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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.

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. According to official statistics, in Armenia, induced abortions account for a significant proportion of maternal deaths (between 10 and 20 percent). In an effort to reduce the number of induced abortions, the Ministry of Health, with assistance from UNFPA, implemented the Armenian National Family Planning Program in 1997.

Information about induced abortion was collected through a detailed reproductive history. In collecting the histories, each woman was first asked about the total numbers of pregnancies that had ended in live births, induced abortions, self-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.¹

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 November 1997 to November 2000). Slightly more than one-third of pregnancies resulted in a live birth (38 percent), while more than half resulted in an induced abortion (55 percent).² Miscarriages and stillbirths compose 7 percent and 0.5 percent, respectively, of all pregnancy outcomes.

¹ 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.

² The subsequent analysis combines "self-induced abortion" into the "induced abortion" category. Whereas other research has indicated a significant proportion of self-induced abortions (see Khachikyan et al., 1998), only 37 women in the ADHS sample reported inducing an abortion themselves without the assistance of a medical professional.

Table 6.1 Pregnancy outcomes by background characteristics

Percent distribution of pregnancies terminating in the three years preceding the survey by type of outcome, according to background characteristics, Armenia 2000

Background characteristic	Pregnancy outcome				Total	Number of pregnancies
	Live birth	Induced abortion	Mis-carriage	Still-birth		
Residence						
Urban	38.3	53.9	7.2	0.6	100.0	1,202
Rural	36.9	56.1	6.6	0.4	100.0	1,220
Region						
Yerevan	40.9	52.7	5.7	0.7	100.0	626
Aragatsotn	32.0	60.6	7.1	0.4	100.0	155
Ararat	40.5	52.0	7.5	0.0	100.0	287
Armavir	28.1	64.0	7.9	0.0	100.0	299
Gegharkunik	38.0	55.7	5.6	0.7	100.0	284
Lori	51.7	41.3	7.0	0.0	100.0	171
Kotayk	26.8	63.7	8.3	1.3	100.0	178
Shirak	33.1	58.1	8.8	0.0	100.0	184
Syunik	36.1	56.0	7.8	0.0	100.0	91
Vayots Dzor	51.9	42.2	5.8	0.0	100.0	38
Tavush	43.9	48.0	6.1	2.0	100.0	111
Education						
Primary/middle	48.8	43.3	7.1	0.9	100.0	188
Secondary	35.6	57.4	6.4	0.6	100.0	994
Secondary-special	34.8	58.5	6.5	0.2	100.0	893
Higher	44.7	45.8	8.9	0.6	100.0	347
Total	37.6	55.0	6.9	0.5	100.0	2,423

There is no significant difference in pregnancy outcome by urban-rural residence. It is interesting to note that there is a curvilinear relationship between induced abortion and education. Women with a primary/middle education have the lowest percentage of pregnancies resulting in induced abortion (43 percent). Approximately one-third more pregnancies end in abortion among women with a secondary or secondary-special education (57 percent and 59 percent, respectively). Among women with higher education, the percentage of pregnancies ending in abortion is virtually the same as the percentage for women with primary/middle school education (46 percent).

There is significant variation between pregnancy outcomes among regions, ranging from a low of 41 percent of pregnancies in Lori resulting in induced abortion to a high of 64 percent in Armavir and Kotayk.

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.

Almost half of all respondents have had an induced abortion (47 percent). The mean number of abortions per woman is 3.3. As expected, the frequency of abortions increases with age: among women 20-24 years of age 14 percent have had an abortion, compared with 57 percent of women age 25-34 and 73 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 25 percent of women with one child, 77 percent of women with two to three children and 84 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 2000

