

# Public Opinion on Abortion in Mexico City after the Landmark Reform

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*This article presents findings from three opinion surveys conducted among representative samples of Mexico City residents: the first one immediately prior to the groundbreaking legalization of first-trimester abortion in April 2007, and one and two years after the reform. Bivariate and multivariate analyses were performed to assess changes in opinion concerning abortion and correlates of favorable opinion following reform. In 2009 a clear majority (74 percent) of respondents were in support of the Mexico City law allowing for elective first-trimester abortion, compared with 63 percent in 2008 and 38 percent in 2007. A significant increase in support for extending the law to the rest of Mexico was found: from 51 percent in 2007 to 70 percent in 2008 and 83 percent in 2009. In 2008 the significant independent correlates of support for the Mexico City law were education, infrequent religious service attendance, sex (being male), and political party affiliation; in 2009 they were education beyond high school, infrequent religious service attendance, and ever having been married. (STUDIES IN FAMILY PLANNING 2011; 42[3]: 175–182)*

The Mexico City Legislative Assembly's decision on 24 April 2007 to legalize elective first-trimester abortion was a landmark reproductive rights reform, one that echoed throughout the region (Sánchez Fuentes et al. 2008). The law, one of the most progressive in Latin America, stipulates that Ministry of Health public hospitals and clinics in Mexico City must provide first-trimester abortion services to city residents at no cost and offer the same services to women from outside the capital for a modest fee. As of May 2010, more than 41,000 women have received legal abortion services through this program. The Mexico City law and the subsequent Supreme Court decision in August 2008 upholding its constitutionality, however, have generated a strong conservative reaction in the rest

of the country. As of 2009, 17 of Mexico's 31 states have modified their constitutions to define life as beginning at conception, aiming to prohibit abortion in all cases, even where it was previously legal (GIRE 2010). These constitutional modifications have restricted women's access to legal abortion outside the capital and undoubtedly will hamper the federal government's commitment to reducing maternal mortality in Mexico in accordance with Millennium Development Goal number five.

Unsafe abortion is the fifth leading cause of maternal mortality in Mexico (CONAPO 2000; WHO 2006). In 2006 alone, an estimated 150,000 women were treated in Mexican public hospitals for complications resulting from induced abortion (Juarez et al. 2008). Furthermore, a recent study that analyzed data from the 2006 Mexican National Demographic Survey found a significant association between unsafe abortion and lower socioeconomic status, less education, and indigenous origin (Sousa, Lozano, and Gakidou 2009).

Mexico City has been in the international spotlight as a model for progressive sexual and reproductive health legislation and programs since the passage of the 2007 law. Amid the ever-changing sociopolitical and legal context of abortion and women's rights in Mexico, understanding the public's view about this charged topic is vital.

Public opinion has played an important role in Mexican politics since 2000, especially after the passage of

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the 2007 abortion law (Lamas and Bissell 2000; García, Lara, and Goldman 2003; García et al. 2004; Yam, Dries-Daffner, and García 2006; Sánchez Fuentes et al. 2008). Decisionmakers have relied increasingly on research regarding constituents' opinions to inform new legislation, especially concerning sensitive topics like abortion (Yam, Dries-Daffner, and García 2006). Legislators used results from the 2000 national public opinion survey, for example, to inform the debates prior to the passage of the Mexico City law, and Supreme Court justices considered findings from the 2007 and 2008 Mexico City public opinion surveys during deliberations over the law's constitutionality.

Public opinion surveys also help to clarify—and in some cases to correct—prevailing assumptions, such as the belief that in a Catholic-majority country like Mexico most people would oppose legal abortion. Previous studies demonstrated, however, that the lay public in Mexico and elsewhere in the region is generally in support of legal abortion under certain circumstances (García et al. 2004; Martin, Hyacenth, and Suite 2005; Yam, Dries-Daffner, and García 2006). Public opinion surveys concerning abortion using nationally representative samples in Mexico, in 2000 and 2006, demonstrated that majorities in both years were in favor of abortion in extreme circumstances such as a threat to the woman's life (81 percent, 72 percent), a threat to her health (75 percent, 67 percent), and rape (64 percent, 68 percent), as opposed to when a woman is having financial difficulties (20 percent, 13 percent) or whenever the woman decides (10 percent, 14 percent) (García et al. 2004; García 2007). Thus, public opinion research in legally restricted or recently liberalized settings should strive to capture the wide range of opinions about abortion.

