



## GEORGIA FURTHER ANALYSIS

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# **The Relationship between Contraception and Abortion in the Republic of Georgia**

**Further Analysis of the 1999 and 2005  
Reproductive Health Surveys**

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Ministry of Labour,  
Health and Social Affairs  
of Georgia

# **The Relationship between Contraception and Abortion in the Republic of Georgia**

## **Further Analysis of the 1999 and 2005 Reproductive Health Surveys**

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This report presents findings from a further analysis of data collected in the 1999 and 2005 Reproductive Health Surveys (RHS) in the Republic of Georgia. The surveys were conducted by the Centers for Disease Control and Prevention (CDC), Division of Reproductive Health (DRH), through the MEASURE CDC project. For more information about these surveys and other CDC/DRH global health activities, please visit <http://www.cdc.gov/reproductivehealth/global>.

This report was prepared as part of the MEASURE DHS program, which is designed to collect, analyze, and disseminate data on fertility, family planning, maternal and child health, nutrition, and HIV/AIDS. Additional information about the DHS project may be obtained by contacting MEASURE DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200; Fax: 301-572-0999; Email: [reports@measuredhs.com](mailto:reports@measuredhs.com); Internet: <http://www.measuredhs.com>.

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## Contents

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Tables and Figures	v
Acknowledgments	vii
Abstract	ix
1 Introduction	1
2 Methods	5
2.1 Study Setting	5
2.2 Data	6
2.3 Analysis	6
3 Results	11
3.1 Reasons for Abortions	11
3.2 Sources of the Abortion Rate Decline	13
3.3 Potential Additional Reductions in Abortion Rates	14
3.4 High Risk of Abortion among Georgian Women	16
3.5 Changing Attitudes toward Abortion	17
4 Conclusions	21
5 References	23



## Tables and Figures

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### Tables

Table 1.	Contraceptive use, pregnancy rates, and abortion rates among women age 16-44 in the Republic of Georgia, based on reported experiences in the previous 12 months	8
Table 2.	Percentage of women age 15-44 at very high risk of having another abortion, Georgia, 1999 and 2005	16

### Figures

Figure 1.	A model of abortion and contraception, Georgia, November 1998 to October 1999	9
Figure 2.	A model of abortion and contraception, Georgia, March 2004 to February 2005	13
Figure 3.	Trends in contraceptive use prevalence in married women age 16-39, Georgia, 1995-2004	15
Figure 4.	Trends in percentage of last pregnancies that were unwanted or mistimed in married women age 16-39, Georgia, 1995-2004	16
Figure 5.	Trends in the percentage of women age 15-44 who believe that women who are unintentionally pregnant should have the baby or should have an abortion, Georgia, 1999 and 2005	17
Figure 6.	Trends in the percentage of women age 15-44 who believe that women who are unintentionally pregnant should have the baby or should have an abortion, by abortion history, Georgia, 1999 and 2005	18



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## Abstract

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The rate of induced abortion is very high in several countries in eastern Europe and central Asia where the use of modern contraception has lagged. In the Republic of Georgia the rate of 3.1 abortions per woman in 2003-05 may be the highest in the world. The abortion rate had declined from 3.8 in 1996-99. This report is a study of that change based on interview data collected in the Reproductive Health Surveys conducted in 1999 and 2005 by the Centers for Disease Control and Prevention.

Couples in Georgia are clearly aiming for very small families with a total fertility rate of 1.6 births per woman. Because their desired family size is reached early in marriage, women are exposed to the risk of unintentional pregnancy over a long period of time. The latest survey showed that 62 percent of pregnancies were unintended with almost all (96 percent) of these terminated by abortion.

Contraceptive use is relatively low in Georgia with only 27 percent of married women using a modern method, a slight increase from five years earlier. Contraceptive failure rates are particularly high among women using traditional methods, mostly withdrawal. Nonuse of any contraception is the main explanation of the high abortion rate, accounting for nearly two-thirds of all abortions.

Several simulations showed the large effect on the reduction of abortion by increases in the use of modern contraceptive methods. For example, if nonusers at high risk of unintended pregnancy and those using a traditional method were to use a modern method, the abortion rate could be expected to drop by 53 percent.

There has been a decline in the proportion of women who say they would have an abortion if they became unintentionally pregnant. This change is concentrated among women who are not at risk of an unintended pregnancy.

The evidence is overwhelming that the way to reduce abortion in Georgia (and elsewhere) is to increase the proportion using modern methods of contraception.



## 1 Introduction

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Most transition countries of eastern Europe and the former Soviet republics have fertility rates lower than the typical rates in Western Europe and well below the replacement level of 2.1 births per woman (Population Reference Bureau, 2006; Westoff, 2005). One of the principal proximate determinants of fertility decline in these countries has been the use of abortion on request during the first trimester of pregnancy.

The Soviet Union was the first country to legalize abortion in 1920, well before Western European countries. Induced abortion “on request” was the main fertility control method after the Socialist revolution. Even between 1936 and 1955, when Stalin restricted abortion to women with certain narrowly defined medical indications, medical providers or traditional practitioners performed many clandestine abortions to avert unwanted births. Abortion became legal again in the Soviet Union in 1955. Since then, abortion has been the principal fertility control method throughout the Soviet bloc countries, which acknowledged a woman’s basic right to “...decide for [herself] the question of motherhood” (Field, 1956).

Currently, abortion rates in several countries in eastern Europe and central Asia are among the highest in the world (Henshaw et al., 1999; Sedgh et al., 2007). A high proportion of pregnancies in these countries are unintended (42-66 percent), and more than 80 percent of these unintended pregnancies are unwanted (i.e., the woman does not want more children). The great majority (82-93 percent) of unintended pregnancies in these countries end in elective abortion (Sullivan et al., 2003).

Complications from abortion, especially those performed under unsafe conditions, are among the leading causes of maternal death in the region. Vital statistics from eastern Europe and central Asia indicate that 10-54 percent of maternal deaths are abortion related, compared with 4 percent of maternal deaths in the United States and Western Europe (Chang et al., 2003; World Health Organization, 1998; World Health Organization, 2004).

