

4

CHAPTER

ABORTION

This chapter examines the data on abortion and related issues collected in the surveys in 11 countries of the European and Eurasia Region (E&E Region).¹ The surveys show that unintended pregnancy is the primary cause of abortion in these countries. Throughout much of the decade of the 1990s, USAID has assisted these countries in strengthening the provision of reproductive health services. By increasing the availability and access to safe effective methods of contraception, USAID has played a major role in reducing recourse to abortion and allowing women and couples to control their reproductive lives.

Prior to the breakup of the Soviet Union in 1991, a characteristic feature of the countries under Soviet influence was their reliance on abortion as a means of fertility control. In these countries, abortion has long been readily available while effective means of contraception have not. Romania was an exception to this pattern from 1966 to 1989, when neither legal abortion nor contraception was available to women as a result of the government's pronatalist policy. These restrictions were removed in late 1989, so that by the early 1990s Romania resembled the populations of the former Soviet Union with abortion used as the primary means of fertility control or as a backup to less effective, traditional contraceptive methods (primarily, withdrawal).²

¹Data are shown for Moldova, Romania, Russia, and Ukraine in Eastern Europe; Armenia, Azerbaijan, and Georgia in the Caucasus; and Kazakhstan, the Kyrgyz Republic, Turkmenistan, and Uzbekistan in Central Asia. With the exception of Russia, the surveys are all nationally representative. The survey in Russia was conducted in three primarily urban sites (Ivanovo Oblast, Yekaterinburg City, and Perm City) and cannot be considered representative of Russia or the urban areas of Russia.

² In this report, the term "traditional methods of contraception" refers to withdrawal and periodic abstinence. The term "modern methods" includes the pill, the IUD, condom, male and female sterilization, injectables, implants, and vaginal methods. See Chapter 5 for method-specific, current use rates among married women of reproductive age.

The widespread use of abortion in the former Soviet Union resulted from many factors. Chief among these were the liberal government policies toward abortion and centralized medical systems, which focused more on curative than on preventive care. Before 1990, the medical establishments of these countries were relatively isolated from advances in Western contraceptive technology such as the low-dose pills, which have reduced the serious side effects of oral contraceptives. These factors continue to play a role in the former Soviet countries at the current time although, since the mid-1990s, the use of modern effective methods of contraception has increased with a corresponding decrease in reliance on abortion (Popov AA & David HP, 1999). Nevertheless, reliance on abortion as a means of fertility control is still high in many countries of the region.

Section 1 of the chapter provides a brief overview of the procedures for collecting abortion data in the Reproductive Health Surveys and Demographic Health Surveys. In Section 2, the abortion rates calculated from the RHS/DHS surveys are compared with government statistics on abortion. The remaining sections of the chapter are based solely on RHS/DHS data. Sections 3, 4, and 5 examine the age pattern, differentials by population characteristics, and recent time trends in abortion. Section 6 discusses the relationship between unintended pregnancy, contraception, and abortion. Sections 7 and 8 examine reasons for seeking abortion and post-abortion medical complications. The chapter concludes with a summary of findings.

4.1 Survey Data

The questionnaire structure and procedures used to collect abortion data were similar, although not identical, in the Reproductive Health Surveys (Moldova, Romania, Russia,

Ukraine, Azerbaijan, and Georgia) and the Demographic Health Surveys (Armenia, Kazakhstan, the Kyrgyz Republic, Turkmenistan, and Uzbekistan). Although some variation exists in the survey instruments, all followed the same procedures and collected the same basic information.³

In each survey, abortion data were collected in the reproductive section of the women's questionnaire. The section begins with a series of questions to determine if the respondent had ever been pregnant and includes specific questions about whether she ever had an abortion, miscarriage, or stillbirth as well as questions about the number of live births she has had.

Following these preliminary questions, the respondent was asked about each of her pregnancies beginning with the most recent and progressing back to her first pregnancy. For each pregnancy the following information was collected: date of pregnancy termination, pregnancy outcome (miscarriage, abortion, stillbirth, and live birth) and, for live births, information about the sex, survivorship, and age of the child or age at death for deceased children.

In the RHS and in most DHS, information was also collected about the planning status of pregnancies. Additionally, in the RHS, questions were asked concerning the reasons for obtaining an abortion, care received where the abortion was performed, and post-abortion medical complications.

4.2 Comparison of Survey and Government Statistics

In most countries of the world, data on abortion collected in retrospective surveys suffer from substantial underreporting. In most populations there is a social stigma

³ The questionnaires used in each survey are published in the various country reports.

attached to abortion and in many countries the practice is illegal. These are not significant factors in the former Soviet countries where abortion has long been legal, readily available at government health facilities, and widely practiced. Of course, recall error is always an issue in retrospective surveys. But, at least for the years immediately preceding a survey, recall error should not be a major factor. However, for time periods well before the survey date, the reporting of abortion may be less than complete, a possibility to be borne in mind when investigating abortion time trends.

Statistics on abortion are available from government sources for most of the countries surveyed. The registration systems generating these statistics rely on the recording of events in public and private health facilities. The post-Soviet era has seen the shifting of health care costs from the state to the individual and an expansion of the private health sector. There has also been increased reliance on early-term abortion as opposed to later-term abortion. These trends may have affected the completeness of abortion reporting in the government systems but they should have little effect on the reporting of events by survey respondents. Only if all abortions that occur in both public and private health facilities as well as events occurring outside clinical settings are reported, will government statistics on abortion be complete.

Table 4.2 compares abortion statistics from the surveys and from government sources in terms of the general abortion rate (GAR), a summary measure that indicates the annual number of abortions per 1,000 women of reproductive age. There is good agreement between the GARs from both data sources for Moldova. For all other countries, the survey estimates exceed government rates by at least 20%. In the Caucasus, the survey estimates are several

times higher than official rates—so that there appears to be a breakdown in the government system for collecting abortion statistics. Overall, it appears that government statistics underestimate abortion levels in most of the surveyed countries.

