategies Innovations and the Bixby Center for Population, Health and Sustainability at the University of California, Berkeley, initiated operational research to introduce misoprostol for the treatment of incomplete abortion and miscarriage at all levels of the health care system in Mozambique. The operational research was undertaken at all public health facilities (*Centro de Saúde* or *CS* 2/3,† *CS* 1, and one hospital) in two rural districts, Monapo District (Nampula Province) and Macia District (Gaza Province) (Figure 1). The operational research aimed to demonstrate that the provision of misoprostol for the treatment of incomplete abortion and miscarriage is feasible in all health facilities within the Mozambican health system. An additional objective was to determine the most appropriate strategy for providing PAC services in the Mozambican context, with the ultimate aim of increasing women's access to services and reducing abortion-related morbidity and mortality.

OPERATIONAL RESEARCH DESIGN

This operational research introduced misoprostol for the treatment of incomplete abortion and miscarriage, integrated within a functional referral system along with contraceptive services. The following package of PAC services was implemented at all health facility levels:

- **Treatment of incomplete abortion and miscarriage**: Misoprostol was introduced as the first-line treatment of incomplete abortion for women

Figure 1: Map of operational research districts

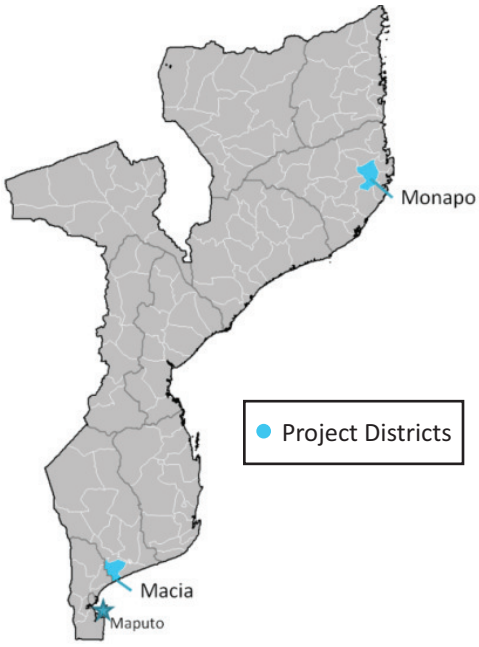


Table 1: Incomplete abortion caseload at health facilities in the operational research (July 2010 – January 2011)

Facility Level	Caseload
CS 2/3	109 (36.3%)
CS 1	134 (44.7%)
Hospital	57 (19%)
Total	**300**

presenting with a uterine size equivalent to gestational age up to 12 weeks without signs of complications. Manual vacuum aspiration (MVA) was reserved for more complicated cases, greater uterine size, or as a back-up method if misoprostol did not complete the abortion.

•**Contraceptive services**: All women were to receive postabortion family planning counseling and provision of their choice of an effective contraceptive method.

•**Referral**: To ensure comprehensive provision of services, referral linkages were established at all levels. Lower levels of the health care system (*CS*s 2/3 and 1) were included to improve the accessibility of the services, and linked with higher levels for supervision and in the case of referral.

RESULTS

Health facilities collected data on PAC service provision from July 2010 through January 2011 (seven months). Data in this analysis includes information collected on *Service Delivery Forms* from the 300 women who presented at facilities with incomplete abortion or miscarriage and were treated with misoprostol, and from 188 exit interviews. Most cases were seen at the *CS* level, either *CS* 1 (45%) or *CS* 2/3 (36%) (Table 1).