The Republic of Georgia (formerly part of the Soviet Union) has had one of the highest abortion rates in the world. Recent comparative studies of the abortion rate in 12 eastern European and central Asian countries—using data from the Demographic and Health Surveys (DHS) and Reproductive Health Surveys (RHS)<sup>1</sup>—showed that in 1996-1999, Georgia had the highest reported total abortion rate (TAR), 3.7 abortions per woman (Westoff, 2005; Sullivan et al., 2003). During the same period, Georgia also had the lowest proportion of women, 25 percent, currently using contraception (Serbanescu et al., 2001). A second-round RHS survey in Georgia showed that contraceptive prevalence in 2005 was 28 percent, an increase caused by greater use of modern contraceptive methods. Although the use of effective modern methods of contraception has increased by about 12 percent (from 25 to 28 percent) and abortion rates have decreased by 16 percent (from 3.7 to 3.1 abortions per woman), Georgia continues to have the world’s highest documented TAR (Serbanescu et al., 2007a).

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<sup>1</sup> The DHS and RHS surveys were conducted in Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russia, Turkey, Turkmenistan, Ukraine, and Uzbekistan between 1997 and 2000.

The factors affecting national abortion rates are multiple and complex. Social norms, social and economic factors, access to clinical services, fertility preferences, and availability and use of effective family planning methods all affect a country's reproductive health indicators. The high abortion rate in Georgia coupled with rapid changes over the past decade in social, political, and economic factors and health service delivery offers a unique opportunity to measure the changes in women's reproductive health and the factors affecting changes in abortion rates.

These measurements are made possible by the recent availability of population-based data on various reproductive health topics, including fertility and abortion, sexual activity, pregnancy intentions, and contraceptive behavior. Countries around the world have used periodic sample surveys for many years to evaluate national maternal and child health needs, but this methodology was practically nonexistent in former Soviet countries before the 1990s. Only the recent availability of high-quality survey data has made it possible to document more accurately the levels of induced abortion and contraceptive use in Georgia. Survey estimates of abortion are seven to nine times higher than official values, indicating problems with the government system for collecting abortion statistics. Likewise, although contraceptive prevalence is increasing, survey estimates of contraceptive use are lower than estimated rates based on service statistics.

Recent fertility analyses have shown little change between 1999 and 2005. The fertility rate in Georgia has been declining since the 1970s, but the total fertility rate (TFR) of 1.6 children per woman in 2002-2005 was only slightly lower than the TFR in 1996-1999 (1.7 births per woman). Georgian women continue to marry early (median age at first marriage was 21.6 years in 2005) and overwhelmingly report having their first sexual experience after marriage. Most women complete childbearing at an early age—the median age at first birth is 23 years, and fertility reaches peak levels among women at age 20 to 29 years. The preference among women for small families is reflected not only in their below replacement-level fertility and high abortion rates, but also in the commonly stated desire for no more children. Because they achieve their desired family size early and the divorce rate is low (6 percent), most Georgian women spend the majority of their reproductive years (generally 20-25 years) in a union and in need of effective contraception to prevent unintended pregnancies.

The 2005 survey data from Georgia indicate that unintended pregnancy continues to be a major public health issue (Serbanescu et al., 2007a). In the five years preceding the survey, 62 percent of all pregnancies in Georgia were unintended. Women terminated almost all (96 percent) of these unintended pregnancies by elective abortion (Serbanescu et al., 2007a).

Despite a recent decline in the TAR in Georgia to 3.1 abortions per woman, this rate continues to be twice that of the TFR (1.6 children per woman). Most abortions occur at age 25-29 years and 30-34 years; these two groups account for over half of the TAR. Abortion is widely accepted among Georgian women, regardless of age, residence, marital status, education, and ethnic background. The majority of women (79 percent in 1999 and 82 percent in 2005) agree that a woman should always have the right to decide whether to carry a pregnancy to term or terminate it by elective abortion. Fewer than 2 percent believe that abortion is never acceptable.

Three patterns of contraceptive behavior contribute to the high rate of unintended pregnancy and induced abortion in Georgia: (1) nonuse of contraception by couples who want to postpone or terminate childbearing; (2) use of traditional, less effective methods; and (3) high discontinuation and contraceptive failure rates among those who use contraception.

Contraceptive use in Georgia is relatively low, as shown by the high percentage of women who have never used any contraceptive method (58 percent) and the high percentage of women not currently using contraception (72 percent) (Serbanescu et al., 2007a). In Georgia, almost all contraceptive users are married; use among previously married and never-married women is almost nonexistent. Among married women, nearly half were currently using contraception in 2005 compared with 40 percent in 1999. The use of modern methods (27 percent) surpassed the use of traditional methods (21 percent) in 2005. Specifically, the use of intrauterine devices (IUDs) increased from 10 percent in 1999 to 12 percent in 2005, the use of condoms increased from 6 to 9 percent, and the use of oral contraceptives increased from 1 to 3 percent. The use of traditional methods remained essentially unchanged during this period.

The aim of this report is to assess whether abortion follows contraceptive use and failure or nonuse and to evaluate the effects of contraceptive use on abortion rates. The use of a simulation model previously used to predict abortion decline in 12 countries to estimate the potential additional reductions in abortion rates in Georgia under different scenarios is discussed (Westoff, 2005).



## 2 Methods

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### 2.1 Study setting

Situated between the Black Sea and the Caucasus Mountains, Georgia is a gateway between Asia and Europe. Ethnic Georgians represent 84 percent of the total population, and Armenians and Azeri are the largest ethnic minority groups. Women of reproductive age (15-44 years) make up 23 percent of the population of 4.4 million (Department of Statistics, 2003).

Since the dissolution of the Soviet Union, Georgia has faced more than a decade of socioeconomic and political transition. The government has attempted to implement major reforms in various sectors, including a health sector reform initiated in 1995. However, the ongoing civil war with the separatist regions of Abkhazia and South Ossetia, the country's economic collapse after the loss of Moscow's financial support, and the crumbling infrastructure have made progress uneven.

