CHAPTER 10

REPRODUCTIVE HEALTH IN THE TRANSITION COUNTRIES OF EUROPE

Florina Serbanescu, Howard Goldberg and Leo Morris

Introduction

The International Conference on Population and Development (ICPD), held in Cairo in 1994, adopted the first normative definition of reproductive health. This applies the World Health Organization (WHO) concept of health as "a state of physical, mental and social well-being and not merely the absence of disease and infirmity" to all matters relating to the reproductive system and at all stages of life. It also recommends that the state of reproductive health should be considered within a broad social and environmental context, and that adequate provision of appropriate services are an integral part of reproductive health. In the last decade, countries in Central and Eastern Europe and the Commonwealth of Independent States (CIS) have undergone major economic and social transformations that have affected virtually every aspect of life, including health. By some measures, women's health has improved - for example, women in the region today are more likely to use modern contraception and are less likely to have an abortion to prevent unplanned births. On the other hand, rates of maternal and infant deaths, although lower than in the past in most countries, are still unacceptably high, the use of preventive health services is low, and awareness about some important issues such as how to prevent HIV/AIDS is generally lacking. Regional and socio-economic disparities within countries are large and have sometimes worsened compared to the pre-transition period.

This paper provides a broad overview of various aspects of reproductive health in the region, covering a wide range of women's health topics and providing in-depth information on attitudes and behaviours related to reproductive health. For 13 countries, data are derived from two sets of surveys carried out in the region since the mid-1990s: the Reproductive Health Surveys (RHS) led by the Centers for Disease Control (CDC); and the Demographic Health Surveys (DHS) conducted by the research organisation ORC Macro. These surveys were conducted in many countries of Eastern Europe (Albania, Czech Republic, Moldova, Romania, Russia and Ukraine), the Caucasus (Armenia, Azerbaijan and Georgia) and Central Asia (Kazakhstan, Kyrgyz Republic, Turkmenistan and Uzbekistan) (CDC and ORC Macro, 2003). With the exception of Russia, where the sample was drawn from three urban areas only, all surveys consisted of interviews with large and nationally representative samples of women of reproductive age. For other countries of the region, reproductive health data included here come from official statistics, where available. This summary of results should give programme officials, researchers and policy makers an opportunity to review which women still have the greatest health needs. We will also discuss the factors which have promoted increased contraceptive use, the declining reliance on abortion and other changes in reproductive health behaviour.

The context for reproductive health

Shared history

The transition countries of Central and Eastern Europe and the CIS constitute a diverse group of nations, each having its own rich historical and cultural heritage, distinct ethnic composition and unique political and socio-economic development. Their inclusion in a common group is rooted in relatively recent events. From the end of World War II until 1989, all of these nations had socialist governments and had similar political and economic situations. Their increasing isolation from Western Europe, and their inclusion either in the Soviet Union itself or in its sphere of influence, added commonalities to a region already brought together by a shared history and geographical proximity. The collapse of the Soviet Union loosened the old political systems in the region and triggered profound social, economic and political changes. Since about 1990, most of the Eastern European countries and the former Soviet Union have made efforts to move from centralised totalitarian regimes, under the influence of the Soviet Union, to decentralised administrative, economic, political and socio-cultural systems, whose priorities are capacity building, transition to a democratic society and development of a market economy. However, their progress on the road of post-communist transition has been uneven. At the forefront are the countries of Central

TABLE 1

Comparative demographic and social indicators for selected countries in several European regions and Central Asia

Region and Country	Population (in millions)	Women aged 15-49 (in millions)	Total fertility rate[a]	Rate of natural increase (per cent)[b]	Life expectancy male	Life expectancy female	Per cent urban	GNI PPP per capita 2000[c]	Health expenditure per capita 1990-1998	Per cent girls enrolled in secondary school 1993-1997[d]
Western Europe										
Austria	8.1	2.0	1.3	0.0	75	81	54	24 600	2 108	102
Belgium	10.3	2.4	1.6	0.1	75	82	97	25 710	1 812	151
France	59.5	14.4	1.9	0.4	76	83	74	23 020	2 287	111
Germany	82.4	19.5	1.3	-0.1	75	81	86	23 510	2 727	103
Netherlands	16.1	3.9	1.7	0.4	76	81	62	24 410	1 988	129
Switzerland	7.3	1.7	1.5	0.2	77	83	68	28 760	3 616	–
United Kingdom	60.2	14.0	1.7	0.1	75	80	90	22 220	1 480	120
Central and Eastern Europe										
Albania	3.1	0.8	2.1	1.2	72	76	46	3 600		38
Bulgaria	7.8	1.9	1.3	-0.5	68	75	69	5 560		76
Czech Republic	10.3	2.6	1.1	-0.2	72	78	77	13 780	384	100
Hungary	10.1	2.5	1.3	-0.4	67	76	64	11 990		99
Moldova	4.3	1.2	1.3	-0.1	64	71	46	2 230	30	82
Poland	38.6	10.2	1.3	0.0	70	78	62	9 000		97
Romania	22.4	5.8	1.2	-0.2	67	74	55	6 360	65	78
Russia	143.5	39.3	1.3	-0.7	59	72	73	8 010	130	91
Slovenia	2.0	0.5	1.3	0.0	72	79	50	17 310		93
Ukraine	48.2	12.7	1.1	-0.8	62	74	67	3 700	54	94
Baltic states										
Estonia	1.4	0.4	1.3	-0.4	65	76	69	9 340		108
Latvia	2.3	0.6	1.2	-0.6	65	76	68	7 070		85
Lithuania	3.5	1.0	1.3	-0.3	68	78	67	6 980		88
Caucasus										
Armenia	3.8	1.1	1.1	0.2	70	74	67	2 580	27	79
Azerbaijan	8.2	2.3	1.9	0.8	69	75	51	2 740	36	81
Georgia	4.4	1.4	1.2	0.0	69	77	56	2 680	46	76
Central Asia										
Kazakhstan	14.8	4.5	1.8	0.5	60	71	56	5 490	68	91
Kyrgyzstan	5.0	1.4	2.4	1.3	65	72	35	2 540	11	83
Turkmenistan	5.6	1.3	2.2	1.3	63	70	44	3 800	–	–
Uzbekistan	25.4	6.9	2.7	1.7	68	73	38	2 360	–	88

Source: Population Reference Bureau, *2002 World Population Data Sheet* and 2002 *Women of Our World*; World Bank, *2000 World Development Indicators.*

a The average number of children that a woman would have during her reproductive lifetime, given present age specific fertility rates.

b Rate of natural increase is the birth rate minus the death rate, implying the annual rate of population growth without regard to migration.

c GNI PPP per capita is the gross national income in purchasing power parity (PPP) divided by midyear population. GNI PPP refers to gross national income converted to international dollars using a purchasing power parity conversion factor, expressed in dollars.

d Per cent enrolled in secondary school refers to the ratio of the number of students enrolled in secondary school to the population in the applicable age group (e.g. 12 to 17 years of age) for the country (gross enrolment ratio). It can exceed 100 when number of students enrolled exceeds the population of the relevant age group.

and Eastern Europe and the Baltic countries, which are more advanced in their transition due, in part, to preserved and renewed western traditions. Other countries have been less successful, having economies still in the early stages of transition, facing severe economic hardship and, in a few instances, struggling with divisive ethnic disputes. All these countries, however, have been subject to profound societal transformation, including rapid changes in the health status of their populations and in their health care systems.

Similar demographic profile

Demographically and socially, the transition countries have much in common (table 1). Between a quarter and a third of their populations are composed of women of reproductive age (15-49 years) (PRB, 2002a).[1] With the exception of the Central Asian republics, most transition countries have fertility rates lower than those typically found in Western Europe and well below the

[1] The fertility rates presented in table 1 and 2 are taken from the most recent official statistics available.

replacement level of 2.1 births per woman (PRB, 2002a). Despite substantial differences in fertility between the European and Central Asian countries examined, rates of childbearing have fallen substantially in all places. Large actual or intended families are rare. Compared to women in Western Europe, women in the transition countries tend to marry early, have their first child shortly after they marry and a second, if they desire, soon after that. Women tend to both begin and end their childbearing at much earlier ages than in Western Europe and North America. The vast majority of childbearing takes place between the ages of 20 and 29, and it is concentrated in the early twenties. Fertility of 15-19 year-olds is at least twice as high as in Western Europe. Mainly because of below-replacement fertility (with variable contributions from increased mortality and out-migration in some countries), population growth rates are near zero or even negative, except for the countries of Central Asia. This situation has become a major social and economic concern in the region.

Compared to most of the major countries of Western Europe, life expectancy at birth in Central and Eastern Europe and the Caucasus is, on average, 9 years shorter for men and 7 years shorter for women. For the Central Asian countries, the difference in life expectancy between them and Western Europe is even greater, being on average 12 years less for men and 10 years for women (PRB, 2002a). While life expectancy in Western Europe was steadily increasing, life expectancy in the early and mid-1990s in many post-communist countries at best stagnated or commonly declined - particularly in the Russian Federation, which now has the lowest life expectancy among males in Europe. Towards the end of the 1990s, life expectancy for women ranged from 68 years in Turkmenistan to 77 years in Slovenia, with countries in Central Europe having female life expectancies above 75 years. Male life expectancy varied between 62 years (Turkmenistan) and 70 years (Albania, FYR Macedonia and Bosnia and Herzegovina). As of 1995, female life expectancy had decreased in 14 of the 27 transition countries, and male life expectancy had decreased in 20 (UNICEF, 2003). Although this decline was then followed by significant improvements in the late 1990s, in several transition countries (Belarus, Moldova, Russian Federation, Ukraine) women and men still had lower life expectancies at birth in 2001 than in 1989 (UNICEF, 2003).

The reasons for these higher mortality levels in the transition countries compared to Western Europe are complex and subject to substantial variation at the sub-regional levels, as discussed by Nolte et al. elsewhere in this volume. In the absence of reliable and representative data from many countries in transition, firm conclusions for the mortality divide cannot be drawn. However, one potential major direct contributor to the widening mortality gap is the high prevalence of destructive health behaviour, especially among men. Excess alcohol and tobacco use, lack of physical activity and poor nutrition can explain in part the mortality gap. Psycho-social stress factors, work-related stress and job insecurity, which have been amplified by transition, are also important contributors (Bobak and Marmot, 1996). Rising mortality from cardiovascular disease - the leading cause of death in most countries of the region for both men and women, and accounting for more than one half of the mortality gap - reflects, in part, the effect of these risk factors and the inability of a deteriorating health system to provide adequate prevention services or treatment (e.g. low quality hypertension screening, lack of follow-up, poor emergency care, low access to proper medication) (Velkova et al., 1997; Bobak and Marmot, 1996).

However, perhaps most of the mortality divide experienced by former Soviet bloc countries since 1990 can be attributed to economic changes, such as declines in their gross domestic product and widening income inequalities (Marmot and Bobak, 2000). The continuing transition to a market economy has had a negative impact on the welfare of the population of these countries. Compared to Western Europe, the per capita gross national income (GNI PPP) in 2000 was, on average, two to three times lower in Central Europe and the Baltic region, five times lower, on average, in Eastern Europe, and at least eight times lower in the Caucasus and Central Asian countries (table 1) (PRB, 2002a). Furthermore, the health expenditure per capita is at least ten times higher in Western Europe than in Central and Eastern Europe and at least 22 times higher than in the Caucasus and Central Asian countries (World Bank, 2001).

