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BOLIVIA

Hidden realities: What women do when they want to terminate an unwanted pregnancy in Bolivia

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ABSTRACT

Objective: To explore women's experience of unwanted pregnancy and induced abortion in Bolivia, where nearly all induced abortions are carried out in clandestine, unregulated, and unsafe conditions. *Methods:* Qualitative and quantitative research methods, including focus group discussions, in-depth interviews and a structured survey of women of reproductive age, were used to explore the experience of unwanted pregnancy and induced abortion in poor urban areas of 5 Bolivian cities. *Results:* Of the 1175 sexually experienced women surveyed, 13% reported having had an induced abortion. The methods they tried included surgical abortion, taking misoprostol, drinking herbal and chemical preparations, and inflicting physical trauma on themselves. Many women made multiple attempts before successfully terminating a pregnancy. Lack of knowledge and confusion about how to use misoprostol may have contributed to the complications that resulted in seeking postabortion care. *Conclusion:* Increased access to accurate information and counseling about abortion options are paramount if women are to make informed decisions and minimize health risks.

1. Introduction

The vast majority of women who terminate pregnancies in Bolivia do so clandestinely, thereby exposing themselves to significant legal and health risks. According to the country's 1973 penal code, abortion is permitted only in cases of rape or incest, or when the pregnancy would threaten the health or life of the woman. Despite the restrictive socio-legal environment, an estimated 80 000 induced abortions take place every year, often by unsafe methods, and often in low socio-economic peri-urban areas where the population is mostly indigenous [1]. Unsafe abortion accounts for an estimated one-quarter of all maternal deaths in Bolivia [2], whose maternal mortality ratio is among the highest in Latin America [3,4].

The clandestine conditions in which abortion takes place have made Bolivian women's experience of abortion difficult to appraise. The present study was carried out in 2010 by teams from Marie Stopes Bolivia and Centro de Información y Desarrollo de la Mujer. Its aim was to better understand the knowledge and attitudes of Bolivian women regarding abortion, their responses to an unwanted pregnancy, and what they experience when they seek to induce abortion. Its findings are drawn from data collected through interviews and focus groups with indigenous women from poor, peri-urban areas of Bolivia's 5 largest cities.

This study focuses, in part, on what Bolivian women know about misoprostol and its use for medical abortion. A shift toward favoring medical over other forms of abortion is believed to have contributed to a marked decline in mortality due to unsafe abortion in Latin America between 1990 and 2008 [5]. Misoprostol is known to induce complete abortion safely when used according to scientifically established regimens, with a reported success rate of about 85% [6].

Misoprostol is marketed for the treatment of gastric ulcers in Bolivia, but it is also registered for obstetric purposes, including postabortion care. A recent study using the "mystery client" technique investigated the availability of misoprostol from a random sample of 100 pharmacists in Bolivia, and found that 80% of all pharmacy staff offered misoprostol without a prescription [7]. Anecdotal evidence suggests that many Bolivian women are using misoprostol as an abortifacient, but often past the recommended gestational limit or with an incorrect or mistimed dosage [2]. This puts women in danger of complications and incomplete abortion.

2. Methods

The research proposal was reviewed and approved by both the WHO Research Ethics Review Committee and the Bolivian Ministry of Health's Comité de investigación Médica. The study was conducted in low-income peri-urban neighborhoods of Sucre, Santa Cruz, Cochabamba, La Paz, and El Alto where most of Bolivia's urban population resides. These 5 cities fall into 3 regions of Bolivia and are dominated by different ethnic groups: Aymara in the highlands (La Paz and El Alto), Quechua in the

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valleys (Sucre and Cochabamba), and Mestiza, Guarani, and Chiquitano in the lowlands (Santa Cruz). Field work was carried out from May 8 through December 14, 2010. Different methods were adopted to explore different aspects of women's experiences with regard to abortion.

