Education, Place of Residence and Utilization of Legal Abortion Services in Mexico City, 2013–2015

CONTEXT: Although abortion is illegal in most of Mexico, it was decriminalized in Mexico City in 2007, creating an island of legal abortion in a sea of restricted access. The characteristics of women seeking abortions in Mexico City—notably their socioeconomic status and place of residence—have not been well documented.

METHODS: Medical records from 22,732 women who sought abortions at one of four primary-level clinics in Mexico City in 2013–2015 were used to examine characteristics of women seeking legal abortion. Linear regression analyses were used to explore differences between women from Mexico City and those from elsewhere in Mexico, using education as a proxy for socioeconomic status. Because of geographic differences in population structure, women's education level was normalized in some models.

RESULTS: Most abortion seekers came from Mexico City (66%) or its surrounding metropolitan area (22%), while the remainder came from bordering states (7%) or the rest of Mexico (5%). Abortion seekers from the rest of Mexico had, on average, 1.4 more years of education than did those from Mexico City. In regression models that normalized education levels, the difference in educational attainment between women from the rest of Mexico and those from Mexico City was 4.9 years (unadjusted model) and 3.2 years (adjusted model).

CONCLUSIONS: These findings, in conjunction with the literature on unsafe abortion in Mexico, suggest that women from outside Mexico City who have low levels of education may be less likely than their more educated peers to benefit from the safe abortion services provided in the city.

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Mexico City, a bustling, sprawling metropolis, presents a singular case in the Mexican context. Because the city proper is home to nearly nine million people, and the metropolitan area home to more than 20 million, what happens in Mexico City can easily affect 15% of Mexico's population.[1] Moreover, because Mexico City does not belong to any state (it was a "federal district" prior to 2016 and has been a "federal entity" since), the municipal government has had unusual leeway to enact a range of progressive policies, from creating a pension program for the elderly to allowing same-sex adoption.

Among the most controversial policies Mexico City has adopted is the decriminalization of elective abortion within city limits during the first 12 weeks of pregnancy. At the time this law was enacted, in 2007, efforts throughout Latin America to decriminalize abortion had largely met with insurmountable opposition from the Catholic Church and other conservative forces.[2–4] In Mexico, too, efforts to change abortion policy at the national level had made little progress. Indeed, even at the municipal level, the law was threatened at multiple stages by intense opposition, including threats of excommunication for legislators who voted for it,[5] and by a legal appeal that made it all the way to the Mexican Supreme Court. Scholars attribute the success of the Mexico City law to a variety of factors that created a so-called "policy window," including the

strong involvement of feminist and technical civil society organizations, and the framing of abortion access as a development issue.[6]

In the intervening years, the legal changes Mexico City instituted more than a decade ago have made the country a unique case study on abortion policy reform. Ironically, the efforts in Mexico City to liberalize the abortion law had the opposite effect elsewhere in the country, as they incited a strong backlash that in essence created an island of access to safe abortion within a sea of restrictive abortion policies. Since 2007, 17 Mexican states have passed constitutional amendments to protect fetal rights from the moment of conception, resulting in a patchwork of state abortion laws that range from extremely restrictive (e.g., allowing abortion only in cases of rape) to more permissive (e.g., allowing abortion to preserve the health of the woman).[7] However, it is important to note that although some states allow abortion for the aforementioned reasons or in other limited circumstances (e.g., fetal anomaly), elective abortion is legal only in Mexico City.

Perhaps due to this complex legal framework, abortion services are poorly integrated into the country's overall health system. Public health facilities run by the national Secretariat of Health or by either of the two major insurance schemes—the Instituto Mexicano del Seguro Social and the Instituto de Seguridad y Servicios Sociales de los

Trabajadores del Estado—do not provide abortion services, even in facilities within Mexico City's limits. Nor does Seguro Popular, the national universal health coverage scheme, pay the costs of abortion, including those of procedures performed legally in Mexico City. The only health facilities in Mexico City that provide legal abortion are those run by the city's own Secretariat of Health or by private clinics.

