International Journal of Gynecology and Obstetrics 118 (2012) S15–S20

Contents lists available at SciVerse ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

MEXICO

Women's experiences of and perspectives on abortion at public facilities in Mexico City three years following decriminalization

Claudia Díaz Olavarrieta [a,*], Sandra G. Garcia [b], Angélica Arangure [c], Vanessa Cravioto [a], Aremis Villalobos [a], Roula AbiSamra [d], Roger Rochat [d], Davida Becker [e]

[a] Research Center for Health Population, National Institute of Public Health of Mexico, Mexico City, Mexico
[b] The Population Council, Mexico City, Mexico
[c] Mexico City Ministry of Health, Mexico City, Mexico
[d] Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, USA
[e] Institute for Health Promotion and Disease Prevention Research, University of Southern California, Los Angeles, USA

ARTICLE INFO

Keywords:
Abortion
Mexico City
Ministry of Health
Public health care

ABSTRACT

Objective: To understand the experiences of women undergoing legal first-trimester abortion through Mexico City's Ministry of Health (MOH) services. Aims included comparing satisfaction with medical and surgical abortion services; drawing evidence-based recommendations for program improvement; and measuring contraceptive uptake following abortion. *Methods:* A total of 350 women completed a 65-item survey questionnaire at 2 main MOH abortion facilities. Moreover, a subset of 20 participated in an in-depth interview. Multivariate analysis was performed to investigate satisfaction with abortion care and in-depth interview (IDI) data were analyzed. *Results:* The participants overwhelmingly reported satisfaction with the care they received, with no significant differences between the medical and surgical abortion groups. However, qualitative data revealed a need for a more sympathetic staff, reduced waiting times, more comprehensive information on surgical abortion, and counseling that includes psychosocial issues. Postabortion contraception uptake was high, with most women opting for the intrauterine device. *Conclusion:* The quantitative analysis suggests that although most women were satisfied with the services, some areas were identified as requiring improvement. The IDI data suggest that women wanted counseling to better address psychosocial needs and allow for discussion on a wider range of contraceptive methods.

1. Introduction

In April 2007, the Mexico City legislature reformed its penal code to decriminalize abortion in the first 12 weeks of pregnancy. Following this reform, the Ministry of Health (MOH) of Mexico City designated 15 Mexico City MOH hospitals [1,2] where Mexico City residents could receive free abortion care and, on a sliding scale, Mexican residents from other states and foreign nationals as well. Currently, 11 public hospitals and 2 public health centers provide abortion services [3].

In the few years since decriminalization, local public opinion supporting the right to safe abortion has increased steadily—from 38% in 2007 to 63% in 2008 and 73% in 2009 [4]. Concurrently, more than 50 000 women have obtained legal abortion care at designated MOH public facilities, with the demand growing each year (from 18 149 abortions over 18 months from April 2007 to December 2008 [5] to 16 475 in 2009 [6] and 16 945 in 2010 [7]). Private facilities also provided legal abortion during these years but the numbers are thought to be smaller [8]. To meet the need for services, providers have made misoprostol-only medical abortion (MA) and surgical abortion by manual vacuum aspiration a routine part of their practice. (The program relied on misoprostol-only MA during this period because mifepristone was not approved for use in Mexico City until 2011.) Once gestation duration, calculated from the first day of the last menstrual period, is confirmed by ultrasound, MA is offered up to 63 days of gestation unless the patient expresses a preference for the surgical method. Because the effectiveness of misoprostol decreases beyond 9 gestational weeks (or 63 days) [2], surgical abortion is offered from the 64th day to the end of the 12th week of gestation. Abortions by dilation and curettage decreased from 29% in 2007–2008 to less than 3% in 2009–2010 [1].

Mexico comprises 31 states plus the capital, Mexico City, and abortion laws, like other health laws, are determined at the state level. Currently Mexico City is the only state in the country with a legal elective abortion program. In a backlash against the decriminalization of abortion in the capital city, legislatures in 18 states have passed amendments to their respective state constitutions declaring "the sanctity of life from conception," thereby outlawing abortion even in the rare instances

* Corresponding author at: Research Center for Health Population, National Institute of Public Health, 7a Cerrada Fray Pedro de Gante #50, Seccion XVI, Mexico City, 14000, Mexico. Tel.: +52 55 56 55 52 91.
E-mail address: colavarrieta@insp.mx (C.D. Olavarrieta).