Healthcare expenditures comprise a decreasing portion of public expenditures (3.6 percent of total expenditures in 2004), resulting in the underfunding of medical facilities, including family planning and reproductive health services (Georgian European Policy and Legal Advice Centre, 2004). Once the main source of reproductive health research and policy development for the entire Soviet Union, Georgia now has poorer maternal and infant health indicators than it did during the Soviet regime (Tsuladze et al., 2005). Reforms of the primary health care system supported by various international donors in the past few years have only recently increased women's access to modern contraceptives and other reproductive health methods.

Abortion has long been legal, readily available, affordable (less than \$15 per procedure), and widely practiced in Georgia. In contrast, the availability of high-quality contraceptive methods has been limited until recently. Currently, Georgia does not have a national family planning program and neither state nor private health insurance packages include family planning provisions. All family planning activities are maintained with donor support, primarily from the United States Agency for International Development and United Nations Population Fund.

Obstetricians/gynecologists and "reproductologists" (physicians who have received specialized training on reproductive issues) provide most family planning services in Georgia, but they typically have little expertise in providing client-oriented family planning counseling. These providers do not currently serve all of Georgia equally; Georgians who are poor, less educated, or hard to reach are least likely to have access to professional family planning services. Family planning counseling in Georgia is currently available only through gynecology and reproductive health service clinics that are primarily located in urban areas. These clinics offer family planning counseling mostly as part of postpartum or post-abortion care, and they seldom distribute contraceptive supplies or prescriptions for supplies.



## **2.2 Data**

The Georgian Ministry of Health conducted the RHS survey in collaboration with the Georgia National Center for Disease Control between November 1999 and April 2000; the ministry repeated this nationally representative household survey in March-July 2005. The Division of Reproductive Health of the United States Centers for Disease Control and Prevention, United States Agency for International Development, and United Nations Population Fund provided technical assistance with survey design, sampling, questionnaire development, training, data processing, and analysis. A detailed description of the survey methodology is available elsewhere (Serbanescu et al., 2001; Serbanescu et al., 2007a).

The surveys included nationally representative samples of women age 15-44 (7,798 women in 1999 and 6,376 in 2005). Trained interviewers conducted in-person, confidential interviews using standardized questionnaires to collect information on marital and cohabitation history, pregnancy history (including pregnancies ending in induced abortion), and pregnancy intention for all pregnancies that ended during the five years before the survey. The surveys also included a comprehensive module on family planning knowledge, use, intentions, attitudes, and opinions. In both surveys, interviewers asked respondents to identify the months in which they were pregnant, used contraceptives, and were married during the previous five years.

## **2.3 Analysis**

Findings from the 1999 and 2005 surveys concerning many aspects of contraceptive practice, fertility, and abortion have already been reported (Serbanescu et al., 2001; Serbanescu et al., 2007a). The present analysis focused on life histories of pregnancy and contraceptive events, particularly for the most recent 12-month period prior to each survey: November 1998 to October 1999 for the 1999 survey and March 2004 to February 2005 for the 2005 survey. Data were excluded from the months when the field work was conducted and data on the experiences of women age 15 years at the time of the interview to ensure that all women in the sample contributed equal lengths of exposure during the 12 months preceding each survey.

For these two 12-month periods, women age 16-44 years were classified by their contraceptive use status (users of modern contraceptives, users of traditional methods, and nonusers) in each month. Period-specific contraceptive prevalence rates were defined for modern and traditional methods as the number of months of use of a specific method (modern or traditional) divided by the number of months for women age 16-44 during the two 12-month periods.

The women were assigned to one of three groups: (1) users of modern contraceptives, (2) users of traditional contraceptives, and (3) nonusers of contraceptives. Women in the nonusers group were then assigned to one of four subgroups: (1) nonusers who had never had sexual intercourse; (2) nonusers at high risk of unintended pregnancy<sup>2</sup> because they were fecund and currently sexually active, did not want to become pregnant, and were not using any method of pregnancy prevention; (3) nonusers at low risk of

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<sup>2</sup> This is equivalent to having an unmet need for family planning. In these analyses, we used the DHS definition of unmet need, in which pregnant and recently postpartum women are at high risk if the pregnancy was unwanted or mistimed and if the pregnancy began while the woman was not using contraception.

unintended pregnancy because they or their partners were subfecund or infecund or they had not had sexual intercourse in the past month; and (4) nonusers at no risk of unintended pregnancy because they were trying to become pregnant, were intentionally pregnant, or had recently given birth.

Each woman in the nonuse category was assigned to one of the four subcategories based on her status at the time of the interview. Ideally, nonusers would have been classified by type of exposure prior to each pregnancy event during the 12 months of this analysis or the analyses would have been restricted to the most recent month of exposure. However, large-scale surveys cannot collect monthly data on reasons for nonuse and estimates based on current events only are associated with high sampling error rates. Therefore, each woman could only be categorized into the appropriate nonuser group using her status during the month of the interview as a proxy for her status during the 12 months of this analysis.

Next, pregnancy rates were calculated for the women in each contraceptive use group and the nonuse subgroups. Pregnancies among contraceptive users were defined as accidental pregnancies if they occurred over the previous 12 months while the woman was using contraceptives (i.e., method failure) or immediately after the woman discontinued using contraceptives for reasons other than to become pregnant. The number of accidental pregnancies was divided by the number of months of use of modern or traditional methods. The pregnancy rate in each subgroup of nonusers was defined as the number of all pregnancies to women in the subgroup over a 12-month period divided by the aggregate number of months of contraceptive nonuse during the same period.

Finally, the proportion of pregnancies aborted within each group and subgroup was estimated. Table 1 shows the distribution of women by these categories using 2005 and 1999 data. The information in Table 1 was used to construct two flowcharts showing the aggregate contribution of users and nonusers to the general abortion rate during the 12 months preceding each survey. Figure 1 (1999 data) and Figure 2 (2005 data) depict the different pathways that women took to unintended pregnancy and abortion.