Previous research concerning abortion opinion, mostly from the US, has shown that characteristics correlated with support for abortion rights include higher levels of education, living in an urban environment, higher income, lack of religious affiliation, and believing in the acceptability of premarital sex (Jelen, Damore, and Lamatsch 2002; Strickler and Danigelis 2002; Bolzendahl and Myers 2004). Characteristics associated with less support for abortion include more frequent attendance of religious services and large ideal family size (Bumpass 1997; Strickler and Danigelis 2002; Bolzendahl and Myers 2004; Wang and Buffalo 2004; Hoffman and Mills Johnson 2005). Gender as a factor in abortion opinion is mixed and appears to depend on employment, marital status, and other factors (Bumpass 1997; Bolks et al. 2000; Strickler and Danigelis 2002). A national abortion opinion survey conducted in Mexico in 2000 revealed that men held a more favorable opinion of legal abortion than women under some circumstances, after controlling for sociodemographic factors (García et al. 2004). Conversely, an unpublished national survey among

Mexican Catholics found no significant associations between gender and abortion opinion (García et al. 2010). An earlier study conducted in the US found that men were more supportive of abortion rights than women, but the effect was reversed after controlling for marital and employment status (Hertel and Russell 1999).

This study compares public opinion about abortion and abortion laws among Mexico City residents in 2007 (pre-reform) with opinion one and two years following reform (2008 and 2009) and examines correlates of favorable abortion opinion following reform. Findings from this study will be useful for informing policy and advocacy and for improving service delivery.

## Methods

We contracted survey research firms to conduct three quantitative public opinion surveys with household probability samples of Mexico City residents aged 18 and older in mid-April 2007 (margin of error  $\pm 3.9$ , 95 percent confidence), mid-April 2008 (margin of error  $\pm 3.5$ , 95 percent confidence), and May 2009 (margin of error  $\pm 3.5$ , 95 percent confidence). Participants were identified using multistage cluster sampling. The most recent national census data (from 2005) collected by the National Institute of Geography, Statistics, and Informatics, was used to select a random sample of neighborhood units. A random sample of households was then selected, and after identifying all residents in a particular household, one member was randomly chosen who met the inclusion criteria to participate in the survey.

The pilot-tested survey contained questions about knowledge of existing abortion laws and general opinions concerning abortion, such as when it should be legal and who should make the final decision about an unwanted pregnancy, as well as sociodemographic information. After obtaining standard written informed consent, trained interviewers conducted the face-to-face surveys, which took approximately one hour to complete. All of the questions were identical on all surveys with two exceptions: the 2007 survey described the legal reform as "proposed," whereas the two later surveys referred to "the new law," and several questions were added in 2009 regarding the August 2008 Supreme Court decision and perceived access to the Ministry of Health's legal abortion program. All participants were asked whether they had heard of the Mexico City law, and their responses were used in subsequent analysis of knowledge of the law. Next they were provided with a standard definition of the law, identical for all three years, before being asked their opinion. Each survey consisted of an independent

probability sample, and no individuals participated more than once. No identifying information was collected. This study complied with the requirements of the Population Council's Institutional Review Board.

All survey data were entered into SPSS version 14.0 for analysis. The SPSS Complex Samples program was used to account for the variance resulting from cluster sampling each year. We performed descriptive and bivariate analysis on all three data sets and tested significant associations between sociodemographic and select abortion knowledge and opinion variables using chi square tests ( $\alpha = 0.05$ ) and 95 percent confidence intervals. The abortion knowledge variable of interest was knowledge of the Mexico City law. In 2007 the question was, "Did you know that there is an initiative in Mexico City that, if approved, would permit elective abortion in the first 12 weeks of gestation?" In 2008 and 2009 the question was worded, "Have you heard of the new law in Mexico City that permits elective abortion in the first 12 weeks of gestation?" The abortion opinion variable of interest was agreement with the Mexico City law: the question was, "Do you agree or disagree with the (proposed) Mexico City abortion law? Mostly or somewhat?" For the bivariate and multivariate regression analyses, we combined the response options "mostly agree" and "somewhat agree" as well as "mostly disagree" and "somewhat disagree." In the multivariate analysis, we compared the two post-reform surveys (2008 and 2009) to assess changes in knowledge and opinion of the law that had been passed. We excluded the pre-reform survey because it could probe only knowledge and opinion about a hypothetical situation ("If this law were to pass...").