Introduction of misoprostol expands access to PAC services

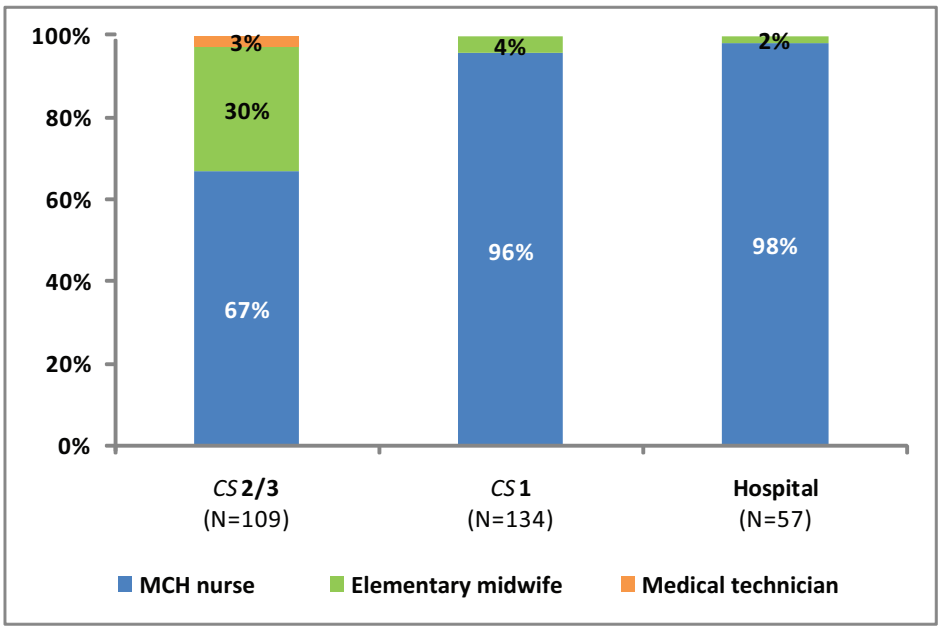
The introduction of misoprostol expanded access to PAC by building the capacity of providers not previously trained in MVA, particularly *parteiras elementares* (elementary midwives), to treat incomplete abortion. Elementary midwives provided care to 30% of the 109 cases treated with misoprostol at *CS*s 2/3 (Figure 2).

*CS*s 2 and 3 are the lowest level primary health care facilities in Mozambique and are often staffed with an elementary midwife alone or a maternal and child health (MCH) nurse, elementary midwife and/or medicine agent. Since only MCH nurses are trained in MVA, training elementary midwives to use misoprostol to treat incomplete abortion increases women's access to PAC services at lower-level facilities.

Safe and high-quality PAC services were provided at all levels

No adverse events due to treatment and no maternal deaths were reported in this operational research. Of the 200 women who were treated with misoprostol for incomplete abortion and miscarriage and returned for a follow-up visit, 94.5% had a complete procedure with a single dose of misoprostol (95% CI

Figure 2: Provider of PAC services by facility level (N=300)



Source: Service Delivery Form

91.3% to 97.7%). Only 11 out of the 200 women who returned for a follow-up visit required additional interventions for completion. While referral protocols were in place to ensure women would receive comprehensive services, no referrals were necessary for either the initial treatment or during the follow-up visit. Therefore, providers were able to treat incomplete abortion with misoprostol within the capacity of their respective health facilities.

Participating rural health center, Monapo District

MCH nurses and elementary midwives are capable of providing high-quality PAC services

Of the 300 women treated for incomplete abortion with misoprostol over the course of seven months, MCH nurses treated 257 women and elementary midwives treated 40 women (86% and 13%, respectively). Women were very satisfied with their experience of seeking PAC services from MCH nurses and elementary midwives, and over 96% stated that were comfortable discussing their family planning choices with these providers.