Common health concerns

The health of mothers and their children are important measures of well-being in all transition countries, but verifiable estimates of maternal and infant mortality are hard to obtain. The vital registration systems in the former Soviet bloc countries are comprehensive, but they share a common history of underreporting and misclassification of deaths. Although there are several notable exceptions (Czech Republic, Poland, Slovakia), death rates related to pregnancy and childbirth in the region are estimated to be at least twice as high as those in Western Europe (table 2) (Hill et al., 2001). Widespread reliance on abortion, rather than use of modern methods of contraception to control fertility, is one of the most common causes of maternal deaths in many countries in transition. Complications from abortions, especially those performed in unsafe conditions, are among the leading causes of maternal death. Vital statistics from Central and Eastern Europe and Central Asia indicate that between 10 per cent and 54 per cent of maternal deaths are abortion-related, probably most of them from illegally performed abortions (WHO, 1998). By contrast, abortion-related deaths constitute about 4 per cent of maternal deaths in the United States

TABLE 2

Comparative reproductive health indicators for selected countries in several European regions and Central Asia

Region and country	Total fertility rate	Total abortion rate[a]	Per cent of married women 15-49 currently using contraception		Maternal mortality ratio[d]	Infant mortality rate[e]	Per cent of HIV infected population aged 15–49 who are women
			Total[b]	Modern[c]			
Western Europe							
Austria	1.3	–	68	65	11	4.9	22
Belgium	1.6	0.2	78	74	8	5.3	35
France	1.9	0.4	80	74	20	4.5	27
Germany	1.3	0.2	75	72	12	4.4	20
Netherlands	1.7	0.2	79	76	10	5.1	20
Switzerland	1.5	0.3	82	78	8	5.0	32
United Kingdom	1.7	0.5	77	73	10	5.6	22
Central and Eastern Europe							
Albania	2.1	0.8	75	8	31	12	–
Bulgaria	1.3	1.6	41	26	23	13.4	–
Czech Republic	1.1	0.6	67	58	14	4.1	23
Hungary	1.1	1.1	77	68	23	9.2	11
Moldova	1.3	1.3	62	43	65	18.4	22
Poland	1.3	–	76	12	12	8.1	–
Romania	1.2	2.2	64	30	60	18.6	38
Russia	1.3	2.6	67	49	75	15.2	25
Slovenia	1.3	0.7	71	57	17	4.9	25
Ukraine	1.1	1.6	68	38	45	12.0	30
Baltic states							
Estonia	1.3	1.6	70	56	80	9	20
Latvia	1.2	1.3	48	39	70	11	21
Lithuania	1.3	1.0	45	30	27	8	20
Caucasus							
Armenia	1.1	2.6	59	22	29	15.8	20
Azerbaijan	1.9	3.2	55	16	37	12.8	20
Georgia	1.2	3.7	41	20	22	12.2	20
Central Asia							
Kazakhstan	1.8	1.4	66	53	80	19.1	1
Kyrgyzstan	2.4	1.5	60	49	80	23.0	–
Turkmenistan	2.2	0.8	62	53	65	32.8	–
Uzbekistan	2.7	0.6	67	63	60	19.1	–

Source: Population Reference Bureau, *2002 World Population Data Sheet* and *2002 Women of Our World*; WHO HFA database; Henshaw et al. (1999).

a The number of abortions that a woman would experience during her reproductive lifetime, given present age specific abortion rates. Based on official statistics for 1996 except for: France (1995), Moldova (1997), Romania (2000), Ukraine (1999), Georgia (2000), Azerbaijan (2001), and Central Asia, where TAR was provided by RHS and DHS. The TAR for the UK excludes Scotland.

b Includes modern and traditional methods.

c Includes supplied methods such as the pill, injectables, inplants, IUD, condom, diaphragm, and contraceptive sterilization.

d The annual number of deaths to women per 100,000 live births that result from conditions related to pregnancy, delivery and related complications.

e The annual number of deaths of infants under age 1 year per 1,000 live births. Rates for 2000 (Turkmenistan 1998) reported to the WHO, Health for All database.

and in Northern Europe (Chang et al., 2003; WHO, 2004). Advanced gestational stage, shortage of equipment, crowded facilities, poor hygienic conditions and inadequate standards of care also increase the risk of post-abortion complications, even when the procedure is legal. In several transition countries, 8-16 per cent of women experience post-abortion complications after legally performed procedures, mostly following procedures performed after more than 10 weeks of gestation (CDC and ORC Macro, 2003). In contrast, complications following legal abortions range from less than 1 per cent in the United States to 3-6 per cent in Western Europe (Hakim-Elahi et al., 1990; Heisterberg and Kringelbach, 1987; Thonneau et al., 1998).

As the health of mothers and their infants are linked, and they depend on similar health services, infant mortality rates are also considerably higher in the region than in Western Europe, although this is not always reflected in the official statistics. However, even the official rates are much higher than the rates in Western Europe in all but two countries (Czech Republic and Slovenia). For example, as of 2000, the official infant mortality rate in Romania (18.6 infant deaths per 1,000 live births) ranked highest in Central and Eastern Europe.

TABLE 3

General abortion rates from 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[a] (per 1 000)	
		Survey estimates (women 15-44)	Government sources[b] (women 15-49)
Eastern Europe			
Moldova, 1997	1994–1996	43	43
Romania, 1999	1997–1999	74	62
Russia, 1999[c]	1996–1998	80	–
Ukraine, 1999	1997–1999	55	42
Caucasus			
Armenia, 2000	1998–2000	81	17[d]
Azerbaijan, 2001	1998–2000	116	10
Georgia, 1999	1997–1999	125	18
Central Asia			
Kazakhstan, 1999	1997–1999	47	32
Kyrgyzstan, 1997	1995–1997	45	31
Turkmenistan, 2000	1998–2000	26	–
Uzbekistan, 1996	1994–1996	20	16

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

[b] 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.

[c] Data for Russia pertain to three primarily urban areas.

[d] General abortion rate for women 15-49 in 1998.

Official rates for the Caucasus region and Central Asian republics ranged from 12.2 to 32.8 infant deaths per 1,000 live births (data not shown). The United Nations Population Division estimated infant mortality rates around 10 infant deaths per 1,000 live births or less in Central European countries, between 11 and 16 infant deaths per 1,000 live births in the Baltic region, between 13 and 33 per 1,000 in Eastern Europe and the Caucasus, and between 45 and 57 infant deaths per 1,000 in Central Asia (table 2) (UNFPA and PRB, 2003). By comparison, the infant mortality rate for Western Europe was, on average, 5 infant deaths per 1,000 live births (PRB, 2002b). On a positive note, the infant mortality rate (IMR) has declined in many countries since the start of transition. The regional average IMR based on official data has declined by one third (UNICEF, 2003). The good news, however, has to be interpreted with caution. Alternative estimates derived from population-based reproductive and demographic health surveys show that the actual rates of infant mortality in most countries where these studies have been implemented are considerably higher than the official rates reported by official statistics (CDC and ORC Macro, 2003) (table 3).

Women throughout the transition countries usually marry and begin having children earlier than women in Western Europe; childbearing peaks between ages 20 and 24 and drops off sharply after that. Little childbearing occurs after age 30 in these countries; women typically spend the rest of their reproductive years trying to avoid pregnancies. Although the use of modern contraceptive methods has increased substantially in recent years, the use of traditional methods often exceeds the use of modern methods, and women using less effective contraception continue to rely on legal abortion services when these methods fail. However, post-abortion counselling - essential to avoid repeat abortions and to encourage use of more effective methods of contraception - is seldom satisfactory. With population size stalled or shrinking, some policy makers now consider family planning programmes unnecessary and counterproductive and instead are advocating measures to encourage women to have more children.

Increasingly, women in countries in transition are faced with the risk of contracting sexually transmitted infections (STIs), including HIV/AIDS. Currently, in most countries in the region, between one-fifth and one-third of adults living with HIV/AIDS are women of childbearing age. The HIV epidemic is known to be spreading quickly in the Baltic countries, Ukraine, Moldova and the Russian Federation, primarily fuelled by high rates of injecting drug use. As in Western Europe, the burden of HIV infection is higher among men than women, but due to rising STI rates - that precede and can facilitate HIV transmission - in the region, an increasing number of women may become infected in the near future in the absence of sustained prevention efforts.

Women's status and gender issues

Most countries of the region share similarities with regard to the legal status of women and gender roles. Women in transition countries had traditionally benefited from the communist principles of gender equality in access to education and the workforce. Although women are generally paid equally to men for equal work, they are increasingly facing discrimination both at the workplace and at home. The labour force participation rate is lower for women than for men. The share of women's participation in parliament is less than 11 per cent in 15 out of 25 transition countries and does not exceed 26 per cent in any country (UNFPA and PRB, 2003). The average salary for women is generally lower, reflecting the fact they are more likely to hold lower paid jobs. The share of household tasks is also distributed unequally, leaving working women with the double burden of working full time at the workplace and completing most of the household chores at home. Inequity in the status of women in countries of the region is perhaps nowhere more clearly manifested than in their limited access to modern contraceptive methods and the corresponding high rates of unintended pregnancy and induced abortions (CDC and ORC Macro, 2003).

Impact of transition on health and health care

In the former communist countries, health policies, practices and facilities were modelled after the centralised, government-supported Russian health system (the Semashko model) that provided free universal health services to all citizens. Typically, the system promoted hospital-based health care services. That created a surplus of hospitals and hospital-based specialised physicians but supplied inadequate primary health care. In the recent years of transition to a market economy, the costly hospital-based curative system has become impossible to maintain at an effective level; most hospitals have lacked the minimum equipment, drugs and supplies necessary and cannot afford the maintenance costs. Health care has deteriorated rapidly in a number of areas, including reproductive health services, which is reflected in the worsening of several outcome indicators (e.g. maternal and infant mortality, STI prevalence and utilisation of preventive services).

In many countries in transition, governments are struggling with limited resources and emerging health problems. They have responded to demographic and reproductive health challenges to varying degrees by introducing a wide array of policies and programmes. Currently, health care reforms are in various stages of development and implementation. Many health care systems (e.g. in Albania, Czech Republic, Croatia, Estonia, Lithuania, Georgia, Hungary, Poland, Russia and Romania) are undergoing financial reforms with the aim of converting from a system fully financed by the state to one of mixed public and private funding. While some governments continue to play a major role in supporting health care services, others are in the process of turning them over to national health insurance agencies or to the private sector, possibly leaving large sectors of their populations uninsured or with minimum health care benefits. The newly created insurance systems have a mandatory component - based on mandatory payroll taxes, specifically earmarked taxes and funds, and government and municipal subsidies - together with a voluntary component. The mandatory insurance funds a limited range of essential services for all citizens who do contribute, as well as for some who do not (e.g. minors and students) (CRLP, 2000).

