

In Armenia, as in all former Soviet countries, induced abortion was the primary means of fertility control for many years. Induced abortion was first legalized in the Soviet Union in 1920 but was banned in 1936 as part of a pronatalist policy. This decision was reversed in 1955 when abortion for nonmedical reasons was again legalized throughout the former Soviet Union. In 2002 the Parliament of Armenia adopted a new law, “About Reproductive Health and Reproductive Human Rights”, that confirmed the legality of induced abortion up to 12 weeks of gestation. As published in the ADHS 2000 final report, between 10 and 20 percent of maternal deaths were from induced abortion. Over the past five years, this figure has declined substantially to an average of 5 percent of maternal deaths due to induced abortion (2 of 46 cases).

The practice of induced abortion can adversely affect a woman’s health, reduce her chances for further childbearing, and contribute to maternal and perinatal mortality. In an effort to reduce the number of induced abortions, the Ministry of Health (MOH), with assistance from UNFPA, implemented the Armenian National Family Planning Program in 1997. According to official MOH statistics, in 2002 in Armenia, induced abortions before 22 weeks of gestation accounted for 33 percent of all maternal deaths, a figure that declined to 7 percent in 2005 (MOH, 2006).

Information about induced abortion was collected in the ADHS through a detailed reproductive history. In collecting the histories, each woman was first asked about the total number of pregnancies that had ended in live births, induced abortions, miscarriages, and stillbirths. After obtaining these aggregate data, an event-by-event pregnancy history was collected. For each pregnancy, the duration, the month and year of termination, and the outcome of the pregnancy were recorded.<sup>1</sup>

## 6.1 PREGNANCY OUTCOMES

Table 6.1 shows the percent distribution of pregnancy outcomes occurring during the three-year period preceding the survey (approximately from October 2002 to October 2005). Almost half of pregnancies resulted in a live birth (48 percent), and approximately the same proportion resulted in an induced abortion (45 percent).<sup>2</sup> Miscarriages compose 7 percent of all pregnancy outcomes, while stillbirths compose less than 1 percent.

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<sup>1</sup> The pregnancy history was structured to ensure as complete reporting of abortions as possible, especially for the period immediately before the survey. Data were collected in reverse chronological order (i.e., information was first collected about the most recent pregnancy and then about the next to last and so on). This procedure was designed to result in more complete reporting of events for the years immediately before the survey than collecting information in chronological order. At the end of the pregnancy history, interviewers were required to check the consistency between the aggregate data collected at the outset of the reproductive section and the number of events reported in the pregnancy history.

<sup>2</sup> A modification in data collection methodology should be noted. In the 2000 ADHS, respondents were asked about “self-induced abortions” and “induced abortions” separately. This was done in response to other research that indicated a significant proportion of abortions are self-induced (Khachikyan and Abrahamyan, 1998). However, only 37 women in the 2000 ADHS sample reported inducing an abortion themselves without the assistance of a medical professional. Thus, this distinction was dropped in the 2005 ADHS questionnaire.

Table 6.1 Pregnancy outcome by background characteristics

Percent distribution of pregnancies ending in the three years preceding the survey by type of outcome, according to background characteristics, Armenia 2005

