

THE PATTERN OF INDUCED ABORTION IN MEXICO: DISPARITIES BETWEEN LOW AND MORE DEVELOPED REGIONS

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JUSTIFICATION

In Mexico, research on disparities in reproductive health and fertility has been largely limited to urban-rural differences, mainly due to data limitations and to an oversight of the importance of in-depth analyses (for example of states and regions) for policy and planning purposes. Reproductive health indicators such as age at first sexual intercourse, age at first union, prevalence of contraceptive use, unmet need, fertility level and desire family size have been changing over time. However, differentials between states and regions have not been fully assessed. In particular, one indicator of reproductive health that has been very little studied is induced abortion incidence. To have a more complete picture of reproductive health in the country, information is needed on abortion incidence, not only nationally but by state and by level of development of regions. In Mexico, despite stringent laws on abortion (except Mexico City), and the high levels of contraceptive use, many women obtain abortions, often unsafe, to avoid unplanned births.

Unsafe abortion is of public health relevance because of the substantial consequences for society, negatively affecting women and their families, public-health systems, and ultimately, economic productivity. Its importance has been highlighted since the ICPD conference in 1994, and continues to be a challenge to both policy makers and health systems. The lack of solid empirical data has resulted in a denial of the gravity of the problem of unsafe abortion and its consequences. One of the most important constraints on measuring the incidence of induced abortion is the stigma that surrounds abortion: Information from women generally greatly underestimates incidence because stigma translates into women's unwillingness to report on their abortion experiences, particularly in face-to-face interviews. Furthermore, in settings where abortion is highly legally restricted, interviewing a representative sample of abortion providers is very difficult because they are understandably unwilling to be identified, given their fear of legal consequences. Consequently, reliable data are very difficult to obtain using direct data collection approaches, in most countries where abortion is highly legally restricted. Yet, measurement of the level of induced abortion is an essential first step in addressing the problem of unsafe abortion and its consequences.

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Different methodologies have been developed to measure abortion incidence at the country level, but many have strong limitations and result in biased estimates. However, one method has been accepted as providing more solid estimates and has been widely applied: the Abortion Incidence Complications Method (AICM). The AICM methodology has been applied in about 15 countries in the developing world including several in Latin America. It has been accepted as a robust methodology that provides relatively good estimates of induced abortion incidence in settings where the procedure is highly restricted, or where abortion may be permitted under broad criteria but its practice is still unsafe for many reasons (Singh et al. 2010c chap 6; Singh and Wulf 1994; Juarez et al. 2008). Country-specific estimates of abortion incidence based on the AICM approach are a key input into the WHO's estimates of worldwide and regional unsafe abortion incidence (WHO 2010; Ahman and Shah 2010).

The AICM has been applied in two prior studies in Mexico to estimate the level of abortion incidence, for the year 1990 and 2006. These estimates of abortion incidence have been extremely valuable and have been essential as a diagnostic tool of the condition of women's reproductive health in Mexico as well as for identifying policy and service gaps. However, until now, it has not been applied to estimate induced abortion for smaller administrative units such as states or regions by level of development, which are relevant to assess the discrepancies within the country. The objective of the study reported in this paper is twofold. The first is a methodological objective, to advance the AICM methodology by adapting it in order to produce estimates of induced abortion and incidence of treatment of unsafe abortion by state, which serve as input for the estimates of abortion incidence by developmental regions. The second is a substantive objective, to present new estimates for Mexico for 2009, nationally and by developmental region of the number and rate of induced abortions and abortion hospital complications in that year. In addition, we present estimates of the number of women treated for complications of induced abortions and the rate of treatment for such complications per 1,000 women. In addition, we will examine the context in which abortion is occurring to better understand differentials within the country. The central hypothesis is that there is a positive association between level of development and induced abortion, explained by the greater desire for small family size and stronger motivation to control the timing of births in more developed and urbanized areas that alone, or combined with inadequate contraceptive services, results in higher induced abortion rates. Findings will allow us to assess the extent to which abortion incidence is associated with socio-economic development in a context where many social, economic and demographic changes have occurred and where the conservative government has reduced public sector support for provision of contraceptive services over the past nine years.

DATA SOURCES

Several sources are used for this study.

For estimating induced abortion three health hospital systems data for 2009 (Secretaria de Salud 2010) is used: the hospital discharge data that provides the number of hospitalized (at least 1 night stay) women treated for abortion complications, the hospital service data

that provides the ambulatory data on the number of abortion procedures (less than 1 day of stay), and the emergency room (ER) data that provide the emergency cases that obtained an abortion procedure in ER area and are not counted as part of the hospitalized cases.

