

# **Determinants of abortion in post-transition Russia**

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## **Background and aim**

In Russia, rates of induced abortion have long been high. (1-3) Abortion was the most commonly used method for preventing unwanted childbirth in the Soviet Union, which in 1988 accounted for 10-20% of the world's abortions. (1) Recurrent terminations (4) and complications were common. (5-7)

The profound socioeconomic and political changes that followed the fall of Communism in 1991 were accompanied by major changes in reproductive patterns. National statistics indicate that the number of abortions halved between 1990 and 2000. (2) The ratio of abortions to live births declined steeply from 3:1 in 1997 to 1.3:1 in 2002, (2) despite a decline in the total fertility rate from 2.0 children per woman in 1989 to 1.15 in 1999. (8) Nevertheless, abortion is still much more common than in Western Europe, (9) and utilisation of modern family planning methods varies widely. (9, 10) Recent legislation to restrict abortions (9) and pressure to limit the provision of family planning (5, 9, 11) have resulted from political concern about declining fertility. (12)

This study aims to describe the trends and determinants of abortion in a Russian population sample.

## **Methods**

Data were from Phase 2 of the Russia Longitudinal Monitoring Survey, a panel study of households and the individuals within them. Participants came from 38 population centres across the Russian Federation, St Petersburg and Moscow, and 36 other districts, sampled by stratifying districts according to socioeconomic criteria, and selecting from each stratum using a probability proportional to size (PPS). Within these areas, urban and centres were selected using PPS, from which 10 households were selected at regular intervals from a random starting point.. The overall response rate in the first round of Phase 2 (1994) was 84%, although it was lower in Moscow and St Petersburg (67%). In subsequent rounds, newly recruited households replaced those that left.

Using data from 9 rounds (1994-2003), trends in the abortion rate per 1,000 women were measured in women aged 18-45, and compared with national trends (the routinely available data was for women aged 15-49). Logistic regression was then used to study the determinants of having at least one abortion over the following two years amongst 2,321 female participants in 2001, testing a variety of sociodemographic and reproductive predictors. Univariate and multivariate analyses were performed, using four models: (1) = age adjusted; (2) = age, previous childbirth, abortion in the last 2 years, contraceptive use; (3) = Model 2 + household income quintile, education, marital status, urban/rural area; (4) = Model 3 + subjective satisfaction, optimism and economic rank.