0020-7292/$ – see front matter
doi:10.1016/j.ijgo.2012.05.005

where it was previously allowed in these states [9,10]. As a result of the shrinking legality of abortion outside the capital and the growing awareness of its availability within, Mexico City's public abortion program is likely to see greater patient numbers in coming years if "latent demand" is met. Maintenance and expansion of the program should be informed by a scientific and comprehensive evaluation of its initial successes and shortcomings.

This study sought to appraise the experiences of women undergoing public abortion services at Mexico City MOH facilities, particularly their satisfaction with the care they received and their uptake of contraception following abortion. Specific aims were: (1) to compare abortion experiences among women who underwent MA and women who underwent surgical abortion; and (2) to identify protocol elements and patient needs that the MOH abortion program does and does not meet.

2. Participants and methods

Using a structured questionnaire, a survey was carried out with 350 women between February 15 and June 12, 2010. Twenty of the women participated in in-depth interviews (IDI). These participants were recruited from 2 Mexico City MOH facilities, a maternity hospital and a community health center that, together, accounted for 55% of all abortions provided in the public sector at the time of the study [6].

For the survey, project staff recruited participants at the facilities each week, on the 5 days when abortion services are provided. Those undergoing MA were interviewed on the day of their follow-up visit whereas those undergoing surgical abortion were interviewed on the day of their abortion, after recovery but before discharge. For the IDIs, the interviewer responsible for their recruitment visited each site 1 day per week. The IDI participants constituted a subset of the survey participants and also answered the structure questionnaire. After the interviews, which lasted between 90 and 120 minutes, these respondents were compensated for their time and received a stipend to cover transportation and refreshment costs. All data collection was done at the facilities. Written informed consent was obtained from all study participants.

The sample size was calculated to detect a 15% difference in satisfaction between women who experienced a surgical abortion and women who experienced MA [11–18]. It was determined that such a difference could be detected with 350 participants. There were 170 women in the MA group and 180 in the surgical abortion group. The response rate was 97.5% for the survey, and none of the 20 women approached for the IDIs (10 who had experienced MA and 10 who had experienced a surgical abortion) declined to participate.

The survey instrument included 65 items relating to socioeconomic and demographic characteristics, opinions on abortion, familiarity with misoprostol, and attempts at self-induced abortion. The women participating in the survey were also asked to report on the care they had received at the facility, including the waiting time to obtain their first appointment, the waiting time to be seen by a staff person on the day of the appointment, the topics the staff had addressed during counseling, and—depending on gestational duration—whether they had been offered a choice of abortion method. The participants were also asked about their satisfaction with the services through 5 open-ended questions about satisfaction with the services overall, and with the physical environment, their interactions with the staff, the contraceptive counseling, and counseling overall. The survey also included an open-ended question asking the participants what changes they would suggest to improve the services. Finally, they were asked what abortion method they would choose if they needed to interrupt a future pregnancy. A summary measure was created based on responses to 5 questions concerning satisfaction with the following: treatment by staff, counseling, contraceptive counseling, the physical environment, and the service overall. Very few participants reported dissatisfaction on more than 1 measure item. Responses to the 5 satisfaction questions were combined by coding respondents who answered "satisfied" to all 5 questions into one "satisfied" group, and these were compared with respondents who reported dissatisfaction on 1 or more of these questions.

The analysis first tested for bivariate associations between abortion method and participant characteristics, characteristics of the care received, and satisfaction measures using the Pearson χ^2 test. Next, bivariate logistic regression models were estimated to determine what factors were associated with satisfaction. Finally, a multiple logistic regression model was estimated to determine the individual factors associated with care satisfaction while controlling for the others. Included in this multivariate model were all variables significantly associated with the outcome at the $P<0.05$ level plus important control variables (i.e. abortion method, waiting times, and whether choice was given between methods on the basis of the gestational week) regardless of their significance level. Data from the qualitative interviews were also analyzed thematically, using a grounded theory approach [19]. The study protocol was approved by the Institutional Review board of the National Institute of Public Health of Mexico and by the WHO Research Ethics Review Committee (ERC).