The Health Professionals Survey (HPS) collected information from key informants who have extensive experience related to abortion on their perceptions of the conditions under which women obtain abortions in Mexico. A total of 132 expert key informants in Mexico City and in five states of the country were interviewed, which represent the views of the regions examined. This information is used to obtain the abortion cases not captured by the health hospital system. So jointly the information of the HPS and the health hospital system, provides the number of abortion in the whole country, by state and then by region.

For the examination of the context in which the abortion occurs, the National Survey of Demographic Dynamics for 1997 and 2009 (ENADID 1997 and 2009) will be used. For defining the development level of the regions, official state-level data are used (CONAPO 2006), as well as other sources of data.

This paper presents these indicators at national and regional level. However, to obtain the regional estimates, first estimates have to be calculated for the 31 states of the country and Distrito Federal (Mexico City), and then to group the states by developmental level.

The developmental level index is estimated using a series of variables (based on the official definition of this measure): percentage of the population aged 15 or older that is illiterate; percentage of the population aged 15 or older that has not completed primary school; percentages of inhabitants living in households without drainage or an exclusive toilet, without electricity, without drinkable water, with some level of crowdedness and with an earthen floor; percentage of the population living in localities with fewer than 5,000 inhabitants; and percentage of the working population paid less than two times the minimum salary. This development index is calculated for each state, and we have grouped states into six developmental regions. Mexico does not have an official definition of region, but we have generated regions by developmental level based on the spread index. This categorization is essential for our analyses to establish the relationship between induced abortion incidence and level of development.

As the most recent data available for the number of women hospitalized for treatment of abortion complications is for 2009, estimates of abortion refer to this year. Indicators of abortion included in the analysis are:

- The number of women treated for abortion complications in government facilities.
- The rate of hospital abortion complications per 1000 women in reproductive age.
- The number of women who had an induced abortion.
- The abortion incidence rate per 1000 women of reproductive age.

To explore the context of each region, several reproductive health indicators will be examined such as the prevalence of contraceptive use, the proportion of women who are single and sexually active, among others.

RESULTS

Results are not yet available, as discussed above. Work is in progress, at the moment we have estimates at national level, preliminary estimates for regional level, and the context analysis is underway. The paper will be completed by end of November 2011. One key data item that is available is the national trends of Induced Abortion and Morbidity, 1990-2009.

A total of 1,025,669 women were estimated to have had an induced abortion in Mexico in 2009. These estimates represent an annual abortion rate of 38.0 per 1000 women aged 15-44 for 2009. In this same year, 159,005 women were treated in government facilities for abortion complications, and the rate of treated abortion complications was 5.9 per 1000 women of reproductive age.

Table 1. Measures related to calculating the 2009 abortion estimates, and trend change 1990-2009. Mexico.

Year	Women 15-44 yrs	No. of women hospitalized for induced abortion	No. of induced abortions	Induced abortion hospitalization rate	Abortion rate
National					
1990	19,592,576	106,620	533,098	5.4	25.1
2009	26,991,725	159,005	1,025,669	5.9	38.0

In the 19 year period spanning 1990-2009, the number of annual induced abortions increased from 533,098 in 1990 to 1,025,669 in 2009 (Table 1). However, the number of women of reproductive age also increased, from 19,592,576 to 26,991,725. A more illustrative measure of the change experienced over these two decades is the induced abortion rate; in 1990 it was 25.1 per 1000 women aged 15–44 years, and it increased to 38.0 in 2009. Thus, the abortion rate increased by 51% over this period, an annual rate of increase of 2.7%. So the level of induced abortion has increased substantially in the last 2 decades. This estimate is higher than the average rate for the region of Latin America (33 per 1000 women in reproductive age, WHO 2010).

Preliminary findings of the abortion pattern by region, supports our hypothesis of a positive relationship between the abortion rate and level of development. In order to better understand the factors that might help explain this relationship, we will be examining variation across developmental regions in other related measures including contraceptive use, unmet need, desired family size and the proportion of women who are single and sexually active.

IMPLICATIONS FOR POLICY

The results of these analyses will allow us to better understand how induced abortion incidence is related to the level of socioeconomic development, in a context where many developmental, social and demographic changes have occurred and where the conservative government has reduced support for the national family planning program over the past nine years.

We hope that findings will stimulate policies and programs to improve prevention of unplanned pregnancy and reduction of unsafe abortion, and advance methodologies for estimating abortion incidence in contexts where abortion is highly legally restricted.

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