**Table 1 Contraceptive use, pregnancy rates, and abortion rates among women age 16-44 in the Republic of Georgia, based on reported experiences in the previous 12 months**

	1999	2005
<b>All women</b>		
Percent never had sex	30.0	32.2
Pregnancy rate	.176	.173
Percent of pregnancies aborted	61.9	58.4
Abortion rate per 1,000 women	115	101
<b>Users of contraception</b>		
<b>All methods</b>		
Percent using any method	25.4	29.4
Annual method use failure rate	.065	.090
Percent of contraceptive failures aborted <sup>1</sup>	90.6	89.8
Annual method discontinuation rate <sup>2</sup>	.093	.088
Percent of pregnancies aborted following contraceptive discontinuation	97.3	91.2
<b>Modern methods</b>		
Percent using modern method	12.4	16.7
Annual method use failure rate	.026	.036
Percent of contraceptive failures aborted <sup>1</sup>	86.8	87.5
Annual method discontinuation rate <sup>2</sup>	.078	.035
Percent of pregnancies aborted following contraceptive discontinuation	98.3	88.2
<b>Traditional methods</b>		
Percent using traditional method	13.0	12.7
Annual method use failure rate	.103	.157
Percent of contraceptive failures aborted <sup>1</sup>	92.1	90.2
Annual method discontinuation rate <sup>2</sup>	.108	.068
Percent of pregnancies aborted following contraceptive discontinuation	96.7	93.0
<b>Nonusers of contraception</b>		
At risk of unintended pregnancy <sup>3</sup>		
Percent of women	16.2	11.1
Pregnancy rate	.480	.479
Percent of pregnancies aborted	82.5	80.9
Low risk of unintended pregnancy <sup>4</sup>		
Percent of women	17.4	17.3
Pregnancy rate	.045	.051
Percent of pregnancies aborted	74.6	66.0
<b>Seeking pregnancy or intentionally pregnant<sup>5</sup></b>		
Percent of women	11.0	10.1
Pregnancy rate	.659	.888
Percent of pregnancies aborted	11.5	16.7

Note: Women's responses were based on their experiences in November 1998 to October 1999 and March 2004 to February 2005.

<sup>1</sup> Abortion propensities based on the preceding year's experience to permit sufficient time for a pregnancy conceived late in the year to be aborted

<sup>2</sup> Pregnancies resulting from method discontinuation for reasons other than method failure or stopping use to become pregnant

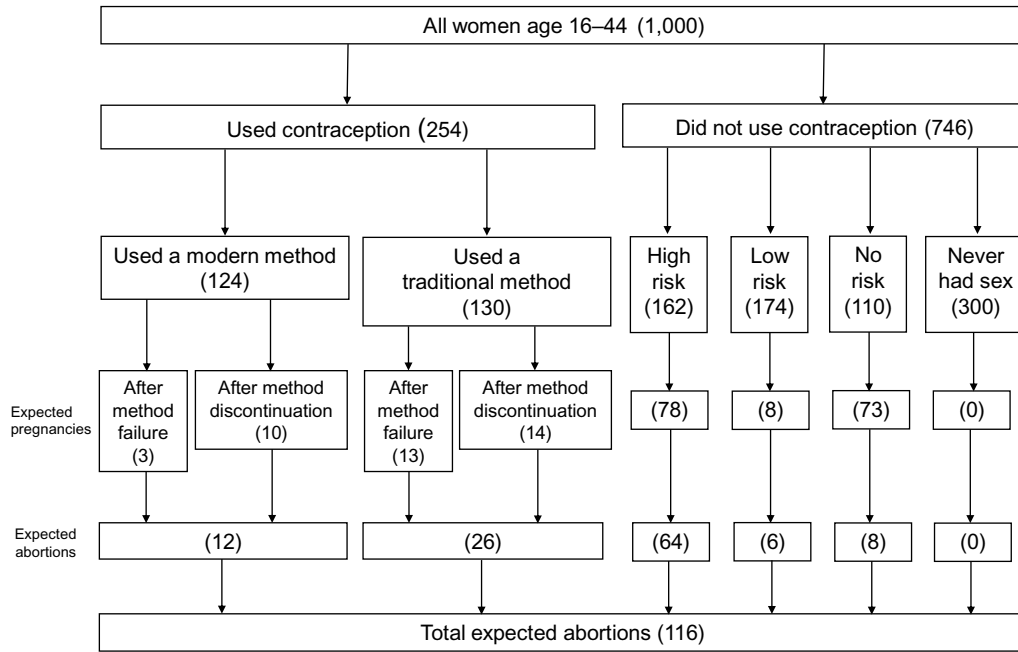
<sup>3</sup> Also includes women unintentionally pregnant and postpartum women following an unintentional pregnancy

<sup>4</sup> Also includes women who had not had sex in the past month

<sup>5</sup> Also includes postpartum women following an intentional pregnancy

The approach described above can be used to elucidate the relationship between contraception and abortion and to predict changes in abortion rates under different assumptions. Serbanescu et al. (2007b) have previously described another approach that uses a decomposition method to quantify the impact of the increase in contraceptive use and contraceptive effectiveness on the abortion rate in Georgia.

**Figure 1. A model of abortion and contraception, Georgia, November 1998 to October 1999**



Notes: All figures in parentheses are rates per 1,000 women. High risk, low risk, and no risk refer to risk of unintended pregnancy.



## 3 Results

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### 3.1 Reasons for abortions

Almost a third of the women interviewed in 1999 and 2005 reported that they had never had sex. Twenty-nine percent of the women had used some method of contraception during the year preceding the 2005 survey (17 percent had used a modern method and 13 percent a traditional method) and 38 percent had not used any method (Table 1). Between 1999 and 2005, use of modern methods increased from 12 to 17 percent but use of traditional methods remained virtually unchanged. As a result, the proportion of nonusers at high risk of an unintended pregnancy declined by almost a third (from 16 percent to 11 percent) between 1999 and 2005, while the proportions of nonusers at low risk (17 percent in both 1999 and 2005) or no risk (11 percent in 1999 and 10 percent in 2005) of becoming pregnant unintentionally remained constant. Overall, almost two-thirds (62 percent) of all pregnancies in 1999 and more than half (58 percent) in 2005 ended in an induced abortion.