4.3 Levels and Age Pattern of Abortion

Table 4.3 shows age-specific abortion rates for the 3-year period preceding the surveys as well as the total abortion rate (TAR). Age-specific rates are calculated as the ratio of the number of abortions to the number of women-years of exposure in the specified age interval during a specified time period. They are expressed per 1,000 women-years of exposure. The TAR is the sum of the age-specific rates, expressed on a per woman basis. It is interpreted as the number of abortions that a woman would have during her lifetime if she experienced the age-specific rates observed in the specified time period.

There is considerable variation in the TARs. The highest rates are in the Caucasus where, at current age-specific rates, a woman would have more than three abortions during her lifetime in Azerbaijan and Georgia and more than two abortions in Armenia. The TAR for Georgia (3.7 abortions per woman) is probably as high as anywhere in the world. In Eastern Europe, the rates are variable, being higher in Romania and Russia (2.2 and 2.3 abortions per woman) than in Moldova and Ukraine (1.3 and 1.6). Abortion levels also differ among the Central Asian Republics. In Kazakhstan and the Kyrgyz Republic, where the cultural influence of Russia has been stronger and larger proportions of the population are ethnically Russian, levels of abortion are distinctly higher (1.4 and 1.5 abortions per woman) than in Turkmenistan or Uzbekistan (0.8 and 0.6).

Table 4.2
General Abortion Rates from the Surveys and from Government Sources
Per 1,000 Women of Reproductive Age
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Time Period	General Abortion Rates* (per 1,000)	
		Survey Estimates (women 15-44)	Government Sources† (women 15-49)
<u>Eastern Europe</u>			
<i>Moldova, 1997</i>	1994–1996	43	43
<i>Romania, 1999</i>	1997–1999	74	62
<i>Russia, 1999‡</i>	1996–1998	80	U
<i>Ukraine, 1999</i>	1997–1999	55	42
<u>Caucasus</u>			
<i>Armenia, 2000</i>	1998–2000	81	17§
<i>Azerbaijan, 2001</i>	1998–2000	116	10
<i>Georgia, 1999</i>	1997–1999	125	18
<u>Central Asia</u>			
<i>Kazakhstan, 1999</i>	1997–1999	47	32
<i>Kyrgyz Rep., 1997</i>	1995–1997	45	31
<i>Turkmenistan, 2000</i>	1998–2000	26	U
<i>Uzbekistan, 1996</i>	1994–1996	20	16

* General abortion rate is the annual number of abortions per 1,000 women of reproductive age.

† General abortion rates from official government sources are expressed per 1,000 women aged 15–49 and are slightly lower than general abortion rates expressed per 1,000 women aged 15–44, since very few women aged 45 years or older reported any abortions.

‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

§ General abortion rate for women 15–49 in 1998.

U = Unavailable.

Table 4.3
Age-Specific* and Total Abortion Rates†, 0–2 Years Preceding the Survey
Among Women Aged 15–44
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Time Period	Age-Specific Abortion Rates (per 1,000)						Total Abortion Rate (per woman)
		15–19	20–24	25–29	30–34	35–39	40–44	15–44
<u>Eastern Europe</u>								
<i>Moldova, 1997</i>	1994–1996	12	74	81	46	31	16	1.3
<i>Romania, 1999</i>	1997–1999	26	101	119	105	58	21	2.2
<i>Russia, 1999‡</i>	1996–1998	43	117	114	101	54	35	2.3
<i>Ukraine, 1999</i>	1997–1999	16	90	90	69	37	21	1.6
<u>Caucasus</u>								
<i>Armenia, 2000</i>	1998–2000	6	100	176	131	82	30	2.6
<i>Azerbaijan, 2001</i>	1998–2000	6	86	177	176	132	63	3.2
<i>Georgia, 1999</i>	1997–1999	29	162	191	179	122	50	3.7
<u>Central Asia</u>								
<i>Kazakhstan, 1999</i>	1997–1999	12	57	87	65	44	20	1.4
<i>Kyrgyz Rep., 1997</i>	1995–1997	6	57	77	81	58	22	1.5
<i>Turkmenistan, 2000</i>	1998–2000	1	18	48	48	36	18	0.8
<i>Uzbekistan, 1996</i>	1994–1996	2	18	33	36	23	15	0.6

* Age-specific rates are calculated as the ratio of the number of abortions to the number of women-years of exposure in the specified age interval during a specified time period. They are expressed per 1,000 women-years of exposure.

† The total abortion rate (TAR) is interpreted as the number of abortions that a woman would have during her lifetime if she experienced the observed age-specific rates.

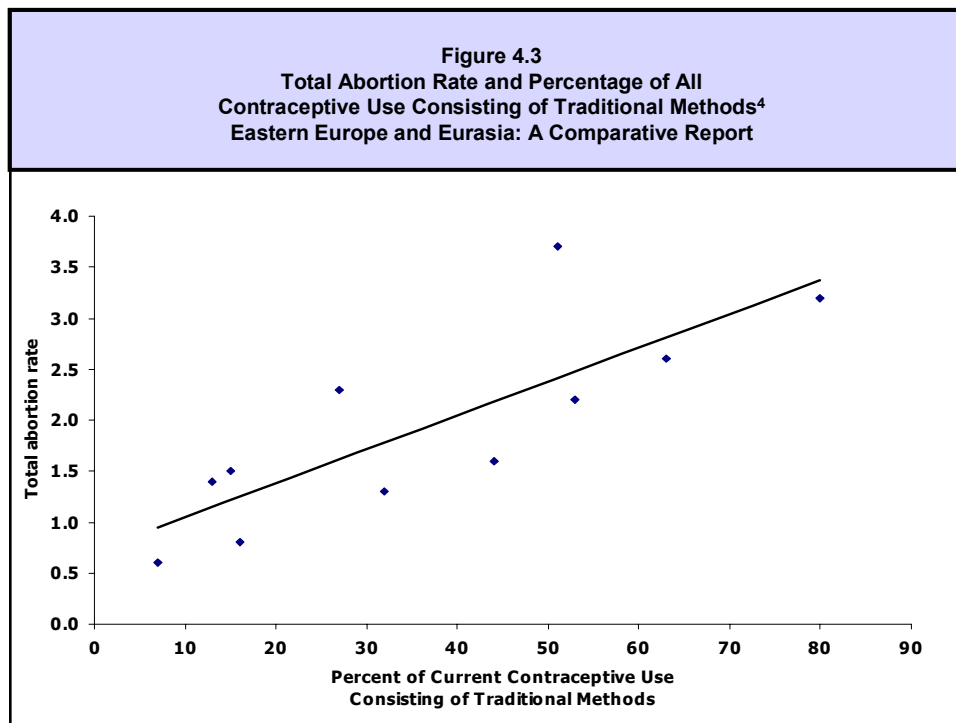
‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