## Results

**Figure 1 Abortion rate in RLMS and national data (13)**

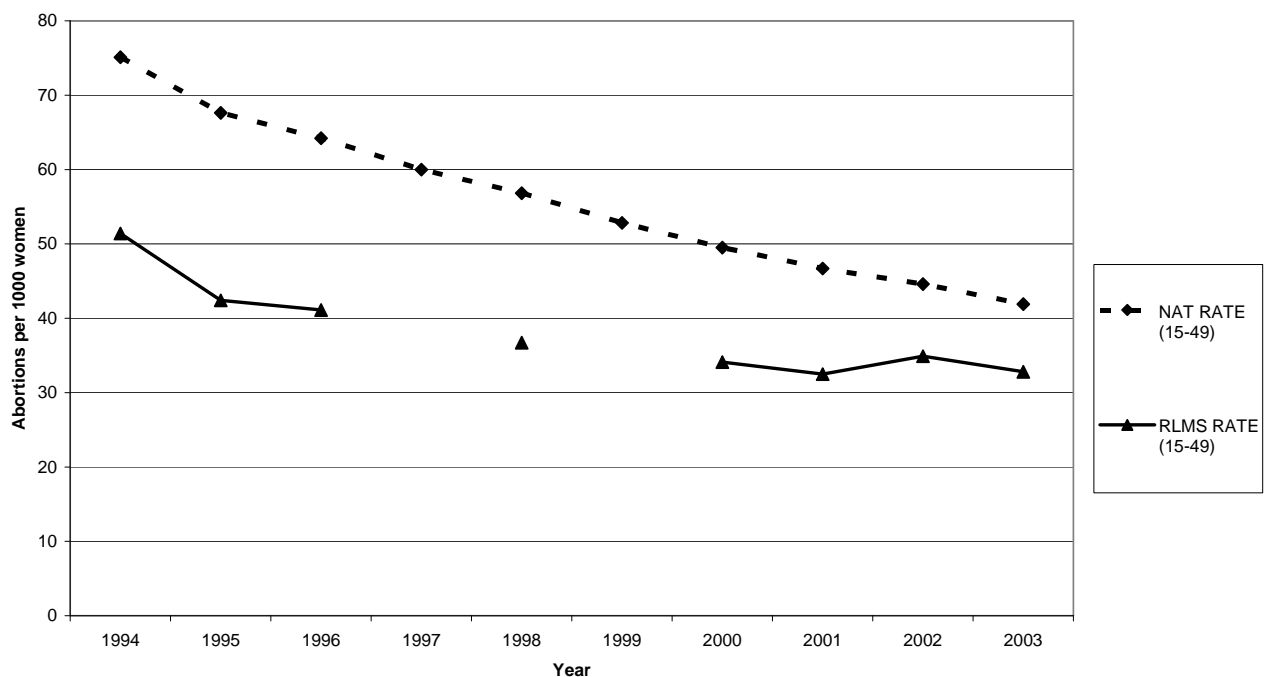


Figure 1 shows a decline in the abortion rate in both RLMS and national data, with somewhat lower rates and a weaker decline in RLMS. Table 1 shows the prospective determinants of abortion over 2 years. Previous abortion was a particularly strong determinant. Demographic predictors included cohabitation (compared with marriage) and young age (18-24). 2 measures of subjective financial wellbeing predicted abortion: pessimism over the household financial situation and low subjective

economic rank; as well as a more objective measure of financial decline: selling consumer goods for clothes or food. Abortion was also associated with non-use of contraception when this was due to issues relating to access, cost or inconvenience.

## **Discussion**

Whilst part of the under-reporting may be due to the exclusion of the lowest age group, it may have been more general. The more gradual decline in the abortion rate in RLMS could either be due to improved reporting in later rounds, or to greater numbers of mini-abortions (early terminations, which do not appear in national data). (14)

The association between previous and subsequent abortion in Russia, where recurrent terminations of pregnancy are common, (14) is unsurprising. Such an association has also been demonstrated in the Ukraine, where a positive attitude towards abortion is also an important influence. (15)

It is surprising that perceived economic circumstances were stronger determinants than objective economic indicators, given that previous research in Russia has shown material measures (16) and education (2) to be important predictors, and that data from earlier rounds of RLMS has linked low education with more lifetime abortions. (14) Furthermore, in other countries, low socioeconomic position predicts individual and (17, 18) and repeat abortions. (19)

The finding that non-use of contraception, when specifically related to inconvenience or to difficulty in obtaining or affording contraceptives, adds to the existing knowledge that half (20) to two thirds (19) of women having an abortion use no contraception. Surprisingly, however, non-users of contraception who cited the reason that they knew that abortion was possible, were not at greater risk of abortion, although numbers were small.

In conclusion, widespread abortion in Russia, despite a decline, may be fuelled by an uncertain economic climate, and by a culture where recurrent abortion is accepted. More research is required into the reasons why some women risk unwanted pregnancy rather than use modern contraception, which is perceived by some as inconvenient, and by others as inaccessible and unaffordable.