The first methodological tool consisted of focus groups. Focus group discussions (FGDs) allowed the investigators to understand women's knowledge, attitudes, and perceptions of abortion and to inform the design of the survey questionnaire. Four FGDs were conducted in each of the 5 cities, with a total of 115 women.

The second methodological tool consisted of in-depth interviews (IDIs) with women who accessed postabortion care (PAC) for abortion complications or incomplete abortions. A total of 50 IDIs were conducted at 5 public hospitals, 1 in each city. During the study period, all eligible women who presented for PAC treatment at the selected hospitals were invited to participate unless medical staff at the facility determined that their physical and/or emotional condition made an interview inappropriate. There were no reports of women declining the interview, but in all cities several women who had agreed to be interviewed missed the appointment. Ten IDIs were conducted in each of the 5 hospitals. It was made clear to the women that the research was being carried out independently of the hospital, that the information they provided would be kept confidential, and that their participation or nonparticipation would not affect the treatment they were entitled to receive at the facility. Because of cultural sensitivities, and to ensure that the women's identity would not be revealed, the interviewers signed the informed consent form on behalf of those whose participation consent was verbal. The interviews were conducted in private, either at the facility near the time of discharge or at a convenient time and location following discharge.

The third methodological tool consisted of a community survey conducted with 1386 women aged from 15–49 years in low-income areas of the 5 cities. The sampling frame and methods were based on the 2003 Bolivia Demographic and Health Survey. Low-income neighborhoods as defined by the Census poverty maps were purposively selected. Prior to survey implementation, supervisors updated the maps and confirmed that the selected areas were still identified as low income.

It soon became apparent, from their description of events, that the study participants often spoke of having had a spontaneous abortion to avoid admitting that they intentionally ended a pregnancy. To minimize under-reporting of induced abortion—which is known to occur in surveys [8,9]—the questions about abortion were asked indirectly, in the context of unwanted pregnancy. Operational terms specific to induced abortion were first explored in the FGDs to ensure that spontaneous abortion was distinguished from induced abortion. The investigators then compared answers to related questions to confirm that spontaneous and induced abortions were kept separate in the analysis.

Frequencies and cross-tabulations of survey data were used to examine demographic and behavioral factors among the women informing on the 3 main outcomes of interest: use of contraception; experiencing an unwanted pregnancy; and experiencing an induced abortion. For qualitative data analysis, each IDI and FGD was transcribed, coded, and systematically entered into a matrix of thematic topics agreed upon prior to the investigation.

3. Results

3.1. Demographic characteristics of the respondents

The 1386 women interviewed for the survey had a median age of 28 years; about 15% had never engaged in sexual intercourse; 61% were living with their husband or other male partner; and 29% had not yet given birth to a child, 57% had 1–3 children and the remaining women had more than 3 children (Table 1). The characteristics of the survey population were similar to those of urban women as documented in the Bolivia Demographic Health Survey 2008 [10].

Table 1
Demographic characteristics of 1386 women, aged 15–49 years, surveyed in 5 cities in Bolivia, 2010.

Characteristics	%
City of residence	
Cochabamba	20.2
El Alto	19.6
La Paz	23.8
Santa Cruz	27.7
Sucre	8.7
Age, y (median, 28 y)	
15–24	35.9
25–39	45.5
40–49	18.5
Marital status	
Single/never married	27.8
Live with male partner/married	61.0
Separated/divorced/widowed	11.2
Ethnic group	
Mestiza	46.6
Quechua	21.0
Aymara	31.2
Guarani	0.8
Chiquitano	0.4
No. of living children	
None	29.0
1–3	56.5
4–6	12.7
≥7	1.8
Education level	
Never attended school	2.7
Primary	26.0
Secondary	50.9
Higher education	20.4
Ever had sexual relations	84.8

3.2. Knowledge and use of contraception

The awareness of modern contraceptive methods was relatively high, as two-thirds of the surveyed women were able to name at least 3 modern methods. Excluding those who had never had sexual relations and those who were pregnant at the time of the survey, 49% of the remaining 1076 surveyed women were currently using a modern (39%) or traditional (10%) method (the latter including folk methods as well as the calendar rhythm method and *coitus interruptus*).