3. Results

3.1. Demographic characteristics of the participants

Most participants were residents of Mexico City (Table 1). About half had a high-school education or higher. The mean age was 25.4 years. Most had at least 1 child and most reported no previous induced abortions through the MOH abortion program. Some characteristics differed in the 2 groups. Those who underwent MA had a higher education level ($P<0.01$) and were more often residents of Mexico City than those who underwent surgical abortion (81% vs 68%, $P<0.01$). The gestational duration also varied, as it was less than 9 weeks for 88% of the participants in the MA group and for 17% of those in the surgical abortion group ($P<0.001$).

Table 1
Demographic characteristics of the 350 participants by type of abortion procedure.[a]

Characteristics	Medical abortion (n = 170)	Surgical abortion (n = 180)
Age, y, (mean)	26.0	24.8
Highest education [b]		
Primary or less	7.7	14.5
Middle school	30.0	38.0
High school or technical school	47.1	43.0
University or postgraduate work	15.3	4.5
Residence [b]		
Mexico City	80.6	67.8
Other Mexican state	19.4	32.2
Marital status		
Single	47.7	57.8
Married or living with a partner	49.4	38.3
Divorced or separated	2.9	3.9
Parity		
0	40.0	38.9
1	24.7	26.7
≥2	35.3	34.4
Reported a previous induced abortion at MOH		
Yes	7.7	8.3
No	92.4	91.7
Gestation duration, wk [c]		
<9	88.2	17.2
≥9	11.8	82.8

[a] Values are given as percentage unless otherwise indicated.
[b] $P<0.01$.
[c] $P<0.001$.

3.2. Services and patient satisfaction

Once the gestational week was determined during the first visit to the clinic, and women were deemed eligible for either medical or surgical abortion, those who were to receive surgical abortions reported waiting longer to undergo the procedure (Table 2). More than one-quarter reported waiting 3 weeks or longer, compared with 6% for the participants in the MA group ($P<0.001$). Most women waited more than 1 hour before being seen by a staff person on the day of their abortion, but waiting times of less than 1 hour were more frequent in the surgical abortion group ($P<0.01$). High percentages of participants in both groups reported receiving information on what to do in case of an emergency, on the follow-up process, and on the pros and cons of the 2 abortion methods. The participants who underwent surgical abortion were also less likely than their MA counterparts to report that the staff gave sufficient information about the procedure (87% vs 94%, $P<0.05$). Relatively few women in either abortion group (29% in the medical and 24% in the surgical group) reported that they were offered to choose an abortion method at the time when gestational age was determined.

Satisfaction with the services was high. In both groups, more than 93% of the participants reported that they would return to the MOH services if they needed to interrupt a future pregnancy. On the composite measure, approximately 82% of the participants in each group were satisfied with all 5 aspects of their care. The study also inquired about satisfaction regarding the abortion methods. When asked which method they would choose if the need arose again, the participants tended to prefer the method they had just experienced ($P<0.001$). Whereas 56% of those who had received MA said they would select the same method again, 7% said they would select a surgical procedure and 38% were unsure. And whereas 48% of those who had received a surgical abortion said they would select the same method again, 29% said they would select MA and 23% were unsure.