These different levels of abortion are the result of many factors (i.e., marriage and cohabitation patterns, desired family size, access and use of modern and traditional methods of contraception, acceptability of abortion within the population, etc.). An analysis of these factors is beyond the scope of this report. However, the effect of traditional method use on abortion rates is evident from the survey data. Figure 4.3 shows a scatter plot of abortion rates in the surveyed countries in relation to the proportion of total contraceptive use consisting of traditional methods.⁴ The regression line indicates a clear relationship. The greater the traditional component of all contraceptive use, the higher the abortion rate tends to be.

Although, there are differences in the level of abortion, the age pattern is similar in all countries. Overall, the rates are relatively low at both ends of the reproductive age span and

relatively high in mid-reproductive years. Nevertheless, there are differences between countries. The Eastern European countries, display a somewhat earlier age pattern than the other countries. This is evident in relatively high rates at age 15–19, a broad peak from age 20 to 30 and sharp fall in the rates among women age 35 and above.

The age pattern in the Caucasus and Central Asia indicates low rates among women 15–19, a broad peak from age 25 to 34 and a decline from age 35 which is less pronounced than in the Eastern European countries. In Georgia the age-specific rates are well above 100 per 1,000 among women age 20 to 39, which indicates that each year, on average, about one out of every seven women at those ages will have an abortion. In both Azerbaijan and Georgia, relatively high abortion rates persist among women 40–44 where the annual rates are 63 and 50 abortions per 1,000 women, respectively.



⁴The ratios of traditional method use to all method use were computed from Table 5.2.2.

4.4 Abortion Differentials

Residence

Table 4.4.1 shows abortion rates for urban and rural areas. The differentials do not follow a consistent pattern. In Moldova and Ukraine and the four Central Asian Republics, urban rates exceed rural rates by 0.3 or 0.4 abortions per woman. The only exception is the Kyrgyz Republic where the urban rate exceeds the rural rate by 0.9 abortions per women. In a second set of countries (Romania, Armenia, and Azerbaijan), rural rates exceed urban rates by between 0.4 (Romania) and 1.3 (Armenia) abortions per woman. In Georgia, abortion rates are equally high in urban and rural areas (3.6 and 3.7 abortions per woman).

These differences require further investigation. Preliminary observation indicates that

differentials in the use of contraception do not seem to be the cause. In all of these countries, overall contraceptive use is about the same in urban and rural areas. For example, in Kazakhstan, where urban abortion rates exceed rural rates, contraceptive prevalence rates for women in union are 65% in urban areas and 60% in rural areas. Alternatively, in Romania and Armenia rural abortion rates exceed urban rates and again there is no difference in prevalence rates between areas (about 60% in urban and rural areas in both countries) (see Table 5.2.2).

However, method mix appears to be related to these differences. In all three countries where rural rates exceed urban rates, traditional method use (predominately, withdrawal) among women in union is greater in rural than in urban areas: Romania (41% rural, 30% urban); Armenia (44% rural, 35% urban); and

Region and Country	Time Period	Total Abortion Rate (per woman)	Residence		Education Level			
			Urban	Rural	Secondary Incomplete	Secondary Complete	Technicum	Post-Secondary
Eastern Europe								
Moldova, 1997	1994–1996	1.3	1.4	1.1	1.4	1.2	1.3	1.3
Romania, 1999	1997–1999	2.2	2.0	2.4	2.7	2.0	†	1.2
Russia, 1999‡	1996–1998	2.3	‡	‡	3.3	2.5	2.4	2.0
Ukraine, 1999	1997–1999	1.6	1.7	1.3	1.8	1.7	1.6	1.4
Caucasus								
Armenia, 2000	1998–2000	2.6	2.1	3.4	2.8	3.3	2.5	1.6
Azerbaijan, 2001	1998–2000	3.2	2.8	3.4	3.2	3.3	3.2	2.5
Georgia, 1999	1997–1999	3.7	3.6	3.7	4.3	3.9	4.0	3.2
Central Asia								
Kazakhstan, 1999	1997–1999	1.4	1.6	1.2	1.8	1.4	1.5	1.1
Kyrgyz Rep., 1997	1995–1997	1.5	2.1	1.2	0.8	1.2	1.8	1.6
Turkmenistan, 2000	1998–2000	0.8	1.0	0.7	0.6	0.6	1.0	1.1
Uzbekistan, 1996	1994–1996	0.6	0.9	0.5	0.5	0.5	0.8	0.9

* The total abortion rate (TAR) is interpreted as the number of abortions that a woman would have during her lifetime if she experienced the observed age-specific rates.

† Technicum, specific to former Soviet Union countries, does not exist in Romania.

‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

Azerbaijan (50% rural, 38% urban).⁵ Whatever the reason for the greater reliance on traditional methods in the rural areas, this appears to be part of the explanation of the higher abortion rates in those areas.