The qualitative data analysis highlighted that mistrust of the safety or effectiveness of modern contraceptive methods was more commonly cited than a lack of information or access as the reason for not using these methods. Many women feared adverse effects from modern contraception, and others cited their husband's opposition to these methods. Many were also embarrassed to be seen seeking contraception and said that some providers discouraged women from obtaining or using modern methods.

3.3. Experience of unwanted pregnancy and induced abortion

Of the 1175 women in the survey who said they had ever engaged in sexual intercourse, nearly one-half (48%) said they had at least 1 unwanted pregnancy and 44% said they had more than 1 (Table 2). When asked the outcome of their most recent unwanted pregnancy, almost two-thirds (60%) said they carried the pregnancy to term without attempting abortion and 7% said that they had a spontaneous abortion. Close to one-third (31%) tried to abort the pregnancy; and although 6% failed, 1 in 4 (25%) succeeded. Twelve women (2%) did not answer the question.

Table 2
Prevalence of unwanted pregnancy and induced abortion among 1175 sexually experienced women aged 15–49 years, surveyed in 5 cities in Bolivia, 2010.

Unwanted pregnancy/induced abortion	No. (%)
Experienced *at least 1* unwanted pregnancy	566 (48.2)
Experienced *more than 1* unwanted pregnancy	511 (43.5)
Reported at least 1 induced abortion	152 (12.9)
Total	1175 (100.0)

The 152 surveyed women reporting at least 1 induced abortion made up 13% of those who had ever engaged in sexual intercourse—around 1 in every 8. At the time of their most recent induced abortion, their age ranged from 13–44 years (median, 26 years). One-third (32%) had this abortion within the 2 previous years and 20% had it 2–4 years previously, 23% 5–9 years previously, and 25% at least 10 years previously.

About one-third (n = 49) of these 152 women said they were using contraception when they became pregnant. Thirty women reported using a modern method that had failed, but the method with the most failures was the traditional rhythm method (n = 15).

3.4. Knowledge of and attitudes toward abortion

The women participating in the FGDs reported knowing of a variety of traditional and modern methods to induce abortion. The methods included surgical abortion; a variety of substances taken by mouth, such as toxic solutions, acid, *mate* and other herbal concoctions, oral contraceptives, and misoprostol; substances placed in the vagina or cervix, such as herbal preparations, chemical products, and misoprostol; intramuscular injections; foreign bodies (such as sticks or tubes) placed inside the uterus through the cervix; and physical trauma by lifting heavy weights, falling, or receiving beatings and cuts.

A large majority (86%) of the women in the survey said they knew about surgical abortion; and after they were explained how medical abortion works, 57% of them said they had heard about abortion pills (that is, misoprostol). Among the latter, most (89%) also said they knew where the pills could be obtained: 79% (n = 364) mentioned pharmacies, 16% (n = 72) mentioned the black market, and 12% (n = 56) mentioned private clinics. In both the FGDs and IDIs, however, women reported that the pills were not easy to obtain in pharmacies, saying for example that "either they do not have them" or "they do not want to sell them" (IDI). Although most medicines can be obtained without prescription in Bolivia, women said that some pharmacists ask for a gastroenterologist's prescription for misoprostol. Less than one-third (29%) of the women in the survey agreed that it was easy to find someone to help with an abortion.