Table 2
Services characteristics and satisfaction of the 350 participants undergoing medical (MA) or surgical abortion.[a]

Characteristics	Medical abortion (n = 170)	Surgical abortion (n = 180)
Waiting times		
Between making first appointment and receiving care, wk [b]		
≤2	94.1	74.3
≥3 [c]	5.9	25.7
At the facility before being seen by a staff person, h [d]		
≤1	19.4	35.6
>1	80.1	64.4
Information and counseling by staff		
Explained what to do in a case of emergency	98.8	95.6
Explained the process for follow-up care	97.6	96.1
Discussed the pros and cons of the surgical method	82.3	89.4
Discussed the pros and cons of the medical method [e]	96.7	90.3
Gave sufficient information about the abortion procedure [f]	93.5	87.2
There was an opportunity to choose between medical and surgical abortion	28.9 [e]	24.1
Areas of satisfaction		
Physical environment	95.9	95.6
Staff treatment	93.5	94.4
Counseling	95.3	94.4
Contraceptive counseling	98.8	95.6
Service overall	98.8	95.6
The participant would select the same abortion method if she were to interrupt a future pregnancy [b]		
Medical abortion	55.9	28.7
Surgical abortion	6.5	48.3
Don't know	37.7	23.0
The participant would return to the MOH service if she needed to interrupt a future pregnancy	95.9	93.9
Composite measure of satisfaction with abortion care [g]		
Satisfied	82.3	82.2

[a] Values are given as percentage.
[b] $P<0.001$.
[c] Of the 56 women in this category, 80% had more than 9 weeks of gestation when they first sought abortion services.
[d] $P<0.01$.
[e] The respondents were only eligible women up to 9 weeks of gestation (or 63 days).
[f] $P<0.05$.
[g] This measure was created based on responses to 5 questions inquiring about satisfaction with the following: staff treatment, overall counseling, contraceptive counseling, physical environment, and service overall. Respondents who reported dissatisfaction to 1 or more of these questions were coded as reporting dissatisfaction.

3.3. Factors associated with satisfaction

Table 3 shows the variables significantly associated with service satisfaction in the multivariate analysis. The women who underwent a surgical abortion and had the opportunity to discuss the method's pros and cons with the staff were more likely to be satisfied than those who had not had this opportunity (OR 4.06; $P<0.01$). Those who felt the staff had provided sufficient overall information about the procedure were also more likely to be satisfied with the services than those who felt the information had been insufficient (OR 4.3;

Table 3
Odds ratios from multiple logistic regression model showing factors associated with satisfaction with abortion care.[a]

Factor analyzed	Odds Ratio (95% Confidence Interval) (n = 304)
Staff gave sufficient information about the abortion procedure	
Yes	4.26 (1.74–10.39) [b]
No (ref.)	1.00
Staff discussed the pros and cons of the surgical method	
Yes	4.06 (1.80–9.16) [b]
No (ref.)	1.00
The patient was given a choice between abortion methods	
Yes	2.28 (0.96–5.43)
No (ref.)	1.00
Waiting time between making first appointment and receiving care, wk	
≤2	1.61 (0.67–3.91)
≥3 (ref.)	1.00
Staff discussed the pros and cons of the medical abortion method	
Yes	1.11 (0.40–3.08)
No (ref.)	1.00
Type of abortion procedure	
Medical	0.85 (0.41–1.76)
Surgical (ref.)	1.00
Sociodemographic characteristic	
Age, y	1.06 (1.00–1.12) [c]
Highest education level	
High school/technical school or above	0.46 (0.23–0.91) [c]
Middle school or less (ref.)	1.00

[a] This measure was created based on responses to 5 questions inquiring about satisfaction with the following: staff treatment, overall counseling, contraceptive counseling, the physical environment, and the service overall. Respondents who reported dissatisfaction to 1 or more of these questions were coded as reporting dissatisfaction.
[b] $P<0.01$.
[c] $P<0.05$.

$P<0.01$). Finally, age was positively (OR 1.06, $P<0.05$) and education was negatively associated with satisfaction. The women with a high-school education or more were less satisfied than those with a middle-school education or less (OR 0.46; $P<0.05$). It is worth noting that satisfaction did not vary by abortion method.