Education

Table 4.4.1 also shows abortion rates by women's education. For many but not all countries, the relationship is inverse with abortion rates being lower among more educated women. The inverse relationship is present in Romania, Russia, and Ukraine, where the TAR tends to decline with each higher level of education. The overall differentials between secondary incomplete and postsecondary education are substantial, amounting to 1.5 abortions per woman in Romania. Moldova differs from the other Eastern European countries and essentially shows no differentials by education level. The countries of the Caucasus also exhibit the inverse pattern with education, with abortion levels relatively stable among women in the first three education categories but distinctly lower among women with a postsecondary education.

The situation is different again in Central Asia. Kazakhstan exhibits the inverse relationship with the TAR declining between women with a secondary incomplete education (1.8 abortions per woman) and women with a postsecondary education (1.1 abortions per woman). On the other hand, for the Kyrgyz Republic, Turkmenistan, and Uzbekistan abortion levels tend to be positively correlated with education.

Rates for women with a technical school or postsecondary education exceed the rates for women with less education by about 0.5 abortions per woman.

Ethnicity

Table 4.4.2 shows abortion rates by ethnicity. In Moldova, significant proportions of survey respondents were of Russian (15%) or Ukrainian (10%) ethnicity. However, the abortion rates of Moldovan, Russian, and Ukrainian women differed little (between 1.2 and 1.5 abortions per women). In Romania, the significant ethnic minorities were Hungarian (6%) and Roma (5%).⁶ The abortion level of Romanian women (2.1 abortions per woman) was higher than that of Hungarian women (1.2 abortions per woman), and that of Roma women was higher still—about twice as high as the rate for Romanian women (4.6 abortions per woman).⁷

Significant proportions of the population of Central Asia were of European ethnicity (primarily Russian but also Ukrainian, Tatar, German, etc.) during the Soviet era. There has been steady migration of these populations from Central Asia in the 1990s, but at the time of the surveys women of European ethnicity were a substantial proportion of survey respondents in Kazakhstan (39%) and the Kyrgyz Republic (13%), although not in Turkmenistan (5%) and Uzbekistan (6%). The abortion rates of women of European ethnicity varied, being highest in Kazakhstan and the Kyrgyz Republic (1.7 and 2.2 abortions per woman) and lower in Turkmenistan and Uzbekistan (1.6 and 0.9

⁵ See Tables 5.2.2, 5.2.3, and 5.7 for prevalence statistics and 12-month failure rates for traditional methods.

⁶ The 1992 population Census reported that the Roma (Gypsies) were 1.8% of the total population. However, that figure is considered an underestimate (Council of Europe, 1998).

⁷ Roma women had both the highest fertility and the highest abortion rates of any ethnic group in Romania. This is not surprising since age at marriage is very early among Roma women and only 16% of Roma women in union used a more effective method of contraception (1999 Romania Reproductive Health Survey).

Table 4.4.2
Total Abortion Rates* by Ethnicity, 0–2 Years Preceding the Survey
Among Women Aged 15–44
Eastern Europe and Eurasia: A Comparative Report

Region, Country, and Time Period	Percent of Respondents [†]	Total Abortion Rate (per woman)
<i>Eastern Europe</i>		
<i>Moldova, 1994–1996</i>		
Women of Moldovan Ethnicity	68	1.3
Women of Russian Ethnicity	15	1.2
Women of Ukrainian Ethnicity	10	1.5
<i>Romania, 1997–1999</i>		
Women of Romanian Ethnicity	87	2.1
Women of Hungarian Ethnicity	6	1.2
Women of Roma Ethnicity	5	4.6
<i>Central Asia</i>		
<i>Kazakhstan, 1997–1999</i>		
Women of Kazakh Ethnicity	54	1.1
Women of European Ethnicity	39	1.7
<i>Kyrgyz Republic, 1995–1997</i>		
Women of Kyrgyz Ethnicity	62	1.2
Women of European Ethnicity	13	2.2
<i>Turkmenistan, 1998–2000</i>		
Women of Turkmen Ethnicity	78	0.8
Women of European Ethnicity	5	1.6
<i>Uzbekistan, 1994–1996</i>		
Women of Uzbek Ethnicity	83	0.6
Women of European Ethnicity	6	0.9

* The total abortion rate (TAR) is interpreted as the number of abortions that a woman would have during her lifetime if she experienced the observed age-specific rates of a specified time period.

† The difference between the sum of these percentages and 100% is attributable to other ethnic groups that comprise a small percentage of women and are not shown.

abortions per woman). Nevertheless, the abortion rates of European women were at least 50% higher than those of women of the major ethnic group in each republic.

4.5 Time Trends

Time trends in abortion were calculated from the pregnancy history data collected in the surveys. The period of analysis is constrained by the fact that the age range for which data are available is truncated at younger and younger ages for progressively earlier time

periods. In order to include an extensive age range of women in the analysis (i.e., women 15–39), the analysis is limited to a nine-year period.⁸ Table 4.5.1 shows TARs for women 15–39 in the time periods 6–8 and 0–2 years preceding the surveys.

Seven of the 11 surveys show a decline in the level of abortion. The declines are substantial, amounting to between 0.3 and 0.6 abortions per woman in Moldova, Russia, Armenia, Kazakhstan, and Uzbekistan and about 1.0 abortion per woman in Romania and Georgia.

⁸ The CDC surveys interviewed women in the age range 15–44. Thus, for the period 6–8 years preceding those surveys there is no information on reproductive events for women age 40 and above. Inclusion of time periods earlier than 6–8 years prior to the survey would require that the age range of women be further restricted.