Measurement issues

Many former Soviet bloc countries collect extensive vital statistics information. However, the health information systems during the Soviet times were often flawed by overreporting of 'positive' results (which could bring rewards) and underreporting of undesired statistics (which could lead to disciplinary action). Although the old systems are no longer in place, some of their characteristics may have persisted. In addition, with the emerging private health sector and the shifting of health costs from the state to the individual, official data may be less complete than previously (Bladen et al., 1998). For example, vital record data in several countries have suggested that abortion rates have been in decline. At the same time, the availability of abortion services from private practice providers has increased and abortions carried out by these providers are usually not included in official figures, placing the completeness of the abortion figures in some doubt.

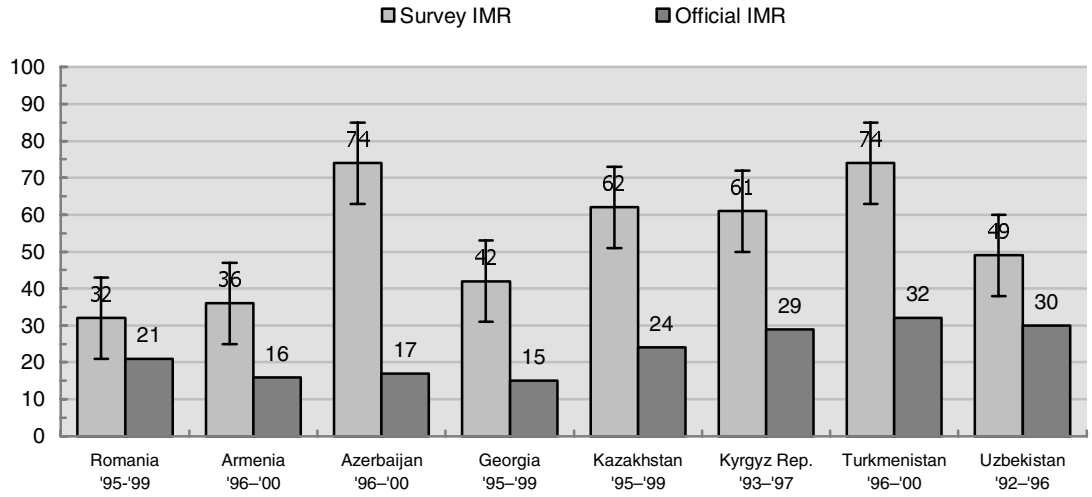
Even when they are complete, vital records, census data and programme data often do not provide sufficient information to adequately and reliably assess public health problems and to evaluate public policy and programme initiatives. Furthermore, the data usually satisfy the needs of centralised decision makers but are less useful for describing the health status and the burden of disease of the population at sub-national levels.

Until recently, population-based data on most areas of reproductive health, including sexual activity, pregnancy intentions, contraceptive knowledge and attitudes did not exist. While periodic sample surveys have been used for many years to evaluate national maternal and child health needs in many developing and developed countries, they had been used infrequently in former Soviet bloc countries. Population-based surveys of women of childbearing age, with a nationally representative sample, are considered to be the best and most timely means to collect information on fertility, the planning status of pregnancies, contraceptive use, health behaviour and use of women's health services, knowledge and attitudes about contraception, knowledge about HIV/AIDS transmission and prevention, and other reproductive health issues.

While fertility data obtained through DHS and RHS surveys recently conducted in the region may be easily compared with vital records, other data are quite different (e.g. abortion levels, infant mortality levels), or are not covered by official statistics (e.g. contraceptive prevalence, unmet needs for contraception, health behaviour and use of women's health services). This illustrates how critical it is to monitor key reproductive health indicators through periodic population-based sample surveys (table 3). The differences in induced abortion reporting, for example, are probably largely due to the inability of the official registration systems to record the increasing number of abortions performed in private health facilities or the early-term abortions ('mini-abortions') performed in outpatient clinics. 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. As shown in table 3, in all but one country the survey estimates exceed government rates by at least 20 per cent. In the Caucasus, the survey estimates are several times higher than official rates - indicating a more severe breakdown in the government systems for collecting abortion statistics than in other countries. Similarly, the surveys showed that rates of infant mortality are substantially higher than the official rates - four times

FIGURE 1

Survey estimates with 95% confidence intervals and official statistics rates of infant mortality



Source: CDC and ORC Macro, 2003

higher in Azerbaijan, and more than 1.5 times higher in Romania, Georgia and Uzbekistan. The differences are not only due to weaknesses in reporting systems but also in variations in how a live birth is defined. The DHS and RHS surveys used standard World Health Organization definitions that many governments in the region have been slow to adopt or implement. Governments may fear that adopting the WHO definition will make it appear that infant mortality has been rising.

While the official data may be less complete, inherent problems with survey data can also exist. Because surveys count events experienced by a randomly selected sample of the population rather than the entire population, the resulting estimates of the parameters intended to be measured are subject to a certain degree of sampling error. Thus, the estimates based on a probability sample may differ by chance variation from the statistics based on the entire population. Standard errors can be used to calculate 95 per cent confidence intervals around the survey estimates; consequently, we can say with confidence that the true value of a statistic lies within the boundaries of the 95 per cent confidence interval. The true value could be higher or lower than the sample estimate. Figure 1 shows that in the case of survey estimates of IMR, the lower boundary of the confidence interval is well above the official estimate in all but one country (Romania), suggesting that the official figures are subject to significant undercounting (Serbanescu et al., 2003).

Selected reproductive health issues

Abortion and contraception: trends and relationships

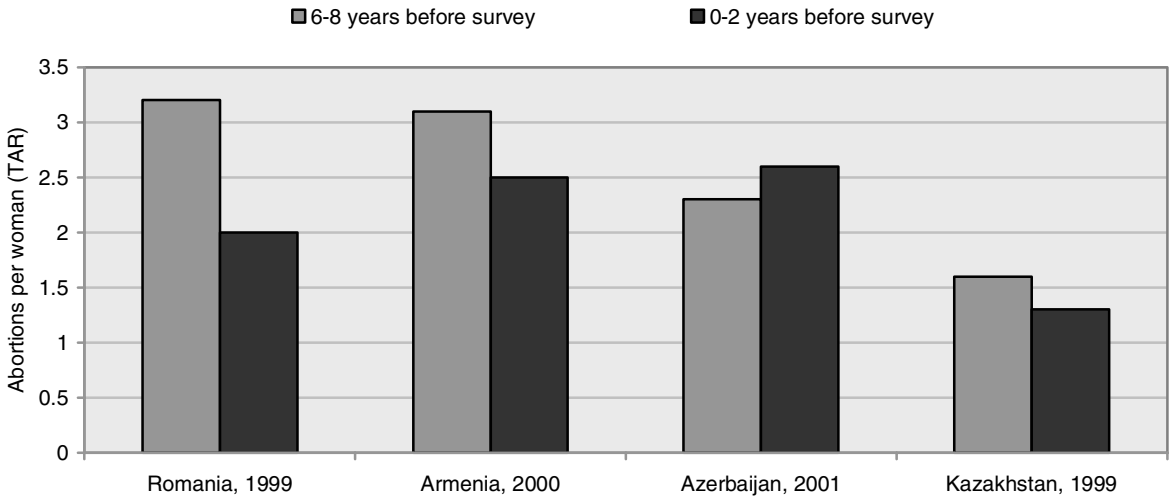
Abortion rates and trends

Given the relatively low usage of the more effective modern contraceptive methods in many countries of the region, the early start and completion of childbearing, and the small 'ideal' family size, the proportion of pregnancies that are unintended is quite high, particularly in Eastern Europe (54 per cent) and Caucasus region (59 per cent). The vast majority of unintended pregnancies (over 80 per cent) are unwanted (i.e. in excess of the number of children wanted), while mistimed pregnancies (i.e. those occurring earlier than intended) are relatively infrequent. There is considerable evidence that women who are pregnant with an unintended pregnancy are more likely than those with intended pregnancies to enter prenatal care late or not at all, and to experience pregnancy or perinatal complications (Brown and Eisenberg, 1995). Typically, in Eastern Europe and the former Soviet Union, between 71 per cent and 90 per cent of unintended pregnancies are not carried to term and end in elective abortions (CDC and ORC Macro, 2003).

Prior to the break-up of the Soviet Union in 1991, a characteristic feature of the countries under Soviet influence was their heavy 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. Viewed as a basic reproductive right of women in the former Soviet-bloc countries,

FIGURE 2

Trends in abortion rates in selected countries



Source: CDC and ORC Macro, 2003

Note: The TAR (total abortion rate) is the number of abortions a woman would have in her lifetime if she experienced current age-specific abortion rates.

abortion was legalised in the region well before the Western European countries. Except for Romania - where abortion was illegal prior to 1990 - women in the other ex-Soviet bloc countries had broad access to free-of-charge or affordably priced legal abortions. Currently, during the first 12–14 weeks of gestation, abortion is available without restrictions in all the transition countries except Poland (Rahman et al., 1998). Beyond this gestational age, abortion is available only on medical or selected socio-economic grounds. Abortion is typically performed by trained physicians either in public or private clinics or hospitals. In most countries, the official cost of a legal abortion in a state-run facility is relatively low, but it is not covered by health insurance. However, in many places unofficial payments or payments for 'extra' services, such as anaesthesia, can increase the cost beyond what a low-income family may be able to afford.

The widespread use of abortion in the former Soviet Union resulted from many factors. Chief among these were the liberal government policies toward abortion, centralised medical systems that focused more on curative than on preventive care, and limited access to high quality methods of contraception. Before 1990, the medical establishments of these countries were relatively isolated from advances in western contraceptive technology such as the low-dose pill, which has reduced the serious side effects of oral contraceptives. These factors continue to play a role in the former Soviet-bloc countries and until recently abortion rates and ratios in some of these countries were among the highest in the world. Since the mid-1990s, however, the use of modern effective methods of contraception has increased, with a corresponding decrease in the abortion rates (Popov and David, 1999). Nevertheless, reliance on abortion as a means of fertility control is still high in many countries of the region. With the exception of Central Asia, Albania, Czech Republic, Slovakia, Croatia and Slovenia, all the transition countries have total abortion rates (TARs) equal to or greater than their total fertility rates. It should be noted, however, that official abortion rates represent conservative estimates in most countries. In several Eastern European countries, e.g. Georgia, Russia, Azerbaijan and Romania, population-based surveys have revealed some of the highest abortion rates in the world (CDC and ORC Macro, 2003; Henshaw et al., 1999). By comparison, abortion rates in Western Europe - where complete data exist - are among the lowest in the world, typically not exceeding 0.5 abortions per woman (table 2).

