

## **Induced Abortion in Tehran, Iran, 2009 and 2014: Estimated rates, trends, and correlates**

### **Author:**

Amir Erfani, PhD. Associate Professor, Department of Sociology, Nipissing University, North Bay, Ontario, P1B 8L7; Phone: (705)474-3450 ext. 4019; Fax:(705)474-1947  
E-mail: [amire@nipissingu.ca](mailto:amire@nipissingu.ca)

### **Introduction**

In Iran, induced abortion (hereafter ‘abortion’) is strictly prohibited except when a woman’s life is endangered or her fetus is diagnosed by recognized physicians with certain diseases or defects approved by the Legal Medical Organization of Iran (Erfani and McQuillan, 2008; Erfani, 2011). Outside of these conditions, a woman who wants to terminate an unwanted pregnancy has to go for a clandestine and possibly unsafe abortion. The extent of maternal mortality and health risks associated with unsafe abortions remain uncertain in Iran due to data limitations. Nonetheless, indirect estimates indicate that 5 percent of pregnancy-related maternal deaths are due to post-abortion complications in Iran (Naghavi, 1996). Moreover, many women who are admitted to the hospital for post-abortion care are faced with serious abortion side effects, including nausea, vomiting, diarrhea, lower abdominal cramps, extensive vaginal bleeding, infection and psychological distress (Mohammad-Zadeh and Fallahian, 2004).

Beyond these general findings, policymakers and program planners require accurate information on abortion levels and patterns to assess the extent to which women experience undesired pregnancies and the need for allocation of resources for contraceptive services and supplies. The last indirect assessment of abortion levels for Iran and its provinces estimated 73,000 abortions per year with provincial abortion differentials accounted for religiosity and modern contraceptive use (Erfani and McQuillan, 2008). In a direct estimate of abortion rate in the city of Tehran, Erfani (2011) also estimated the lifetime abortion rate at one per six married women of reproductive age, and about 9 percent of pregnancies end in abortions. These rates translated to 11,543 abortions per year in Tehran, contains one seventh of the country’s population. Updated information on the rates of induced abortion is needed to assess recent levels and correlates of the incidence of abortions in Iran.

This article uses the most recent retrospective abortion data to estimate recent abortion rates and ratios for the population of married women in Tehran, to examine variations in the abortion ratios and rates according to the women’s demographic and socioeconomic characteristics, and to study reasons for abortions, and contraceptive failures that led to unintended pregnancies and hence to abortion. Also, I will document pre- and post-abortion contraceptive use, post-abortion complications, abortions by gestational age, place of abortion and abortion providers.

### **Data**

This study uses data from two Tehran Surveys of Fertility (TSF), which were conducted by the author in August 2009 (n= 2934) and May 2014 (n = 3012) respectively in the city of Tehran, the nation’s capital. The surveys were administered to a population of currently married women aged 15-49 residing in 22 residential districts of the city of Tehran, through face-to-face

interviews conducted by more than 30 trained and experienced female interviewers, employing a two-stage stratified cluster random sampling design. The identical design and questionnaire used in the two surveys allows us to examine trends of abortion incidence over the past five years. The surveys collected a wide range of data, including complete histories of live births, contraceptive use, and abortions, as well as data on fertility intention, breastfeeding, and the socio-economic and demographic characteristics of women and their husbands. In addition to collecting abortion data directly from respondents, the 2014 TSF also applied a third party reporting method (Rossier, 2010) to indirectly collect information about the abortions taken place in the year before the survey among the respondents' peers, including relatives, friends, and neighbors. Data on abortion range from abortion histories, reasons for abortion, contraceptive methods used before and after the abortion, methods of abortion, gestational age of unwanted pregnancy at the time of abortion, place of abortion, and abortion providers. Out of 2935 and 3012 currently married women in 2009 and 2014 respectively, 244 and 163 women respectively reported that they have had at least one induced abortion in their lifetime. These 244 and 163 women, who experienced a total of 311 and 195 abortions in their lifetime respectively, are the focus of this study.

### **Methods**

The findings of this study are based on the percentage distribution of abortions and four different measures of abortion, including age-specific abortion rates, the total abortion rate, the general abortion rate, and abortion ratios. While abortion rates will be computed for the whole population, the percentage distribution of abortions and abortion ratios and general abortion rates, based on abortions in five years prior to the survey, will be calculated for the subgroups of married women of reproductive age. Contrary to recent studies that have included spontaneous abortions in the estimation of abortion ratios<sup>4-5</sup>, the current study do not incorporate spontaneous abortions in the denominator of abortion ratios, since a complete history of pregnancies were not asked in the survey. By contrast, the abortion ratios and rates computed across different subgroups of women show variation across subgroups in the probability that pregnant women will choose abortion. Therefore, the abortion ratio and rate are good measures for comparing abortion behavior of women with different characteristics within the population of Tehran.