In response to the open-ended survey question, the most frequent suggestions for service improvement was to reduce the waiting times before, during, and between appointments. Other recommendations included increasing staff and staggering appointments rather than scheduling them all at the same time. Because of the great numbers of women seeking abortion, the respondents generally reported receiving information on the abortion procedure in groups. As an interviewee explained:

> "They sent us all in together, 17 of us, they saw us all in the same room." (Surgical abortion at 12 weeks' gestation, maternity hospital)

Some IDI respondents said that they felt staff could do more to make women feel welcome and comfortable. This point was also mentioned in response to the open-ended survey questions. Several respondents commented on judgmental staff attitudes, particularly from the security guards, receptionists, and physicians. The interviewers observed security guards behaving rudely with patients and their companions, scolding women for sitting on the floor, for instance, even though the seating space was insufficient. They also observed poor treatment of patients by some administrative staff. On the other hand, the interviewers noted that medical and nursing staff acted in a supportive and empathetic manner when providing information and services on abortion method according to gestation duration; and that these staff discussed not only the family planning methods available at the facility but, if a woman requested another method, where she could obtain it.

Some IDI respondents also indicated that counseling was chiefly focused on technical aspects of the abortion procedure and on informed consent. They felt insufficient attention was paid to psychosocial issues, such as feelings about the unintended pregnancy, the decision of interrupting the pregnancy, and the moral dilemma surrounding abortion in a mostly Catholic country. Most participants reported receiving helpful and compassionate care on the part of counselors, nurses, and physicians. However, some of the most difficult interactions reported were with the first persons encountered at the facility, the security guards and receptionists who should have been welcoming and supportive. At the same time, some IDI respondents reported supportive interactions with the staff. For example, a 37-year-old married mother of 3 who had undergone MA at the hospital facility recalled that, in the course of the group counseling session, a nurse strongly and warmly reassured the women:

> "Somewhere they might tell us that we would be punished by God but no, God sees us all and cares for us all, if we felt that now is not the time to be mothers then everyone here would respect us, no one was going to expose or speak ill of us, that all our information was confidential, that this is legal and women have a lot of support and help just as long as we made the decision, even if we had a partner…. And from there we went to do the whole thing, everything was legal, everything was within the law, we weren't doing anything wrong, and that she wished us lots of luck."

While some respondents wanted greater support from the staff, many also held the view that providers should try to ensure that women do not take the abortion decision "too lightly." Although there were few reports of a previous elective abortion through the MOH legal abortion program, the respondents were concerned about the problem of repeated abortions, and wondered if women accessed abortion "too easily." They worried about the possible ill effects of multiple abortions on physical and mental health, and also about the ethical issues arising from multiple abortions. A 20-year-old university student who had just received MA services at the health-center facility expressed this in the following way:

> "I mean, maybe you can't just say, OK, you can only have an abortion 2 times, or 3 times, but maybe try to see what is it that's going on, if it's just because of irresponsibility like, I get pregnant, I abort it, I get pregnant, I abort it."

3.4. Postabortion contraception services and contraceptive method uptake

Nearly all (95%) of the survey respondents reported satisfaction with contraceptive counseling. The Mexico City abortion program provides postabortion contraception free of charge to all women who request it. Women are offered counseling on family planning and contraceptive methods are provided by social workers at the facilities (except for intrauterine device [IUD] insertion and tubal ligation, which are performed by physicians). However, when IDI respondents were asked about the contraceptive services they received, some issues emerged. First, contraceptive counseling tended to focus on a small number of methods favored by the providers (the most favored being the IUD) or available at the clinic or hospital. Thus, choice was limited to what was obtainable at the facility, which could vary by the day depending on the supply. Second, the providers sometimes gave only cursory information about contraceptives other than those available. For example, one woman said:

> "I mean, if you asked, if you told the doctor that you wanted some method he explained it to you…but other than that no, no one explained anything about contraceptive methods."

Data on the selected contraceptive methods are shown in Table 4. The IUD was the most commonly selected method following abortion but its uptake was higher in the surgical abortion group (71%) than in the MA group (55%, $P<0.01$). Other commonly selected methods were an injectable contraceptive and oral contraceptive pills. Few women selected the withdrawal method or no method at all.