Table 4.5.1
Trends in Total Abortion Rates*
Among Women Aged 15–39
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Total Abortion Rate (per woman)		Absolute change
	Years before the survey		
	6–8	0–2	
<u>Eastern Europe</u>			
<i>Moldova, 1997</i>	1.6	1.2	-0.4
<i>Romania, 1999</i>	3.2 [†]	2.0	-1.2
<i>Russia, 1999‡</i>	2.6 [§]	2.2	-0.4
<i>Ukraine, 1999</i>	1.5	1.5	0.0
<u>Caucasus</u>			
<i>Armenia, 2000</i>	3.1	2.5	-0.6
<i>Azerbaijan, 2001</i>	2.3	2.9	0.6
<i>Georgia, 1999</i>	4.3	3.4	-0.9
<u>Central Asia</u>			
<i>Kazakhstan, 1999</i>	1.6	1.3	-0.3
<i>Kyrgyz Rep., 1997</i>	1.2	1.4	0.2
<i>Turkmenistan, 2000</i>	0.7	0.8	0.1
<i>Uzbekistan, 1996</i>	0.9	0.6	-0.3

* The total abortion rate (TAR) is interpreted as the number of abortions that a woman would have during her lifetime if she experienced the observed age-specific rates of a specified time period.

† Rates for Romania are from the 1993 Reproductive Health Survey of Romania for the 3-year period preceding the survey.

‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

§ Rates for Russia are from the 1996 Russia Women's Reproductive Health Survey for the 2-year period preceding the survey.

These represent declines of between 15% and 38% over the 6-year interval between midpoints of the estimates.

In three of the remaining surveys, (Ukraine, the Kyrgyz Republic, and Turkmenistan), there is little or no change in the abortion rates. In the case of Azerbaijan, there is a clear increase in the abortion level from 2.3 to 2.9 abortions per woman.

Table 4.5.2 shows age-specific abortion rates for the time periods 6–8 and 0–2 years before the surveys. The significance of changes in individual age-specific rates should not be overemphasized; nevertheless there are

noteworthy differences in the relative contributions of younger and older women to changes in abortion levels. In five of the seven countries where abortion has declined (Moldova, Romania, Russia, Armenia, Kazakhstan), women under 25 years of age have contributed more than 25% of the overall decline.⁹ Abortion declines have also been significant in the age group 25–29, so that women under age 30 have contributed the major part of the overall decline in these countries. On the other hand, in the two remaining countries showing an abortion decline (Georgia and Uzbekistan), in excess of 50% of the decline occurred to women age 30 and older.

⁹ In Armenia, women under age 25 contributed 51% of the overall decline. This is consistent with the finding that in the late 1990s there was a significant postponement of marriage in Armenia (see Chapter 3).

Table 4.5.2
Trends in Age-Specific Abortion Rates*
Per 1,000 Women Aged 15–39
Eastern Europe and Eurasia: A Comparative Report

	Age-Specific Abortion Rate (per 1,000)			Age-Specific Abortion Rate (per 1,000)			Age-Specific Abortion Rate (per 1,000)			Age-Specific Abortion Rate (per 1,000)		
	Years before the survey		Absolute Change	Years before the survey		Absolute Change	Years before the survey		Absolute Change	Years before the survey		Absolute Change
	6–8	0–2		6–8	0–2		6–8	0–2		6–8	0–2	
Eastern Europe												
	Moldova, 1997			Romania, 1999[†]			Russia, 1999[‡]			Ukraine, 1999		
15–19	13	12	-1	32	26	-6	44	43	-1	15	16	1
20–24	100	74	-26	153	101	-52	144	117	-27	94	90	-4
25–29	91	81	-10	209	119	-90	145	114	-31	76	90	14
30–34	64	46	-18	167	105	-62	94	101	7	58	69	11
35–39	50	31	-19	79	58	-21	55	54	-1	57	37	-20
TAR§ (15–39)	1.6	1.2	-0.4	3.2	2.0	-1.2	2.4	2.2	-0.2	1.5	1.5	0.0
Caucasus												
	Armenia, 2000			Azerbaijan, 2001			Georgia, 1999					
15–19	13	6	-7	2	6	4	27	29	2			
20–24	157	100	-57	61	86	25	152	162	10			
25–29	211	176	-36	136	177	41	245	191	-54			
30–34	148	131	-17	147	176	29	229	179	-50			
35–39	90	82	-8	108	132	24	205	122	-83			
TAR§ (15–39)	3.1	2.5	-0.6	2.3	2.9	0.6	4.3	3.4	-0.9			
Central Asia												
	Kazakhstan, 1999			Kyrgyz Rep., 1997			Turkmenistan, 2000			Uzbekistan, 1996		
15–19	18	12	-6	10	6	-4	4	1	-3	4	2	-2
20–24	88	57	-31	46	57	12	23	18	-5	22	18	-4
25–29	85	87	2	67	77	11	39	48	8	55	33	-23
30–34	81	65	-16	78	81	2	45	49	4	50	36	-14
35–39	44	44	1	49	58	10	19	36	16	42	23	-20
TAR§ (15–39)	1.6	1.3	-0.3	1.2	1.4	0.1	0.7	0.8	0.1	0.9	0.6	-0.3

* Age-specific rates are calculated as the ratio of the number of abortions to the number of women-years of exposure in the specified age interval during a specified time period. They are expressed per 1,000 women-years of exposure.

† For the earlier time period, rates for Romania are from the 1993 Reproductive Health Survey of Romania for the 3-year period preceding the survey.

‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2. For the earlier time period, rates are from the 1996 Russia Women's Reproductive Health Survey for the 2-year period preceding the survey.

§ The total abortion rate (TAR) is interpreted as the number of abortions that a woman would have had during her lifetime if she experienced the observed age-specific rates.

4.6 Unintended Pregnancy, Abortion, and Contraception

In most of the surveys, data were collected on the planning status of each pregnancy that occurred in the 5-year period preceding the survey. The information collected allows the classification of pregnancies as *intended* (wanted at the time of occurrence), *mistimed* (wanted at a later time) or *not wanted* (not

wanted at the time of occurrence or at any time in the future). The latter two categories are referred to as *unintended* pregnancies.