Across all subgroups in both surveys, pregnancy rates were lowest among users of modern methods who became pregnant while using contraception or had just discontinued contraceptive use (7 pregnancies per 100 woman-years in 2005, down from 10 pregnancies per 100 woman-years in 1999). The corresponding pregnancy rates among users of traditional methods were two to three times higher than for users of modern methods (23 versus 7 pregnancies per 100 woman-years in 2005 and 21 versus 10 pregnancies per 100 woman-years in 1999). Nonusers had a pregnancy rate ranging from 5 per 100 woman-years among those at low risk of unintended pregnancy to almost 50 per 100 woman-years among those at high risk of unintended pregnancy. As expected, women who were trying to become pregnant or who became pregnant intentionally (the subgroup of nonusers with no risk of unintended pregnancy) had the highest pregnancy rate in both surveys (66 per 100 woman-years in 1999 and 89 per 100 woman-years in 2005).

The likelihood of having an abortion following an accidental pregnancy was very high among contraceptive users (approximately 90 percent in both surveys) and nonusers at high risk of unintended pregnancy (slightly higher than 80 percent in both surveys). Even some women with no risk of unintended pregnancy because they were intentionally pregnant or seeking to become pregnant at the time of the interview reported that they had terminated a pregnancy earlier in the 12 months prior to the survey (12 percent in 1999 and 17 percent in 2005). Because both the intendedness of a current pregnancy and future fertility preferences reflect attitudes during the month of the interview and pregnancy and abortion experiences were measured for the 12 months prior to the survey, the higher than expected likelihood of abortion in this group could be due to a number of factors that might have changed between the time of the abortion experience and the time of the interview.

The pregnancy rates and the propensity to terminate unintended pregnancies across categories of contraceptive use and nonuse show that nonuse is the main determinant of the high abortion rates in Georgia. In 1999, 68 percent of abortions occurred in nonusers, including 56 percent in women at high risk of unintended pregnancy (Figure 1). Nearly two-thirds of all abortions (64 percent) were associated with contraceptive nonuse in 2005, including 43 percent contributed by nonusers at high risk of unintended pregnancy (Figure 2). The remaining one-third of abortions (31 percent in 1999 and 36 percent in 2005) occurred in women who became pregnant while using contraception. In both surveys,

two-thirds of abortions occurred in users of traditional methods (principally withdrawal and periodic abstinence) and one-third in users of modern methods (primarily IUDs, condoms, and oral contraceptives).

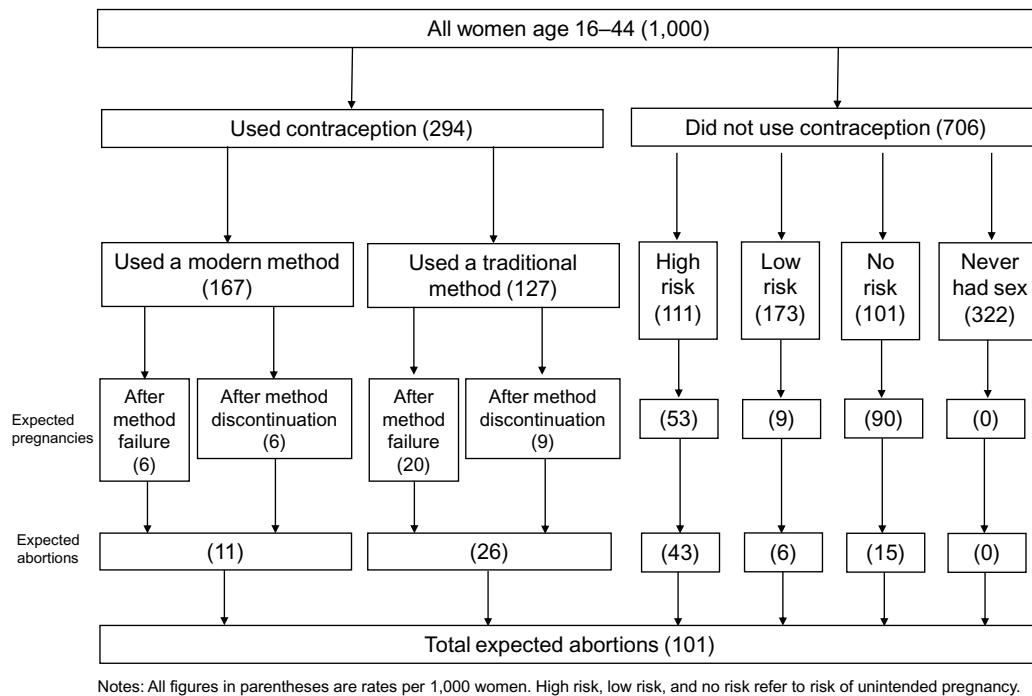
The sum of the number of abortions in the categories of contraceptive use and nonuse was 101 abortions per 1,000 women age 16-44 years in the year preceding the 2005 survey, which was very similar to the general abortion rate of 104 abortions per 1,000 women age 15-44 estimated for a 3-year period (Serbanescu et al., 2007). The corresponding calculation for 1999 was 116 abortions per 1000 women age 16-44, compared with a rate of 125 per 1,000 women age 15-44 for a 3-year period (Serbanescu et al., 2001).

These statistics describe the current status of women in terms of types of use and nonuse of contraception, which is the basis for estimating the future declines in abortion that might be realized with changes in the distributions of these categories with their associated pregnancy rates and abortion proclivities. The data do not show the distribution of users and nonusers at the time a woman conceived a fetus that she subsequently aborted. A separate analysis has shown that nearly one-quarter of all abortions in Georgia in 2000-2005 occurred in women whose pregnancies began while the women were using contraception; more than 80 percent of these abortions occurred in women using a traditional method that failed (Serbanescu et al., 2007a).<sup>3</sup>

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<sup>3</sup> See Table 5.4.5, page 81, in the Georgia RHS final report.