We developed three logistic regression models for each post-reform data set, two of which are presented in this study. The bivariate outcomes included knowledge of the Mexico City law ("yes" or "no") and opinion of the law. We tested a third model with a bivariate outcome—"Do you agree or disagree with the extension of the Mexico City law to other states in Mexico?"—but we determined that it did not add to our understanding of abortion opinion among Mexico City residents. (The results of the testing of the third model are available upon request.)

We ran these models with responses of "don't know" and "no response" to the question about knowledge of the Mexico City law included, and tested the models without those cases (fewer than 20 in both 2008 and 2009). We observed no significant differences in the adjusted odds ratios between models; thus, our final models excluded cases reporting "don't know" or "no response." In each model, we included the following covariates: age (categorical), marital status, education, sex, employment status, frequency of religious service attendance

(categorical), and political party affiliation. Political affiliations included the three dominant parties in Mexico: Partido Acción Nacional (PAN), the conservative party of current president Felipe Calderón that is opposed to legalization; Partido Revolucionario Institucional (PRI), a moderate-conservative party that has major support in several states and a mixed voting record on abortion legislation; and the left-leaning Partido de la Revolución Democrática (PRD), which led the Mexico City reform and is the party of the current Mexico City governor.

## Results

Participants in the 2007 pre-reform survey totaled 672; in the 2008 survey, 917; and in the 2009 survey, 939. The samples were similar in most of the sociodemographic characteristics measured (see Table 1).

**Table 1** Percentage distribution of abortion opinion survey respondents, by selected demographic characteristics, according to year of survey, Mexico City, 2007–09

Characteristic	Survey		
	2007	2008	2009
Age			
18–24	22.0	17.7	16.9
25–34	23.3	25.1	20.7
35–49	31.6	31.2	25.8
50+	23.1	25.9	36.7*
Current marital status			
Divorced, separated, or widowed	9.3	10.8	12.7
Married/in union	63.0	63.3	57.7
Single	27.8	25.9	29.6
Education			
Secondary complete or less	48.8	54.9	49.6
Partial or complete high school	31.7	28.5	26.8
Partial or complete college	19.5	16.6	23.6
Sex			
Male	41.7	47.2	45.5
Female	58.3	52.8	54.5
Employment status			
Unemployed	5.2	6.1	7.7
Housewife	33.8	28.5	26.6
Student	9.4	5.7	7.0
Retired	7.2	6.3	5.2
Currently working	44.4	53.5	53.4
Religious service attendance			
Almost never or never	39.3	43.7	48.1
Once per month	18.0	15.1	15.1
Frequently	42.7	41.2	36.8
Political party affiliation			
Partido Acción Nacional	15.5	11.3	12.0
Partido Revolucionario Institucional	7.1	9.7	5.1
Partido de la Revolución Democrática	27.4	24.0	18.3
Other	3.6	1.6	2.1
None	46.4	53.3	62.5
(N)	(672)	(917)	(939)

\*Difference compared with 2007 significant at  $p < 0.05$ .

The majority of respondents from all three surveys were aware of proposed/existing abortion laws in Mexico City (see Table 2). The proportion with such knowledge increased significantly between the time immediately preceding the reform (73 percent) and two years later (86 percent). Among pre-reform participants, only 38 percent were in favor of the proposed Mexico City law; 53 percent opposed it and 9 percent had no opinion. Favorable opinion about the law rose significantly, increasing to 63 percent in 2008 and 74 percent in 2009. A parallel decline was found among those opposed to the law, from 26 percent in 2008 to 21 percent in 2009. The Mexican Supreme Court decision on 28 August 2008 to uphold the constitutionality of the Mexico City law and prevent future anti-constitutionality claims by conservative groups was favored by 83 percent in 2009 (not shown).

Consistently high support for other aspects of the abortion reform was evident all three years. From 2008 to 2009, significant increases occurred in support for improving access to reproductive health services (from 86 percent to 97 percent) and for expanding sexuality education in the capital (from 87 percent to 96 percent). Compared with the previous years, in 2009 the percentage of respondents who thought that a woman alone should make the final decision increased to the majority (51 percent), though this increase was not statistically significant. The majority of respondents in 2007 (76 percent) and the vast majority in 2009 (91 percent) agreed that the decision should lie either with the woman or with the woman and her partner. Majorities in all three years (53 percent, 60 percent, and 67 percent) agreed that legislators, when voting on abortion laws, should consider the woman's perspective most, compared with the perspectives of society, political party, or the legislator's own religious beliefs.