The precise number of private clinics offering abortion services is not known, because private providers are not required to report on abortion provision.[8] The best available estimate suggests that in 2011, Mexico City had 288 private abortion providers, most of which performed only a few abortions per year.[9] This leaves Mexico City's own public health facilities as the main providers of legal abortion in the nation. Elective abortion is currently offered in hospitals and primary health clinics run by the city. While hospital-level care is an important component of Mexico City's legal abortion program, especially for more complicated cases, the vast majority of elective first-trimester abortions in Mexico City's public sector take place at city-run primary health clinics.[10]

Understanding that policy change alone is not sufficient to create meaningful access, Mexico City's Secretariat of Health sought to ensure that first-trimester abortion services would be available, affordable, of high quality and integrated with the city's other health services. At the time of this study, four primary health clinics in Mexico City offered these services to women; all performed (and continue to perform) abortion free of charge during the first 12 weeks of gestation. Women seeking abortion are offered a medication regimen (misoprostol, either alone or combined with mifepristone) or a surgical procedure (electric or manual vacuum aspiration), as advised by a doctor on the basis of gestational age, other clinical considerations, and the preferences of the provider and the woman. Each woman is seen by a social worker (who counsels her on all pregnancy options and certifies that she is seeking an abortion voluntarily), a nurse and, finally, a physician. Because there are no restrictions on the geographic origin of clients seeking abortion, women from other parts of Mexico and even other countries can utilize these safe abortion services. Although women from outside Mexico City technically are supposed to pay for services, interviews with providers and administrators, as well as direct clinic observations, revealed that, in practice, services were free to all women at the time of this study.

That these services are free is critical, given that poverty and income inequality are persistent problems in Mexico. In 2012, 45% of the Mexican population was living in poverty and 10% was living in extreme poverty.[11] Moreover, Mexico's Gini coefficient—a statistical measure of wealth inequality than ranges from 0 (no inequality) to 1 (maximum inequality)—is 0.48, the second highest among the 36 countries in the Organisation for Economic Co-operation and Development (only Chile has more inequality).[12] Seguro Popular was introduced in 2003 to help otherwise uninsured people avoid catastrophic health expenditures and high out-of-pocket payments for health care,[13] but because Seguro Popular and other insurance schemes do not cover abortion services, out-of-pocket expenses could serve as an important barrier to safe abortion care, especially among Mexico's poorest women. No-cost services theoretically remove financial barriers to access, but the restriction of legal abortion to Mexico City means that women from elsewhere in the country can still face other barriers to obtaining a safe abortion: The costs and logistic challenges of travel may impede women from low socioeconomic backgrounds from journeying to the capital to take advantage of the city's free, safe and legal abortion services.

The challenges presented by travel have important implications for reproductive health equity in Mexico. Throughout Latin America (and indeed, globally), rural women, women with low levels of education and poor women disproportionately meet their demand for abortion through recourse to unsafe and clandestine procedures.[14–19] In Mexico, specifically, there is strong evidence of a steep socioeconomic gradient in the safety of abortion services: Souza and colleagues found that the odds that a woman's abortion was unsafe were elevated 2.5-fold if she was poor, and were also increased if she had low levels of education or was of indigenous origin.[14]

To explore the ways that socioeconomic status (SES) and place of residence may affect access to safe and legal abortion services in Mexico City, we examine the characteristics of women who sought legal abortions in Mexico City's public health clinics from 2013 to 2015. Then, using education as a proxy for overall SES, we explore educational differences among these women according to their place of residence (i.e., proximity to Mexico City), and discuss the implications these differences may have for health equity and reproductive rights.

METHODS
Data and Variables
In 2013, Mexico City's Secretariat of Health began using an electronic medical record system to register information about abortions performed at public primary care clinics. Routine data on patients' sociodemographic characteristics and reproductive history, as well as on their abortion procedure and postabortion counseling, are entered into the system daily by social workers, nurses and administrative assistants. The Secretariat of Health made available all data on the 22,732 women who received services between January 1, 2013 and January 23, 2015 at one of the four public primary-care clinics that provided abortion care.