Table 4.6.1 indicates that in six of the nine surveys, for which the data are available, a majority of pregnancies were unintended (between 55% and 66%) and the vast majority of these were not wanted at all. Only in Moldova, Kyrgyz Republic, and Uzbekistan

were more than half of pregnancies intended. A noteworthy feature of reproductive behavior in all of the countries surveyed is the very high proportion of unintended pregnancies that are aborted. Table 4.6.1 indicates that between 71% and 90% of unintended pregnancies are aborted.

The relationship between unintended pregnancy, contraception and abortion has been examined in several papers based on the surveys in Armenia, Kazakhstan, Kyrgyz Republic, and Uzbekistan (Westoff CF, et al., 1998, 2000, and 2002). The majority of abortions reported in these surveys occurred to women seeking to avoid pregnancy; i.e., women using either modern or traditional

methods of contraception or nonusers who declared a desire to avoid pregnancy—a category known in the family planning literature as women with an unmet need for contraception. The purpose here is to indicate the proportion of all abortions contributed collectively by women in these three categories (modern and traditional users and nonusers in need of contraception) and the proportion of all abortions contributed separately by each of these categories.¹⁰

Table 4.6.2 indicates that, collectively, the three categories of women seeking to avoid pregnancy account for between 63% and 95% of all abortions. The contribution of modern users to all abortions is disproportionately

Table 4.6.1 Percent Distribution of Pregnancies by Planning Status and Percent of Unintended Pregnancies Terminated by Abortion Among Pregnancies in the Last 5 Years Eastern Europe and Eurasia: A Comparative Report						
Region and Country	Planning Status (percent distribution*)				Percent of Pregnancies that are Unintended	Percent of Unintended Pregnancies that are Aborted
	Intended	Mistimed	Not Wanted	Unsure		
Eastern Europe						
<i>Moldova, 1997</i>	57	9	33	0	42	83
<i>Romania, 1999†</i>	44	9	47	1	55	82
<i>Russia, 1999‡</i>	33	16	49	2	66	83
<i>Ukraine, 1999</i>	44	17	38	2	54	82
Caucasus						
<i>Armenia, 2000</i>	38	9	53	0	62	87
<i>Azerbaijan, 2001†</i>	42	9	48	1	57	84
<i>Georgia, 1999</i>	40	10	49	1	59	90
Central Asia						
<i>Kazakhstan, 1999</i>	§	§	§	§	§	§
<i>Kyrgyz Rep., 1997 </i>	66	11	23	0	34	71
<i>Turkmenistan, 2000</i>	§	§	§	§	§	§
<i>Uzbekistan, 1996 </i>	84	4	12	0	16	74

* Percentages may not sum to 100% due to rounding.

† Most recent pregnancy in last 5 years.

‡ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

§ The 1999 Kazakhstan and 20000 Turkmenistan Surveys, collected planning status only for live births.

|| Data for Kyrgyz Republic and Uzbekistan are for the last 3 years.

¹⁰ The full Westoff model classifies women into modern and traditional users and five categories of nonusers (women with an unmet need for family planning, women seeking pregnancy, women at low risk of pregnancy, pregnant women, and those who have never had sex). The objectives of this synopsis are achieved by focusing on only three of these categories.

small relative to their representation among women seeking to avoid pregnancy while the contribution of traditional users and nonusers is disproportionately high. For example, in Kazakhstan, users of modern methods are 72% of women seeking to avoid pregnancy and account for only 17% of all abortions. Traditional users and nonusers are 28% of women seeking to avoid pregnancy but account for 67% of all reported abortions. The conclusion is that the greater the use of modern methods by women who desire to avoid pregnancy, the lower the abortion rate.

This conclusion is further supported by the contrasting distributions of women seeking to

avoid pregnancy in the Central Asian Republics and in Armenia. In Central Asia modern use far outweighs traditional use while in Armenia the reverse is true. But failure rates and abortions are relatively frequent among traditional users. The result is that in Armenia traditional users contribute substantially to all abortions (51%) and abortion rates are considerably higher (2.6 abortions per woman) than in the Central Asian Republics (between 0.6 and 1.5 abortions per woman).

It is clear that abortion rates would be reduced if more women seeking to avoid pregnancy were to use modern methods. Westoff and

Table 4.6.2 Percent Distribution of Women at Risk of an Unintended Pregnancy and Percent of Abortions by Contraceptive Status Among Women Aged 15–44 Eastern Europe and Eurasia: A Comparative Report		
Region and Country	Percent distribution of women at risk of an unintended pregnancy	Percent of all abortions*
<u>Caucasus</u>		
<i>Armenia, 2000</i>		
Users of Modern Methods	30	9
Users of Traditional Methods	50	51
Nonusers in Need of Contraception	20	35
Total	100	95
<u>Central Asia</u>		
<i>Kazakhstan, 1999</i>		
Users of Modern Methods	72	17
Users of Traditional Methods	15	19
Nonusers in Need of Contraception	13	48
Total	100	84
<i>Kyrgyz Rep., 1997</i>		
Users of Modern Methods	70	12
Users of Traditional Methods	16	15
Nonusers in Need of Contraception	14	45
Total	100	72
<i>Uzbekistan, 1996</i>		
Users of Modern Methods	77	8
Users of Traditional Methods	6	5
Nonusers in Need of Contraception	17	50
Total	100	63

*Percentages do not sum to 100 because some abortions were reported by women seeking pregnancy but who aborted due to a change of mind or circumstance and by women at very low risk of pregnancy due to infrequent sex or subfecundity.

colleagues have developed models which estimate the reduction in abortion that would result from changes in the distribution of women by contraceptive status. Here we report only the full potential impact of the increased use of more effective contraceptives, i.e., the reduction in abortion rates that would occur if users of less effective traditional methods and nonusers seeking to avoid pregnancy were to use modern methods. Abortion rates would decline by about 55% in the Central Asian Republics and by 64% in Armenia, resulting in substantially fewer abortions each year.¹¹

Other analyses, based on the data sets for Moldova, Russia, Ukraine, and Georgia, have also shown that reductions in abortions levels would follow increased use of contraception and the substitution of modern methods for less effective traditional methods (Goldberg HI, et al., 1997 and 2001; Goldberg HI & Serbanescu F, 2001).