Background characteristic	Pregnancy outcome				Total	Number of pregnancies
	Live birth	Induced abortion	Miscarriage	Stillbirth		
<b>Age at pregnancy outcome</b>						
<20	81.2	8.6	10.2	0.0	100.0	121
20-24	67.1	27.2	5.6	0.1	100.0	672
25-34	38.1	54.2	7.4	0.3	100.0	949
35-44	20.8	72.9	5.3	1.0	100.0	234
45-49	*	*	*	*	*	14
<b>Pregnancy order</b>						
First	90.0	1.5	8.5	0.0	100.0	456
Second	79.3	12.2	8.3	0.1	100.0	349
Third	37.5	57.5	5.0	0.0	100.0	319
Fourth	23.3	70.4	6.2	0.0	100.0	292
Fifth or higher	14.6	79.1	5.4	0.9	100.0	574
<b>Residence</b>						
Urban	50.3	42.2	7.3	0.3	100.0	1,190
Rural	45.2	48.8	5.7	0.3	100.0	800
<b>Region</b>						
Yerevan	50.1	42.0	7.5	0.4	100.0	755
Aragatsotn	46.9	45.5	7.6	0.0	100.0	123
Ararat	65.8	31.0	2.9	0.3	100.0	135
Armavir	42.9	49.6	7.5	0.0	100.0	176
Gegharkunik	42.8	52.8	4.4	0.0	100.0	172
Lori	49.7	42.9	7.5	0.0	100.0	122
Kotayk	45.0	48.1	6.9	0.0	100.0	186
Shirak	37.7	56.2	4.5	1.6	100.0	142
Syunik	56.8	32.7	10.5	0.0	100.0	70
Vayots Dzor	41.7	50.9	7.3	0.0	100.0	22
Tavush	44.4	49.8	5.5	0.3	100.0	89
<b>Education</b>						
Basic general	51.8	38.1	8.3	1.9	100.0	145
Secondary general	43.5	47.9	8.3	0.3	100.0	817
Specialized secondary	51.3	44.4	4.3	0.0	100.0	599
Higher	51.8	41.9	6.3	0.0	100.0	429
<b>Wealth quintile</b>						
Lowest	41.8	53.1	4.5	0.6	100.0	416
Second	47.2	44.7	8.2	0.0	100.0	423
Middle	55.1	39.8	5.0	0.1	100.0	334
Fourth	49.6	40.3	9.5	0.7	100.0	434
Highest	48.8	45.6	5.6	0.0	100.0	384
Total	48.2	44.8	6.7	0.3	100.0	1,990

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

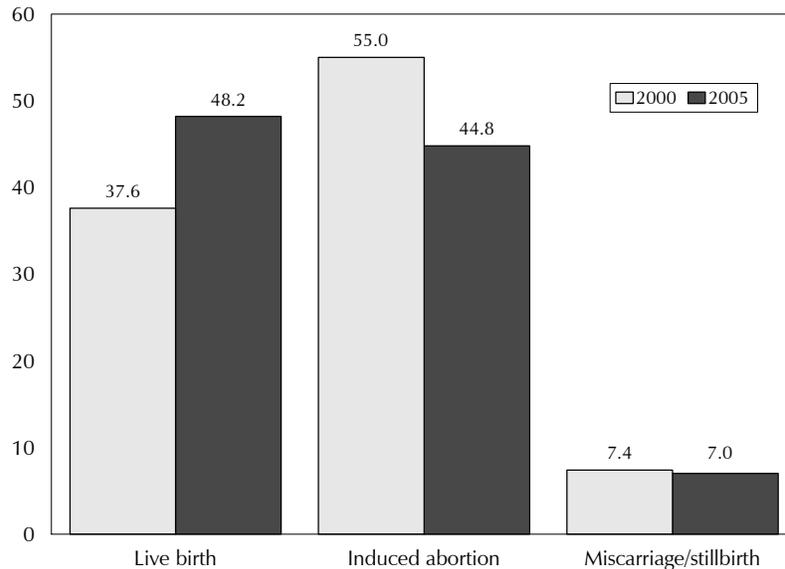
The proportion of pregnancies that end in induced abortion rises dramatically with age of the woman and with pregnancy order. Less than 10 percent of pregnancies to teenagers end in abortion, compared with one-quarter of pregnancies among women age 20-24, half of those to women age 25-34, and almost three-quarters of pregnancies among women age 35-44. There is an even steeper increase by pregnancy order, from 2 percent of first pregnancies to 79 percent of fifth or higher pregnancies.

There is little difference in pregnancy outcome by urban-rural residence, although rural women are slightly more likely than urban women to have had a recent pregnancy end in an induced abortion. It is interesting to note that there is a curvilinear relationship between induced abortion and education. Women with a basic general education have the lowest percentage of pregnancies resulting in induced abortion (38 percent), and women with a secondary general education have approximately one-quarter more pregnancies resulting in induced abortion (48 percent). Among women with specialized secondary and higher education, the percentage of pregnancies ending in abortion decreases (44 percent and 42 percent, respectively).

There is substantial variation in pregnancy outcomes by region, ranging from a low of 31 percent of pregnancies resulting in induced abortion in Ararat to a high of 56 percent in Shirak.