Of these women, 19,236 (85%) procured abortions, while the remaining 3,496 women (15%) were found to not be pregnant, were past the 12-week gestational age limit, decided to continue the pregnancy or did not procure an abortion for other reasons. However, all 22,732 observations were kept in the data set for analysis, in

FIGURE 1. Maps of study areas depicting geographical categories used in analyses

| ■ Mexico City proper | ■ Metropolitan area | ■ Border states | ■ Rest of Mexico |
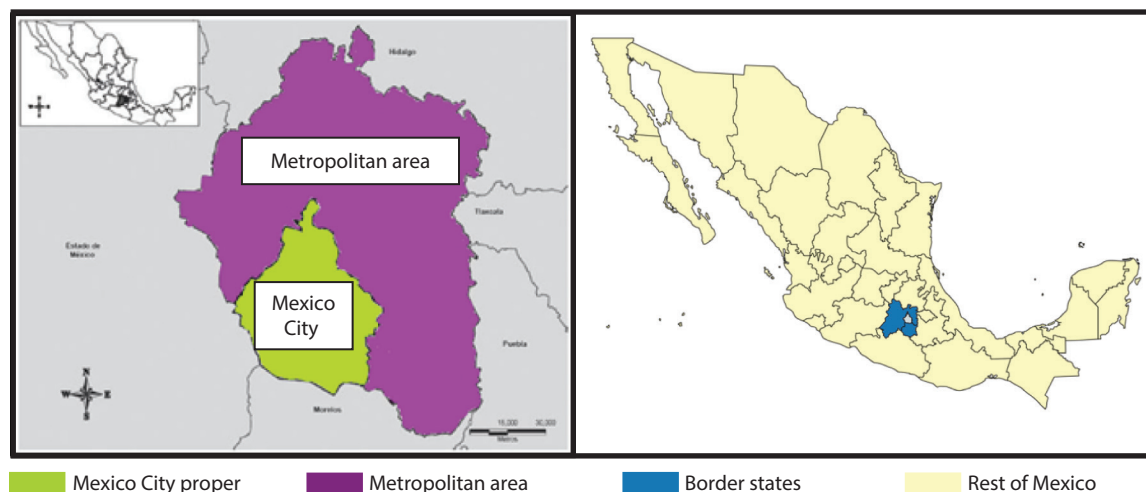
accordance with the concept of intention-to-treat[20] and with the fact that this study is concerned with access to health services, rather than with clinical outcomes.

The data set included precise information on where women lived, although any identifiable information (such as street address) had been removed for ethical reasons. Using information about each woman's *municipio* (a sub-state administrative division) and state, we created a categorical variable to classify women into four distinct groups according to their place of residence: Mexico City proper; the Mexico City metropolitan area (as defined by the National Institute of Statistics, Geography and Informatics[21]), excluding the city proper; the states that border Mexico City (Morelos and Mexico State), excluding the municipios that are part of the Mexico City metropolitan area; and the rest of Mexico (Figure 1). The geographic regions can be loosely conceptualized as concentric circles, with Mexico City as the epicenter where access to the city's public abortion providers is the easiest.* Each subsequent circle can be conceptualized as adding another layer of difficulty (cost, planning complexity, travel time, etc.) to obtaining these services.

Our analyses included categorical measures of women's marital status (classified as married, divorced, widowed, single, living with partner or "no response"), religious affiliation (Catholic, other Christian or other/none) and student status, as well as continuous measures of age, gravidity, gestational age at time of abortion (in weeks) and number of previous abortions. Finally, we included a variable indicating whether the woman actually procured an abortion.

As noted earlier, the data were recorded as part of routine service provision by busy providers and assistants, rather than by a dedicated research staff for the express

*In accordance with the World Health Organization, we define access as "the perceptions and experiences of people as to their ease in reaching health services or health facilities in terms of location, time, and ease of approach" (source: World Health Organization, Health systems strengthening glossary, 2011, http://www.who.int/healthsystems/hss_glossary/en/).

purpose of formal analysis. This is a limitation of the data, and resulted in some obvious errors of data entry. As a result, any numbers that suggested impossible or highly implausible events or characteristics (such as 60 weeks' gestation or 284 previous abortions) were recoded as missing.

Finally, in some analyses, we normalized the educational attainment of abortion seekers (see below) using data on the education level of women in the same geographic area. Data on years of education in Mexico's general population were taken from the 2010 Population and Housing Census conducted by the National Institute of Statistics, Geography and Informatics, and were downloaded from the Integrated Public Use Microdata Series–International.[22]

Analyses

After cleaning, the data were disaggregated by women's characteristics. We compiled descriptive statistics separately for each geographic category.