The qualitative data indicate that, although more than half of the women had heard about abortion pills, few knew the name misoprostol or its brand name Cytotec (Pfizer, New York, USA), and some confused the method with emergency contraception:

> "There is also a pill, I don't know if you can call it an abortion, but you do it with emergency pills. There is a lot of discussion if it is abortion or not." (IDI)

Of the surveyed women who had heard about misoprostol, 43% said they believed it to be an effective method of abortion. There was widespread misunderstanding about what misoprostol does to the pregnancy and fear about adverse effects. In both FGDs and IDIs, women mentioned that "the secret nature of buying tablets makes you think that they aren't safe" (as phrased during an IDI). Women associated the medical abortion pill with hemorrhage and intense pain. Some were concerned that if the abortion was incomplete, there was a risk of fetal malformation. However, others said that medical abortion was less expensive, simpler to use, less intrusive, safer than surgical methods, and easier to keep secret:

> "It's not like there is a wide choice of options. The tablets seem to be the best choice; they are effective, cheap, and private. I didn't want anyone in my family to find out." (IDI)

Although three-quarters (78%) of the women believed that abortion was a sin, one-third (34%) said that if a woman was faced with an unwanted pregnancy she should seek an abortion. More than half said that the woman should continue with the pregnancy, and 10% did not know what she should do (Table 3).

3.5. Decision-making and process for obtaining an abortion

The qualitative data show that many women lack access to information, support, and counseling about abortion options. Limited knowledge does not merely impede women's ability to make informed decisions about abortion, including choosing a method of abortion. It also increases their fear of what may happen:

> "Because it is illegal, that makes people not want to give you information about where the facilities or clinics are or which doctor can do an abortion. That is a real obstacle." (IDI)

> "There is no information. It is risky, you don't know if you're going to die or live, nobody assures you that things will go well." (IDI)

> "I have never received information about these things. Not in school or university. I didn't know where to go for advice. I listened to my friends about abortion." (IDI)

The 152 women who reported at least 1 induced abortion in the survey were asked about the decision process that led to their last abortion. The decision was their own for 89 (59%) of these women; it was their partner's for 32 (21%) and a joint decision for 31 (20%). More than half (19 of 32) of those whose partner made the final decision said he

Table 3
Knowledge and attitudes regarding abortion methods and services among 1386 women, aged 15–49 years, surveyed in 5 cities in Bolivia, 2010.

Knowledge and attitudes	%
Knowledge	
Have heard about surgical abortion	86.5
Have heard about medical abortion pills	56.8
Know where can get a surgical abortion [a]	72.7
Know where can get medical abortion pills [b]	58.6
Attitude	
What a woman should do with an unwanted pregnancy	
Continue with the pregnancy	55.8
Induce an abortion	34.2
Don't know	10.0
Believe medical abortion is effective [b]	
Yes	42.7
No	27.6
Don't know	29.8
It is easy for a woman to find someone to assist with an abortion	
Agree	29.1
Neither agree nor disagree	25.3
Disagree	45.5
Abortion is expensive	
Agree	47.6
Neither agree nor disagree	42.6
Disagree	9.8
Abortion is a sin	
Agree	78.4
Neither agree nor disagree	10.2
Disagree	11.4

[a] Based on the answers of the 1196 women who had heard about surgical abortion.
[b] Based on the answers of the 787 who had heard about medical abortion.

Table 4
Methods used to induce abortion by 152 women, aged 15–49 years, surveyed in 5 cities in Bolivia, 2010.

First method			Second method			Third method	
	Number (%)	Failed (N)		Number	Failed (N)		Number
Surgical abortion	86 (56.6)	13	Surgical	11	3	Surgical	3
			Injection	2	-		
Medical abortion, oral (O)	30 (19.7)	12	Surgical	6	1	Surgical	1
			Medical abortion (O)	3	3	Surgical	2
						Injection	1
			Medical abortion (V)	2	-		
			Infusion of herbs /roots	1	1	Medical abortion (O)	1
Medical abortion, vaginal (V)	3 (2.0)	1	Injection	1	1	Surgical	1
Infusion of herbs/roots	11 (7.2)	9	Surgical	5	-		
			Fell / lifted heavy objects	3	3	Surgical	2
						Injection	1
			Other	1	-		
Injection	8 (5.3)	5	Surgical	2	-		
			Medical abortion (V)	1	-		
			Infusions of herbs /roots	2	1	Surgical	1
Fell/lifted heavy objects	7 (4.6)	5	Surgical	4	-		
			Injection	1	1	Surgical	1
Objects inserted in vagina	3 (2.0)	1	Surgical	1	-		
Other	4 (2.6)	4	Surgical	3	-		
			Other	1	1	Other	1
TOTAL	152 (100.0)	50		50	15		15

used physical violence against them because of the unwanted pregnancy. In the FGDs several women said that their partners became angry at them and violent for not preventing the pregnancy.