Population-based surveys have documented considerable variations in the total abortion rates in the region. 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 between 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

TABLE 4

Per cent distribution of current use of specific methods of contraception among women aged 15–44 years currently married[a] for selected countries in several European regions and Central Asia

Region and country	Any method	Any modern method	Modern method					Any traditional method[c]	Traditional method		Per cent using modern	Most used method
			Pill	IUD	Condom	Female sterilization	Other modern[b]		Periodic Abstinence	Withdrawal		
Western Europe												
Austria, 1996	68	65	40	9	10	4	2	3	2	1	96	Pill
Belgium, 1991-92	78	74	47	5	5	11	7	4	2	2	95	Pill
France, 1998	80	74	38	21	5	9	1	6	–	–	93	Pill
Germany, 1992	75	72	59	6	4	1	2	3	1	1	96	Pill
Netherlands, 1993	79	76	49	4	8	5	11	5	2	2	96	Pill
Switzerland, 1994-95	82	78	34	6	14	14	10	5	1	5	95	Pill
United Kingdom, 1998-99	77	73	24	5	18	11	15	4	1	3	95	Pill
Central and Eastern Europe												
Albania, 2002	75	8	1	1	2	4	0	67	0	67	11	Wd
Bulgaria, 1997-98	41	26	7	7	11	0	1	15	3	13	62	Wd
Czech Rep., 1997	67	58	23	14	13	7	1	9	2	7	86	Pill
Hungary, 1992-93	77	68	38	17	8	5	1	9	3	6	88	Pill
Moldova, 1997	74	50	2	38	6	3	0	24	2	22	68	IUD
Romania, 1999	64	30	8	7	9	3	3	34	6	29	47	Wd
Russia, 1999[d]	73	53	7	25	16	2	3	20	13	7	73	IUD
Slovenia, 1994	71	57	22	22	8	6	0	15	7	8	80	Pill
Ukraine, 1999	68	38	3	19	14	1	1	30	10	20	56	IUD
Baltic states												
Estonia, 1994	70	56	4	36	16	0	1	14	8	5	80	IUD
Latvia, 1995	48	39	8	20	10	2	0	9	5	3	82	IUD
Lithuania, 1994-95	45	30	3	14	13	0	0	15	9	6	68	IUD
Caucasus												
Armenia, 2000	61	22	1	10	8	2	0	39	5	35	36	Wd
Azerbaijan, 2001	55	12	1	6	3	1	0	44	3	41	22	Wd
Georgia, 1999-2000	41	20	1	10	6	2	1	21	10	11	49	Wd
Central Asia												
Kazakhstan, 1999	62	55	3	44	5	3	1	8	5	3	89	IUD
Kyrgyzstan1997	60	50	2	39	6	2	1	9	3	6	83	IUD
Tajikistan, 2000	34	27	1	25	1	0	0	7	3	4	79	IUD
Turkmenistan, 2000	55	47	1	41	2	2	1	8	2	6	85	IUD
Uzbekistan, 1996	57	53	2	47	2	1	2	4	1	3	93	IUD

a Includes women in consensual unions.

b Includes methods such as injection, vasectomy, diaphragm, spermicides, Norplant, female condom.

c Excludes folk methods.

d Data for Russia pertain to three primarily urban areas.

Wd = Withdrawal

distinctly higher (at 1.4 and 1.5 abortions per woman) than in Turkmenistan or Uzbekistan (0.8 and 0.6).

In several transition countries, DHS and RHS data have documented a decline in the level of abortion in the most recent years. The declines are substantial, amounting to between 0.3 and 0.6 fewer abortions per woman in Moldova, Russia, Armenia, Kazakhstan and Uzbekistan, and about 1.0 less abortion per woman in Romania and Georgia. These figures represent declines of between 15 per cent and 38 per cent over a six-year interval. In Ukraine, the Kyrgyz Republic and Turkmenistan, however, there has been little or no change in the abortion rates. In the case of Azerbaijan, there has been a clear increase in the abortion level from 2.3 to 2.9 abortions per woman in the most recent three-year interval (figure 2).

Contraceptive use and the unmet need for contraception

In all of the countries highlighted in this paper, except for Romania and Albania, modern contraceptive use during the communist years was legal, and contraceptive services were offered through women's health centres. Legality, however, did not ensure wide access to and availability of effective, modern contraception. The range of modern contraceptive methods available was often limited to locally produced supplies and the quality of contraceptive services was generally poor. In addition, provider resistance, fear about possible side effects (particularly associated with the use of hormonal methods), cultural norms and partners' opposition, made it difficult for many women to obtain modern contraception.

TABLE 5

Unmet need for any contraception and unmet need for modern contraception among all women and currently married women of reproductive age[a] for selected countries in several European regions and Central Asia

Region and country	Source[b]	All Women		Currently married women	
		Any method	Modern method	Any method	Modern method
Western Europe					
Belgium, 1991-1992	FFS	2	6	3	7
France, 1994	FFS	6	10	7	14
Italy, 1995-1996	FFS	7	23	12	33
Spain, 1994	FFS	3	12	5	18
Central and Eastern Europe					
Albania, 2002	RHS	1	43	1	68
Bulgaria, 1997-1998	FFS	23	36	30	46
Czech Republic, 1997	FFS	10	31	15	39
Hungary, 1992-1993	FFS	4	12	7	16
Moldova, 1997	RHS	7	23	6	29
Romania, 1999	RHS	5	29	6	39
Russia, 1999[c]	RHS	11	28	12	33
Slovenia, 1994	FFS	7	19	9	24
Ukraine, 1999	RHS	15	37	18	47
Baltic states					
Latvia, 1995	FFS	11	17	17	25
Lithuania, 1994-1995	FFS	12	23	18	34
Caucasus					
Armenia, 2000	DHS	10	34	15	52
Azerbaijan, 2001	RHS	7	31	12	53
Georgia, 1999	RHS	15	27	24	44
Central Asia					
Kazakhstan, 1999	DHS	10	16	14	22
Kyrgyzstan, 1997	DHS	9	15	13	22
Turkmenistan, 2000	DHS	12	17	19	27
Uzbekistan, 1996	DHS	10	13	14	18

a Considered to be 15–44 years in RHS and 15-49 years in DHS survey.

b DHS=Demographic Health Surveys (ORC Macro); RHS=Reproductive Health Surveys (CDC); FFS=Fertility and Family Surveys (UNECE).

c Data for Russia pertain to three primarily urban areas.

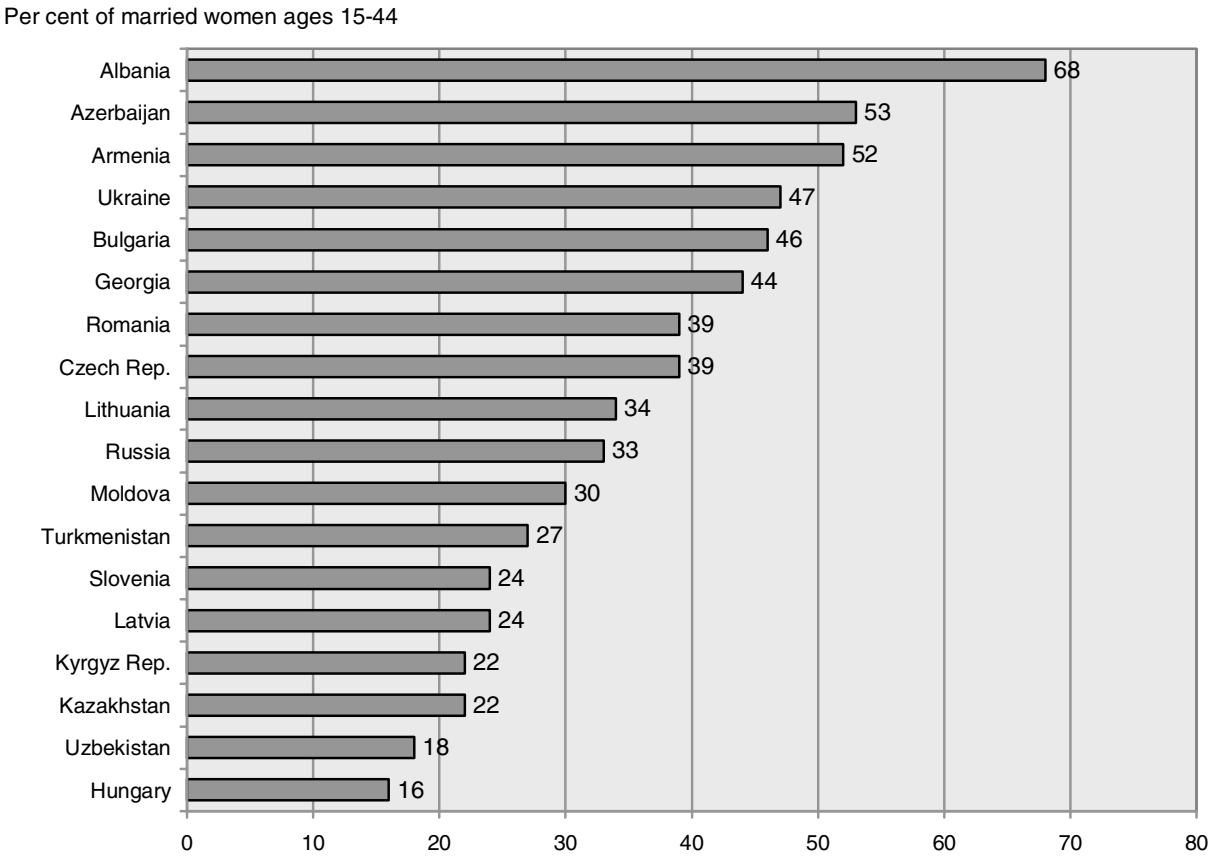
In the former Soviet Union countries, for example, oral contraceptives were officially principally prescribed only for particular medical benefits rather than for contraceptive purposes; dissemination of accurate information about the pill was actively discouraged; and, when the topic was addressed, the potential health risks and side effects were overstated. As a result of this negative propaganda, actively promoted by policy makers and the medical community, misconceptions about the pill's safety were universal (Popov et al., 1993). Throughout the region, the use of traditional contraceptive methods,[2] particularly withdrawal, was widespread and constituted a major contribution to the high levels of unintended pregnancy.

Among married women in the transition countries, use of any contraception, whether modern or traditional methods, ranges from a low of 41 per cent in Georgia and Bulgaria to a high of 77 per cent in Hungary, with the highest rates of contraceptive use found in the Central and Eastern European countries (table 4). Although the use of modern contraceptive methods has increased substantially in recent years - mainly because of multinational donors and social marketing of condoms - the prevalence of oral contraceptives continues to be low. With the exception of selected countries in Central Europe - where hormonal methods approach the prevalence seen in Western Europe - the use of oral contraceptives in former Soviet bloc countries is very low, mainly because of widespread misinformation about their health risks and side effects. Few couples in the region employ long-term or permanent contraceptive methods, except for IUDs, despite the fact that a large majority do not intend to have more children. Permanent methods of contraception are not currently promoted, at least in part because of the continuing concern about the negative rate of population growth. Legal provisions to support voluntary sterilisation are absent or restrictive. Female sterilisation for contraceptive purposes was largely illegal until recently and even today women younger than 30 years of age do not have access to sterilisation unless they have three or more children

[2] In this paper, 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 contraceptive sterilisation, injectables, implants and vaginal methods.

FIGURE 3

Unmet need for modern methods of family planning *



Source: CDC and ORC Macro, 2003; Klijzing, 2000.

Note: * Includes married, fecund women who say they would prefer to avoid a pregnancy, but are either not using any contraception or using a traditional method such as withdrawal or periodic abstinence.