The proportion of pregnancies ending in induced abortion has declined over the past five years, from 55 percent in 2000 to 45 percent in 2005 (Figure 6.1). Conversely, the proportion of pregnancies ending in live births has increased.

**Figure 6.1 Trends in Pregnancy Outcomes**



## 6.2 LIFETIME EXPERIENCE WITH INDUCED ABORTION

Table 6.2 shows women’s lifetime experience with abortion. The statistics on the proportion of women who have ever had an abortion are based on all women 15-49 irrespective of their exposure to the risk of pregnancy.

Over one-third of all respondents have had an induced abortion (37 percent). Among women who have had an abortion, the mean number of abortions per woman is 2.6. As expected, the frequency of abortions increases with age: among women 20-24 years of age, 8 percent have had an abortion, compared with 44 percent of women age 25-34 and 60 percent of women age 35 and older. There is also a positive relationship between having had an induced abortion and number of living children. Less than 1 percent of women with no living children have had an abortion, compared with 22 percent of women with one child, 64 percent of women with two to three children, and 69 percent of women with four or more children.

Table 6.2 Lifetime experience with induced abortion

Percentage of women who have had at least one induced abortion, and among these women, percent distribution by number of abortions, and the mean number of abortions, according to background characteristics, Armenia 2005

Background characteristic	Percentage of women with an induced abortion	Number of women	Among women who had an abortion, percent distribution by number of abortions				Total	Mean number of abortions	Number of women with abortions
			1	2-3	4-5	6+			
<b>Age</b>									
<20	0.2	1,123	*	*	*	*	*	*	2
20-24	8.1	1,131	74.0	23.3	2.7	0.0	100.0	1.4	92
25-34	44.4	1,679	43.1	42.0	9.4	5.6	100.0	2.3	745
35+	60.1	2,633	29.9	48.1	12.9	9.0	100.0	2.8	1,582
<b>Number of living children</b>									
0	0.6	2,352	*	*	*	*	*	*	13
1	21.6	743	51.7	36.8	7.6	3.8	100.0	2.0	160
2-3	64.4	3,194	34.6	46.6	11.3	7.6	100.0	2.6	2,056
4+	69.0	278	30.4	40.3	17.1	12.2	100.0	3.2	192
<b>Marital status</b>									
Never married	0.5	2,043	*	*	*	*	*	*	10
Currently married	54.5	4,044	35.1	45.4	11.8	7.7	100.0	2.6	2,203
Formerly married	43.3	479	42.3	44.5	7.5	5.7	100.0	2.2	208
<b>Residence</b>									
Urban	35.0	4,194	36.6	44.7	11.0	7.6	100.0	2.6	1,467
Rural	40.2	2,372	34.3	46.1	12.0	7.6	100.0	2.6	955
<b>Region</b>									
Yerevan	34.4	2,468	38.7	43.1	10.4	7.8	100.0	2.6	849
Aragatsotn	38.0	292	33.7	42.7	13.2	10.4	100.0	2.6	111
Ararat	38.2	462	38.9	50.9	8.0	2.2	100.0	2.1	177
Armavir	35.1	567	39.5	52.4	7.3	0.7	100.0	1.9	199
Gegharkunik	45.7	443	24.2	36.1	17.7	22.0	100.0	3.9	202
Lori	39.0	537	39.7	54.9	4.8	0.6	100.0	1.9	209
Kotayk	41.7	563	22.2	44.9	19.0	13.9	100.0	3.6	235
Shirak	35.4	563	35.7	45.4	12.6	6.2	100.0	2.7	199
Syunik	28.9	281	64.2	33.9	1.3	0.7	100.0	1.5	81
Vayots Dzor	34.4	107	29.5	50.2	14.4	5.9	100.0	2.6	37
Tavush	42.9	285	26.8	48.2	18.6	6.4	100.0	2.7	122
<b>Education</b>									
Basic general	27.2	529	39.7	42.8	13.7	3.8	100.0	2.4	144
Secondary general	40.8	2,440	32.5	44.4	12.6	10.5	100.0	2.9	995
Specialized secondary	42.6	1,997	37.8	45.1	11.2	5.8	100.0	2.4	850
Higher	27.0	1,600	37.4	48.2	8.5	5.9	100.0	2.4	432
<b>Wealth quintile</b>									
Lowest	39.3	1,164	35.8	44.9	11.1	8.2	100.0	2.6	457
Second	37.8	1,284	34.7	45.5	12.0	7.8	100.0	2.7	485
Middle	39.3	1,303	38.0	44.6	10.8	6.6	100.0	2.4	513
Fourth	36.6	1,375	34.4	46.6	11.9	7.1	100.0	2.6	504
Highest	32.0	1,440	35.4	44.7	11.2	8.7	100.0	2.7	461
Total	36.9	6,566	35.7	45.3	11.4	7.6	100.0	2.6	2,421