Next, we performed an ordinary least-squares regression to examine the relationship between place of residence and SES among abortion seekers, using educational attainment as a rough proxy for the latter. There is considerable debate among methodologists about the validity of this proxy, as the correlation between the two concepts is imperfect.[23,24] Certainly, SES is a multidimensional characteristic that cannot be neatly or completely captured by educational status alone; depending on the culture and context, an individual's SES may be affected by race, ethnicity, religion, neighborhood, profession, means of transportation, household crowding, caste and other factors. Given this variability and the methodologic challenges associated with measuring wealth directly, education has become a common proxy for SES in health research.[25] In the absence of more nuanced data on the SES of the women in our sample, and given our study objectives and hypothesis, we believe education to be

an imperfect but suitable proxy for overall SES, a decision that has also been made by other researchers in the Mexican context.[26,27]

The independent variable in the analysis is place of residence (classified according to the four categories described above), and the main dependent variable is years of education. In Mexico, stark disparities in education level exist among the general population according to place of residence, such that individuals living in the capital city are substantially better educated on average than their counterparts elsewhere in the country. In the geographic areas used in our analysis, the mean number of years of education among women aged 15–49 was 12.4 (standard deviation, 2.4) in Mexico City, 11.1 (2.5) in the surrounding metropolitan area, 10.3 (3.9) in the border states and 10.3 (4.6) in the rest of Mexico. If, as we hypothesized, abortion seekers from outside Mexico City are better educated than those from within, then a simple comparison of women's education by geographic region would likely be biased toward the null. For this reason, we used census data to transform women's years of education into z-scores that indicate the degree to which the women's educational attainment deviated from the mean among women in their respective geographic region; these normalized values served as the dependent variable for a second set of models.

Because this analysis is not intended to be the basis for causal inference, we have employed control variables sparingly. Moreover, since exchangeability (i.e., that the probability of a given outcome is as likely in one group as it is in another group given the same exposure) is not a goal here, we have taken care not to adjust for all differences between groups; in this case, differences are an informative part of the data, rather than sources of bias. Nevertheless, because one of our goals is to understand how much variation is due to place of residence rather than to covariates, results are shown both unadjusted and adjusted. The covariates used for adjustment, described earlier, were those for which we had information and that could plausibly affect abortion procurement: age, marital status, religion, student status, gestational age, gravidity, number of previous abortions and whether the woman actually procured an abortion. Unadjusted and adjusted models were run both using raw years of education (unnormalized) and using z-score of years of education (normalized) as the dependent variables, for a total of four models.

This study was reviewed and approved by the Office of Human Research Administration at the Harvard T.H. Chan School of Public Health (IRB 14–4270).

RESULTS

Of the 22,732 abortion seekers, more than 15,000, or 66%, came from within the Mexico City limits, while a further 5,100, or 22%, came from elsewhere in the metropolitan area (Table 1). The remainder came from the bordering states (7%) or the rest of Mexico (5%). The mean age of abortion seekers was 25 (range, 11–48), and the mean gestational age was eight weeks (range, 3–14). On average, abortion seekers had had 2.4 prior pregnancies (range, 1–11) and 0.2 prior abortions (range, 0–5); 86% of women reported that the abortion they were seeking would be their first (not shown). Women had had an average of 12 years of education (Table 1), which in the Mexican context equates to some high school, though the range was large (0–22); the sample included 66 women with graduate degrees, as well as 199 with no schooling whatsoever. The majority of abortion seekers described themselves as Catholic (69%) or members of a different Christian denomination (8%), while 23% cited another or no religious affiliation. Slightly more than half (58%) of the women in our population were single; 27% lived with their partner; 13% were married; and 3% were divorced, widowed or did not indicate their status. Twenty-seven percent of abortion seekers said they were currently students; 5% reported being unemployed (not shown), and the rest had a variety of occupations ranging from homemaker to chemical engineer.

The vast majority (74%) of abortion seekers terminated their pregnancy using a medication abortion regimen, while 16% had an abortion through aspiration alone, 3% had an abortion using both aspiration and medication, and 7% did not have an abortion (not shown).