4. Discussion

Although nearly all survey respondents reported satisfaction with the care they received, integrating quantitative and qualitative data revealed room for improvement in the MOH abortion program. Training should ensure that all staff, including administrative staff such as security guards and receptionists, be nonjudgmental and respectful. Staff and workflow should also be organized to minimize delays in care. Further, after receiving standard information about both abortion methods,

Table 4
Contraceptive method selected by the 350 participants after the abortion, by procedure type.[a]

Method	Medical abortion [b] (n = 170)	Surgical abortion [b] (n = 180)
Intrauterine device [c]	54.7	70.6
Injectable	21.2	13.3
Pills	15.9	9.4
Male condom	3.5	1.7
Implant	2.4	0.6
Patch	1.8	2.2
Withdrawal	1.2	0.0
Male or female sterilization	1.2	0.6
Vaginal ring	0.6	0.6
None	2.9	3.3

[a] Values are given as percentage.
[b] The sum exceeds 100% because some participants chose more than 1 method.
[c] $P<0.01$.

women should be given the opportunity to choose between the two when the gestation duration is less than 64 days. Counselors are generally very attentive to providing the procedure information necessary for the patient's informed consent, but psychosocial issues should be addressed as well. Finally, efforts must be made at multiple levels (e.g. at the counseling, pharmacy, and inventory levels) so that a full range of methods are readily available for postabortion contraception, and all patients receive adequate information about all available methods. These needs might not have been uncovered in a quantitative-only study such as a satisfaction survey.

It was found that older and less-educated respondents were more likely than others to report satisfaction. As it is unlikely that these women received a care of higher quality than others, they may have had lower expectations or felt uncomfortable expressing dissatisfaction. In another study on users of the MOH program, women with a primary education or less were more likely to report difficulty in securing appointments and making arrangements to keep their appointments [20]. In-depth interviews may shed light on aspects of women's experiences that satisfaction surveys sometimes miss. It is recommended that program evaluators use a mixed-methods research approach, involving both survey research and qualitative methods, to obtain a robust view on areas where improvement is needed.

According to the MOH legal abortion guidelines, women with pregnancies of up to 9 weeks' gestation (or 63 days) from the first day of the last menstruation—with the gestation duration confirmed by a routine ultrasound during the first visit to the clinic—are eligible for an abortion induced by a misoprostol-only regimen [2]. Considering the high demand for the free public abortion services, women should be given the choice between the 2 methods whenever possible. And yet, most respondents said they were not given the opportunity to decide. Not enough data are available to determine whether these women were eligible for MA and deprived of a legitimate choice, or whether they were past the gestational limit for MA and actually had no choice. Nevertheless, the multivariate analysis showed that those who reported choosing their abortion method were no more satisfied than others with the care they received. Furthermore, regardless of the method used, most participants indicated that they would choose the same method again. In agreement with other studies [11–18], the misoprostol-only regimen and the surgical aspiration method appeared to be widely acceptable to the participants. Of note, more women who received surgical abortion reported that they would opt for MA in the future than the other way around. This may reflect a preference for medical methods, but this preference may also reflect a preference for an early abortion. The type of abortion procedure women receive through the Mexico City MOH legal abortion program is heavily influenced by gestation duration, as outlined in the current law.

Counseling was attentive to giving information about the abortion process and obtaining informed consent, but it overlooked the patients' psychosocial needs. The participants would appreciate an end to stigmatizing antiabortion remarks. Moreover, many of the open-ended answers to questionnaire items and interview responses cited the drawn-out process leading to the abortion—from the first visit to the clinic, when gestation duration is determined by ultrasound, to scheduling and finally undergoing the procedure—as a major area for improvement (obviously, the Mexico City MOH legal abortion program is overstretched, understaffed, and underbudgeted). The long waiting times before scheduled appointments may have caused some participants to miss the 9-week limit for the choice of methods. Although official MOH guidelines (CIRCULAR/GDF-SSDF/01/06) [21] state that "the administrative procedures necessary for the procedure of legal abortion must be performed […] in a maximum of forty-eight hours […]," some women face longer waiting times because of staff and physician shortages. The Mexico City MOH program is the country's only public resource for abortion services, and at the time data were collected for this survey, the program faced a serious scarcity of personnel due to conscientious objection.