3.6. Methods of abortion used

The IDIs, which were conducted with women who sought PAC at public hospitals, highlighted that these women had often resorted to multiple attempts, methods, and providers before successfully terminating the pregnancy. In the survey, those who reported having undergone abortion also reported trying a wide range of methods to terminate pregnancy, often in more than 1 attempt. Table 4 shows the method used first and, if it failed, the methods subsequently tried. Although no woman mentioned trying more than 3 methods, it may be that some did.

From the answers collected from the survey, a surgical method was the first choice for more than half (57%) of the 152 women reporting on their last (or only) abortion. The qualitative reports indicated that curettage was more commonly practiced than manual vacuum aspiration. One in 5 women (20%) used misoprostol orally and 2% vaginally. More than one-fifth initially tried another method, most commonly drinking chemical solutions or infusions of herbs or roots (7%); injecting substances intramuscularly (5%) (It was not clear what was injected to induce an abortion, although 1 woman mentioned soap and water during an IDI); or inflicting physical trauma on themselves, such as falling or lifting heavy objects (5%). Three women inserted herbs or roots in their vagina or even uterus. Four reported other methods, including going to a sauna, arranging a car accident, and having a "spontaneous abortion" (the abortion was not "spontaneous," as the woman had responded earlier that she had ended the pregnancy herself; her terminology merely reflected her reluctance to admit it).

Two-thirds (n = 102) of these 152 women successfully terminated the pregnancy on their first attempt, and the 50 whose first attempt failed went on to try again. Of these, 35 succeeded on their second attempt and the remainder went on to a third attempt. In total, of all the women who reported having undergone abortion, almost 1 in 10 made at least 3 attempts to end the pregnancy.

The data in Table 4 shed some light on the types of methods that were more likely to fail. More often than not, the first attempt at abortion failed for women who drank herbs, roots, salts or other substances; deliberately incurred falls or lifted heavy objects; or had intramuscular injections. Of the 86 women who initially tried surgical abortion, 13 (15%) needed a second attempt. Of the 11 who tried surgical abortion again, 3 still remained pregnant. Of the 33 who initially tried medical abortion (misoprostol, administrated orally or vaginally), 13 (40%) reported remaining pregnant.

Of the 50 women who were interviewed after receiving PAC at public hospitals, 20 (40%) had used "abortive pills" at some point in the process of terminating their pregnancy. The misoprostol regimen and cost varied greatly. The cost ranged from less than US $10 to more than US $70. The 34 women who reported using abortion pills in the survey gave 33 different accounts of its administration and dosage.

3.7. Providers of abortion services

The main sources of abortion procedures or products were private clinics (for 58 women) and NGO clinics (for 45 women). Eleven women said they obtained their first method of abortion from a non-professional medical provider. Fewer than 10 women indicated that they got their abortion or abortifacient product from each of the following sources: a public health facility (n = 9); a pharmacy (n = 8); staff at a social-security hospital (n = 6); the black market (n = 4); and personal home treatment (n = 4). Only 2 women reported getting their method from a friend or family member, and 5 reported their provider to have been a nurse, dentist, or medical student. There may be a confounding factor to the analysis, however. Although the research team was made aware that it was possible to obtain an abortion upon request at several public health facilities, some of the women may have been treated at a PAC service for ongoing bleeding from an incomplete abortion and then reported that they received the abortion at the public facility.

Fig. 1 shows the source of abortion by method. Notably, medical abortion was mainly accessed at private clinics but was also obtained from NGO clinics, traditional providers, pharmacies, and the black market.