Table 2 shows the results of the four regression models. The unadjusted and unnormalized results from

TABLE 1. Selected characteristics of women seeking abortions in Mexico City, by place of residence, 2013–2015

Characteristic	All (N=22,732)	Mexico City proper (N=15,020)	Metropolitan area (N=5,104)	Bordering states (N=1,514)	Rest of Mexico (N=1,094)
MEANS (SD)					
Age (yrs.)	25.3 (6.4)	25.4 (6.4)	25.4 (6.5)	25.4 (6.4)	25.0 (5.8)
Gestational age (wks.)	7.6 (2.0)	7.6 (2.0)	7.7 (2.1)	7.7 (2.1)	8.0 (2.1)
Gravidity	2.4 (1.4)	2.4 (1.4)	2.5 (1.4)	2.45 (1.4)	2.0 (1.2)
No. of previous abortions	0.16 (0.44)	0.17 (0.45)	0.15 (0.42)	0.15 (0.42)	0.10 (0.35)
Education (yrs.)	11.8 (3.7)	11.7 (3.7)	11.6 (3.6)	11.8 (3.8)	13.1 (3.6)
PERCENTAGE DISTRIBUTIONS					
Religion					
Catholic	69.1	69.6	67.1	70.9	69.2
Other Christian	8.3	7.6	10.5	8.6	7.0
Other/none	22.5	22.7	22.3	20.5	23.8
Marital status					
Single	57.5	56.7	56.1	60.4	71.0
Living with partner	26.6	28.2	26.0	21.7	14.1
Married	12.6	12.0	14.2	14.1	11.3
Divorced	1.8	1.7	1.8	2.2	2.1
Widowed	0.3	0.2	0.4	0.2	0.6
No answer	1.3	1.3	1.5	1.4	0.8
Student					
Yes	27.1	27.0	25.4	27.9	35.5
No	73.0	73.0	74.6	72.1	64.5
Total	100.0	100.0	100.0	100.0	100.0

Notes: Percentages may not total 100.0 because of rounding. SD=standard deviation.

Model 1 indicate that the educational attainment of abortion seekers from the metropolitan area or the bordering states was not meaningfully or statistically different from that of women who lived in Mexico City proper. Abortion seekers from the rest of Mexico, in contrast, had on average 1.4 more years of education than their counterparts from Mexico City. That abortion seekers' level of education was elevated if their place of residence was far from the capital city is the opposite of the educational pattern among the general population of women.

Model 2 shows adjustment for covariates (including demographic characteristics, gestational age and whether an abortion was actually procured) did not affect the pattern of the relationship between place of residence and education level. The average level of education among abortion seekers from the metropolitan area or from a bordering state remained statistically similar to that of women from Mexico City proper, while the average abortion seeker from the rest of Mexico had 0.9 years more education than did her Mexico City counterpart—a difference smaller than, but consistent with, the difference observed in the unadjusted model.

The last two models used z-scores to normalize education levels, and this transformation changes the nature of the relationship between place of residence and years of education. In both models, we see a clear gradient in which the average deviation from the mean education level increases as abortion seekers come from farther away. In the unadjusted Model 3, the average woman from the metropolitan area has 0.47 standard deviations more education than her Mexico City counterpart; the differential climbs to 0.65 for women from bordering states, and 0.90 for women from the rest of Mexico. In Model 4, which adjusts for relevant covariates, the results change very little for the metropolitan area and bordering states, but the differential decreases to 0.70 standard deviations for women from the rest of Mexico.

The key findings of the analysis are summarized in Figure 2. The lack of a clear gradient in the models that used unnormalized data (Models 1 and 2) is clearly evident: Women from Mexico City, the metropolitan area and bordering states all have a similar number of years of education (11.6–11.8 in Model 1, and 10.8 in Model 2), while those from the rest of Mexico have a markedly greater number of years of education (13.1 in Model 1, and 11.7 in Model 2).