4.7 Reasons for Abortion

As indicated above, the surveyed countries have relatively high rates of unintended pregnancies. A characteristic of these countries is the much higher prevalence of unintended pregnancies and abortions among married women than among the never married, owing to relatively low levels of premarital intercourse among the latter. Usually, women marry at young ages, achieve their desired family size at a young age, and spend much of the remainder of their reproductive years trying to avoid pregnancy—although frequently by using less effective traditional methods of contraception.

Table 4.7 indicates that most of the abortions in the 5 years preceding the surveys occurred because a woman wanted no more children or because the family's socio-economic circumstances (poverty, unemployment, fear of losing employment) could not support

Region and Country	Reason for Abortion (%)						No. of Cases
	Limit Fertility	Socio-economic	No Partner	Partner Opposes Birth	Threat to Mother's Health	Known Fetal Defect	
Eastern Europe							
<i>Moldova, 1997</i>	27.8	57.4	2.6	4.4	4.9	2.9	1,333
<i>Romania, 1999</i>	53.4	29.5	6.4	4.2	3.4	3.1	2,902
<i>Russia, 1999*</i>	65.6 [†]	‡	6.1	4.9	4.4	2.1	2,268
<i>Ukraine, 1999</i>	59.7	25.1	3.7	2.2	4.3	1.8	2,032
Caucasus							
<i>Azerbaijan, 2001</i>	63.4	31.5	0.0	0.7	3.1	0.4	4,196
<i>Georgia, 1999</i>	65.8	28.7	1.0	0.5	2.7	1.1	4,845

* Data for Russia pertain to three primarily urban areas as described in Chapter 2.

† Includes "socioeconomic" reasons.

‡ Included in "limit fertility".

¹¹ In the Central Asian Republics, the most significant reductions would come from shifts of women from the unmet need category to modern method use while, in Armenia, shifts of traditional users and women in the unmet need category would reduce the abortion rate.

another child. Overall, between 66% and 95% of abortions were for these two reasons. Partner opposition to the pregnancy was more common in Eastern Europe than in Azerbaijan and Georgia, most probably because cohabitation while unmarried is not uncommon in Eastern Europe but it is virtually nonexistent in Azerbaijan and Georgia. Women in Moldova, Russia, and Ukraine more often reported maternal health-related reasons. Women in Moldova and Romania mentioned the risk of birth defects more often.

4.8 Post-abortion Complications

During the first trimester of pregnancy, abortion is legally available upon request in all of the surveyed countries. Although standard surgical abortion is remarkably safe when compared to childbirth or other surgical procedures, it has an inherent risk of complications (Cates W. Jr., 1982). Additionally, legality alone does not make the procedure safe. Shortage of equipment, crowded facilities, poor hygienic conditions, and inadequate standards of care may increase the risk of post-abortion complications. These

factors may turn women seeking pregnancy termination away from hospitals or may increase the waiting time between an initial consultation and admission to a designated facility. When delays in hospital admission would place the gestation age beyond the 12-week legal limit, women may seek an illegal, risky abortion outside a licensed facility. Unsafe abortion carries a high risk of mortality and morbidity. Government mortality statistics in Eastern Europe and Central Asia indicate that between 15% and 50% of maternal deaths are abortion-related whereas such deaths account for only 4% of maternal mortality ratio (MMR) in the United States (Chang J, et al., 2003).

In the RHS surveys respondents were asked about the occurrence of medical complications for abortions in the 5 years preceding a survey. Table 4.8 and Figure 4.8 indicate the rates of early complications (within 6 months) and late complications (6 months or later). Early complications ranged from 8 to 16 per 100 procedures. These rates are high relative to those reported for first-trimester abortions in the United States (0.9 complication per 100

Table 4.8
Percent of Women Reporting Early and Late Postabortion Complications
Among Women Aged 15–44 Who Had an Abortion During the 5-Year Period Preceding the Survey
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Early Complications (%)						Late Complications* (%)				
	Any Complication	Severe Bleeding	Pelvic Pain	Local Infection	High Fever	Other	Any Complication	Chronic Pelvic Pain	Irregular Bleeding	Infection	Other
Eastern Europe											
<i>Moldova, 1997[†]</i>	11.2	5.7	2.5	2.1	0.8	0.1	4.9	1.6	1.5	0.7	1.1
<i>Romania, 1999</i>	7.7	5.1	4.5	3.5	3.3	0.9	2.3	0.5	0.9	0.4	0.6
<i>Russia, 1999[†]</i>	13.7	3.1	1.1	5.5	0.8	2.1 [‡]	5.5	0.6	1.4	2.1	1.5
<i>Ukraine, 1999[†]</i>	14.1	4.2	3.0	1.5	1.6	3.7	5.4	1.8	0.9	0.4	2.2
Caucasus											
<i>Azerbaijan, 2001</i>	16.3	7.2	12.7	4.2	6.0	0.7	4.0	2.0	0.6	0.3	1.1
<i>Georgia, 1999</i>	7.5	5.0	4.4	1.6	2.6	0.5	2.3	1.4	0.5	0.2	0.3

* Includes sequelae at 6 months after the abortion (cases with fewer than 6 months since abortion were excluded).

[†] Respondents experiencing more than one type of complication were asked to report only the most severe one.