Postabortion contraception uptake was high. Nearly two-thirds chose the IUD as their method of contraception and 17% chose injectable products. This high uptake may reflect the success of contraceptive counseling in informing patients about highly effective birth control, including long-acting methods. However, contraceptive counseling should fully inform women about all options and respect their ability to choose the best method for themselves. The contraceptive services must also be regularly resupplied with a variety of products. The difference in the percentage of women receiving an IUD after a surgical (71%) or a medical (55%) abortion may be due to the comparative ease of inserting an IUD immediately after aspiration, when the cervix is already dilated. In the MA group, the participants desiring an IUD needed to return for dilation and insertion.

The study has some limitations. The timing of the recruitment may have had an impact on the findings. The participants who underwent MA were recruited at their follow-up visit, typically 2 weeks after their initial visit, whereas those who interrupted their pregnancy surgically were recruited 4 to 6 hours after the procedure. Further, this study is limited in scope by its design, and its findings apply only to the population initially described: women who underwent a legal, first-trimester abortion at one of Mexico City's designated public facilities. Although the study was conducted at just 2 sites, the demographic characteristics of the participants (i.e. residency, marital status, education, and age) were similar to those reported in the registry concerning the women who have used the Mexico City legal abortion program since 2007 [1]. Nevertheless, the results may not be generalizable to women seeking abortions in the private sector [22].

Overall, the study reveals high levels of patient satisfaction with the services provided in Mexico City's newly created legal abortion program. While there are areas for improvement, the vast majority of women reported being counseled on important aspects of care, and informed on the abortion procedure, on what to do in case of emergency, and on the follow-up process. Furthermore, the uptake of contraceptive methods was high, suggesting that these abortion services are helping women who have decided to avoid further unintended pregnancies. Continued research on and evaluation of the MOH abortion services is needed to document the effects of abortion policy reform on women's health and well-being. Continued research and evaluation are also needed to better understand the factors that are critical for successful program implementation, so that the MOH program can serve as a model for other programs at the regional and country levels.

Acknowledgments

The study was supported by the Special Programme in Human Reproduction of the World Health Organization, Geneva, Switzerland.

Conflict of interest

The authors have no conflicts of interest to declare.

References

[1] Mondragón y Kalb M, Ahued Ortega A, Morales Velazquez J, Díaz Olavarrieta C, Valencia Rodríguez J, Becker D, et al. Patient characteristics and service trends following abortion legalization in Mexico City. Stud Fam Plann 2011;42(3):159–66.
[2] Secretaría de Salud del Distrito Federal [Mexico's Federal District (DF) Ministry of Health]. Manual de procedimientos para la interrupción legal del embarazo en las unidades médicas (Procedure Manual for Legal Pregnancy Termination at Medical Facilities). Mexico City, Mexico: SSDF; 2008.
[3] Secretaria de Salud del Gobierno del Distrito Federal. Centros de Salud y Hospitales donde se da el servicio de interrupción legal del embarazo (Health centers and hospitals where legal abortion services are provided). SSDF Web site. http://www.usalo.df.gob.mx/index.php?option=com_content&view=article&id=302&Itemid=163. Accessed March 26, 2012.
[4] Wilson KS, Garcia SG, Diaz Olavarrieta C, Villalobos Hernández A, Valencia Rodríguez J, Sanhueza Smith P, et al. Public Opinion on Abortion in Mexico City after the Landmark Reform. Stud Fam Plann 2011;42(3):175–82.