However, Model 3, which used census data for normalization, reveals a clear gradient to the data, such that each successive step away from Mexico City is associated with an increase in average years of education. Women from Mexico City had the lowest average level of education (11.1 years), followed by women from the metropolitan area (12.1), those from bordering states (13.3) and, finally, women from the rest of Mexico (16.0). When adjustments are made for such covariates as age, marital status and gravidity (Model 4), the gradient ranges from 10.2 years among women in Mexico City to 13.4 years among women

TABLE 2. Coefficients (and standard errors) from ordinary least-squares regression analyses examining the relationship between women's place of residence (and selected covariates) and their years of education

Characteristic	Unnormalized		Normalized	
	Model 1	Model 2	Model 3	Model 4
Place of residence (ref=Mexico City)				
Metropolitan area	−0.08 (0.06)	−0.02 (0.06)	0.47 (0.02)***	0.50 (0.02)***
Bordering states	0.10 (0.10)	0.04 (0.10)	0.65 (0.04)***	0.62 (0.04)***
Rest of Mexico	1.40 (0.12)***	0.91 (0.12)***	0.90 (0.05)***	0.70 (0.05)***
Religion (ref=Catholic)				
Other Christian	na	−0.21 (0.09)**	na	−0.09 (0.04)**
Other/none	na	0.35 (0.06)***	na	0.14 (0.02)***
Marital status (ref=married)				
Single	na	−0.31 (0.08)***	na	−0.11 (0.03)***
Living with partner	na	−0.43 (0.08)***	na	−0.17 (0.03)***
Divorced	na	−0.34 (0.20)	na	−0.14 (0.08)
Widowed	na	−1.53 (0.49)**	na	−0.54 (0.19)***
No answer	na	−0.90 (0.22)***	na	−0.34 (0.09)***
Student (ref=no)				
Yes	na	1.60 (0.06)***	na	0.63 (0.03)***
Age (yrs.)	na	0.12 (0.00)***	na	0.05 (0.00)***
Gestational age (wks.)	na	−0.08 (0.01)***	na	−0.03 (0.00)***
Gravidity	na	0.73 (0.06)***	na	0.29 (0.02)***
No. of previous abortions	na	0.47 (0.10)***	na	0.17 (0.04)***
Procured abortion	na	−0.93 (0.02)***	na	−0.36 (0.01)***
Constant	*11.72 (0.03)****	*10.79 (0.21)****	*−0.27 (0.01)****	*−0.64 (0.084)****
R^2	*0.01*	*0.15*	*0.04*	*0.17*

*p<.05. **p<.01. ***p<.001.

FIGURE 2. Mean years of education of women seeking abortions in Mexico City, by place of residence
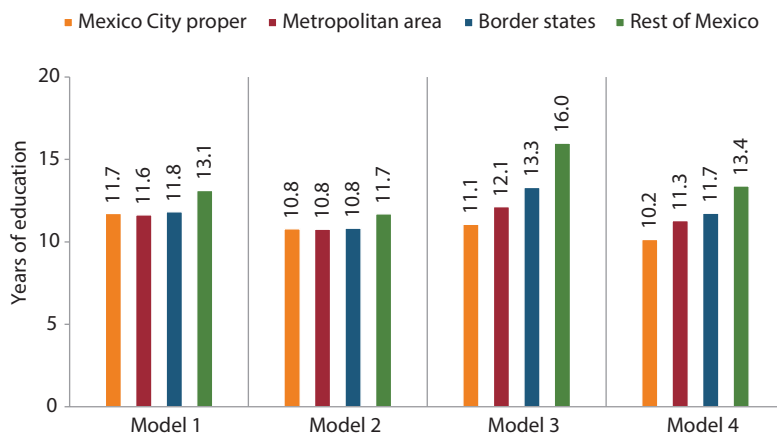
from the rest of Mexico—a smaller but nonetheless important differential—and its direction remains the same. Thus, when normalized with census data, the educational difference between women from Mexico City and those from the rest of Mexico was 4.9 years in the unadjusted model and 3.2 years in the adjusted model.