Although the majority in 2007 (51 percent) already thought abortion reform should be extended to the rest of Mexico, favorable opinion increased significantly to 70 percent in 2008 and to 83 percent in 2009. Similarly, the proportion of respondents in 2009 (73 percent) who agreed that women from other states should be able to access legal abortions in the capital was significantly greater than the proportion in 2007 (44 percent). A greater proportion of respondents in 2009 (61 percent) than in 2007 (47 percent) believed that a woman younger than age 18 should be able to obtain a legal abortion.

We performed bivariate analysis of post-reform data (2008 and 2009) separately to explore correlates of abortion-law knowledge and favorable opinion (see Table 3). We tested the significance of these associations with the first two outcome variables of interest in the regression models for 2008 and 2009 (see Table 4). In 2008 partial or

**Table 2** Percentage of respondents demonstrating knowledge of abortion legality and expressing specific opinions regarding abortion, Mexico City, 2007–09

Characteristic	Survey		
	2007	2008	2009
<b>Knowledge of current abortion law in Mexico City at time of survey</b>			
Think abortion is prohibited in all cases	39.3	25.7	24.5*
Know abortion is permitted under some circumstances	60.7	71.8	75.5*
<b>Knowledge of circumstances under which abortion is currently legal in Mexico City<sup>a</sup></b>			
When pregnancy results from rape	93.0	93.6	92.6
When pregnancy puts a woman's life in danger	88.2	90.9	92.5
When the fetus has a severe congenital malformation	82.0	87.4	82.8
In the case of nonconsensual artificial insemination <sup>b</sup>	54.2	61.3	65.3
When a woman's health is at risk	78.2	80.4	86.8
In the case of economic hardship	27.8	35.4	41.7*
<b>Knowledge of and opinion regarding abortion</b>			
Heard about the proposed/new abortion law	73.4	81.3	86.1*
In favor of the proposed/new abortion law	38.2	63.0*	73.5**
Opposed to the proposed/new abortion law	53.4	26.3*	20.6*
In favor of improving access to reproductive health services in Mexico City	84.6	85.6	97.0**
In favor of strengthening sexuality education programs	87.1	87.0	96.2**
Person(s) who should make the final decision about having an abortion			
Woman only	42.4	47.2	51.0
Woman and her partner	33.7	33.7	39.8
No woman should be allowed to obtain an abortion	10.5	6.4	4.0*
Woman's partner	4.9	3.5	2.4
Physician	3.8	5.7	1.3
Parent or other relative	2.1	1.4	0.7
Others	1.2	0.0	0.0
Judge	1.0	0.7	0.7
No opinion	0.4	1.5	0.1
Believe that the proposed/new law should be extended to the rest of Mexico	51.3	69.7*	83.2**
Believe that women from other states should be able to obtain legal abortion in Mexico City	44.3	68.8	73.0*
In favor of allowing women < 18 years to obtain a legal abortion	46.6	55.2	60.5*
Know a woman who has had an abortion	36.5	27.2	25.3*
Which perspectives should Mexican legislators consider most when voting on abortion laws?			
The woman's viewpoint	53.1	59.5	66.5*
Society's viewpoint	27.8	23.9	22.4
Legislators' personal religious beliefs	8.1	4.5	4.7
Scientific evidence	4.0	4.5	1.3
Unsure	3.0	2.4	3.3
Political party position	2.8	4.8	0.8
Other viewpoints	1.2	0.4	1.0 <sup>^</sup>
Believe that the proposed/new law is an advance for Mexican society rather than a step backward	na	71.3	67.3
(N)	(672)	(917)	(939)

\*Difference compared with 2007 is significant at  $p < 0.05$ . <sup>^</sup>Difference compared with 2008 is significant at  $p < 0.05$ . na = Not available.

<sup>a</sup>The proportions presented are not of the entire sample but rather of those respondents who answered correctly the previous question (that abortion is permitted under some circumstances). After legalization of elective first-trimester abortion in Mexico City, these six circumstances still applied for women with unwanted pregnancies beyond the legal gestation limit. <sup>b</sup>A rarely applied legal circumstance.

