

**INDUCED ABORTION IN THE CAUCASUS REPUBLICS:  
A DETAILED ANALYSIS**

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Prior to the breakup of the Soviet Union in 1991, a characteristic of most populations under Soviet influence was extensive reliance on induced abortion as a means of fertility control. There tended to be relatively little use of effective, modern methods of contraception by couples who did not wish to become pregnant. Most of the contraception employed consisted of traditional methods with relatively low levels of effectiveness (particularly withdrawal). Recent large-scale survey data as well as official statistics from many of the countries in the region have demonstrated that induced abortion rates have fallen substantially since the early 1990s in most of the region. However, as is shown in this analysis, in one group of countries, the Caucasus republics of Armenia, Azerbaijan, and Georgia, levels of induced abortion have remained at levels considerably higher than elsewhere.

This paper takes a detailed look at the current status of induced abortion in the Caucasus and contrasts that picture with what has been happening in other countries formerly under Soviet control. We show that the proximate cause of the difference between the Caucasus republics and other countries in the region is the failure of modern contraception to replace reliance on less effective traditional methods as well as considerable non-use of contraceptive methods among those wishing to avoid pregnancy. Unlike in most of the region, there has been little shift among couples away from primary reliance on abortion alone or abortion as a backup to methods of low use-effectiveness toward use of more effective methods.

In this analysis we examine recent trends and levels in abortion and contraceptive use in the Caucasus. We also decompose the rates of abortion to learn the extent to which unintended pregnancies leading to abortion result from nonuse of contraception, failure of traditional methods, or failure of modern methods. We also examine other aspects of induced abortion, including the likelihood that unintended pregnancies result in abortion rather than a live birth.

Besides examining the basic demography of abortion rates (trends, levels, differentials, proximate determinants, decomposition, and risk factors), we look into other aspects of induced abortion in these countries. The surveys used for this analysis collected information on such factors as complications of abortion and resulting hospitalization, use of anesthesia, and other health-related abortion issues. We also try to determine whether abortion has had any detectable effect on infertility levels in these countries. It is sometimes assumed that high abortion rates lead to increased levels of infertility, but this has not been demonstrated or refuted using population-based survey data. Finally, we look into whether there is any evidence of sex-selective abortion in these countries. Some researchers have noted that survey data indicate an unusually high sex ratio at birth in these populations. This has never been fully investigated, however.

Most of the data used in this analysis are taken from recent Reproductive Health Surveys (RHS) in Azerbaijan (2001) and Georgia (1999) and a Demographic and Health Survey (DHS) in Armenia (2000). Both the RHS and DHS are designed to collect information from large representative samples of women of reproductive age, regardless of marital status or sexual history. These surveys consist of in-person, face-to-face interviews with

women of childbearing age at their homes and use a two-stage cluster design. Response rates among selected women for the surveys were very high: Armenia-96%, Azerbaijan-93%, and Georgia-99%. The questionnaires for the RHS and DHS included a complete pregnancy history for each woman interviewed. They also contained a five-year contraceptive history, which included when methods were started and stopped, reasons for discontinuation of methods, and pregnancies during the period. They also collected a substantial amount of information on each abortion undergone in the previous five years, including such topics as location, complications/health problems, cost, anesthesia, and antibiotic use, among others.

Two facts are noteworthy with regard to overall abortion rates in the Caucasus nations. Most notably, these three countries have the highest known rates for countries in their region. Total abortion rates of 2.6 abortions per woman in Armenia, 3.2 in Azerbaijan, and 3.7 in Georgia clearly put these countries among the highest in the world in regard to abortion incidence. Secondly, survey estimates of abortion incidence are from 5 to 10 times higher than the rates officially reported by governments. Because of the extreme underestimates of abortion rates in official sources, it was not generally recognized until recently just how widespread abortion is in these countries.

Age-specific abortion rates for the Caucasus countries show very high levels from ages 20-24 to 35-39, only subsiding substantially at ages 40-44. The rates are low and are exceeded by those in Eastern Europe (likely because of greater premarital sexual activity in the latter) at ages 15-19. After ages 20-24, the rates in the Caucasus are much higher than elsewhere. It is clear that the large numbers of abortions to women in their thirties make the largest contribution to overall abortion rates in the Caucasus nations being so much higher than in other countries in the region.

Using the complete pregnancy histories it was possible to examine changes in induced abortion rates over time. Recent trends differed for the Caucasus countries according to the data collected. While TARs fell over a six-year period in Armenia (3.1 to 2.5) and Georgia (4.3 to 3.4), they increased in Azerbaijan (2.3 to 2.9), indicating that in two of these countries some progress appears to have been made in reducing induced abortion rates, though levels remained extremely high.

Levels of induced abortion are ultimately dictated by two determinants: the probability that women experience an unintended pregnancy and the probability, given an unintended pregnancy, that they will elect to have an abortion to terminate that pregnancy. In the Caucasus republics, it was not surprising to find that a large proportion of pregnancies were unintended: 62% in Armenia, 59% in Georgia, and 57% in Azerbaijan. The second determinant is also very conducive to high induced abortion rates in all three of these countries. The proportion of pregnancies reported as unintended that were terminated by abortion was 90% in Georgia, 87% in Armenia, and 84% in Azerbaijan.