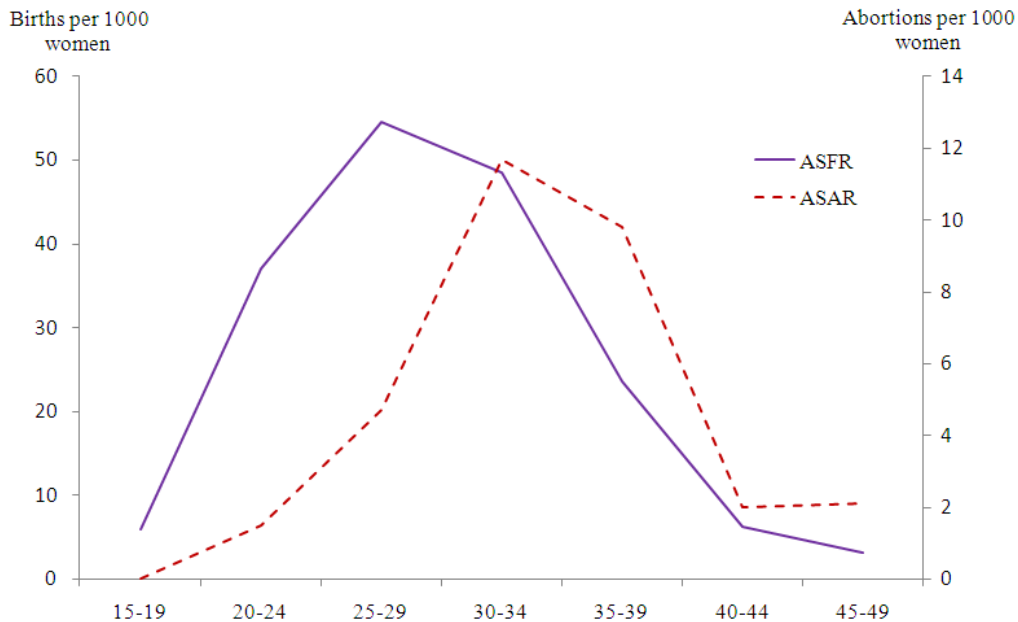
The abortion ratios and rates calculated for socioeconomic and demographic subgroups of women are based on abortions reported in the five years preceding the survey, to minimize bias from retrospective reporting. Also, the estimated abortion rates taken from data collected directly and indirectly (via third party reporting method) will be compared.

### **Factors Associated with Abortion**

Whether a woman obtains an abortion may be related with a number of her demographic and socioeconomic characteristics. This study examines associations between abortion and twelve of the women's demographic and socio-economic characteristics, including *age at abortion*, *parity*, measured by 'number of live births', *fertility preference* and *desire*, measured respectively by 'ideal number of children' and 'desire for more children', respondent's and husband's *education*, calculated by the 'number of years of schooling', *ethnicity*, women's *employment status*, *religiosity*, measured by a Likert-format attitude question as to 'importance of religion in life', *income*, measured indirectly by household's monthly expenditure in U.S. dollars, and the *residential district.*, reflecting women's socioeconomic status.

### **Some Preliminary Results**

Figure 1. Age-specific fertility rates (ASFR) and age-specific abortion rates (ASAR): Tehran, Iran, 2009



**Note:** Rates are based on the abortions performed in the last year preceding the survey.

Reason for Abortion	2009		2014	
	Percent	Frequency	Percent	Frequency
<b>Health-related Reasons</b>	<b>19.3</b>	<b>129</b>	<b>9.2</b>	<b>41</b>
Risk to fetal health	11.5	77	5.8	26
Risk to maternal health	7.8	52	3.4	15
<b>Fertility-related Reasons</b>	<b>61.3</b>	<b>408</b>	<b>59.7</b>	<b>267</b>
Both spouses did not want any more children	43.1	287	20	89
Husband did not want any more children	3.5	23	6	27
Wife did not want any more children	-	-	20.1	90
Spacing next pregnancy	10.0	67	6.9	31
Postponing childbearing <sup>a</sup>	4.7	31	4.5	20
Wife was old (shame of having more children)	-	-	2.2	10
<b>Socioeconomic Reasons</b>	<b>15.1</b>	<b>65</b>	<b>31.1</b>	<b>139</b>
Economic difficulties	9.8	65	23.3	104
Spousal Relationship problems	2.9	19	5.8	26
Gender preference for the child	2.4	16	2	9
<b>Don't Know</b>	<b>4.3</b>	<b>29</b>	-	-
<b>Total</b>	<b>100.0</b>	<b>666</b>	<b>100.0</b>	<b>447</b>

*Note:* <sup>a</sup> Includes pregnancies which occurred before or during the engagement period (*Aghd*), or outside a marital relationship; postponing childbearing for continuing education and emigration.

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