Most women received postabortion contraceptive services

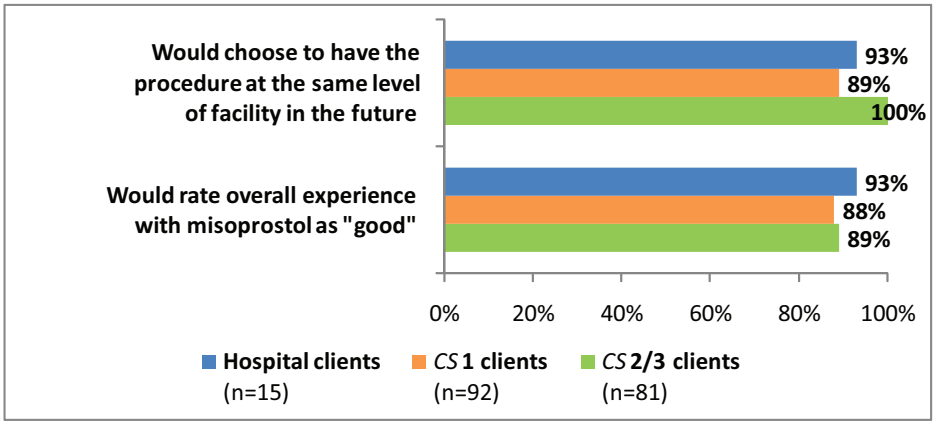
Client reports in the exit interview showed that family planning counseling was near universal (100% at *CS*s 2/3, 98% at *CS*s 1, and 100% at the hospital). The majority of women received a contraceptive method at the initial visit (81%); women at *CS*s 2/3 and *CS*s 1 were more likely to leave with a contraceptive method at the conclusion of their initial visit than women who received services at the hospital (92% and 84% vs. 54%).

The most common contraceptive methods given to women were oral contraceptive pills (55%) and injectable contraceptives (17%). Condoms (8%) and intrauterine devices (1%) were provided in smaller numbers.

High client satisfaction with misoprostol and provider

Women were very satisfied with both the care they received from their providers and misoprostol as a method. Most women (89%) rated their overall experience with misoprostol as "good." At all facility levels, over 89% of women said that they would choose to have the procedure at the same level of facility in the future (Figure 3). Women receiving care at the hospital were more likely to agree (73%) that it was inconvenient to receive services at that facility than those who received services at *CS*s 2/3 and *CS*s 1 (9% and 7%, respectively). Across all levels of provider, women reported that their pain was managed appropriately.

Figure 3: Clients' overall satisfaction^



Source: Exit Interviews
^No response from 1.2% of *CS* 2/3 clients

Providers feel competent using misoprostol and prefer it to MVA

Twenty-eight providers participated in an interview about their experiences integrating misoprostol into PAC (19 MCH nurses, seven elementary midwives, and two medical technicians). All providers agreed or strongly agreed that it was easy to learn how to use misoprostol to treat incomplete abortion; that they felt comfortable using misoprostol to treat incomplete abortion; that the training they received made them confident in using misoprostol for incomplete abortion; and that they would recommend misoprostol for this use to other qualified health care providers. Of those trained in MVA (all nurses and medical technicians, n=21), all reported that they prefer misoprostol to MVA for treatment of incomplete abortion if both are available, citing ease of use (71%), quickness of the procedure (36%), and lack of complications (32%) as the reasons for their preference.

CONCLUSIONS

This operational research introduced a comprehensive package to increase access to PAC services in Mozambique. In treating a total of 300 incomplete abortion cases with misoprostol over the course of seven months, this operational research demonstrated that PAC services can be provided at all levels of the Mozambican health care system by all levels of health care provider. MCH nurses and elementary midwives are an integral part of the primary health care system in Mozambique, and this operational research provides strong evidence that they are able to provide safe, high-quality PAC services to women in rural communities. Providers felt that misoprostol was easy to use and women were satisfied with their treatment. The rapid adoption of misoprostol to treat incomplete abortion in the operational research illustrates the important role that the drug plays in increasing women's access to PAC services.

ACKNOWLEDGEMENTS

The partners are grateful to the health care providers for their commitment to providing women with PAC services; the operational research management team members for their diligence; and the women of Monapo and Macia Districts who participated in the operational research. Dr. Cassimo Bique and Dr. Momade Ustá of the *Associação Moçambicana de Obstetras e Ginecologistas* deserve special recognition for their leadership and support.

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† *CSs* 2 and 3 are combined because they have few distinctions in terms of their capacity to provide PAC services.