Note: Currently married includes respondents in consensual union (living together). Formerly married includes divorced, separated, and widowed respondents. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

There are no pronounced differentials in lifetime prevalence of induced abortions by urban-rural residence. There is a curvilinear relationship between level of education and induced abortion with both the least educated women and the most educated women less likely to have an induced abortion than other women. It is possible that reduced access to abortion services among less educated women accounts for the low recourse to abortion (i.e., when a woman gets pregnant, she is more likely to give birth); at the same time, it is possible that women with higher education, who use more reliable methods of birth control, are less likely to become accidentally pregnant in the first place. There is significant variation in lifetime experience of induced abortion by region, ranging from a low of 29 percent in Syunik to a high of 46 percent in Gegharkunik.

Among women who have ever had an abortion, almost two-thirds have had more than one abortion. Forty-five percent of women who ever had an abortion reported 2 to 3 abortions, and 11 percent reported 4 to 5 abortions. Eight percent had 6 or more abortions; for these women, abortion is the main method of fertility control. There is considerable variation by region.

### 6.3 RATES OF INDUCED ABORTION

In Table 6.3, rates of induced abortion are shown for the three-year period preceding the ADHS survey (approximately October 2002 to October 2005). Three types of rates are presented: age-specific abortion rates, the total abortion rate, and the general abortion rate. Age-specific abortion rates (ASARs), which are shown per 1,000 women, express the number of abortions among women of a given age, divided by the total number of women in that age group. The total abortion rate (TAR), which is expressed per woman, is a summary measure of the age-specific rates. The TAR is interpreted as the number of abortions a woman would have in her lifetime if she experienced the currently observed age-specific rates during her childbearing years.

At the national level, the age-specific rates for induced abortion increase in the first few age groups of women, peak among women age 25-29 (123 per 1,000 women), and decline in the older age group. Age-specific abortion rates are lower than the fertility rates of women under age 25 but are greater than the fertility rates for older women (Figure 6.2).

The total abortion rate is 1.8. The rural TAR is almost 50 percent higher than the urban TAR (2.2 versus 1.5). The age-specific abortion rates are higher among rural women than among urban women for all but the youngest and oldest cohorts.

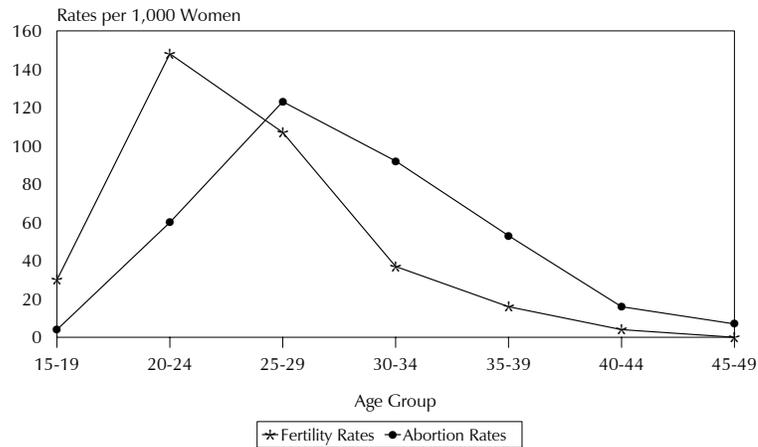
Table 6.3 Induced abortion rates

Age-specific induced abortion rates (per 1,000 women), total abortion rates (TAR), and general abortion rate (GAR) for the three-year period preceding the survey, Armenia 2005