**Figure 2. A model of abortion and contraception, Georgia, March 2004 to February 2005**



### 3.2 Sources of the abortion rate decline

The analysis showed that the number of abortions declined by 13 percent between 1999 and 2005 (from 116 to 101 abortions per 1,000 women age 16-44 years). The induced abortion rate for women age 15-44 based on pregnancy histories declined from 3.7 abortions per woman in 1996-1999 to 3.1 in 2002-2005, a 16-percent drop (Serbanescu et al., 2007a). The main factors contributing to the abortion rate decline in Georgia between 1996 and 2005 are:

1. A decline in the proportion of sexually experienced women who were not using any contraception (from 45 to 38 percent). The most substantial decline in nonuse occurred in the proportion of women at high risk of unintended pregnancy, which dropped from 16 percent in 1999 to 11 percent in 2005.
2. An increase in the prevalence of modern contraceptive use among all women (from 12 to 17 percent).
3. A small increase in the proportion of women who had never had sex (from 30 to 32 percent), perhaps related to an increase in age at marriage and to growing concerns about HIV-AIDS.
4. A drop in the percent of all pregnancies aborted during the 12-month prior to each survey, from 62 to 58 percent.



### **3.3 Potential additional reductions in abortion rates**

Four scenarios below are described in which Georgia's abortion rate could decline even more in the future. These scenarios are based on the assumption that the proportion of women age 16-44 who have never had sex remains at the 2005 level of 32 percent.

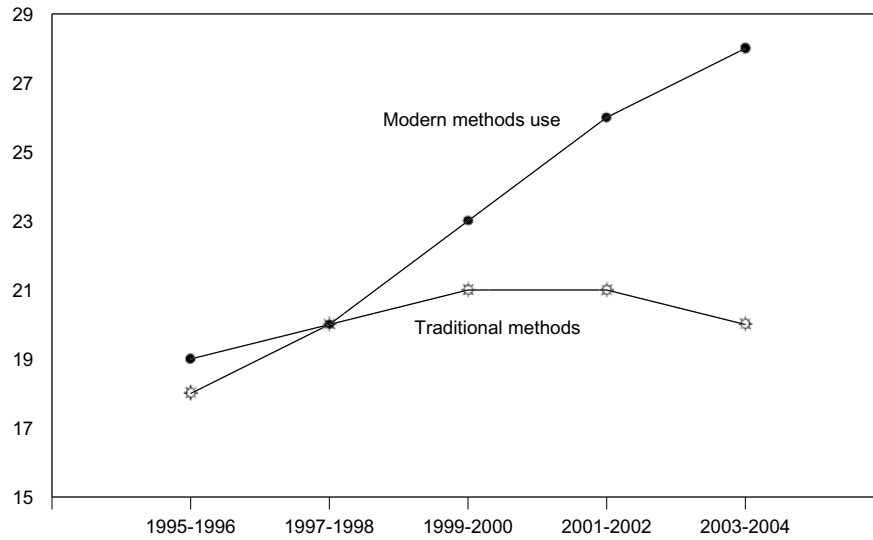
1. All users of traditional contraceptive methods shift to modern methods, which have lower failure and discontinuation rates. Everything else remains the same. This would reduce the abortion rate by 17 percent.
2. All women at high risk of an unintended pregnancy (11 percent) adopt contraception; the same proportions use modern and traditional methods as in 2005. This would reduce the abortion rate by 29 percent.
3. All women at high risk of an unintended pregnancy begin using a modern method; current traditional method users continue to use a traditional method. This would reduce the abortion rate by 36 percent.
4. Women at high risk of an unintended pregnancy and women using a traditional method begin using a modern method. This would reduce the abortion rate by 53 percent. This change would mean that all women currently classified as having an unmet need for modern contraception (according to the U.S. Centers for Disease Control and Prevention definition) would begin using modern methods.

Other potential changes that have not been modeled could influence the abortion rate. For example, an increase in the proportion of women who have never had sex would obviously reduce the abortion rate, although most women who have an abortion in Georgia are married and have given birth to one or two children. However, the proportion of women who have never had sex is highly unlikely to increase in a country with strong traditional norms, where the median age at first intercourse is already delayed until after age 21. Between 1999 and 2005, the age at first intercourse declined; this was consistent with a slight increase in the proportion of young women who had become sexually experienced before marriage (Serbanescu et al., 2007a).

A tendency toward more conservative attitudes related to abortion acceptability could also result in fewer abortions and more unintended births. As shown below, the drop in the percent of women (from 68 percent in 1999 to 55 percent in 2005) who declared that they would have an abortion if they became unintentionally pregnant may lend support to this scenario. However, the rate of unintended pregnancy in Georgia changed very little between 1999 and 2005.

Finally, improvements in living conditions could increase the number of children desired and decrease the proportion of time spent at risk of an unintended pregnancy and a subsequent abortion. However, the increase in the prevalence of modern methods is much more likely to reduce the number of abortions by reducing the number of unintended pregnancies. Modern contraceptive usage increased steadily between 1995 and 2004, from 19 percent of married women age 16-39 years in 1995 to 28 percent in 2004 (Figure 3). The prevalence of the use of traditional methods also increased in 1995-2004 but remained constant, at 20-21 percent, in 2000-2004.