Background characteristic	Percentage with an induced abortion	Number of women	Distribution of women who have had an induced abortion by number of abortions					Mean number of abortions	Number of women with abortions
			1	2-3	4-5	6+	Total		
Current age									
<20	0.6	1,160	*	*	*	*	*	*	6
20-24	13.8	1,007	60.2	33.1	6.3	0.4	100.0	1.7	139
25-34	56.5	1,531	32.6	42.8	14.4	10.2	100.0	2.9	866
35+	73.1	2,731	19.9	43.2	19.9	17.1	100.0	3.7	1,997
Number of living children									
0	0.5	2,121	*	*	*	*	*	*	10
1	25.0	662	53.6	26.3	14.3	5.7	100.0	2.3	165
2-3	76.8	3,237	25.2	44.2	16.9	13.6	100.0	3.3	2,487
4+	84.3	410	13.1	38.6	24.8	23.5	100.0	4.4	346
Residence									
Urban	45.0	3,942	25.0	44.6	17.0	13.4	100.0	3.2	1,776
Rural	49.5	2,488	26.3	39.6	18.6	15.5	100.0	3.5	1,233
Region									
Yerevan	44.1	2,206	25.3	44.6	16.7	13.4	100.0	3.2	972
Aragatsotn	51.4	279	25.3	46.6	12.4	15.7	100.0	3.4	144
Ararat	50.0	642	27.3	45.7	19.1	7.8	100.0	3.0	321
Armavir	51.1	553	25.7	37.9	19.4	17.0	100.0	3.5	283
Gegharkunik	53.8	484	18.6	33.5	20.9	27.0	100.0	5.0	260
Lori	38.6	489	42.4	38.6	13.9	5.1	100.0	2.4	189
Kotayk	49.4	505	16.4	38.2	21.4	24.1	100.0	4.1	250
Shirak	45.9	611	27.0	48.2	15.5	9.3	100.0	2.9	281
Syunik	46.2	271	26.8	46.5	18.0	8.8	100.0	2.8	125
Vayots Dzor	41.9	113	25.0	51.6	16.7	6.8	100.0	2.8	47
Tavush	49.4	278	25.7	38.4	19.2	16.7	100.0	3.5	137
Education									
Primary/middle	30.4	593	22.4	37.1	20.6	19.9	100.0	3.9	180
Secondary	47.8	2,341	26.3	40.5	17.5	15.8	100.0	3.5	1,119
Secondary-special	54.1	2,295	23.7	44.5	18.2	13.7	100.0	3.3	1,241
Higher	39.0	1,201	30.0	44.4	15.5	10.1	100.0	3.0	468
Current marital status									
Never married	0.2	1,851	*	*	*	*	*	*	4
Currently married	66.7	4,125	25.2	42.3	17.7	14.8	100.0	3.4	2,752
Formerly married	55.6	455	28.2	45.8	16.9	9.1	100.0	3.0	253
Total	46.8	6,430	25.5	42.5	17.6	14.3	100.0	3.3	3,008

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

There are no pronounced differentials between the prevalence of induced abortions and urban-rural residence. There is a curvilinear relationship between education and induced abortion with both the least and most educated women less likely to resort to induced abortion than other women. It is possible that higher levels of fertility 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; prevalence in Lori and Vayots Dzor (39 percent and 42 percent, respectively), is significantly lower than other regions such as Gegharkunik (54 percent), Aragatsotn, and Armavir (51 percent each).

Among women who have ever had an abortion, three-fourths have had more than one abortion. Forty-three percent of women reported 2 to 3 abortions, and 18 percent reported 4 to 5. Fourteen percent had 6 or more abortions; for these women, abortion is the main method of fertility control. Table 6.2 shows that certain regions have very high percentages of repeat abortions. In Gegharkunik and Kotayk, for example, more than eight in ten women who have ever had an abortion have had a repeat abortion.

These data confirm the results of a survey conducted in Armenia in 1997 that found that 65 percent of ever-married respondents had had an induced abortion. Among women who had ever had an abortion, 79 percent had more than one abortion (NPRH, 1998).

6.3 RATES OF INDUCED ABORTIONS

In this section, rates of induced abortion are shown for the three-year period preceding the ADHS survey (approximately from November 1997 to November 2000). Three types of rates are presented: age-specific abortion rates, the total abortion rate, and the general abortion rate. Age-specific 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 abortions a woman would have in her lifetime if she experienced the currently observed age-specific rates during her childbearing years.

As shown in Table 6.3, 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 (175 per 1,000 women), and decline in the older ages. 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 6.1).

The total abortion rate is 2.6. The rural TAR is more than 60 percent higher than the urban TAR (3.4 versus 2.1). 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

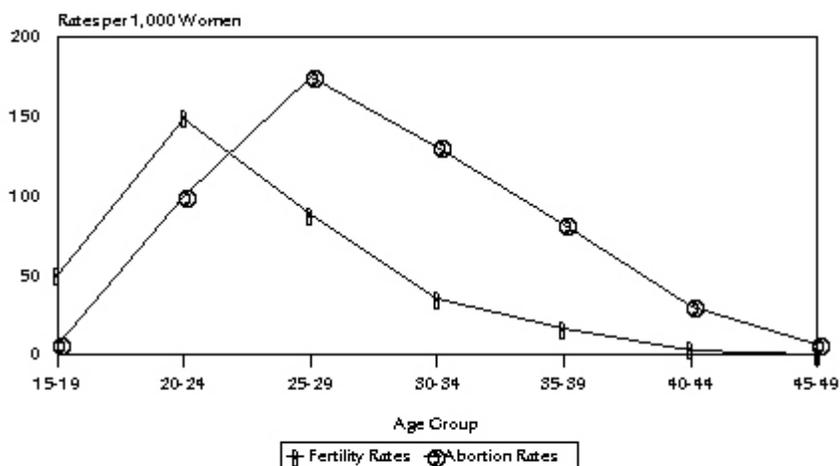
Age-specific induced abortion rates (per 1,000 women) and total abortion rates for the three-year period preceding the survey, Armenia 2000