Age group	Place of residence		Total
	Urban	Rural	
15-19	5	2	4
20-24	53	73	60
25-29	112	144	123
30-34	75	122	92
35-39	39	73	53
40-44	15	16	16
45-49	9	2	7
<b>Rate<sup>1</sup></b>			
TAR 15-49	1.5	2.2	1.8
TAR 15-44	1.5	2.2	1.7
GAR	48	64	54

<sup>1</sup>Total abortion rate (TAR) expressed per woman. General abortion rate (GAR) (abortions divided by number of women 15-44) expressed per 1,000 women.

**Figure 6.2 Age-specific Fertility Rates and Abortion Rates, 2005**



ADHS 2005

Table 6.4 shows induced abortion rates by background characteristics. There are significant differentials by background characteristics. The total abortion rates vary by region from a low of 1.1 in Ararat and Syunik to a high of 2.9 in Gegharkunik. Yerevan has a TAR of 1.6. The women with the highest education have the lowest TAR.

#### 6.4 TRENDS IN INDUCED ABORTION

The 2005 ADHS TAR of 1.8 is significantly lower than the 2000 ADHS rate of 2.6. The decline is evident at every age group except the oldest (Figure 6.3). The reason for such a difference is not clear, particularly given the accompanying decline in contraceptive use. It is notable that more married women reported that their husbands were residing elsewhere in 2005 than in 2000 (14 percent versus 11 percent; data not shown).

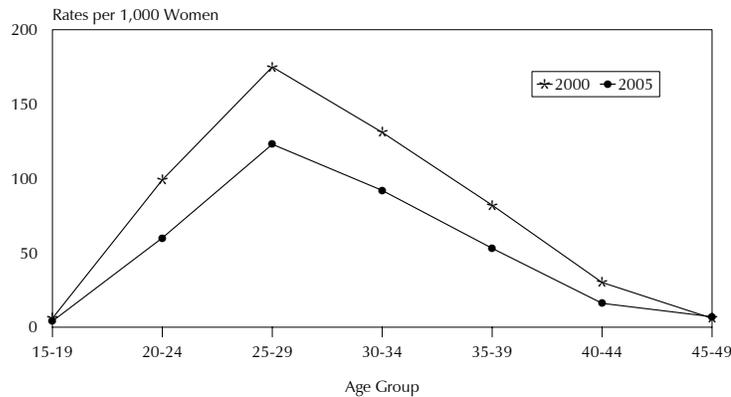
**Table 6.4 Induced abortion rates by background characteristics**

Total induced abortion rates for the three years preceding the survey and mean number of abortions among women age 40-49, by background characteristics, Armenia 2005

Background characteristic	Total abortion rate among women age 15-49	Mean number of abortions among women age 40-49
<b>Residence</b>		
Urban	1.5	1.7
Rural	2.2	1.8
<b>Region</b>		
Yerevan	1.6	1.6
Aragatsotn	2.6	1.9
Ararat	1.1	1.3
Armavir	2.1	1.0
Gegharkunik	2.9	3.1
Lori	(1.4)	1.2
Kotayk	2.1	3.1
Shirak	1.8	1.8
Syunik	1.1	0.6
Vayots Dzor	(1.4)	1.7
Tavush	1.9	2.1
<b>Education</b>		
Basic general	1.7	1.5
Secondary general	2.1	2.0
Specialized secondary	1.7	1.6
Higher	1.4	1.4
<b>Wealth quintile</b>		
Lowest	2.4	1.6
Second	2.0	1.8
Middle	1.4	1.7
Fourth	1.5	1.7
Highest	1.6	1.8
Total	1.8	1.7

Note: Figures in parentheses are based on 250-499 unweighted women.

**Figure 6.3 Trends in Age-Specific Abortion Rates, 2000 and 2005**



Although it is possible that a decline in sexual activity could have contributed to a lower TAR, approximately the same proportion of women in both surveys reported being sexually active during the month preceding the survey (Table 7.6.1). Thus, the data do not suggest a decline in sexual activity.

