REPRODUCTIVE HEALTH matters

FEATURE

Medical abortion and manual vacuum aspiration for legal abortion protect women's health and reduce costs to the health system: findings from Colombia

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Abstract: *The majority of abortions in Colombia continue to take place outside the formal health system under a range of conditions, with the majority of women obtaining misoprostol from a thriving black market for the drug and self-administering the medication. We conducted a cost analysis to compare the costs to the health system of three approaches to the provision of abortion care in Colombia: post-abortion care for complications of unsafe abortions, and for legal abortions in a health facility, misoprostol-only medical abortion and vacuum aspiration abortion. Hospital billing records from three institutions, two large maternity hospitals and one specialist reproductive health clinic, were analysed for procedure and complication rates, and costs by diagnosis. The majority of visits (94%) were to the two hospitals for post-abortion care; the other 6% were for legal abortions. Only one minor complication was found among the women having legal abortions, a complication rate of less than 1%. Among the women presenting for post-abortion care, 5% had complications during their treatment, mainly from infection or haemorrhage. Legal abortions were associated not only with far fewer complications for women, but also lower costs for the health system than for post-abortion care. We calculated based on our findings that for every 1,000 women receiving post-abortion care instead of a legal abortion within the health system, 16 women experienced avoidable complications, and the health system spent US $48,000 managing them. Increasing women's access to safe abortion care would not only reduce complications for women, but would also be a cost-saving strategy for the health system.* © 2015 Reproductive Health Matters

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Unsafe abortion has significant social, economic and personal costs.[1] It also contributes greatly to maternal mortality and morbidity rates, especially in countries with restrictive abortion laws.[2,3] There is clear evidence that restricting access to legal abortion is associated with increased rates of unsafe abortion and harm to women. In Latin America, where abortion is widely restricted, unsafe abortion is responsible for 12% of maternal deaths.[3] In Colombia unsafe abortion is estimated to be the fifth leading cause of maternal mortality.[4,5] In this paper, we discuss the consequences of restricted access to safe abortion and the associated costs for the health system in Colombia.

Prior to 2006, abortion was illegal for all indications in Colombia, and only post-abortion care (PAC) was available within the health system.[6] PAC in Colombia is a form of essential emergency obstetrical care to manage the complications of abortion, including incomplete abortion. Interventions used

for PAC vary widely, depending on the health system. Traditionally, resource-intensive interventions, most commonly sharp curettage (D&C), have been used. Evidence supports the greater safety and efficacy of medical or aspiration methods for management of incomplete abortion, however, as compared with D&C. The World Health Organization recommends that either manual (MVA) or electric (EVA) vacuum aspiration be used instead of D&C, as D&C is associated with a higher rate of complications.[7] In Colombia, however, the majority of PAC is still provided using D&C under general anaesthesia.[9]

As found in other countries, the criminalization of abortion in Colombia promotes a flourishing underground industry for abortion, where many women obtain misoprostol from the black market and self-administer the medication, or receive sub-standard care from unsafe providers.[6,8] In Colombia, prior to the 2006 change in the law, hospital admissions for PAC were estimated at 58,000 annually.[1,9]

In May 2006, advocacy efforts contributed to the partial decriminalization of abortion in Colombia.[10] Abortion is no longer a criminal offence in three instances: if the pregnancy constitutes a threat to the woman's health or life, if the fetus has anomalies incompatible with life, or if the pregnancy is the result of rape or incest.[8] A medical certificate confirming the applicability of one of these circumstances is required, and if rape is given as the indication, a legal certificate is necessary. No upper gestational age limit is specified in the law, and the signature of a specialist is not required.[11] In the months following the change in the law, the Colombian Ministry of Health and Social Protection endorsed technical norms for the provision of safe abortion, and misoprostol was approved for use in medical abortion.

While abortion law reform is a necessary precondition for improving safety and care for women, it is not enough to guarantee access to safe abortion. Information on how these changes in policy in Colombia have affected women's access to safe abortion is limited. Initial reports indicate that challenges to accessing safe abortion in Colombia persist.[5,8] Lack of knowledge about the requirements for legally accessing abortion services, as well as the unwillingness of many physicians or institutions to provide services, have restricted women exercising their rights under the new law.[8,12] A study published in 2011, based on a survey of health providers and national level data, estimated that despite the law reform, 99% of abortions still occurred outside the health system[9] and were more likely to be associated with both acute and long-term complications for women, creating costs for the health system.[1,7] A complication rate of 56–65% was found with abortions that were self-induced or provided by a traditional midwife.[9] It was also estimated that only a third of women experiencing complications from unsafe abortion accessed the health system for treatment.[9] This contrasts sharply with the 0.3–1.8% minor complication rate seen in countries with unrestricted access to safe abortion.[7,13]

Barriers to obtaining a safe abortion exist at several levels in Colombia. Abortion remains highly stigmatized, and the process for obtaining a legal abortion is cumbersome,[8] and few facilities are equipped or willing to offer abortion services. Currently, only 11% of facilities eligible to offer abortion services in Colombia do so. They cite lack of equipment and infrastructure, as well as the absence of trained personnel as reasons for not providing safe abortion.[9] The majority of legal abortions currently occur in specialized private reproductive health clinics. Although technical guidance for abortion care has been issued, it is not known whether or how it has influenced practice outside the specialized reproductive health facilities. D&C is still commonly used for both legal abortion and PAC, which is thought to be due partially to lack of access to MVA equipment and training,[9] and the additional barrier of the cost of obtaining them.

Data on costs are useful in determining which services to implement when resources are scarce.[14,15] We hypothesized that the current costs to the health system of providing post-abortion care exceed the costs of offering safe abortions. In particular, the costs to the health system of offering medical abortion would provide substantial savings compared to offering only aspiration abortion. To test this hypothesis, this study compared the costs of four treatment approaches to the provision of abortion care: PAC, misoprostol-only medical abortion (MA), MVA and D&C.

Methods

A decision analysis model was developed using TreeAge Software (Williamstown, MA, USA). Decision analysis is a tool that allows stepwise comparison of probabilities and outcomes of different options, such as the choice between medical or aspiration abortion methods. In this study, we built a model to facilitate comparison of different strategies for managing first trimester abortion (Figure 1). We