High rates of abortion obviously require large numbers of unintended pregnancies, which can result from either non-use of contraception or contraceptive failure. When examining

the high abortion rates in the Caucasus nations it is important to look into the extent to which those rates are being driven by non-use of contraception, failure of traditional methods, and failure of modern methods of contraception.

Percentage distributions of contraceptive use among women in union from 11 surveys in the region were examined. The range of contraceptive prevalence outside of the Caucasus was from 74% in Moldova down to 55% in Turkmenistan. Two of the Caucasus countries, Armenia (61%) and Azerbaijan (55%), fell at the lower end of this range. In Georgia, prevalence was well below all other countries at 41%. However, a look at the prevalence of modern methods reveals that the Caucasus countries lag far behind other countries surveyed. With the exception of Romania, modern prevalence was around 50% for all non-Caucasus countries. The Caucasus levels were only between 12% (Azerbaijan) and 22% (Armenia). In almost all of the non-Caucasus countries the most widely used method was the IUD, a highly effective method. In all three Caucasus countries the most popular method was withdrawal, a very failure-prone method.

Despite the fact that a large majority of women want small families and do not currently desire to become pregnant both non-use of contraception and use of methods with high failure rates are common. Failure rates for traditional methods in Armenia, Azerbaijan, and Georgia help bring further into focus the mechanism by which those countries have maintained such high incidence of induced abortion. The one-year failure rates for withdrawal were 30% in Armenia, 26% in Azerbaijan, and 17% in Georgia. These rates are not very different from those found in other countries in the region, but the combination of the high prevalence of these methods and the frequency with which they fail causes a very high risk of unintended pregnancy in the Caucasus.

An examination of factors other than contraceptive differences that could contribute to higher incidence of abortion shows relatively little difference between the Caucasus countries and elsewhere in the region, ruling them out as important factors:

*Marriage:* If anything, marriage tends to occur slightly later in the Caucasus than in most of Eastern Europe. In addition, premarital sexual activity is much less common than in Eastern Europe.

*Failure of contraceptive methods:* One-year failure rates, both for modern methods and traditional methods of contraception, are similar across countries in the region.

*Actual and intended fertility:* Both actual and intended fertility levels in the Caucasus tend to be higher than those found in the countries of Eastern Europe. The total fertility rates of 1.7-2.1 found in the Caucasus surveys are higher than those in other regional countries except in the Central Asian Republics. Likewise, the percentages of women who desire to have additional children are higher than elsewhere. These circumstances should lead to lower levels of induced abortion than elsewhere, other things being equal.

*Likelihood of abortion given unintended pregnancy:* The likelihood that a woman experiencing an unintended pregnancy will seek an abortion is very high across the

Caucasus and Eastern Europe. There is by no means enough of a difference across countries to explain differences in abortion incidence.

An analysis of data from four countries by Goldberg and Serbanescu examined the likely impact on abortion rates of various types of hypothetical changes in contraception. They estimated that in Georgia relatively small increases in contraceptive use or movement from traditional to modern methods, all other things being constant, would appreciably decrease the incidence of induced abortion. A detailed analysis of abortion-contraception connections in Armenia (Westoff et al., 2002) also showed the lack of widespread use of modern contraception to be at the root of high abortion levels in that country. This analysis concluded that the abortion rate in Armenia has remained high because of the low level of use of modern contraception in the population and that most of the recent abortion decrease stemmed from increased age at marriage.

According to the Armenian DHS, about 36% of recent pregnancies that were aborted resulted from use of no contraception (including 10% who had discontinued use) and 64% from method failure. About 86% of failures were among couples using traditional methods. The figures were similar in Azerbaijan: 42% of pregnancies resulting in abortion were the result of contraceptive non-use, with 58% resulting from failure of contraceptive methods. Because modern method prevalence in Azerbaijan was only about half the level found in Armenia, a far greater percentage of failures were among users of traditional methods. Ninety-three percent of failures leading to abortion were for traditional methods, the vast majority of them withdrawal.

At least three factors in this region of the world act together to keep abortion rates high. First, women tend to start and stop intended childbearing early in life. This is because they tend to marry young, start childbearing shortly after marriage, and want very small families, so that desired childbearing is typically completed before age 30. This leaves many years for couples to avoid unintended pregnancy. Second, women/couples traditionally have relied on methods of contraception prone to failure, particularly withdrawal. Also, relatively large numbers of couples use no contraception, despite not wanting to become pregnant. Finally, more than in other parts of the world, women who have an unintended pregnancy are extremely likely to have their pregnancy terminated. All of these factors still apply to a greater or lesser extent throughout Eastern Europe and the former Soviet Union, but nowhere more so than in the countries of the Caucasus. Without movement toward more highly effective long-term contraceptive methods this will continue to result in high levels of unintended pregnancy and abortion.

Additional topics that will be included in this analysis are health and medical aspects of abortion. This will include a look at whether repeat induced abortions seem to result in increased levels of infertility. There has also been some indication from survey data that sex ratios at birth are higher than expected. We will analyze these data more thoroughly to determine whether a significant amount of sex-selective abortion seems to be practiced in the Caucasus countries.