**Table 3** Percentage of respondents, by selected demographic characteristics, according to knowledge and opinion of abortion legalization, Mexico City, 2008–09

Characteristic	2008			2009		
	Knows about new law	In favor of new law	In favor of extending new law to other states	Knows about new law	In favor of new law	In favor of extending new law to other states
Age						
18–24	80.2	77.3	69.6	83.5	91.7	79.6
25–34	84.0	70.4	70.6	85.8	85.5	72.3
35–49	82.0	73.2	64.1	91.0	85.2	70.3
50+	78.6	59.6	49.7	84.0	76.5	73.6
Current marital status						
Divorced, separated, or widowed	72.2	56.7	51.2	84.8	80.3	79.7
Married/in union	82.2	68.9	61.4	86.8	82.2	75.3
Single	83.0	77.2	71.7	83.9	87.4	67.9
Education						
Secondary complete or less	77.7	64.0	55.4	79.7	81.6	70.0
Partial or complete high school	81.3	73.8	70.6	87.8	86.7	71.6
Partial or complete college	93.1	81.6	74.8	96.6	84.6	85.2
Sex						
Male	81.2	76.1	70.9	87.9	83.6	74.7
Female	81.5	64.0	55.9	84.5	82.8	72.5
Employment status						
Currently working	80.8	75.0	71.3	85.1	86.7	78.5
Student	80.2	80.7	71.7	82.4	98.6	70.2
Unemployed	77.9	71.9	70.7	87.7	81.4	66.6
Retired	84.1	60.4	53.2	92.6	54.6	54.1
Housewife	82.7	59.3	46.0	87.3	78.2	70.2
Religious service attendance						
Almost never or never	82.1	72.6	71.6	82.2	87.8	80.4
Once a month	81.4	74.8	69.4	93.5	82.4	75.9
Frequently	80.4	64.8	51.4	88.1	77.4	63.6
Political party affiliation						
Partido Acción Nacional	79.0	70.4	74.5	89.2	89.0	84.6
Partido Revolucionario Institucional	74.8	70.5	67.1	82.9	67.9	59.0
Partido de la Revolución Democrática	85.1	72.7	66.8	86.7	86.3	67.5
Other	94.8	82.6	68.9	97.5	97.4	88.3
None	80.7	68.0	57.8	85.1	83.3	73.7
(N)	(917)	(917)	(917)	(939)	(939)	(939)

\*Significant at  $p < 0.05$ .

complete college education was significantly associated with knowledge of the law. Regarding opinion about abortion in 2008, those with education beyond the secondary level, men, those who did not attend religious services frequently, and those who reported a political party affiliation with the conservative PAN or the liberal PRD had significantly greater odds of supporting the Mexico City law, compared with those having less education, women, those who attended religious services more frequently, and those reporting no political party affiliation.

In 2009 higher education and less frequent religious service attendance remained significantly associated with greater knowledge of the Mexico City law, and these variables and ever having been married were significant predictors of having a favorable opinion of the law. Participants with some college education or higher had eight

times greater odds of knowing about the law, compared with those who had not completed high school. Those who attended religious services monthly or more frequently had more than three and two times greater odds, respectively, of knowing about the law.

Participants in 2009 having partial or complete college education and those who were ever married had more than two times the odds of supporting the Mexico City law, compared with those who had not completed high school and those who were single, respectively. Those who attended religious service frequently were less than half as likely to favor the new law, compared with individuals who never or almost never attended religious services. In 2009 being female was no longer significantly associated with less favorable opinion, suggesting that women became more supportive of the law from 2008 to 2009.

**Table 4** Adjusted odds ratio of having knowledge of the new law, being in favor of the new law, and being in favor of extending the new law to other states

Characteristic	2008		2009	
	Knows about new law	In favor of new law	Knows about new law	In favor of new law
Age				
18–24 (r)	1.00	1.00	1.00	1.00
25–34	1.40	1.24	1.14	0.54
35–49	1.28	1.06	2.23	0.46
50+	1.25	0.71	1.20	0.62
Current marital status				
Single (r)	1.00	1.00	1.00	1.00
Divorced, separated, or widowed (r)	0.54	0.70	1.27	2.62*
Married/in union	1.03	0.88	1.62	1.81*
Education				
Secondary complete or less (r)	1.00	1.00	1.00	1.00
Partial or complete high school	1.29	1.48*	2.13	1.08
Partial or complete college	4.59**	1.82*	8.16**	2.38**
Sex				
Male (r)	1.00	1.00	1.00	1.00
Female	1.21	0.65*	0.87	1.02
Religious service attendance				
Almost never or never (r)	1.00	1.00	1.00	1.00
Once a month	0.95	1.01	3.24*	0.74
Frequently	0.88	0.49**	2.06*	0.44**
Political party affiliation				
None (r)	1.00	1.00	1.00	1.00
Partido Acción Nacional	0.80	2.15*	0.96	1.55
Partido Revolucionario Institucional	0.77	1.60	0.64	0.90
Partido de la Revolución Democrática	1.58	1.73*	1.07	0.97
Other	4.50	1.62	4.83	2.18
Constant	0.79	1.26	0.69	1.03
(N)	(917)	(917)	(939)	(939)

\* Significant at  $p < 0.05$ ; \*\* Significant at  $p < 0.01$ . (r) = Reference category.