The women who tried medical abortion often had little knowledge about how to use the pills and received little or no explanation from their providers:

> "They gave me no information. They took me to a house and there, a lady opened my legs and inserted 6 tablets. I didn't know anything about those tablets for the vagina; I don't even know their

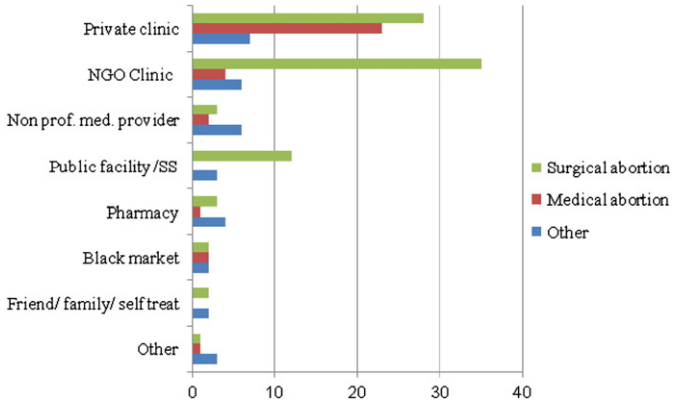

Fig. 1. Distribution of the providers who took charge of the first attempt at inducing abortion in 152 women, by abortion method (values are given as number of providers).

name. Here [at the hospital] they told me that it was too many tablets." (IDI)

3.8. Complications and postabortion care

More than one-third (38%) of the 152 women who, in the course of the survey, reported having had an abortion, said that they had a complication as a result of the first attempt at their last (or only) abortion. A complication was operationally defined as having had a fever; excessive and/or prolonged bleeding; and/or pain, infection, or an incomplete abortion for which the woman required further medical attention. The methods that caused the greatest numbers of complications were medical abortion (18 of 33 cases, which generally involved incomplete abortion), and trauma by falling or by lifting heavy objects (5 out of 7 cases).

Half of those who sought PAC treatment after the failure of their first abortion attempt were treated at a public facility, 38% at a private clinic, and 14% at an NGO facility. A small proportion went to pharmacies, black-market providers, or elsewhere.

The survey was not able to measure the severity of the health consequences experienced by the women who reported abortion complications. However, the IDIs revealed that many tried self-treatments first, and sought PAC only when they became desperate:

"I did it in my room. First, I took black coffee several times a day, then I drank some oregano *mate* and I couldn't abort. Finally I decided for the abortion pills. My friend went to the pharmacy and bought them. I took 2 orally and 2 in my vagina…Two hours later my stomach started to have cramps and my arms were very tight, and lots of blood came out with lumps. When I felt bad, I screamed. I called for help." (IDI)

Fearing legal consequences, and out of embarrassment, some women who sought PAC did not want to admit to having provoked the abortion. Rebuke by hospital staff only added to their distress:

"I told them I fell. I felt shame, there were other people there. A nurse scolded me, "Why did you do that nonsense? Now put up with it." (IDI)"

Indeed, women who received PAC treatment at public hospitals often reported that staff treated them disrespectfully, with verbal and, in one instance, physical abuse. Of the 50 women interviewed, only 8 were satisfied with the way they were treated. Two received threats that they would be reported to the police and 1 was struck on the head by a doctor as punishment for her immoral behavior.

Only 4 women in this group reported that they received satisfactory postabortion counseling about contraception. In the survey, 27 (47%) of the 58 women who received PAC treatment said they were given advice regarding contraception and 24 (41%) reported that they started using a method.

4. Discussion

In Bolivia, nearly all induced abortions are carried out in clandestine, unregulated, and often unsafe conditions. This study documents the hidden realities befalling women who terminate unwanted pregnancies.