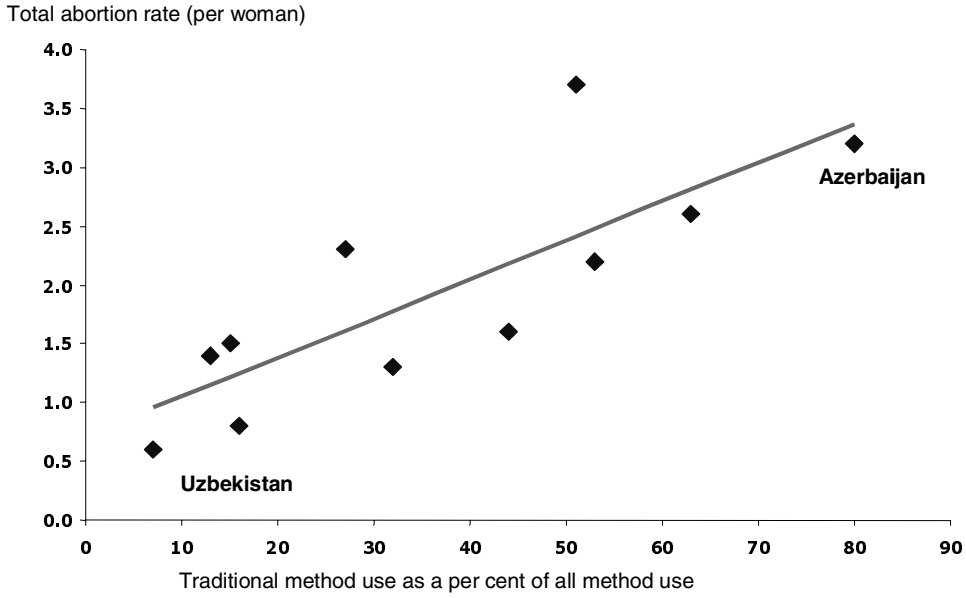
(Popov, 1996). Legal provisions to support vasectomy are not yet in place. The availability of contraceptive sterilisation (especially laparoscopic sterilisation and vasectomy) is also limited because of a lack of adequate training of providers, government perception of a low interest in these methods, and little knowledge among family planning clients. Withdrawal and periodic abstinence continue to be widely used. Because of the widespread use of traditional, less effective methods, the overall rates of contraceptive failure and discontinuation are very high, contributing significantly to unintended pregnancies.

Modern methods account for a higher share of contraceptive use in most Central European countries than elsewhere in the region, where the pill is the most commonly used method. They are also more prevalent in Belarus, the Baltic countries and Central Asia, where intrauterine devices (IUDs) are popular. As in other parts of the world, the higher the level of a woman's education, the more likely she is to use a modern contraceptive method.

A standard approach to forecasting the contraceptive needs in a population is to assess the potential demand for family planning. The total potential demand for contraception is generally defined as the sum of current contraceptive use (met need) and the additional contraceptive use that would be required to protect women from unintended pregnancies (unmet need). Thus, the unmet need for contraception is a very specific estimate that measures the gap between desired fertility and the contraceptive practices adopted to ensure that fertility preferences are met in a population. The conventional definition of *unmet need* includes women currently married or in consensual unions who are currently sexually active, currently exposed to the risk of pregnancy (women who are not sexually active, currently pregnant women, and women in postpartum abstinence or amenorrhea are excluded), fecund (neither they nor their partners have any subfecundity conditions), not wanting to become pregnant, and not using any form of pregnancy prevention (Bongaarts, 1991). In countries with high use of traditional methods, which tend to have substantially higher failure rates, the standard definition of unmet need

FIGURE 4

Relationship between use of traditional methods and abortion rates



masks the real need for more effective contraception. For these countries it is more useful to estimate the unmet need for modern contraception, despite the small risk of overstating the unmet need in some cases in which traditional methods are used effectively. For international comparison, however, both indicators are shown for all women and for currently married women (table 5).

The unmet need for contraception cannot be routinely estimated from official statistics. However, estimates can be made for countries of Central and Eastern Europe and the former Soviet Union where population-based Reproductive Health Surveys, Demographic and Health Surveys, or Fertility and Family Surveys have recently been conducted. Analysis of these surveys indicate that the level of unmet need for any method among married women ranged from 1 per cent in Albania to 30 per cent in Bulgaria, while the unmet need for modern methods varied between 18 per cent in Uzbekistan to 68 per cent in Albania (CDC and ORC Macro, 2003; Klijzing, 2000). Albania and Azerbaijan have a relatively low need for any form of contraception (1 per cent and 15 per cent of married women, respectively), but the highest unmet need for modern contraception (68 per cent and 53 per cent of married women, respectively) (figure 3). Thus, the levels of unmet need in the region are usually several times higher than in Western Europe, particularly the unmet need for modern methods.

Links between contraception and abortion

Generally, there is a clear relationship between abortion and use of traditional contraceptive methods: the greater the ratio of traditional methods to all methods used, the higher the level of abortion (figure 4). A simulation using data from Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Romania, Russia, Turkmenistan, Ukraine and Uzbekistan showed that if women using traditional methods (an average of 15 per cent of all women of reproductive age) were to switch to modern methods of contraception, which have low failure rates, abortion rates could be reduced by an average of 24 per cent. If women with an unmet need for any contraception (about nine per cent of all women) were to adopt modern contraception, abortion rates would be reduced by an average of 33 per cent. Thus, abortion rates could be reduced by as much as 57 per cent on average if both traditional method users as well as women with an unmet need for family planning were to become users of modern methods (Westoff, 2003).

Reducing women's reliance on abortion would require increasing contraceptive use overall, shifting to more effective contraceptive methods, and encouraging more consistent use of methods by improving the information and services provided. Women's attitudes

about contraception lend support for these changes. About three-quarters of women in Azerbaijan, Moldova and Romania say they want more information about contraception; in Georgia, more than half want more information. At the same time, however, contraceptive counselling is not always included as standard care when carrying out legal abortion, and even when it is included it is not necessarily offered. In countries with survey data, only 10-15 per cent of women who obtained legal abortions were offered pre- or post-abortion counselling. A greater proportion of young women, never-married women and women using condoms want more information, emphasizing a need for educational efforts among young people. In much of the region, young unmarried women have less access to family planning and reproductive health services than married women do.

During the past decade, several countries in the region have developed comprehensive national family planning programmes with detailed training agenda, aiming to increase the number of physicians and nurses that are involved in family planning activities. In Romania, for example, family planning training has been extended to primary health care providers, in an effort to educate a critical mass of providers and improve reproductive health services at the primary health care level.

Safe motherhood

Maternal mortality in Central and Eastern Europe and Central Asia is, on average, several times higher than in Western Europe, with abortion, obstetric haemorrhage, sepsis, and toxaemia (hypertensive disease of pregnancy) accounting for the majority of maternal deaths. Factors contributing to high maternal mortality include: a high reliance on abortion rather than use of modern methods of contraception to control fertility; a deficient health infrastructure that cannot afford to replace outdated obstetric equipment and facilities; a lack of essential supplies needed to provide basic emergency obstetric care; insufficient or inadequate transportation of high risk cases to referral centres; and delays in adopting evidence-based best medical practices and in training of medical personnel. Although the medical care infrastructure in these countries comprises the full range of facilities and medical personnel, in reality, however, health care services are often ill-equipped to provide quality prenatal and postnatal care, timely diagnosis and referral of high risk pregnancies, and emergency obstetric care, especially in rural areas. This situation may explain the coexistence of relatively high maternal mortality levels with almost universal skilled attendance at birth and relatively high utilisation of prenatal care services.

Research has shown that early initiation of prenatal care and the presence of a skilled birth attendant reduces maternal and infant mortality and can prevent obstetric morbidity. Under the Soviet health guidelines, women's access to perinatal care was free of charge and consisted of three components: preconception care, prenatal care and postnatal care (US DHHS, 1999). Changes in the health care systems and the financing available for health care since the fall of communism have affected some perinatal care services significantly. The RHS and DHS surveys conducted in the region contained detailed information regarding women's actual experiences during pregnancy, delivery and the postpartum period. In the absence of reliable official statistics, these data can be used to identify problems and to help set programme priorities, goals and strategies for improving the health of mothers and infants and pregnancy outcomes.

Use of prenatal care services (initiation and frequency of prenatal care, quality of care)

Survey data showed that the vast majority of pregnant women in the region receive prenatal care, with the exception of women in Azerbaijan. There was a strong correlation between whether women received prenatal care and when the first visit for care took place. In the Czech Republic, 94 per cent of women began receiving care during their first trimester of pregnancy. At the other extreme, in Azerbaijan, only 45 per cent started that early. In almost all countries, prenatal care began sooner among better-educated women, though the relationship was weakest in Central Asia. In those countries where there was a relationship between start of care and birth order, prenatal care tended to start earliest for first births.

Intranatal and postpartum services

Except in the Caucasus countries, deliveries outside of health facilities are relatively uncommon. In Azerbaijan, 26 per cent of births occurred outside of health facilities, a figure more than three times higher than in Georgia and Armenia, the countries with the next highest rates. Such births are uncommon in Central and Eastern Europe, where generally only about 1 per cent of deliveries take place outside of health facilities. Use of postpartum care, however, is substantially lower than use of other maternity services. In three of the five countries for which data were available, less than 50 per cent of women - and only 11 per cent in Georgia - reported receiving a postpartum examination following their most recent birth.

HIV/AIDS and other STIs

Levels and trends

Since the early 1990s, many of the countries of Eastern Europe and the former Soviet Union have experienced major epidemics of sexually transmitted infections (STIs), particularly of syphilis. The reported incidence of new cases of syphilis in several former Soviet countries increased by 45-165 times during 1990-1998. The steepest recorded increases were reported in

Kazakhstan (from 1.4 to 231.4 new cases per 100,000), the Kyrgyz Republic (from 2 to 144.4 new cases per 100,000), Belarus (from 2.7 to 164 new cases per 100,000), and the Russian Federation (from 5.3 to 225.6 per 100,000). The rates in the countries of the Caucasus region and in Romania, though higher than in 1990, remained low by comparison (Riedner et al., 2000). In addition to direct reproductive health consequences, the presence of one or more STIs considerably increases the risk of becoming infected with HIV (Wasserheit, 1991).

The transition countries are also the focus of one of the world's fastest growing HIV/AIDS epidemics. Until 1994, Eastern Europe appeared to have been spared the worst of the AIDS epidemic. While the transition countries combined reported about 30,000 infections among their 450 million people, at that time Western Europe had over 15 times as many infected individuals. The pattern of transmission, however, changed after 1994, fuelled primarily by injecting drug use and sexually transmitted infections among young people. Between 1995 and 1997, the estimated number of HIV cases in Eastern Europe increased more than five-fold across the entire region, and as much as 70-fold in the worst affected areas (Dehne et al., 1999). UNAIDS estimated that, at the end of 2002, 1.2 million people in Eastern Europe and Central Asia were living with HIV, of which 250,000 were infected in the previous year (UNAIDS and WHO, 2002). This compares with 570,000 adults and children living with HIV/AIDS at the end of 2002 in Western Europe. Intravenous drug use had been the main mode of transmission in the transition countries, but infection through sexual contact is increasing, particularly among young people and the growing number of commercial sex workers. International AIDS experts are warning that the epidemic may quickly spread from these subgroups to the general population.

Worldwide, half of all new HIV infections occur among young adults and a third of those currently living with HIV/AIDS are between 15 and 24 years of age. In Eastern Europe and Central Asia, 430,000 young people aged 15-24 (35 per cent young women and 65 per cent young men) were living with HIV/AIDS at the end of 2001, compared to 240,000 young people in the industrialised countries (including Western Europe, United States, Japan, etc.) (UNICEF, 2002). UNAIDS estimates that an average of five young people in the region become infected with HIV/AIDS every minute.