[5] Secretaria de Salud del Gobierno del Distrito Federal. Agenda estadística (Statistical agenda). SSDF Web site. http://www.salud.df.gob.mx/ssdf/media/Agenda2008/ 2008. Accessed March 26, 2012.
[6] Secretaria de Salud del Gobierno del Distrito Federal. Agenda Estadística (Statistical agenda). SSDF Web site. http://www.salud.df.gob.mx/ssdf/media/Agenda_2009/index.html. 2009 Accessed March 26, 2012.
[7] Secretaria de Salud del Gobierno del Distrito Federal. Agenda Estadística (Statistical agenda). SSDF Web site. http://www.salud.df.gob.mx/ssdf/info_salud/Pagina%20Web%20Agenda%20Estad%C3%ADstica%202010/inicio.html. 2010 Accessed March 26, 2012.
[8] Gomez N. Realizan abortos legales sin regulación (Performing legal abortions without regulation). El Universal. http://www.eluniversal.com.mx/notas/742814.html. February 6 2011. Accessed March 26, 2012.
[9] Valencia Rodriguez J, Wilson KS, Díaz Olavarrieta C, Garcia SG, Sanchez Fuentes ML. Public opinion on abortion in eight Mexican states amid opposition to legalization. Stud Fam Plann 2011;42(3):191–8.
[10] Grupo de Información en Reproducción Elegida [Information Group on Reproductive Choice]. El aborto en los códigos penales de las entidades federativas (Abortion in the Penal Codes of the Federal States). Updated April 2011. GIRE Web site. http://www.gire.org.mx/contenido.php?informacion=31. Accessed March 26, 2012.
[11] Bique C, Usta M, Debora B, Chong E, Westheimer E, Winikoff B. Comparison of misoprostol and manual vacuum aspiration for the treatment of incomplete abortion. Int J Gynecol Obstet 2007;98(3):222–6.
[12] Dao B, Blum J, Thieba B, Raghavan S, Ouedraego M, Lankoande J, et al. Is misoprostol a safe, effective and acceptable alternative to manual vacuum aspiration for post-abortion care? Results from a randomised trial in Burkina Faso, West Africa. BJOG 2007;114(11):1368–75.
[13] Shwekerela B, Kalumuna R, Kipingili R, Mashaka N, Westheimer E, Clark W, et al. Misoprostol for treatment of incomplete abortion at the regional hospital level: Results from Tanzania. BJOG 2007;114(11):1363–7.
[14] Prasad S, Kumar A, Divya A. Early termination of pregnancy by single-dose 800 mcg misoprostol compared with surgical evacuation. Fertil Steril 2009;91(1):28–31.
[15] Ashok PW, Kidd A, Flett GM, Fitzmaurice A, Graham W, Templeton A. A randomized comparison of medical abortion and surgical vacuum aspiration at 10-13 weeks gestation. Hum Reprod 2002;17(1):92–8.
[16] Henshaw RC, Naji SA, Russell IT, Templeton AA. Comparison of medical abortion with surgical vacuum aspiration: women's preferences and acceptability of treatment. BMJ 1993;307(6906):714–7.
[17] Henshaw RC, Naji SA, Russell IT, Templeton AA. Psychological responses following medical abortion (using mifepristone and gemeprost) and surgical vacuum aspiration. Acta Obstet Gynecol Scand 1994;73(10):812–8.
[18] Creinin MD. Randomized comparison of efficacy, acceptability and cost of medical versus surgical abortion. Contraception 2000;62(3):117–24.
[19] Glaser BG, Strauss AL. The discovery of Grounded Theory: Strategies for Qualitative Research. New York, NY: Aldine de Gruyter; 1967. p. 21–43. Chapter 2.
[20] Becker D, Diaz-Olavarrieta C, Juarez C, Garcia SG, Sanhueza Smith P, Harper C. Sociodemographic factors associated with obstacles to abortion care: findings from a survey of abortion patients in Mexico City. Womens Health Issues 2011;21(3S):S16–20.
[21] Acuerdo que reforma, adiciona y deroga diversos puntos de la circular/GDF-SSDF/01/06 que contiene los lineamientos generales de organización y operación de los servicios de salud relacionados con la ILE [Agreement that amends, introduces and deletes several items to the GDF-SSDF circular containing the general guidelines on the organization and operation of health services associated with Legal Interruption of Pregnancy]. Gaceta Oficial del Distrito Federal [Official Gazette of the Federal District]. Mexico City, May 4, 2007. http://www.inmujer.df.gob.mx/wb/inmujeres/acuerdo_que_reforma_adiciona_y_deroga_diversos_pun. Accessed March 26, 2012.
[22] Schiavon R, Collado ME, Troncoso E, Soto Sanchez JE, Otero Zorrilla G, Palermo T. Characteristics of private abortion services in Mexico City after legalization. Reprod Health Matters 2010;18(36):127–35.