Nearly half of the sexually experienced women interviewed reported having had at least 1 unwanted pregnancy, and one-fourth of their most recent unwanted pregnancies ended in induced abortion—most of the remainder resulting in unwanted births. In all, 13% of the women who had ever engaged in sexual intercourse reported having had an induced abortion. The true incidence of abortion is likely to be higher, as abortion is known to be underreported in countries such as Bolivia, where it is highly stigmatized [8]. Because of the social and legal restrictions imposed on pregnancy termination, many of the women felt fearful and ashamed when they sought abortion, but were also sufficiently desperate to end the pregnancy in any way they could. However, for approximately 1 in 5 of them, the abortion was her partner's choice rather than hers; and in more than half of those cases, she had experienced physical violence from her partner because of the unwanted pregnancy.

The first attempt failed for one-third of the women who reported having an abortion, but they went on to make further attempts. In addition, more than one-third of those who tried to induce abortion reported incomplete abortion or other complications that led them to seek medical care.

The women tried a range of methods to terminate their pregnancies. The most common approach was surgical and, as reported in other studies conducted in Bolivia, curettage was the most commonly used technique for incomplete abortion at PAC services in public hospitals [2,11]. Although surgical abortion was more likely than other methods to succeed in ending a pregnancy, 15% of the attempted surgical abortions failed (Table 4).

This study shows that medical abortion with misoprostol is becoming known and used in Bolivia. However, less than half of the women who had heard of medical abortion regarded it as an effective means of ending a pregnancy. Indeed, the women who tried misoprostol often had little information about how to use the drug and reported many different regimens of administration. Approximately 40% of the reported attempts at abortion with misoprostol did not end the pregnancy. High levels of confusion about the process may have contributed to the complications that led many of those who tried medical abortion to seek PAC treatment.

This study's findings point to a need for renewed and expanded advocacy efforts in Bolivia toward a revised reproductive health policy and its implementation. First, there is a need for better training and oversight of hospital staff caring for PAC patients, whose treatment must be humane and respectful and include counseling about contraception. More broadly, although government-supported sexual and reproductive health initiatives have increased the availability of family planning services in recent decades, Bolivian women seeking to use reliable methods of contraception still face social and cultural barriers. Among Latin American countries, Bolivia ranks near the bottom in its use of modern contraception, and the proportion of unintended pregnancies is higher in Bolivia than in any other country in the region [12]. The 2008 Bolivia Demographic and Health Survey reported that 20% of married women had an unmet need for family planning [10]. In the present study, about 60% of sexually experienced women were not using a modern method of contraception.

Barriers to effective contraception go beyond a lack of awareness of modern methods or a lack of access to services. Other studies have shown [13,14], and this study confirms, that many Bolivian women view modern contraceptives as bad for their health or doubt that

they are effective. Women (and their partners) often prefer traditional methods such as the rhythm method [14]. However, in the present study, about two-thirds of the women who had an unwanted pregnancy were not using any type of contraception when the pregnancy occurred. These results show that greater efforts should be made to ensure that women and men receive sound, evidence-based information about the benefits as well as risks of modern contraception. But the information should not be dispensed only when women and men come in contact with health service providers. If the negative views and misinformation that currently circulate in the poor, peri-urban areas of Bolivia are to be countered, information should also be provided through channels that reach out into the community.

Some women will always need abortions regardless of laws, religious proscriptions, and social norms. Increasing the use of modern contraception can reduce the number of unwanted pregnancies and unsafe abortions in Bolivia, but it will not entirely eliminate abortion and the problems associated with abortion because no contraceptive method is 100% effective.

This study highlights that one of the greatest problems a woman with an unwanted pregnancy faces is the lack of access to the accurate information, and sound private counseling, that would help her make informed decisions and minimize risks to her health. A risk-and-damage-reduction strategy recently implemented in Uruguay shows that it is possible to achieve important reductions in maternal morbidity and mortality from unsafe abortion, even in Latin American countries with restrictive abortion laws [15]. Such a strategy involves, among other things, a commitment to preserving women's confidentiality and to treating women with respect; providing counseling about the risks and consequences of unsafe abortion; and, for women who are determined to end the pregnancy, providing accurate information allowing for well-informed decisions, including explanations on how to use lower-risk methods, particularly the misoprostol method. Implementing such a strategy effectively in Bolivia would require the support of official policies, the active engagement of reproductive healthcare providers, and a community outreach system that would explain the program and involve local organizations. In the absence of accurate information, too many women will continue to entrust their well-being to incompetent abortion providers or risk their lives through desperate attempts to induce abortion on their own.