HIV/AIDS awareness and knowledge of transmission and prevention

At the same time, young people in the region are particularly under-served by most reproductive health programmes. Several RHS and DHS surveys showed that most young people lack accurate knowledge of HIV transmission and do not know what they can do to protect themselves from getting infected. In Romania, for example, 31 per cent of young women and 21 per cent of young men could not spontaneously mention any AIDS prevention measure; only about half of young women and two-thirds of men spontaneously mentioned that using condoms could effectively protect against AIDS; less than a quarter knew that using clean needles could prevent HIV infection. Most young adults do not consider that they have any risk of HIV infection.

Access to information and services

Access to correct and adequate information on HIV transmission has been particularly limited for young adults. For one thing, young people seldom have conversations about sex education topics with their parents, and teachers are often uncomfortable about discussing reproductive health topics with their students. In the absence of home-based discussions and formal training, they tend to obtain information on these topics from their equally ill-informed peers. Many transition countries had been slow in introducing comprehensive sex education into schools, especially courses that include information on contraception and STIs, including HIV/AIDS. The Reproductive Health Surveys conducted in several countries in Eastern Europe are a rich source of information about young adults' exposure to sex education. Overall, the majority (89-94 per cent) of young women in Romania and Moldova had had at least one school-based course or class on sex education, but less than one in two women in Azerbaijan and Georgia had had such lectures. Generally, all young adults were more likely to have received lectures on female and male reproductive biology, the menstrual cycle and how pregnancies occur, than lectures on HIV/AIDS, other STIs and methods of contraception. Between 50 and 54 per cent of young women in Moldova and 39 and 42 per cent of young women in Romania, but less than 7 per cent in Azerbaijan and Georgia reported lectures on HIV/AIDS and other STIs. Similarly, only 36-38 per cent of young women in Moldova and Romania and just 1-2 per cent in the Caucasus countries received school-based lectures on contraception. The fact that most sexuality lectures were offered during the high school years - particularly in countries with school-based lectures on contraception and STIs (e.g. Moldova and Romania) - points to the need for out-of-school education for those students who never enter secondary school.

Limited access to reproductive health services is another factor that can contribute to risky sexual behaviour. Studies have shown that few sexually active youths in the region protect themselves and their partners from STIs by using condoms. Condom use at first sexual intercourse ranged from less than 1 per cent in the Caucasus countries to 23 per cent in the Czech Republic. In Ukraine 27 per cent and in Russia 33 per cent of never-married young adults had used condoms at first intercourse. Even fewer obtain condoms from family planning services, thus missing the opportunity for counselling regarding risky behaviour.

Sex education on HIV/AIDS and other STIs

In recognition of the critical need of young adults for correct information about HIV/AIDS and other reproductive health topics, the 2001 United Nations General Assembly Special Session on HIV/AIDS (UNGASS) recommended that by 2005 at least 90 per cent of young men and women aged 15 to 24 years should have access to information, education and services necessary to develop the life skills required to reduce their vulnerability to HIV infection, "in full partnership with youth, parents, families, educators, and health care providers" (UNGASS, 2001). Additionally, the 2001 UNGASS endorsed the 'ABC' approach - Abstinence or delay in having sex, Be faithful, and use Condoms - as a key component of HIV prevention strategies.

UNFPA and its partners have pooled their efforts to strengthen sex education programmes in the region, using school-based, clinic-based or peer-education approaches. Starting in 1998, USAID and other international donors in Romania teamed up with the Ministry of Education to help design the first school-based sex education programme in the country. In 2002, UNFPA partnered with the Ministry of Education in Turkmenistan to implement a sex education curriculum for students aged 15 and older, and develop age-appropriate information resources for teachers and doctors. In the same year, UNFPA collaborated with the Russian Ministry of Health to distribute materials to health clinics and youth centres with user-friendly approaches to preventing HIV. In the past two years, UNFPA has helped to train 165 peer education trainees in 27 countries of the region, reaching more than 30,000 young people who participated in national peer education-training workshops on HIV prevention and gender issues. The project also created the first web-based resource-training tool for peer educators (Youth Peer Education Electronic Resource or Y-PEER), illustrating how information technology can be applied in HIV prevention strategies (UNFPA, 2003a).

Marketing campaigns like "What's Your Excuse?", which was supported by UNFPA and implemented by Population Services International (PSI) in Yugoslavia and Bulgaria, represent another innovative approach to comprehensive HIV prevention. The campaign, aimed at 15–25 year-olds, uses advertisements, posters, teeshirts, television and radio commercials, and condom distribution to bring about behaviour changes. In addition to disseminating information, promoting responsible sexual behaviour among young adults also requires facilitating access to youth-friendly services (UNFPA, 2003b). In Ukraine, UNICEF, working with its partners, supported the Young People's Development Programme in creating youth-friendly clinics and information centres for out-of-school young people (UNICEF, 2002).

HIV/AIDS prevention in the context of reproductive health care

Reproductive health services are also the ideal means for carrying out HIV and other STI prevention activities among women of reproductive age. For example, family planning and STI clinics, maternal health services and outreach delivery services for high-risk groups (commercial sex workers and injecting drug users) could provide an ideal environment for providing information on HIV prevention. Information distributed in these settings should include counselling on HIV transmission and prevention, voluntary testing, promotion of safer sexual behaviour (e.g. correct and consistent use of condoms, avoiding sex with high risk partners or multiple partners), and early management of STIs. Maternal health clinics and services provide an excellent opportunity for HIV prevention strategies, since pregnancy is often one of the few times when the majority of women in the region use the health care system. The UN General Assembly Special Session on HIV/AIDS recommended that by 2005, "…80 per cent of pregnant women accessing antenatal care should receive information, counselling, and other HIV prevention services" in order to reduce the proportion of infants infected with HIV.

The training of military personnel represents one of the newest initiatives in HIV prevention efforts in the region. Because members of the military are usually young, sexually active and separated from their partners, they face a higher risk of exposure to STIs, including HIV, compared to the civilian population. Their risk of STI infection is usually 2-5 times higher than civilians during peacetime and can increase to over 50 times higher in times of conflict (UNAIDS, 1998). With UNAIDS funding, UNFPA has collaborated with the Ministry of Defence in Ukraine in a series of HIV prevention courses. The training aims to provide the military and their families with relevant knowledge of STIs, HIV prevention, condom use and gender equity in reproductive health.

Reproductive health among vulnerable groups

Young adults

Although most adolescents in Eastern Europe remain sexually abstinent for most of their teen years, the recent social, economic and cultural changes are likely to liberalise sexual behaviour at a faster pace than in the past. Young people, especially adolescents, are sexually active at earlier ages than were older cohorts. They are more likely to have experienced premarital sexual intercourse, a greater number of sexual partners, and exposure to unintended pregnancy and sexually transmitted infections. In addition to direct health consequences, these behaviours could have very serious long-term influences on their lives (lower level of education, reduced range of employment opportunities,

greater risk of fertility impairment, and even shorter life expectancy since, in the last decade, AIDS has rapidly become a leading cause of death among men and women aged 25-44). In many countries, young people are seldom prepared with the information, skills and resources needed to make a healthy transition to adulthood. Inadequate programmes and lack of life skills education leave young people at the mercy of the mass media and misinformation from peers.

Several RHS surveys conducted in Eastern Europe and the Caucasus region included young adult modules designed to explore issues of great concern regarding the youth in the region: exposure to sex and family life education, first sexual experience and current sexual behaviour, including contraceptive use. The survey results indicated that there are distinct differences between Eastern Europe and the Caucasus region. At least one half of young adult women (regardless of their marital status) in the Eastern European countries reported sexual experience (from 50 per cent in Moldova to 75 per cent in Russia) compared with approximately 30 per cent of women in the countries of the Caucasus region. In Eastern Europe, the majority of young adults that reported sexual experience had had premarital sexual intercourse, compared with less than 5 per cent in the Caucasus. Only between 3 and 33 per cent of women with premarital sexual experience had used a modern method of contraception at the time of first intercourse. In Eastern Europe, 40-66 per cent of unmarried women who were sexually active had used modern contraception at last intercourse, indicating an improvement in use since their first sexual experience. In Romania, modern contraceptive use increased from 36 per cent in 1996 to 47 per cent in 1999, in particular because of a 50 per cent increase in condom use (from 22 to 32 per cent).

Young people often lack access to health services that are appropriate for their needs. Barriers to such services include constraints related to age and marital status, lack of privacy and confidentiality, fear of being seen attending clinics, embarrassment in seeking advice, lack of knowledge about available services, inconvenient locations or hours and high costs. To overcome these obstacles and provide appropriate reproductive health services to young people, programmes targeting them need to provide youth-friendly services. These include treatment services in adequately equipped and staffed clinics, peer outreach and distribution of condoms at non-traditional outlets, mobile clinics and programmes in schools and workplaces (UNFPA, 2003b).

Ethnic minorities

Many countries in transition are facing significant disparities in the health of their minority populations compared to the main ethnic groups. In Romania, for example, a Roma (gypsy) woman would, on average, experience 2.5 more abortions during her reproductive life than a Romanian woman and 3.5 times more than a Hungarian woman. Similarly, Azeri women residing in Georgia report, on average, 2 more abortions per woman than Georgian women. In several transition countries, minorities have less access to health care than the population at large. They may experience discrimination in accessing the health care services, either directly (e.g. language barriers) or indirectly (e.g. inconvenient location of clinics, no service provision for nomadic populations). Their general health status is likely to be worse than for the general population because of poverty, lower education levels, and worse housing and living conditions. Women are more likely than men to experience the effects of discriminatory or inadequate care. In order to promote substantial improvements in their health, countries of the region need to specifically target these populations in their reproductive health policies and programmes.

Violence against women during war

Women who survive armed conflict and displacement represent a particularly vulnerable group. Women and girls are considered to be especially vulnerable to gender-based violence due to targeted sexual violence, separation of families, and the breakdown of social norms and structures during and after conflict. Although wars throughout history have heightened the risk of violence against women, contemporary conflicts seem to have affected unprecedented numbers of women and girls and have reached new levels of brutality. Common aspects of violence against women in modern conflicts include rape, sexual mutilation, human trafficking, sexual slavery, enforced prostitution, forced pregnancy and enforced sterilisation. In a dramatic attempt to provide better accountability and legal recourse for war crimes against women, these forms of gender and sexual violence have recently been included in the definition of crimes against humanity (ICC, 2002).