## Discussion

This study analyzed public opinion concerning abortion in Mexico City by comparing knowledge and attitudes immediately prior to passage of the comprehensive 2007 abortion law with knowledge and attitudes one and two years afterward. The findings indicate several positive results. The public's knowledge of the proposed/new law increased from 2007 to 2009 (from 73 percent to 86 percent), as did favorable opinion about the law from 2007 to 2009 (from 38 percent to 74 percent). Similarly, support for the extension of the Mexico City law to other states increased significantly from only a slight majority in 2007 to 70 percent in 2008, and to 83 percent in 2009. Favorable opinion about related abortion topics over time complemented the above-mentioned findings. The proportion of respondents expressing support for extending access to legal abortion to women younger than age 18 increased significantly from 2007 to 2009, as did the proportion

supporting the right of women from other states to gain access to legal abortion in the capital. In all three years, consistent majorities agreed with at least one of the following two choices: that the woman alone or the woman and her partner should have the right to decide about an unwanted pregnancy; the increase in this proportion was not statistically significant, however.

In the 2008 and 2009 surveys, we observed larger proportions of respondents supporting legal abortion than had been found in earlier studies conducted in legally restricted settings (CDD 2004; García et al. 2004; Martin et al. 2005; Yam, Dries-Daffner, and García 2006; Garcia et al. 2007). This difference is not surprising, because Mexico City has historically had more liberal public policies and a stronger feminist movement than the remainder of the country and much of the region. For example, a 2009 population-based study conducted in eight states in Mexico, including the capital city, found respondent support for the Mexico City law to range from only 39 to 54 percent by state (Valencia Rodríguez et al. 2011).

Several explanations exist for the significant increases in positive public opinion concerning abortion two years after legalization, including the 36 percentage point increase between 2007 (pre-reform) and 2009 (two years post-legalization). First, extensive and generally favorable media coverage has informed the public about the legal change and the capital's accompanying abortion program. Additionally, feminist and other progressive groups have conducted intensive media campaigns (radio spots, fliers, billboards on public transportation) aimed at women and young people to raise awareness about a woman's right to decide and where legal abortion can be accessed. Second, the legalization of abortion may make public expressions of support more socially acceptable. A study of public opinion concerning medication abortion conducted six years before legalization indicated that a major reason why participants did not support this option was that it was illegal (Gould, Ellertson, and Corona 2002). A smaller increase from 2008 to 2009 (11 percentage points) may suggest that the proportion in favor is leveling off and that there will always be a small segment of the population who oppose abortion on moral, religious, or other grounds.

In the multivariate analysis assessing determinants of knowledge of and support for abortion legalization in Mexico City, higher education was the most consistent predictor of both in 2008 and 2009. Those with more education may have a better understanding of legal abortion's positive influence on reducing unsafe and clandestine abortions and the associated risk of injury or death. Or perhaps higher education fosters critical thinking and the development of intellectual viewpoints that might differ from those espoused in religious orthodoxy.

Infrequent or no religious service attendance also was associated with greater support for the law in both years. Male participants in 2008 had significantly greater odds of favorable abortion opinion. These findings support previous public opinion studies on abortion in Mexico and the region (Becker, Garcia, and Larsen 2002; García et al. 2004; Martin, Hyacenth, and Suite 2005; Garcia 2007).

Most participants in Mexican public opinion surveys self-identify as Catholic, and this identity is not significantly associated with abortion opinion (García et al. 2004; CDD 2004). Frequency of religious service attendance appears to be a better indicator of social conservatism than religious identity alone. Interestingly, in the 2009 survey, more frequent religious service attendance was significantly associated with knowledge about the Mexico City law, which may indicate that participants heard about the law during church services. This finding supports previous studies conducted in both Mexico and the United States revealing that greater religious service attendance is significantly associated with more conservative abortion opinion (Bumpass 1997; Becker, García, and Larsen 2002; García et al. 2004; García et al. 2010).