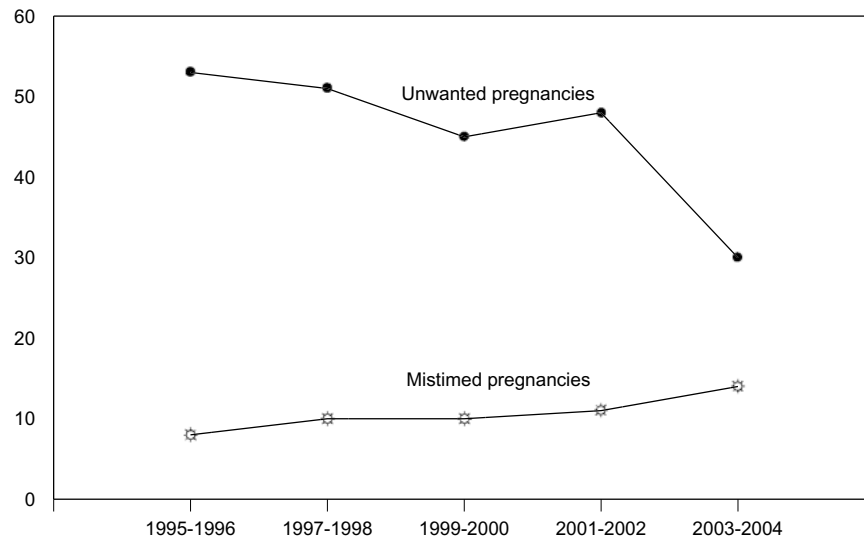
**Figure 3. Trends in contraceptive use prevalence in married women age 16-39, Georgia, 1995-2004**



Note: Trends based on number of months of contraceptive use, divided by number of months respondent was married

As expected, the increase in modern contraceptive prevalence has resulted in a decline in the proportion of last pregnancies that are unwanted, from 53 percent in 1995-1996 to 39 percent in 2003-2004, in married women age 16-39 (Figure 4). A small proportion of this decline reflects an increase in the number of mistimed pregnancies, which rose from 8 to 14 percent between 1995 and 2004, and a decrease in the number of unwanted pregnancies. The proportion of mistimed pregnancies that women terminated by abortion was only slightly lower, 89 percent, than the proportion of unwanted pregnancies that women terminated by abortion, 95 percent.

**Figure 4. Trends in percentage of last pregnancies that were unwanted or mistimed in married women age 16-39, Georgia, 1995-2004**



### 3.4 High risk of abortion among Georgian women

With the increase in modern contraceptive method use and decreases in the number of unwanted pregnancies and the abortion rate, one would expect that the proportion of women at high risk of abortion would decline. A woman is defined as having a “very high risk of abortion” if she is currently married, is not pregnant, is physically able to become pregnant, wants no more children, and is not using a modern method, and if her last pregnancy ended in abortion. Based on these six criteria, the proportion of currently married women at very high risk of abortion declined from 25 percent in 1999 to 21 percent in 2005 (Table 2). This decline was primarily due to the increase in the use of modern contraceptive methods, although the propensity to have an abortion might also have changed.

	1999	2005
<b>Women who are currently married:</b>	100	100
AND are not currently pregnant <sup>1</sup>	94	93
AND are physically able to become pregnant	78	78
AND want no more children	49	49
AND are not using a modern method	36	31
AND last pregnancy ended in abortion	25	21

<sup>1</sup> Women who are not certain if they are pregnant are classified here as at risk

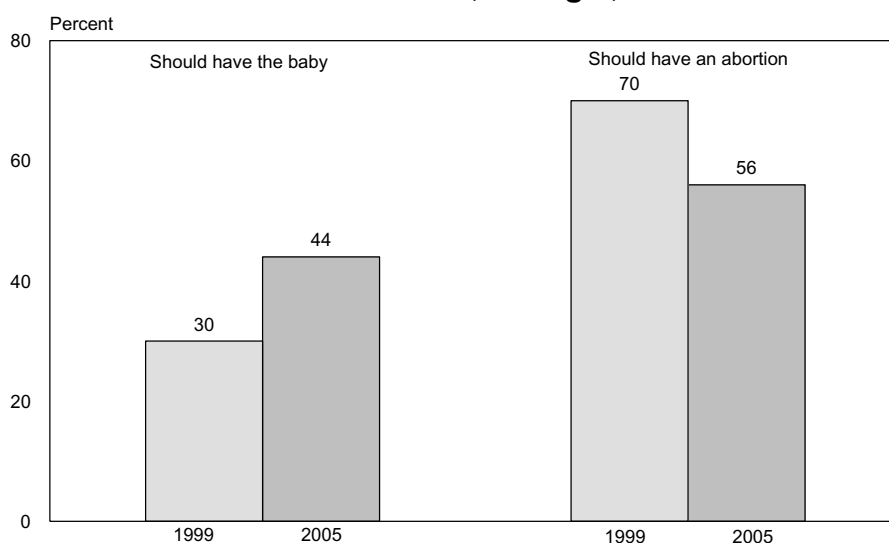
### 3.5 Changing attitudes toward abortion

Between 1999 and 2005, the receptivity of Georgian women toward the use of abortion apparently declined to a slightly greater extent than the abortion rate. The 1999 and 2005 RHS surveys measured receptivity using the following question: “If a woman had an unwanted pregnancy, what should she do?” The interviewer read aloud the following possible responses (the wording, procedure, and location of the question in the interview were identical in both surveys):

1. Have the baby and keep it
2. Have the baby and give it up for adoption
3. Have an abortion

In 2005, 44 percent chose the first or second option (including only 1-2 percent who chose the second option), compared with 30 percent in 1999 (Figure 5). In contrast, 56 percent chose the third option, having an abortion, in 2005, down from 70 percent in 1999. Less than 3 percent of women were undecided in both surveys (and their responses were combined with the responses from the first group). These changes over a short time imply that the percentage of women in favor of a woman’s giving birth to a child after an unwanted pregnancy increased by nearly 50 percent between 1999 and 2005, while the proportion of women in favor of a woman’s having an abortion to end an unwanted pregnancy declined by nearly 20 percent. The actual abortion rate declined by 16 percent during this period, and is comparable to the 20 percent drop in receptivity toward abortion.