Age	Age-specific abortion rates		
	Urban	Rural	Total
15-19	6	6	6
20-24	85	124	99
25-29	128	241	175
30-34	99	176	131
35-39	73	96	82
40-44	29	31	30
45-49	7	5	6
Rates			
Total abortion rate 15-49 ¹	2.1	3.4	2.6
Total abortion rate 15-44 ¹	2.1	3.4	2.6
General abortion rate ²	65	106	81

¹ Total abortion rate expressed per woman

² General abortion rate (abortions divided by number of women 15-44) expressed per 1,000 women

Figure 6.1 Age-specific Fertility Rates (ASFRs) and Age-Specific Abortion Rates (ASARs)



Armenia DHS 2000

Table 6.4 and Figure 6.2 show induced abortion rates by background characteristics. There are significant differentials by background characteristics. Total abortion rates vary by residence: the TAR in rural areas is higher by more than one abortion per woman than in urban areas (3.4 versus 2.1). It should be noted that significantly more rural than urban married women use withdrawal (40 percent versus 26 percent), which is one of the least reliable methods of contraception (see Table 5.5). Thus, the higher rural TAR may be attributed, at least in part, to the higher proportion of women who are trying, unsuccessfully, to control their fertility by using withdrawal.

The total abortion rates also vary by region from a low of 1.8 in Lori to a high of 4.3 in Gegharkunik. Yerevan has a TAR of 1.9. The TAR has a negative relationship with education. For example, women with a primary/middle school education have a TAR of 2.9, while women with higher education have a TAR of 1.7.

The TAR in Armenia is significantly higher than any post-Soviet Central Asian country where TARs range from a low of 0.7 in Uzbekistan (IOG and MI, 1997) to 1.6 in the Kyrgyz Republic (RIOP and MI, 1998). However, Armenia's Caucasian neighbor Georgia has a significantly higher TAR: 3.7 compared with 2.6 in Armenia (Serbanescu et al., 2000). It should be noted that fertility levels in the two countries are the same (1.7 TFRs), but contraceptive prevalence in Georgia is significantly lower (41 percent versus 61 percent in Armenia).

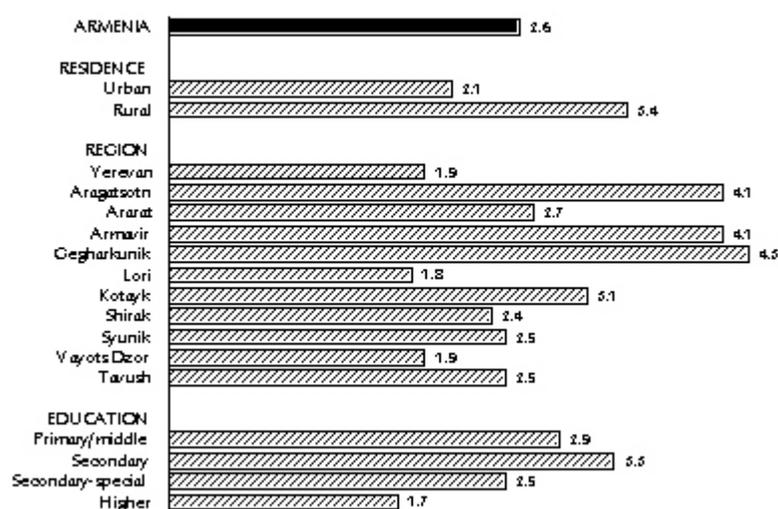
Table 6.4 Induced abortion rates by background characteristics

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 2000

Background characteristic	Total abortion rate ¹	Mean number of abortions among women age 40-49
Residence		
Urban	2.1	2.7
Rural	3.4	3.0
Region		
Yerevan	1.9	2.6
Aragatsotn	4.1	2.9
Ararat	2.7	2.9
Armavir	4.1	2.8
Gegharkunik	4.3	5.4
Lori	1.8	1.6
Kotayk	3.1	3.5
Shirak	2.4	1.9
Syunik	2.5	2.4
Vayots Dzor	1.9	2.2
Tavush	2.5	3.1
Education		
Primary/middle	2.9	3.1
Secondary	3.3	3.0
Secondary-special	2.5	2.8
Higher	1.7	2.2
Total	2.6	2.8