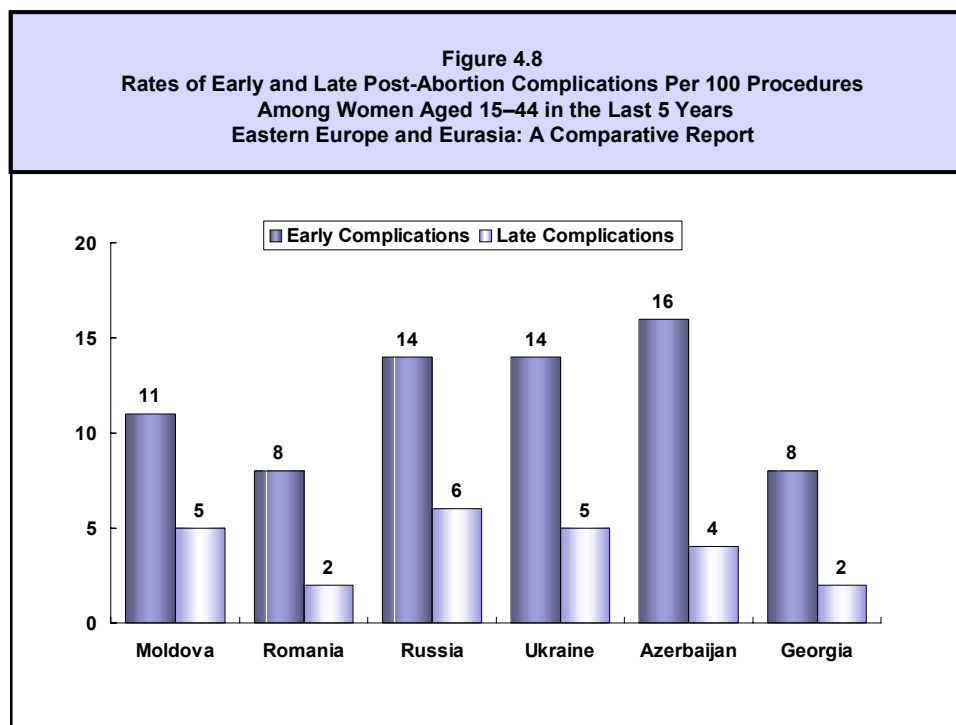
[‡] Includes 0.3% uterine perforation.

procedures; Hakim-Elahi E, et al., 1990), in Denmark (6.1 per 100; Heisterberg L & Kringlebach M, 1987), and in France (3.1 per 100; Thonneau P, et al., 1998). Most early complications in Romania, Georgia, and Moldova involved severe or prolonged bleeding (51% to 66% of reported complications). The most common early complication was pelvic infection in Russia (40%) and prolonged pelvic pain in Azerbaijan (78%). It is difficult to assess how serious the early complications may have been. Since surgical abortion is usually performed without overnight hospitalization, an indirect indicator of severity of post-abortion complications is the frequency of hospitalization. Data from Romania indicate that almost half of early complications (44%) resulted in a hospital stay of one night or longer. Among late complications, chronic pelvic pain, irregular bleeding and chronic infection were most frequently reported (Figure 4.8).

4.9 Summary of Findings

The chapter has reviewed the data on abortion from 11 surveys in Eastern Europe, the Caucasus, and Central Asia. A recurring theme is that abortion frequently follows an unintended pregnancy among women who either fail to use contraception or use less effective traditional methods. Government policies and programs fostering the use of effective modern methods of contraception have been initiated in these countries and abortion rates have declined. Continued efforts to promote access to and use of effective modern methods of contraception should further substantially reduce abortion rates.

- ◆ In most countries, survey-based estimates of abortion were higher than government estimates for the same time period—several times higher in the case of Armenia, Azerbaijan, and Georgia. The government



reporting systems from which official statistics are derived may suffer from underreporting of abortions.

- ◆ The level of abortion varied by region. Estimates of the total abortion rate (TAR) indicated that women in Armenia average more than two abortions during their reproductive years (2.6 abortions) and women in Azerbaijan and Georgia average more than three (3.2 and 3.7 abortions). The TAR in Georgia is possibly the highest in the world today. Abortion rates were lower in Eastern Europe (between 1.3 and 2.3 abortions) and in Central Asia (between 0.6 and 1.5 abortions).
- ◆ Across the surveyed countries, there was a clear positive relation between the abortion level and reliance on traditional contraceptive methods. The greater the traditional component of all method use, the higher the level of abortion.
- ◆ The age pattern of abortion was broadly similar in each country with rates being highest in the mid-reproductive years from age 20 to 35.
- ◆ Urban abortion rates were higher than rural rates in most countries. However in Romania, Armenia, and Azerbaijan, the reverse was true. These countries are characterized by significantly higher traditional method use in rural than in urban areas. The high rural abortion rates appear to result from the failure rates and unintended pregnancies associated with less effective traditional contraceptive methods.
- ◆ In several countries, abortion rates among ethnic minorities were significantly higher than among the majority ethnic group. In Romania, Roma women had twice the abortion rate of Romanian women. Similarly, in the Central Asian Republics, abortion rates of women of European ethnicity were at least 50% greater than that of the majority ethnic group.
- ◆ Examination of the survey data indicates that the vast majority of all abortions follow an unintended pregnancy. Moreover, the proportion of unintended pregnancies that are aborted is extremely high—ranging from 70% to 90%.
- ◆ Simulation analysis with data from Armenia, Kazakhstan, Kyrgyz Republic, and Uzbekistan indicates if women using less effective traditional methods and nonusers seeking to avoid pregnancy were to use modern methods, abortion rates would decline by between 55% and 64%, reducing to less than half the number of abortions in these four countries.
- ◆ Most of the surveys (7 of 11) indicated declines in abortion levels during the decade of the 1990s. Declines between the periods 6–8 and 0–2 years prior to the surveys ranged between 15% and 38%.
- ◆ In the surveys that asked questions about post-abortion medical problems, the frequency of reported problems was higher than has been reported elsewhere, suggesting that the quality of services is a problem in those countries.