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Conflict of interest

The authors have no conflicts of interest to declare.

References

[1] Friedman-Rudovsky J. Abortion under siege in Latin America. TIME Magazine. Aug. 9, 2007. http://www.time.com/time/world/article/0,8599,1651307,00.html. Accessed March 24, 2011.
[2] Billings DL, Crane BB, Benson J, Solo J, Fetters T. Scaling-up a public health innovation: a comparative study of post-abortion care in Bolivia and Mexico. Soc Sci Med 2007;64(11):2210–22.
[3] World Health Organization, UNICEF, UNFPA, World Bank. Trends in maternal mortality: 1990 to 2008. Estimates developed by WHO, UNICEF, UNFPA and the World Bank. Geneva: WHO; 2010. http://www.who.int/reproductivehealth/publications/monitoring/9789241500265/en/index.html.
[4] Zulawski A. Unequal Cures: Public Health and Political Change in Bolivia, 1900-1950. Durham, NC: Duke University Press; 2007.
[5] Ahman E, Shah IH. New estimates and trends regarding unsafe abortion mortality. Int J Gynecol Obstet 2011;115(2):121–6.
[6] Blumenthal P, Clark S, Coyaji KJ, Ellertson C, Fiala C, Mazibuko T, et al. In: Bracken Hillary, editor. Providing medical abortion in low-resource settings: an introductory guidebook. New York, NY: Gynuity Health Projects; 2009. Gynuity Web site. gynuity.org/downloads/MA_guidebook_2nd_ed_en.pdf. Accessed March 24, 2011.
[7] Del Paso G, Walker D, Billings D. Misoprostol in private pharmacies in Mexico and Bolivia. Paper presented at: Global Safe Abortion Conference; October 23–24, 2007. London, UK.
[8] Huntington D, Mensch BS, Miller VC. Survey Questions for the measurement of induced abortion. Stud Fam Plann 1996;27(3):155–61.
[9] World Health Organization. Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th ed. Geneva: WHO; 2011. http://www.who.int/reproductivehealth/publications/unsafe_abortion/9789241501118/en/.
[10] Ramiro C, Ochoa LH. Encuesta Nacional de Demografía y Salud ENDSA 2008. La Paz, Bolivia: Ministerio de Salud y Deportes; 2009.
[11] Gonzales F, Laoyza M. Operations research to improve postabortion care (PAC) services in three public hospitals. The Population Council Bolivia and Pathfinder International Bolivia; 2005. Population Council Web site. http://www.popcouncil.org/pdfs/frontiers/FR_FinalReports/Bolivia_PAC.pdf. Accessed March 24, 2011.
[12] Singh S, Wulf D, Hussain R, Bankole A, Sedgh G. Abortion Worldwide: A Decade of Uneven Progress. New York: Guttmacher Institute; 2009. Guttmacher Institute Web site. http://www.guttmacher.org/pubs/Abortion-Worldwide.pdf. Accessed March 24, 2011.
[13] Schuler SR, Choque ME, Rance S. Misinformation, mistrust, and mismanagement: family planning among Bolivian market women. Stud Fam Plann 1994;25(4):211–21.
[14] Kimball NL. Navigating choice and obligation: experiences of induced abortion in highland Bolivia, 1955-2007. Paper presented at the Berkshire History of Women Conference; June 21, 2011. Amherst, MA.
[15] Gorgoroso M, Briozzo L, Stapff C, Fiol V, Leus I, Labandera A, et al. In: Gorgoroso M, editor. Being Part of the Solution: The Experience of Iniciativas Sanitarias. Montevideo, Uruguay: Compendium; 2011.