DISCUSSION

It is not surprising that the vast majority of abortion seekers in Mexico City come from the city and its surrounding metropolitan area, but it is an important finding that

many come from outside the metropolitan area—7% from bordering states and 5% from beyond those states. This suggests that some women travel from quite far away to take advantage of the city's free and safe abortion services. Our data also show that the women who come from the rest of Mexico to obtain abortions are, on average, better educated than abortion seekers from Mexico City and, to an even greater extent, than the residents of the communities from which they come. Even in our most conservative model (Model 2, which used unnormalized data and adjusted for a host of covariates), women from the rest of Mexico had almost a year more education on average than their counterparts from Mexico City. This education gap persisted and was statistically significant in all four models. A full gradient comprising all four geographic groups was evident only in the normalized models (3 and 4); still, that the gradients were as stark as they were with normalization is indicative of a proportional relationship between distance travelled and education, such that abortion seekers tended to be increasingly well educated the further they lived from safe abortion services.

These results suggest that both well-educated and poorly-educated residents of Mexico City are accessing legal abortion services, but that as women's place of residence becomes more removed from the capital city, the differential in education levels of women seeking abortions in Mexico City's primary care clinics becomes greater. If we consider education a proxy for overall SES, our findings suggest that low-SES women from outside Mexico City are procuring legal abortions at lower rates than both their low-SES counterparts in Mexico City and their high-SES counterparts from elsewhere in Mexico.

This analysis is unable to provide causal explanations for these findings, but several are possible. One is that the demand for abortion services is simply not as high among less-educated women from outside of Mexico City as it is among their better-educated counterparts, or among residents of Mexico City who are not well educated. Indeed, evidence from some settings suggests that abortion incidence is higher among the well educated than it is among the less educated, because of such factors as differences in desired family size and in the opportunity costs of childbearing.[28] Much of this evidence, however, comes from Sub-Saharan Africa, which is culturally quite distinct from Mexico. On average, the total fertility rate in Sub-Saharan Africa is 5.5 and the desired family size is 5.1, while in Mexico the total fertility rate is just 2.2 and the desired family size is 2.7.[29,30] Certainly there are rural–urban and socioeconomic disparities within countries in these demographic indicators, but even in the poorest and most rural parts of Mexico, the total fertility rate rarely exceeds 3.0.[31] Because overall fertility and desired fertility are so low in Mexico, it seems unlikely that lack of demand for abortion services among less educated women who live far from Mexico City is responsible for the educational differences observed in this analysis, though it could be a contributing factor. When viewed in tandem with the wealth of evidence

from Mexico and elsewhere in Latin America showing inequities in recourse to unsafe abortion, this explanation becomes even less credible.[14–19] A more plausible explanation for the educational differential observed in this analysis is that low-SES women from outside of Mexico City are less able to travel into Mexico City for legal abortion services than are their high-SES counterparts, and thus are procuring clandestine abortions nearer to their place of residence. Given both the financial costs (for transportation, lodging, etc.) of traveling into Mexico City, as well as the logistic complexity of organizing such a trip, it is quite possible that women who are not well educated and have few resources are unable to make the journey, while those with a more extensive education and greater resources more easily overcome these obstacles. This hypothesis is supported by the fact that less educated women from within Mexico City (who do not face travel-related obstacles) are not underrepresented among abortion-seekers.

In no other setting in the world are moderate abortion laws (at least regarding first-trimester abortions), such as Mexico City's, found in such proximity to highly restrictive ones in the absence of bureaucratic barriers (such as border crossings) between them. The only other setting that approximates the Mexican abortion scenario is the United Kingdom, where women in Northern Ireland (which does not permit elective abortion) often travel to England or Wales (where elective abortion is legal), though they must cross the Irish Sea to do so. There is ample evidence that for low-SES women, travel costs are a barrier to undertaking this journey.[32–35]

Our analysis provides compelling evidence that better educated women from outside Mexico City are engaging in a similar sort of voyage, to obtain safe and legal abortion services at the primary health clinics run by the Mexico City Secretariat of Health. The analysis also finds that women with lower levels of education who live outside of Mexico City tend to be underrepresented among those seeking legal abortion services. Further research is needed to ascertain precisely why this may be, but there is good reason to believe that socioeconomic barriers to access may be at least a contributing factor, leaving poorer and less educated women from outside the capital city to face the specter of illegal and clandestine abortions and raising serious issues of health equity.