Furthermore, even if there was a recent decline in the prevalence of induced abortion, an accompanying decline in lifetime abortion measures would not be expected. For example, whereas almost half (47 percent) of all respondents in the 2000 ADHS had had an induced abortion, just 37 percent reported having an induced abortion according to the 2005 ADHS. Furthermore, according to the 2000 ADHS, women age 40-49 had an average of 2.8 abortions, compared with 1.7 in the current survey.

Detailed analysis is beyond the scope of this report. However, a number of factors could contribute to this anomaly. First, the apparent trend could be due to underreporting of abortions in 2005 compared with 2000. Anecdotal evidence suggests that the drug Cytotec<sup>®</sup>—the trade name of a synthetic prostaglandin analogue, misoprostol—recently became available in Armenia. This drug was originally used for treatment of ulcers but currently is widely used for induction of abortion in early stages of pregnancy before 49 days of gestation. Typically, a woman whose menstrual period is delayed for a week or more might obtain the drug in tablet form in a private pharmacy. Private pharmacy sales are not regulated in Armenia, and Cytotec can be purchased without a physician’s prescription or a positive pregnancy test. Combination of the drug taken both by mouth and in the vagina for a period of two to three days is effective in inducing an abortion. The total cost is approximately 1,000 drams, significantly cheaper than a medically induced abortion for a pregnancy of up to 12 weeks of gestation performed under medical supervision. Thus, compared with an induced abortion performed in a clinic, a Cytotec-induced abortion usually is self-prescribed and can be performed at home. In this case, the woman might consider it a menstrual regulation procedure and might not report the event as an abortion in the survey.

Second, if social norms are beginning to change, then it is possible that women feel an increased reluctance to openly answer questions about abortion. Third, underreporting might be due to the interviewer performance, as the interviewers were not trained to ask specifically about any types of menstrual regulation procedures performed by the woman at home. In the case of using Cytotec or similar medication at home, the woman may not consider herself to be pregnant and may not report this event, contrary to a more advanced pregnancy terminated in the clinic.

## 6.5 USE OF CONTRACEPTIVE METHODS BEFORE ABORTION

It is important to know the contraceptive behavior of women that leads to an induced abortion. This information is of particular interest to both family planning counselors and abortion providers because a woman who has an abortion is either not using a method of contraception at the time of conception or is using (perhaps incorrectly) a method that failed. For each pregnancy that terminated in the three years preceding the survey, respondents were asked whether they were using a method of contraception at the time they became pregnant, and if so, which method.

Table 6.5 shows use of contraception at the time of conception. Approximately half of respondents who had an induced abortion were using a method of contraception at the time they became pregnant (52 percent). Thus, these abortions were the result of contraceptive failure. The majority of these contraceptive failures (43 percent overall) occurred after failure of a traditional contraceptive method—33 percent while using withdrawal and 6 percent using periodic abstinence.

Contraceptive method	Pregnancy outcome			All pregnancies
	Live birth	Induced abortion	Miscarriage	
No method used	84.0	48.1	80.5	67.6
<b>Any method</b>	16.0	51.9	19.5	32.4
<b>Any modern method</b>	4.1	9.2	3.9	6.3
Pill	0.1	1.1	0.6	0.6
IUD	1.2	0.3	0.0	0.7
Injection	0.0	0.0	0.0	0.0
Male condom	2.8	7.0	3.3	4.7
Foam/jelly	0.0	0.8	0.0	0.4
<b>Any traditional method</b>	11.9	42.7	15.7	26.1
Lactational amenorrhea	0.4	0.0	0.0	0.2
Periodic abstinence	0.2	5.7	0.0	2.7
Withdrawal	9.9	33.0	10.5	20.4
Other	1.3	4.0	5.2	2.8
Total	100.0	100.0	100.0	100.0
Number of pregnancies	959	892	133	1,990

Note: Total includes 6 stillbirths that are not shown separately.

In addition to a high level of contraceptive failure, it is important to note that almost half of pregnancies resulting in induced abortion occurred to women not using any method of contraception to prevent the pregnancy. It seems clear that access to and use of more reliable methods of contraception would reduce the incidence of induced abortion, thus improving the reproductive health of the women of Armenia.