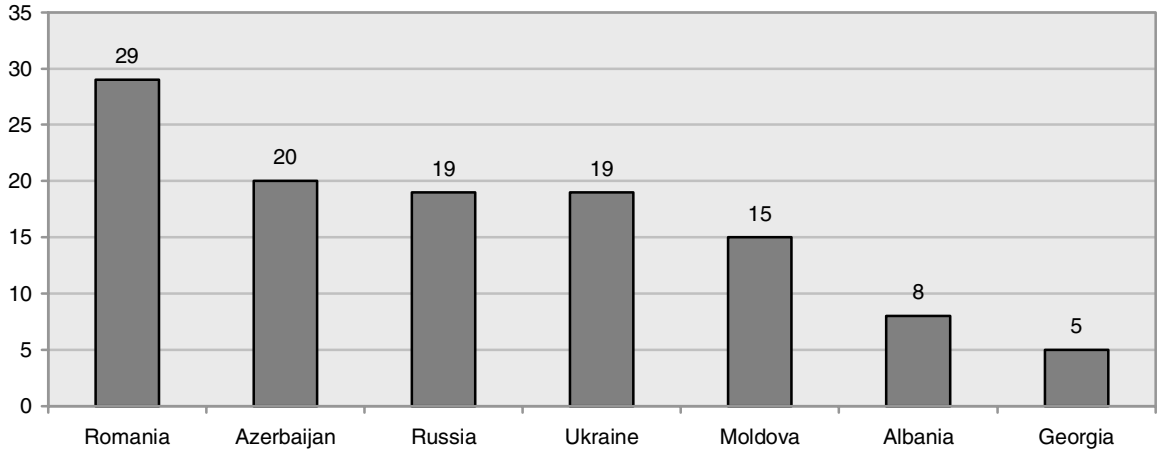
Estimates of the number of women raped in Croatia and Bosnia-Herzegovina range from 14,000 to 50,000 (Olujic, 1998). Another study based on examining clinical records in a women's health centre in Zenica, Bosnia-Herzegovina, in 1993-1994, revealed a history of rape among 3 per cent of clients (Frljak et al., 1997).

Internally displaced populations and refugees

Modern conflicts are more often accompanied by forced displacement of the civilian population than in the past. Rather than being an indirect effect of the conflict, driving people out of their homes through intimidation, terror, murder and sexual violence has become a direct objective of war. Displacement commonly leaves women more vulnerable than men. They are more likely to be affected by poverty, disruption of basic services, loss of family support and the breakdown of social norms. Often they have to cope with becoming heads of household and may be forced to provide sexual services

FIGURE 5

Women who report ever being physically abused by a spouse or partner



Source: CDC, Reproductive Health Surveys.

Note: Data for Russia cover three urban areas only.

in exchange for food, shelter or protection. Violence against refugee or displaced women and girls is often more common than violence against women in settled populations. However, the RHS surveys conducted in Georgia and Azerbaijan - countries where internally displaced persons represent a sizable proportion of the population - did not show any positive association between their displacement and lifetime experience of sexual violence or domestic abuse.

Trafficking of women

Human trafficking is one of the most critical forms of gender-based violence (GBV) today. It is also the greatest manifestation of slavery in the 21st Century. It is estimated that between 700,000 and 4 million persons are trafficked within or across international borders each year, including at least 175,000 in Central and Eastern Europe. Many of these persons are trafficked into the international sex industry or forced labour, often by force, fraud or coercion. The primary source of women and girls for trafficking are those affected by poverty, unemployment, discrimination and lack of economic opportunities in their countries of origin. Typically, women and girls are either lured into traffic networks through false promises of legitimate employment or improved working conditions (e.g. as nannies, maids, dancers, factory workers, restaurant workers, sales clerks or models), sold by family members, or even kidnapped (as is the case in Albania, but is less common in other countries). Those from poor families, migrants, ethnic minorities, runaways, those with little or no education, and those from broken families are typically at a higher risk of being trafficked. Victims of trafficking are often rendered defenceless and vulnerable because they are taken away from their home environment of family and friends, legal institutions and other sources of protection and support, and taken to unfamiliar destinations, including foreign countries. Because victims of trafficking are frequently unfamiliar with the laws, culture and language of the countries into which they have been trafficked, they often find it difficult or impossible to report the crimes committed against them. Furthermore, trafficked women and girls are often subjected to physical violence - including rape and other forms of sexual abuse, torture and physical detention - and coercion through threats, psychological abuse and financial dependence. In addition to GBV, women and girls trafficked into the sex industry are exposed to serious health risks, such us unintended pregnancy, HIV/AIDS and other sexually transmitted diseases, and drug and alcohol addiction. Because victims are often illegal immigrants in the destination country, they lack access to adequate health care services, housing, education and legal assistance.

Typically, there is little information regarding the number of women and girls trafficked into or through the transition countries. An assessment conducted by the Ministry of Public Order in Albania, one of the most active sources and transit countries for women and children in the region, estimated that more than 5,000 Albanian women and girls had been trafficked into prostitution during the last decade (US Department of State, 2004). Some of the poorest ex-communist countries in the region (Albania, Romania, Bulgaria and Moldova), and countries recently affected by conflict (Bosnia and Herzegovina, Serbia and Montenegro),

represent the main sources of trafficked women in Europe.

Gender equity in reproductive health

Gender-based violence

Millions of women around the world are subjected to physical, sexual and emotional abuse every day. Violence against women includes a wide range of behaviour and acts perpetrated against women, but its most common form occurs between men and their female partners. Men are also not immune from violence from their partners, though to a far lesser extent. Often referred to as domestic violence, battering or intimate partner violence (IPV), this form of violence occurs in all cultures and affects women of all ages and all socio-economic and educational backgrounds. Gender stereotypes, women's economic dependence on men, cultural acceptability, loose or non-existent legislation to protect women's fundamental human rights, and lack of preventive measures for victims, are some of the most widely recognised factors that contribute to this. We know from a number of small, localised studies that domestic violence is a rampant public health problem around the world. But little information is available on the burden of domestic violence in Eastern Europe, its impact on reproductive health, and how effectively to respond to one of the most critical violations of human rights today.

The two basic measures of the prevalence of domestic violence are lifetime abuse in adulthood by a formal or consensual partner, and similar abuse in the last 12 months as a measure of 'current' violence. In most of the transition countries with population-based data, prevalence of domestic violence is comparable with that documented in the United States. For example, between 15 and 30 per cent of women in Eastern Europe report ever having been abused by their partners and 8-10 per cent report such abuse having occurred during the past 12 month (figure 5). Similarly, women who are subjected to domestic violence in this region have similar characteristics to women who report this type of abuse in the United States: they are more likely to be young, separated or divorced, less educated, and from low socio-economic backgrounds. Findings from several surveys conducted in Eastern Europe suggest that domestic violence is correlated with unintended pregnancy, induced abortion and low use of contraception. For example, data from a reproductive health survey conducted in Romania in 1999 showed that women reporting current physical abuse by a partner were twice as likely to have a current unmet need for contraception compared with women who had not experienced domestic abuse. Despite these similarities, the consequences of domestic violence in developing countries are more severe and may result in worse health outcomes because of limited resources and poor infrastructure.

Male participation in RH decision-making

Improving reproductive health through a gender-based approach is a key component of the 1994 Programme of Action (PoA) of the ICPD and the ICPD+5 Forum review in 1999. Since 1994, a wide variety of programmes and interventions have strived to address the question of male participation in reproductive health decision-making. Some strategies are designed to accommodate gender differences (e.g. community-based distribution of contraceptives, educational programmes for men) while others seek to change gender norms to promote greater gender equity (e.g. programmes that promote empowerment for women or increased assertiveness in partner communication). In several transition countries these strategies have been particularly applied in programmes that address reducing unintended pregnancies and STI and HIV/AIDS infection.

Gender integration in access to reproductive health services

The few population-based studies conducted in the region that included male samples documented that nearly all male respondents marry and have children; they have similar fertility preferences to their partners; many have discussed family planning with their partners and currently practice contraception to space or limit births; and they have similar levels of unmet need for contraception. In addition, the survey conducted in Romania showed that young adult men, although reporting having more sexual partners than young adult women, seldom had had intercourse with more than three sexual partners during their lifetime. The RHS in Romania also showed that, although two-thirds of married men were currently using contraception, less than half of them were using modern contraceptives; less than one in five married men aged 15-49 obtained their supplies from the public health sector; and about one third had an unmet need for modern contraception. Almost two out of three men wanted to have more information about contraception and one in two believed that abortion is not always acceptable for fertility control. The majority of men believed that family planning decisions should be taken jointly with their partners. In spite of their reproductive health needs, many men lack the information and services required to maintain optimal sexual and reproductive health.

Key challenges to be addressed

Prevention

In order to achieve tangible improvements in sexual and reproductive health, gender equity, and the well-being of women in the countries of Central and Eastern

Europe and the CIS, multifaceted and interdisciplinary strategies are required. To achieve further reductions of maternal and infant mortality and morbidity, rates of unintended pregnancy and induced abortion, risk of STI infection, and the level of gender-based violence, the governments of these countries need to increase their investments in health, particularly in the area of health education and prevention. Such efforts should particularly target high-risk groups, such as young adults, rural residents, ethnic minorities, migrants, refugees or internally displaced populations, and victims of gender-based violence.

Substantial reductions in women's reliance on abortion and improvements in maternal mortality and morbidity in the region will depend, not only on further increases in contraceptive use, but also on improvements in method selection and reductions in contraceptive discontinuation and failure rates. Women in many countries of the region generally know that specific contraceptive methods exist, but they often do not know where to obtain them, how to use them, or how effective they are at preventing pregnancy. Although more women use modern contraceptives today than a decade ago, relatively few women use the oral contraceptive pill, mainly because of widespread misinformation about its health risks and side effects, even among health providers. Education and health promotion efforts are needed to overcome the lack of awareness among women about other important reproductive health topics: the need for preventive medical care before and after a birth; follow-up care after an abortion; ways to prevent STIs and HIV; and where to go for help if they are abused. Special emphasis should also be placed on meeting the reproductive health needs of young adults.

Many governments are in the process of introducing family life education curricula into schools. Several efforts have been made to promote safer sex practices through information, education and communication (IEC) messages and condom programming, using clinic-based and peer-education approaches. These efforts need to intensify and reach all the high-risk groups.

Increased access to and quality of services

Updating the existing health infrastructure, particularly at the primary health care level, continues to be a priority in many countries. Primary health care facilities need to be able to diagnose high-risk pregnancies, refer those pregnancies to more specialised facilities, and deal with specific obstetric emergencies.

The availability of modern contraceptive methods continues to be an issue of great concern in some countries. In the poorest countries in the region, the newly opened family planning clinics have very few, if any, contraceptive supplies, and their main source is international donors. Although large quantities of contraceptive supplies (condoms, IUDs, pills and barrier devices) have been imported or donated, the absence of logistics and managerial skills often contributes to shortages and uneven distribution of these supplies. Effective steps toward increasing access to and improving the quality of family planning services should include: improvements in the contraceptive supply and distribution system; strengthening private sector delivery; expansion of the availability of a wide array of effective, high quality, affordable methods, including long-term and permanent methods; training of family planning providers; establishment of standards and guidelines to ensure quality of reproductive health care; institutionalisation of family planning counselling; integration of family planning services with STI and maternal and child health care services at the primary health care level; and an increased participation of men in reproductive health decision-making.

Monitoring and evaluation

Surveillance of maternal and infant mortality, abortion, HIV/AIDS, STIs and behavioural risk factors, is essential in evaluating the impact of newly developed reproductive health strategies and programmes. Surveys like the DHS and RHS provide valuable data for developing new programmes, evaluating existing programmes and reforming health care systems. In the future, more periodic sample surveys and smaller facility-based studies will be needed to monitor not only traditional demographic, family planning and maternal and child health indicators, but also other reproductive health topics such as women's health, gender-based violence, health risk behaviours, and the impact of changing traditional gender roles in reproductive health programming.