**Figure 5. Trends in the percentage of women age 15-44 who believe that women who are unintentionally pregnant should have the baby or should have an abortion, Georgia, 1999 and 2005**



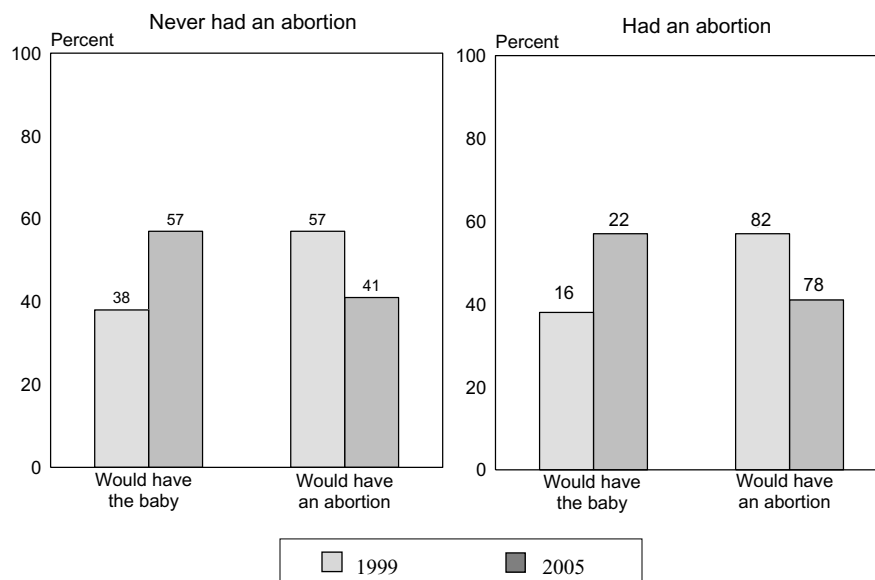
The similarity in the rates of decline in receptivity toward abortion and in abortion suggests that these issues are strongly associated. Although the change in attitude conceivably preceded the change in

behavior, it seems more likely that the reduction in unintended pregnancies and thus in abortion was the driving force for the change in attitude.

The general connection with behavior can be seen by comparing the change in the receptivity to abortion among women who had or had not had an abortion (Figure 5). The percent of women who had never had an abortion who said they would have an abortion if they were unintentionally pregnant declined from 57 to 41 percent. Among women who had had an abortion, more opted for abortion in response to the attitudinal question and the decline was much smaller—from 82 to 78 percent over the five-year period.

This analysis also showed that the proportion of women who were not at risk of an unintended pregnancy (those who were currently pregnant, were postpartum, wished to become pregnant, were infecund, or had never had sex) who would choose an abortion if they became unintentionally pregnant declined by 23-31 percent between 1999 and 2005. A more moderate decline, by 14 percent, occurred among women currently using contraception. The change was smaller, 3 percent, among those at risk of an unintended pregnancy who were not using any contraceptive method (women in the unmet need category). This underscores the fact that the unmet need category is a major source of potential abortions. An earlier analysis of 1999 data estimated that 54 percent of all abortions occurred in women who were at risk of an unintended pregnancy and were not using contraception.

**Figure 6. Trends in the percentage of women age 15-44 who believe that women who are unintentionally pregnant should have the baby or should have an abortion, by abortion history, Georgia, 1999 and 2005**



Other social characteristics do not seem to be related to the change in attitude toward abortion between 1999 and 2005. These social characteristics include education, marital status, residence, religion, and age (for example, older women were less likely to change their attitudes). The change in attitude seems to be largely a function of pregnancy history rather than prior change in social behavior norms. If the rates of unintended pregnancy decline in Georgia, as one would expect because of the increasing use of modern methods, fewer women will need an abortion.

The only other characteristic that seems to be related to the change in attitude toward abortion is religiousness, measured in the RHS by the frequency of attendance at religious services. This analysis showed that women who attended religious services more frequently showed a greater decline in receptivity toward abortion than women who attended religious services less frequently. The proportion of women in Georgia who attended religious services frequently increased modestly between 1999 and 2005.



## 4 Conclusions

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Despite the recent decline, 58 percent of all pregnancies in Georgia end in abortion, compared with an estimated 20 percent of pregnancies worldwide (Sedgh et al., 2007). At least three main factors contribute to the high abortion rate in Georgia. First, women tend to start and stop intended childbearing early in their reproductive ages. A typical woman in Georgia completes her desired childbearing well before the age of 30, which often leaves her with as many as 20 years at risk of unintended pregnancy. Second, relatively large proportions of women use no contraception or less effective contraception, despite not wanting to become pregnant. Finally, more than in other parts of the world, women who have an unintended pregnancy in Georgia 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 region (Sullivan et al., 2003).

Significant reductions in the abortion rate in Georgia will require major changes in the behavior of women and couples with respect to preventing unintended pregnancies. Georgian women's exposure to the risk of unintended pregnancy is unlikely to decline significantly in the coming years, especially if premarital sexual intercourse becomes more common, as it has in much of the world. There is also little expectation that fertility rates are going to increase substantially. The decline in receptivity to abortion shown in this analysis is confined largely to women not at risk of unintended pregnancy. Thus, if the unmet need for family planning does not decline, Georgian women will probably not become less likely to abort unintended pregnancies, especially because abortion does not have the stigma in this part of the world that it has in some other countries. To reduce Georgian women's reliance on abortion for preventing unwanted births, the proportion of couples who use highly effective contraceptive methods to prevent pregnancy needs to increase. Interventions should focus on couples who use no contraceptives (including those who have recently discontinued contraceptives) or traditional methods.

Because women tend to reach their desired family size at a relatively young age in Georgia, more couples should use long-term contraceptive methods to avoid unwanted pregnancies over the many childbearing years during which they do not want to become pregnant. In most other countries in the region, large proportions of married women use the IUD to prevent pregnancy. However, only 12 percent of married women in Georgia currently use an IUD.

Research needs to assess Georgian women's access to modern methods and their knowledge of these methods' benefits. Survey data show that many Georgian women still dislike most modern methods, know little about them, and believe that they are associated with negative health consequences. In addition, 75 percent of traditional method users believe that the method they are using is equally or more effective than modern contraceptive methods. Research also needs to explore the attitudes and practices of providers to determine whether they advise women to avoid hormonal or other effective methods or instill fear in women about the effects of those methods. Finally, further research should determine why Georgia continues to have the highest documented abortion rate in the world, in spite of sustained efforts to improve access to modern methods of contraception.





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