¹ Rate for women age 15-49

Figure 6.2 Total Abortion Rate (Abortions per Woman) by Background Characteristics



Armenia DHS 2000

6.4 TRENDS IN INDUCED ABORTIONS

Using the ADHS data, induced abortion trends can be assessed in several ways. One approach is to compare the total abortion rate at the time of the survey with the mean number of abortions to women age 40-49. On average, women who have come to the end of their reproductive years have had an average of 2.8 abortions (Table 6.4). There is no difference between the mean number of abortions to women age 40-49 and the total abortion rate (2.8 versus 2.6). These data indicate that, overall, there has been no significant increase or decrease in levels of induced abortion over the last several decades. Trends do appear, however, by certain background characteristics. The data indicate a decline in levels of abortion among urban women and a slight increase among rural women. Furthermore, in Yerevan, Gegharkunik, and Tavush, the difference between the mean number of abortions to women age 40-49 indicates a decrease in abortions. In Aragatsotn, Armavir, and Shirak, on the other hand, the level of abortions seems to have increased.

Another approach to understanding abortion trends is to examine the ASARs over time. Because women age 50 and above were not interviewed in the survey, the rates are successively truncated as the number of years before the survey increases (Table 6.5). These data indicate a decline in abortion during the most recent period, from a TAR (for women 15-44) of 3.1 for the period 5-9 years before the survey to 2.7 for the period 0-4 years preceding the survey. The data presented in Table 6.5 indicate that during the period 5-14 years preceding the survey, levels of induced abortion were higher than before or after. This is shown by the ASARs for cohorts age 20-24 and 25-29. The rates shown for each cohort for the earliest period (15-19 years before the survey) and the most recent period (0-4 years before the survey) are identical, whereas they are significantly higher for the middle period. This period of higher abortion levels corresponds to calendar years 1987 through 1996.

Table 6.5 Trends in induced abortion rates

Age-specific induced abortion rates (per 1,000 women) for five-year periods preceding the survey, by woman's age at the time of the abortion, Armenia 2000

Woman's age at the time of the abortion	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	6	12	6	7
20-24	104	147	133	103
25-29	180	194	192	180
30-34	128	139	166	[187]
35-39	84	83	[132]	-
40-44	31	[46]	-	-
45-49	[7]	-	-	-
TAR 15-49	2.7	-	-	-
TAR 15-44	2.7	3.1	-	-

Note: Estimates in brackets are truncated. The total abortion rate (TAR) is expressed per woman.

6.5 USE OF CONTRACEPTIVE METHODS BEFORE ABORTIONS

It is important to know the contraceptive behavior of women that lead 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 6.6 shows use of contraception at the time of conception. The majority of respondents who had an induced abortion were using a method of contraception at the time they became pregnant (64 percent). Thus, these abortions were the result of contraceptive failure. More than half of all induced abortions (52 percent) occurred after method failure of a traditional contraceptive method—46 percent while using withdrawal and 6 percent using periodic abstinence.

In addition to a high level of contraceptive failure, it is important to note that one-third of pregnancies resulting in induced abortion were not from women 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.

Table 6.6 Use of a method of contraception before pregnancies

Percent distribution of pregnancy outcomes in the three years preceding the survey by contraceptive method used at the time of conception, Armenia 2000

Method used at time of conception	Pregnancy outcome			Total
	Live birth	Induced abortion	Mis-carriage	
No method used	82.6	36.2	74.4	56.5
Any method	17.4	63.8	25.6	43.5
Any modern method	5.1	8.7	4.5	7.0
Pill	0.0	0.5	0.0	0.3
IUD	0.1	0.9	0.0	0.5
Injectables	0.0	0.2	0.0	0.1
Condom	0.9	4.8	1.5	3.1
Female condom	0.1	0.1	0.0	0.1
Lactational amenorrhea	3.9	2.2	3.0	2.9
Any traditional method	11.9	52.4	21.1	34.8
Periodic abstinence	1.3	6.2	3.6	4.2
Withdrawal	10.6	46.2	17.5	30.7
Any folk method	0.5	2.7	0.0	1.6
Douche	0.3	2.1	0.0	1.3
Other	0.1	0.5	0.0	0.3
Total	100.0	100.0	100.0	100.0
Number of pregnancies	905	1,334	167	2,416

Note: Total includes 11 stillbirths, which are not shown separately.