Beyond estimating the prevalence of the problem, survey data could also be used to raise the level of awareness about selected reproductive health problems. An excellent example is provided by the RHS conducted in Romania. At the end of 2002, survey findings were used to launch a nationwide public campaign to raise general awareness on domestic violence and its consequences. The campaign, sponsored by the Ministry of Health and UNFPA, ran for two months and consisted of radio, TV and newspaper messages. In addition, the Ministry of Health also distributed educational materials to the public health community for mounting support against domestic violence among health professionals (Romanian Ministry of Health, 2002).

Very little is known about trafficking of women and girls because of its clandestine nature. Special studies are needed to better understand the nature, magnitude and trends in trafficking; to identify areas and subgroups with the highest risk; to provide an inventory of existing anti-trafficking activities; and to document the health risks and consequences of trafficking in women and children.

Capacity building

In the aftermath of the ICPD, most countries with economies in transition started to reform their family planning and reproductive health programmes in order to re-align them to the principles of the Cairo Programme of Action. The Programme of Action recommended that programmes should have the dual goal of covering all reproductive health needs of their clients and promoting gender equity in order to be truly successful in reaching the objectives set out at the ICPD in 1994. The Programme also described several basic principles aimed at optimising reproductive health services: develop dynamic policies and processes that include all major stakeholders; strategise interventions based on priorities and availability of resources; restructure the organisation and funding of health systems in the context of a multisectoral approach to reproductive health.

Many countries of the region took steps towards reforming their reproductive health policies and programmes, particularly in the area of family planning and adolescent reproductive health. Currently, these health care reforms are in various stages of development and implementation. Although all of the governments continue to support health care services, national health insurance agencies, which generally provide a limited range of essential services for all citizens, are increasingly defining the service delivery systems. Increasingly, efforts have been made to devise effective strategies for sustainability and cost-recovery, promote social marketing, improve the management of service delivery, and introduce contraceptive tracking and forecasting systems.

Development of new legislation has occurred in several countries, particularly in relation to women's basic human rights. In Romania, for example, survey-based evidence proving that most forced sexual intercourse is perpetrated by a partner was first made available to the public health community immediately preceding a Penal Code revision, which was then drafted to allow women to press charges against their sexually abusive husbands (Romanian Constitutional Court, Decision 211, November 2000). This same revision included preventive measures for victims of domestic violence, such as restraining orders against abusive husbands and their exclusion from the family home.

The crimes committed against women during the recent conflicts in the Balkans have just recently begun to be addressed. The establishment of the International Criminal Court (ICC) and the International War Crime Tribunals of the Former Yugoslavia, as well as national reforms of the judicial systems that aim to protect victims of conflict and trafficking, mark a new era of increased accountability for violence against women.

Collaborative efforts

The sexual and reproductive health needs in a population cannot be met solely by the health sector; collaboration and coordination between all sectors that deal with the social, economic and political aspects of reproductive health are actively needed. Several countries in the region have started to develop effective collaboration and coordination between the government sector, private sector and local non-governmental organisations (NGOs). Partnerships also need to be formed outside the health sector and at the community level. External partnerships are also needed to ensure good quality of contraceptive supplies and commodities and assistance with technological development to enable local production of these. External support is also required to assist in the training of reproductive health care providers, in the development of guidelines and education materials and in further development of effective policies.

These and other initiatives requiring concerted efforts by governmental institutions, local and international non-governmental organisations and donors, are essential components of reproductive health programmes in Central and Eastern Europe. Even relatively low-cost initiatives can make a difference if they are well designed, managed and evaluated, geared toward specific needs and innovative in their use of a wide range of resources. Although the challenges are many, it is imperative that reproductive health becomes a social, economic and political priority in the region, so that the ICPD's goals related to reproductive rights may be achieved.

References

Bladen, C. et al., 1998. *Caucasus Health Sector Assessment. Interim Final Report.* Arlington, VA: U.S. Agency for International Development/ East European and Newly Independent States/Democracy, Governance and Social Reform.

Bobak, M. and M. Marmot. 1996. "East-West mortality divide and its potential explanations: proposed research agenda", *British Medical Journal* 312: 421-425.

Bongaarts, J. 1991. "The KAP-Gap and the unmet need for contraception", *Population and Development Review* 17: 293-313.

Brown, S. S. and L. Eisenberg (eds.). 1995. *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families.* Washington DC: National Academy Press.

CRLP. 2000. *Women of the World: Laws and Policies Affecting Their Reproductive Lives.* New York: Center for Reproductive Law and Policy (CRLP).

CDC and ORC Macro. 2003. *Reproductive, Maternal and Child Health in Eastern Europe and Eurasia: A Comparative Report.* Atlanta, GA (USA) and Calverton, MD (USA): Centers for Disease Control and Prevention (CDC).

Chang, J. et al., 2003. "Pregnancy-related mortality surveillance – United States, 1991-1999" in Surveillance Summaries, February 21, 2003, *MMWR* 52 (No. SS-2): 1-8.

Dehne, K. L. et al. 1999. "The HIV/AIDS epidemic in Eastern Europe: recent patterns and trends and the implications for policy-making", AIDS 12:741-749.

Frljak A. et al. 1997. "Gynecological complaints and war rraumas, a study from Zenica, Bosnia-Herzegovina during the war", Acta Obstetricia et Gynecologica Scandinovica 76(4):350-354.

Hakim-Elahi, E., H. M. Tovell and M. S. Burnhill. 1990. "Complications of first-trimester abortion: a report of 170,000 cases", Obstetrics and Gynecology 76:129-135.

Heisterberg, L. and M. Kringelbach. 1987. "Early complications after first-trimester abortion", *Acta Obstetricia et Gynecologica Scandinovica* 66:201-204.

Henshaw, S. K., S. Singh and T. Haas. 1999. "Recent trends in abortion rates worldwide", *International Family Planning Perspectives* 25(1):44-48.

Hill, K., C. AbouZahr and T. Wardlaw. 2001. "Estimates of maternal mortality for 1995", *Bulletin of the World Health Organization* 79(3): 182-193.

Klijzing E. 2000. "Are there unmet family planning needs in Europe?", *Family Planning Perspectives* 32(2):74B81 & 88.

ICC. 2002. *Rome Statute of the International Criminal Court*, Articles 7 (Crimes against Humanity) and 8 (War Crimes). http://www.un.org/law/icc/statute/romefra.htm

Marmot, M. and M. Bobak. 2000. "International comparators and poverty and health in Europe", *British Medical Journal* 321(7269):1124-1128.

Olujic, M.B. 1998. "Embodiment of terror: gendered violence in peacetime and wartime in Croatia and Bosnia-Herzegovina", *Medical Anthropology Quarterly* 12(1): 31-50.

Popov, A., A. Visser and E. Ketting. 1993. "Contraceptive knowledge, attitudes and practice in Russia during the 1980's", *Studies in Family Planning* Vol.24(4): 260-296.

Popov, A. 1996. "Family planning and induced abortion in post-Soviet Russia of the early 1990s: unmet needs in information supply", in Julie DaVanzo and Gwendolyn Farnsworth (eds.), *Russia's Demographic Crisis*. Santa Monica, CA: RAND, 84-112.

Popov, A. and H. P. David. 1999. "Russian Federation and USSR successor states: sex and society", in H. P. David (ed.), *From Abortion to Contraception; a Resource to Public Policies and Reproductive Behaviours in Central and Eastern Europe from 1917 to the Present*. Westport, CT: Greenwood Press.

PRB. 2002a. *Women of the World Data Sheet*. Washington DC: Population Reference Bureau.

PRB. 2002b. *2001 World Population Data Sheet*. Washington DC: Population Reference Bureau.

PRB, 2002c. *Family Planning Worldwide, 2002 Data Sheet.* Washington DC: Population Reference Bureau.

Rahman, A., L. Katzive and S. L. Henshaw. 1998. "A global review of laws on induced abortion, 1985-1997", *International Family Planning Perspectives* 24(2):56-64.

Riedner, G., K. L. Denke and A. Gromyko. 2000. "Recent declines in reported syphilis rates in Eastern Europe and Central Asia: are the epidemics over?" *Sexually Transmitted Infections* 76(5):363-365.

Romanian Ministry of Health. 2002. Personal communication (M. Hoga).

Serbanescu, F. et al. 2003. *Reproductive Health Survey Azerbaijan 2001, Final Report.* Atlanta, GA: Centers for Disease Control and Prevention.

Thonneau, P. et al. 1998. "Complications of abortion performed under local anesthesia", *European Journal of Obstetrics, Gynecology and Reproductive Biology* 81(1):59-63.

US DHHS. 1999. *Maternal and Child Health Statistics: Russian Federation and United States, selected years 1985-95.* Atlanta, GA: US Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention, National Center for Health Statistics.

US Department of State. 2004. *Trafficking in Persons Report: Albania.* http://www.state.gov/g/tip/rls/tiprpt/2004/33192.html

UNAIDS and WHO. 1998. *HIV/AIDS and uniformed services: UNAIDS Point of View.* http://www.unaids.org/html/pub/Topics/Security/FS3uniformedservices_en_doc.html

UNAIDS and WHO. 2002. *AIDS Epidemic Update: December 2002*. Geneva: UNAIDS.

UNICEF. 2002. *Young People and HIV/AIDS.* New York: United Nations Children's Fund UNICEF.

UNICEF. 2003. *Social Monitor 2003.* Innocenti Social Monitor. Florence: UNICEF Innocenti Research Center.

UNGASS. 2001. United Nations Special Session on HIV/AIDS. *Declaration of Commitment on HIV/AIDS,* A/RES/S-26/2. http://www.un.org/ga/aids/conference.html

UNFPA and PRB. 2003. *Country Profiles for Population and Reproductive Health: Policy Developments and Indicators, 2003.* United Nations Population Fund and Population Reference Bureau.

UNFPA. 2003a. *Preventing HIV Infection, Promoting Reproductive Health*. United Nations Population Fund.

UNFPA. 2003b. *State of World Population 2003, Making 1 Billion Count: Investing in Adolescents' Health and Rights*. United Nations Population Fund.

UNPD. 2001. *World Population Prospects: The 2000 Revision.* United Nations Population Division

Velkova, A., J. H. Wolleswinkel-van den Bosch and J. P. Mackenbach. 1997. "The East-West life expectancy gap: differences in mortality from conditions amenable to medical intervention", *International Journal of Epidemiology* 26:75-84.

Wasserheit, J.W. 1991. "Epidemiological synergy: interrelationships netween HIV infection and other STDs", in L. D. Chen (ed.), *AIDS and Women's Reproductive Health.* New York: Plenum Press, 47-72.

Westoff, C. F. 2003. *Recent Trends Contraception and Abortion in 12 Countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Moldova, Romania, Russia, Turkey, Turkmenistan, Ukraine and Uzbekistan*. Princeton, NJ and Washington, DC: Population Resource Center.

World Bank. 2001. *2000 World Development Indicators.* Washington DC: World Bank.

WHO. 1998. *Unsafe Abortion: Global and Regional Estimates of Incidence of and Mortality Due to Unsafe Abortion With a Listing of Available Country Data, 3d ed.* Geneva: World Health Organization (WHO).

WHO. 2004. *Unsafe Abortion: Global and Regional Estimates of Incidence of Unsafe Abortion and Associated Mortality in 2000, 4d ed.* Geneva: World Health Organization (WHO).