Although the legalization of abortion in Mexico City is an important step toward addressing abortion-related morbidity and mortality in Mexico, it is not, on its own, sufficient. The policy change has helped low-SES women from within Mexico City obtain access to safe abortion services, but this is not enough to help their counterparts from outside Mexico City who lack the means and ability to travel for legal abortion services. Policymakers at the state and federal levels should do more to ensure that all Mexican women have access to safe, high-quality and affordable comprehensive abortion care, regardless of place of residence.

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RESUMEN

Contexto: *Aunque el aborto es ilegal en la mayor parte de México, en 2007 fue despenalizado en la Ciudad de México, creando una isla de aborto legal en un mar de acceso restringido. Las características de las mujeres que buscan servicios de aborto en la Ciudad de México –en particular su condición socioeconómica y lugar de residencia–, no han sido bien documentadas.*

Métodos: *Se usaron los registros médicos de 22,732 mujeres que buscaron servicios de aborto en una de las cuatro clínicas de nivel primario en la Ciudad de México entre 2013 y 2015 para examinar las características de las mujeres que buscan*

un aborto legal. Se aplicaron análisis de regresión lineal para explorar las diferencias entre las mujeres de la Ciudad de México y las de otros lugares de México, utilizando la escolaridad como un indicador de la condición socioeconómica. Debido a las diferencias geográficas en la estructura de la población, el nivel de escolaridad de las mujeres se normalizó en algunos modelos.

Resultados: *La mayoría de las solicitantes de aborto provinieron de la Ciudad de México (66%) o del área metropolitana circundante (22%), mientras que el resto provino de estados fronterizos cercanos (7%) o del resto de México (5%). Las mujeres del resto de México que buscaron servicios de aborto tuvieron, en promedio, 1.4 años más de escolaridad que las de la Ciudad de México. En los modelos de regresión que normalizaron los niveles de escolaridad, la diferencia en el logro educativo entre las mujeres de la Ciudad de México y las del resto de México fue de 4.9 años (modelo no ajustado) y 3.2 años (modelo ajustado).*

Conclusiones: *Estos hallazgos, junto con la bibliografía sobre el aborto inseguro en México, sugieren que las mujeres que provienen de fuera de la Ciudad de México y que tienen bajos niveles de escolaridad podrían tener menos probabilidades que sus pares con mayor escolaridad de beneficiarse de los servicios de aborto seguro que se brindan en la ciudad.*

RÉSUMÉ

Contexte: *Bien qu'illégal presque partout au Mexique, l'avortement est décriminalisé depuis 2007 dans la ville de Mexico, ainsi devenue îlot d'accès légal dans un océan sinon sujet à restriction. Les caractéristiques des femmes qui viennent se faire avorter à Mexico – notamment leur situation socioéconomique et leur lieu de résidence – ne sont pas bien documentées.*

Méthodes: *Les dossiers médicaux de 22 732 femmes venues se faire avorter dans l'une de quatre cliniques de niveau 1 de la ville de Mexico en 2013−2015 ont servi à examiner les caractéristiques des clientes de l'avortement légal. Les différences entre les résidentes de Mexico et celles venues d'autres régions du Mexique ont été étudiées par analyses de régression linéaire, avec l'éducation comme indicateur de situation socioéconomique. Pour parer aux différences géographiques de structure démographique, le niveau d'éducation des femmes a été normalisé dans certains modèles.*

Résultats: *La plupart des femmes venues se faire avorter étaient originaires de la ville de Mexico (66%) ou de sa périphérie (22%); les autres venaient des États voisins proches (7%) ou du reste du Mexique (5%). Celles en provenance du reste du Mexique avaient, en moyenne, 1,4 année d'éducation de plus que leurs homologues originaires de la ville de Mexico. Dans les modèles de régression à niveaux d'éducation normalisés, la différence de durée de scolarité entre les femmes de Mexico et celles du reste du Mexique est de 4,9 années (modèle non corrigé) et de 3,2 années (modèle corrigé).*

Conclusions: *Ces observations, unies à celles de la documentation sur l'avortement non médicalisé au Mexique, laissent entendre que les femmes qui ne vivent pas à Mexico et dont le niveau d'éducation est faible sont peut-être moins susceptibles que leurs homologues davantage instruites de bénéficier des services d'avortement médicalisé assurés dans la ville.*