Being female was significantly associated with less support for the Mexico City law in 2008 but not in 2009, indicating that women became more supportive of the law in the second year. This complicated relationship between gender and opinion regarding abortion is not unexpected; other studies have found that gender is correlated with both more and less conservative views concerning abortion (Hertel and Russell 1999; Bolks et al. 2000; Becker, García, and Larsen 2002; Strickler and Danigelis 2002; Bolzendahl and Myers 2004; García et al. 2004). One possible explanation is that women in Mexico City hold more socially conservative views about sex, marriage, and family generally, which extends to views concerning abortion. At the same time, we observed an increase in women's favorable opinion about the Mexico City law, which paralleled the overall public opinion trend. This change may be a consequence of more open discussion about abortion and exposure to favorable media about the law and the legal abortion program following reform. Other variables, such as education, may hold more explanatory power than gender in this study. Finally, both liberal and conservative political party affiliation were significantly associated in 2008 with support for elective first-trimester abortion, but neither association was significant in 2009. These findings are inconclusive and may suggest that political party affiliation is not a central explanatory variable for public opinion on abortion in Mexico City.

This study has several limitations. Our administration of the pre-reform survey so close in time to the law's

approval may make it unrepresentative of Mexico City's public opinion in years past about a hypothetical liberalization of the law. Because we report on cross-sectional surveys taken at three points in time, we cannot infer causal relationships regarding abortion opinion. Also, because three independent samples were used, we cannot make any definitive statements about individual-level change in abortion opinion over time. We can suggest why public opinion about abortion improved significantly between pre- and post-reform; however, other social and political factors that we were unable to measure may have influenced this change. Although we have definitive evidence that most Mexico City residents support the Mexico City law, we cannot conclude that this favorable view translates into support for having a legal abortion. Thus, participants may agree with a liberal law but be opposed to the personal decision to terminate a pregnancy. Finally, rigorous qualitative studies are needed to answer some enduring questions that emerged from this study, such as why men's and women's views concerning abortion differ, the social norms that shape their views, and why approximately 27 percent of participants still opposed the law in 2009.

The results of this study have important policy implications. Mexico City's groundbreaking abortion law has set an important precedent for the country and the region in support of women's sexual and reproductive rights and has secured majority support among Mexico City residents. Outside the capital, abortion is illegal except under rare circumstances, and the latest state reforms seek to prohibit legal abortion altogether. The evidence of popular support in Mexico City for various facets of legal provision of abortion services can inform the promotion of evidence-based policies and programs throughout Mexico and in other legally restricted settings, and can inform advocacy strategies to promote progressive legislation.

## References

- Becker, Davida, Sandra García, and Ulla Larsen. 2002. "Knowledge and opinions about abortion law among Mexican youth," *International Family Planning Perspectives* 28(4): 205–213.
- Bolks, Sean M., Diana Evans, J.L. Polinard, and Robert D. Wrinkle. 2000. "Core beliefs and abortion attitudes: A look at Latinos," *Social Science Quarterly* 81(1): 253–260.
- Bolzendahl, Catherine I. and Daniel J. Myers. 2004. "Feminist attitudes and support for gender equality: Opinion change in women and men, 1974–1998," *Social Forces* 83(2): 759–789.
- Bumpass, Larry. 1997. "The measurement of public opinion on abortion: The effects of survey design," *Family Planning Perspectives* 29(4): 177–180.