**Table 1 Multivariate analysis of the determinants from 2001 of abortion in 2002-2003**

	(1) Age adjusted	(2) age, previous abortion or childbirth, contraception	(3) = (2) + hh income quintile, education, marital status, urban/rural area	(4) = (3) + satisfaction, optimism, subj economic rank
<b>Age group</b>				
18-25	1	1	1	1
25-34	1.43 (0.95-2.16)	0.65 (0.39-1.08)	0.64 (0.37-1.10)	0.69 (0.36-1.29)
35-44	<b>0.38 (0.22-0.65)</b>	<b>0.16 (0.08-0.30)</b>	0.18 (0.09-0.34)	<b>0.27 (0.12-0.57)</b>
45-49	<b>0.06 (0.01-0.41)</b>	<b>0.02 (0.00-0.18)</b>	0.03 (0.00-0.21)	<b>0.06 (0.01-0.45)</b>
<b>Marital</b>				
Married	1	1	1	1
Single (never married)	<b>0.26 (0.13-0.49)</b>	0.98 (0.35-2.73)	0.98 (0.34-2.77)	1.55 (0.47-5.07)
Divorced (not remarried)	1.06 (0.57-1.97)	1.25 (0.61-2.53)	1.12 (0.54-2.34)	1.57 (0.68-3.58)
Widowed	0.60 (0.08-4.50)	0.83 (0.10-6.78)	0.80 (0.10-6.53)	
Cohabiting (not registered as married)	1.31 (0.78-2.19)	1.74 (1.00-3.04)	1.55 (0.85-2.80)	<b>2.08 (1.07-4.02)</b>
<b>Rural area (vs urban)</b>	0.71 (0.45-1.11)	0.75 (0.46-1.23)	0.70 (0.42-1.16)	0.67 (0.37-1.22)
<b>Education</b>				
Higher	1	1	1	1
Complete 2ry	1.01 (0.69-1.50)	1.12 (0.73-1.72)	1.10 (0.71-1.73)	1.11 (0.66-1.87)
Incomplete 2ry or less	1.30 (0.66-2.54)	1.26 (0.60-2.64)	1.34 (0.60-2.99)	1.23 (0.45-3.42)
<b>Material</b>				
Household income quintile per person	0.90 (0.79-1.03)	0.95 (0.82-1.10)	0.94 (0.81-1.09)	0.94 (0.79-1.13)
No of consumer goods (1-5)*	1.00 (0.87-1.14)	1.01 (0.87-1.18)	1.05 (0.87-1.27)	1.04 (0.83-1.30)
Sold consumer goods for food/clothes	<b>3.54 (1.27-9.85)</b>	<b>3.56 (1.10-11.55)</b>	2.76 (0.71-10.71)	3.06 (0.61-15.46)
<b>Alcohol</b>				
Once a month to once a week	1	1	1	1
More than once a week	0.92 (0.43-1.98)	1.02 (0.46-2.30)	0.68 (0.25-1.81)	0.46 (0.13-1.63)
None in the last month	0.69 (0.47-1.02)	0.74 (0.48-1.14)	0.75 (0.48-1.17)	0.75 (0.44-1.28)
<b>Smoking</b>				
Current smoker (Y or N)	<b>1.64 (1.10-2.46)</b>	1.29 (0.82-2.05)	1.21 (0.73-2.00)	0.84 (0.45-1.56)
<b>Psychological</b>				
Family better/worse off next 12m (1-5 h-l)	<b>0.69 (0.53-0.89)</b>	<b>0.65 (0.48-0.88)</b>	<b>0.61 (0.44-0.83)</b>	<b>0.59 (0.42-0.84)</b>
Life satisfaction (1-5 h-l)	1.02 (0.86-1.21)	1.03 (0.85-1.24)	1.00 (0.81-1.22)	1.02 (0.79-1.31)
Subjective economic position (1-9 l-h)	<b>1.18 (1.03-1.35)</b>	<b>1.21 (1.05-1.41)</b>	<b>1.25 (1.07-1.46)</b>	1.14 (0.94-1.38)
<b>Reproductive history</b>				
Had baby in the last 2 years (Y vs N)	0.88 (0.44-1.73)	0.72 (0.33-1.60)	0.71 (0.32-1.58)	0.49 (0.20-1.19)
Had an abortion in the last 2 years (Y vs N)	<b>3.85 (2.15-6.91)</b>	<b>3.76 (2.06-6.88)</b>	<b>3.62 (1.95-6.75)</b>	<b>4.70 (2.36-9.35)</b>
Ever had a baby (Y vs N)	0.40 (0.14-1.15)	0.37 (0.11-1.28)	0.26 (0.06-1.14)	0.23 (0.05-1.09)
Wants a(nother) baby	1.41 (0.94-2.13)	0.99 (0.62-1.57)	0.91 (0.55-1.48)	1.01 (0.57-1.79)
<b>Contraceptive methods</b>				
Reliable contraception – (IUD, pill, condom)	1	1	1	1
Unreliable method or use	1.43 (0.84-2.44)	1.27 (0.74-2.20)	1.28 (0.73-2.26)	1.48 (0.78-2.79)
No contraception because:				
(a) no partner	<b>0.46 (0.25-0.84)</b>	0.93 (0.46-1.88)	0.94 (0.42-2.08)	0.94 (0.38-2.33)
(b) wants to become pregnant	0.45 (0.13-1.48)	0.24 (0.03-1.82)	0.27 (0.04-2.07)	0.31 (0.04-2.47)
(c) health problems	1.02 (0.30-3.43)	1.43 (0.42-4.94)	1.37 (0.39-4.83)	1.25 (0.27-5.77)
(d) can't get/too expensive	<b>4.12 (1.64-10.33)</b>	2.62 (0.97-7.12)	2.09 (0.70-6.21)	<b>3.49 (1.09-11.13)</b>
(e) uncomfortable/unpleasant	<b>2.45 (1.22-4.93)</b>	<b>2.81 (1.32-5.97)</b>	2.12 (0.93-4.81)	2.33 (0.92-5.90)
(f) irregular sex with partner	1.47 (0.73-2.96)	1.74 (0.84-3.60)	1.46 (0.67-3.17)	0.91 (0.32-2.60)
(g) knew could get abortion	2.12 (0.78-5.80)	1.47 (0.47-4.57)	1.37 (0.44-4.31)	0.60 (0.12-2.89)