- Católicas por el Derecho a Decidir [Catholics for a Free Choice] (CDD). 2004. *Informe Final: Encuesta de Opinión Católica en México*. [Final Report: Mexican Catholics' Opinion Survey]. Mexico City.
- Consejo Nacional de Población (CONAPO). 2000. "Cuadernos de salud reproductiva: República Mexicana." Mexico City. <<http://www.conapo.gob.mx/publicaciones/SaludReproductiva/2000/CuaSaludRep/1Republica.pdf>>. Accessed 15 February 2011.
- García, Sandra. 2007. "Changes in Mexicans' abortion and emergency contraception knowledge and attitudes: 2000–2006." Paper presented at the 135th Annual Meeting of the American Public Health Association, Washington, DC, 3–7 November.
- García, Sandra, Diana Lara, and Lisa Goldman. 2003. "Conocimientos, actitudes y prácticas de los médicos mexicanos sobre el aborto: Resultados de una encuesta nacional," *Gaceta Médica de México* 139(1): 91–102.
- García, Sandra, Carrie Tatum, Davida Becker, Karen A. Swanson, Karin Lockwood, and Charlotte Ellertson. 2004. "Policy implications of a national public opinion survey on abortion in Mexico," *Reproductive Health Matters* 12(24 Supp.): 65–74.
- García, Sandra G., Kate S. Wilson, Stephanie M. McMurtrie, and Claudia Díaz Olavarrieta. 2010. "Public opinion about abortion-related stigma among Mexican Catholics and implications for unsafe abortion." Paper presented at the International Seminar on the Health, Social, and Economic Consequences of Unsafe Abortion of the International Union of the Scientific Study of Population, San Juan del Rio Mexico, 10–12 November.
- Gould, Heather, Charlotte Ellertson, and Georgina Corona. 2002. "Knowledge and attitudes about the differences between emergency contraception and medical abortion among middle-class women and men of reproductive age in Mexico City," *Contraception* 66(6): 417–426.
- Grupo de Información en Reproducción Elegida (GIRE). 2010. "El aborto en los códigos penales de las entidades federativas." Mexico City. <<http://www.gire.org.mx>>. Accessed 15 December 2009.
- Hertel, Bradley R. and Mark C. Russell. 1999. "Examining the absence of a gender effect on abortion attitudes: Is there really no difference?" *Sociological Inquiry* 69(3): 364–381.
- Hildreth, Anne and Ellen M. Dran. 1994. "Explaining women's differences in abortion opinion: The role of gender consciousness," *Women & Politics* 14(1): 35–51.
- Hoffmann, John P. and Sherrie Mills Johnson. 2005. "Attitudes toward abortion among religious traditions in the United States: Change or continuity?" *Sociology of Religion* 66(2): 161–182.
- Jelen, Ted G., David F. Damore, and Thomas Lamatsch. 2002. "Gender, employment status, and abortion: A longitudinal analysis," *Sex Roles: A Journal of Research* 47(7–8): 321–330.
- Juarez, Fatima, Susheela Singh, Sandra G. García, and Claudia Díaz Olavarrieta. 2008. "Estimates of abortion incidence in Mexico: What's changed between 1990 and 2006?" *International Family Planning Perspectives* 34(4): 158–168.
- Lamas, Marta and Sharon Bissell. 2000. "Abortion and politics in Mexico: Context is all," *Reproductive Health Matters* 8(16): 10–23.
- Martin, Cedriann J., Glennis Hyacynth, and Lynette S. Suite. 2005. "Knowledge and perception of abortion and the abortion law in Trinidad and Tobago," *Reproductive Health Matters* 15(29): 97–107.
- Sánchez-Fuentes, María Luisa, Jennifer Paine, and Brook Elliott-Buettner. 2008. "The decriminalization of abortion in Mexico City: How did abortion rights become a political priority?" *Gender & Development* 16(2): 345–360.
- Sousa, Angelica, Rafael Lozano, and Emmanuela Gakidou. 2009. "Exploring the determinants of unsafe abortion: Improving the evidence base in Mexico," *Health Policy and Planning* 25(4): 300–310.
- Strickler, Jennifer and Nicholas D. Danigelis. 2002. "Changing frameworks in attitudes toward abortion," *Sociological Forum* 17(2): 187–201.
- Tatum, Carrie E., Sandra G. García, Eileen A. Yam, and Davida Becker. 2006. "Young Mexicans' hopes and fears about abortion and abortion law: A qualitative study in two cities," *Gaceta Médica de México* 142(Supp. 2): 95–102.
- Valencia Rodríguez, Jorge, Kate S. Wilson, Claudia Díaz Olavarrieta, Sandra G. García, and Maria Luisa Sánchez Fuentes. 2011. "Public opinion on abortion in eight Mexican states amid opposition to legalization," *Studies in Family Planning* 42(3): 191–198.
- Wang, Guang-zhen and M.D. Buffalo. 2004. "Social and cultural determinants of attitudes toward abortion: A test of Reiss' hypotheses," *Social Science Journal* 41(1): 93–105.
- World Health Organization (WHO). 2006. *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality*. Geneva.
- Yam, Eileen A., Ingrid Dries-Daffner, and Sandra G. García. 2006. "Abortion opinion research in Latin America and the Caribbean: A review of the literature," *Studies in Family Planning* 37(4): 225–240.

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