## References

1. Popov A. Family planning in the USSR. Sky-high abortion rates reflect dire lack of choice. *Entre Nous Cph Den*. 1990;Sep(16):5-7.
2. Philipov D, Andreev E, Kharkova T, Shkolnikov V. Induced abortion in Russia: recent trends and underreporting in surveys. *Eur J Pop*. 2004;20(2):95-117.
3. Savelyeva G, Gavrilova D, Lobo T. Family planning in Russia. *International Journal of Gynaecology and Obstetrics*. 1997;58(1):51-7.
4. Dorman S. More access to contraception? Russian city surveyed. *Population Today*. 1993;21(3):5-10.
5. DaVanzo J, Grammich C. Dire demographics: population trends in the Russian Federation. Santa Monica, California: RAND, <http://www.rand.org/publications/MR/MR1273/>; 2001 (accessed 20th June, 2008).
6. Zhirova I, Frolova O, Astakhova T, Ketting E. Abortion-related maternal mortality in the Russian Federation. *Studies in Family Planning*. 2004;35(3):178-88.
7. Parkhurst J, Danischevski K, Balabanova D. International maternal health indicators and middle-income countries: Russia. *British Medical Journal*. 2005;331(7515):510-3.
8. Demoscope Weekly. Russia, Total fertility rate, 1961-2004. Demoscope Weekly. 2007 (accessed 20th June, 2008) [http://www.demoscope.ru/weekly/ssp/rus\\_tfre.php](http://www.demoscope.ru/weekly/ssp/rus_tfre.php).
9. Parfitt T. Russia moves to curb abortion rates. *Lancet*. 2003;362(9388):968.
10. Perlman F, McKee M. Trends in family planning in Russia 1994-2003. *Perspectives on Sexual and Reproductive Health*. 2008;In press.
11. Gadasina A. Struggling to survive in Russia. *Plan Parent Chall*. 1997;1-2:40-2.
12. Population and Development Review. Vladimir Putin on Raising Russia's Birth Rate. *Population and Development Review* 2006;32(2 ): 385
13. Goskomstat. [cited]; Available from: [www.gks.ru](http://www.gks.ru).
14. Entwisle B, Kozyreva P. New estimates of induced abortion in Russia. *Studies in Family Planning*. 1997 28(1):14-23.
15. Mogilevkina I, Hellberg D, Nordstrom ML, Odlind V. Factors associated with pregnancy termination in Ukrainian women. *Acta Obstet Gynecol Scand* 2000;79(12):1126-31.
16. Vikhlayeva E, Nikolaeva E. Epidemiology of abortions in Russia. *Entre Nous Cph Den* 1996;Dec(34-35):18.
17. Font-Ribera L, Pérez G, Salvador J, Borrell C. Socioeconomic Inequalities in Unintended Pregnancy and Abortion Decision *Journal of Urban Health*. 2008;85(1 ):125-35.
18. Korejo R, Noorani KJ, Bhutta S. Sociocultural determinants of induced abortion. *J Coll Physicians Surg Pak* 2003 13(5):260-2.
19. Addor V, Narring F, Michaud P-A. Abortion trends 1990–1999 in a Swiss region and determinants of abortion recurrence. *Swiss Medical Weekly*. 2003;133:219-26 ([www.smw.ch](http://www.smw.ch)).
20. Bjerregaard P, Kristensen LM, Kiil-Nielsen J, Egelund B, Kollemorten IK. Induced abortion in Greenland [Article in Danish]. *Ugeskr Laeger*. 1996 158(43):6085-9.