A Review of Progress in Maternal Health

in Eastern Europe and Central Asia

UNFPA

A Review of Progress in Maternal Health in Eastern Europe and Central Asia

INTRODUCTION

This report is a summary of the progress that has been achieved in maternal health in 20 countries in Eastern European and Central Asia. The findings may be useful in a number of ways:

- to help each country, and the region as a whole, analyse the state of their maternal health;
- to promote dialogue in each country about national priorities for maternal health;
- to stimulate proposals in each country to further progress in maternal health.

The focus of this report is to provide country specific information rather than a regional overview. It is, however, worth pointing out that previous reviews have noted the general decline in maternal mortality across Eastern Europe and Central Asia and also the significant differences among countries in the region. The 2008 Countdown to 2015 Report included Azerbaijan, Turkmenistan and Tajikistan among 68 priority countries that bear the world's highest burdens of maternal and child mortality. Turkmenistan is deemed to have made good progress against MDG 4 (reduced child mortality) and MDG 5 (improve maternal health), while Azerbaijan and Tajikistan are assessed as having made good progress against MDG 5 but not MDG 4[i].

While acknowledging the breadth of diversity, it is also important to note some of the shared trends across many countries. The vast majority of countries have made a commitment to reforming their health-care systems and are at varying stages of implementing reforms. The role of induced abortion has been significant in many countries, and in some countries the volume of procedures has had a significant impact on morbidity and mortality figures. Most countries have experienced an increase in the provision and uptake of modern methods of contraception, but for many the range of choice remains limited and the dependency on external funding sources for supplies is an ongoing issue. Many countries are experiencing low or negative growth in population with some having declared a state of demographic crisis; as a result some countries have adopted pronatalist strategies to encourage women to have children. The demographic profile of the majority of countries is further affected by high levels of migration, which also presents operational challenges for delivering health care. In addition, most countries have revised financing mechanisms, some of which have direct implications on access to services; and in many countries, informal out-of-pocket payments (made by patients) present operational challenges as do significant levels of corruption within the health service.

FOREWORD

The importance of maternal health and universal access to reproductive health, was highlighted in the International Conference on Population and Development (ICPD) Programme of Action in 1994. At that Conference, 179 governments agreed that every person has the right to sexual and reproductive health and that empowering women is both a priority in its own right, as well as critical to advancing the social and economic development of nations. Improving maternal health is the fifth Millenium Development Goal, as adopted by member States in September of 2000. Reducing maternal mortality and achieving universal access to reproductive health care are critical components of meeting this goal.

Much progress has been made to advance sexual and reproductive health and reproductive rights since Cairo. Today, the countries of Eastern Europe and Central Asia have almost universal antenatal coverage, and nearly every birth is assisted by skilled health workers. Maternal mortality has been reduced in half. However, despite these successes there are too many women in the region who cannot afford maternal care, or access quality antenatal care. There are women who give birth at home and women who die giving birth at home. The needs and rights to maternal and reproductive health of poor and disadvantaged women, including young girls, migrants, refugees, persons living with HIV and minority groups such as the Roma, have not yet been met. In some cases, their requirements have not even been addressed. It is quite clear that we have not yet reached those who most need us.

We hope that the data and information in this report will be used to promote universal access to reproductive health and education and reinforce the political commitment to sexual and reproductive health and rights. We hope that this publication will serve as a reference for future agenda-setting and programming for advancing maternal health throughout the region.

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Director, Regional Office for Eastern Europe and Central Asia

Contents

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Acronyms

AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal Care
ASRH	Adolescents' Sexual Reproductive Health
BEmOC	Basic Emergence Obstetric Care
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
CPR	Contraceptive Prevalence Rate
CRC	Convention on the Rights of the Child
CS	Caesarean Section
DHS	Demographic Health Survey
EmOC	Emergency Obstetrics Care
EU	European Union
FP	Family Planning
GDP	Gross Domestic Product
HFA	Health for All (WHO Database)
ICPD	International Conference on Population Development
IEC	Information, Education, Communication
IMR	Infant Mortality Rate
IUD	Intra Uterine Device
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Rate
MoH	Ministry of Health
MoE	Ministry of Education
MPS	Making Pregnancy Safer (WHO programme)
NGO	Non-Governmental Organization
OB/GYN	Obstetrician/Gynaecologist
PHC	Primary Health Care
PRSP	Poverty Reduction Strategy Paper
RH	Reproductive health
SEE	South Eastern Europe
TFR	Total Fertility Rate
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United State Agency for International Development
WB	World Bank
WHO	World Health Organization
WHOSIS	WHO Statistical Information System

Overview of methodology

The international community has not agreed to a set of indicators with which to effectively monitor maternal health. Progress toward achieving the Millennium Development Goal (MDG) 5 target of reducing maternal mortality by 75% indicates the state of maternal health. However, its measurement does not include indicators on maternal morbidity and of non-lethal episodes, and to be accurate it relies on comprehensive systems of registration being in place. It is recognised that there is the potential for wide variations and a varying level of certainty in measures of maternal mortality which make them particularly unsuitable for monitoring short term trends. For the purposes of this review the maternal mortality ratio (MMR) reported by each country has been used and, where possible, alternative estimates highlighted including the WHO/UNICEF/UNFPA and World Bank adjusted MMR estimates of 2005. It is acknowledged that the adjusted estimates are now outdated and are not recognized by some countries; however, the estimates have been included to provide a credible alternative data set. Regional figures (based primarily on the WHO categorisations of countries) are provided. It is not the intention to encourage comparison of these rates.

Other indicators used to measure maternal health (primarily those defined by WHO[ii]) tend to assess the quantity and use of health services. Such indicators are utilized in this review even though they may not reflect the impact or quality of maternal health services, especially in the countries with high level of service providers and over-medicalisation of maternal health.

The report focuses on maternal health (as opposed to maternal, newborn and child health) and relies on statistical data and indicators as well as additional information provided largely by UN teams in individual countries

Requests for such information focused on establishing access to quality antenatal care; births attended by skilled professionals; access to basic essential obstetrics services; and availability of comprehensive emergency obstetric care. International guidelines (notably WHO Making Pregnancy Safer and UN Process Indicators for Emergency Obstetrics Care) provide the framework for review of the recommended levels of service (qualitative and quantitative).

It is estimated that the prevention of unplanned pregnancies could avert a quarter of maternal deaths globally, including those associated with unsafe abortion.[iii] Accordingly the report takes into consideration access to family planning and safe abortion services as well as rates of caesarean section. However, the report does not address issues specific to contraception, and in considering abortions and caesarean sections, the report does not distinguish between procedures that were medically indicated and those related to the health of the foetus as opposed to the mother.

Accessing data relevant to maternal morbidity in Eastern Europe and Central Asia is challenging. In many instances the data are not adequately collected and/or analysed. To compensate for this the review relied on a questionnaire and discussions with key informants. The scope of this review prohibits the inclusion of all responses and sources of information provided by the UN country office staff. However, the information is available on request. In a small number of countries it was not possible to obtain up-to-date information on obstetrics services, users and morbidity and additional information to assess the levels of monitoring and evaluation and the strength of the supporting environment.

The review has used multiple sources of information and in some instances documents, or key sections, have been translated. Every effort has been made to ensure the correct citation of such documents.

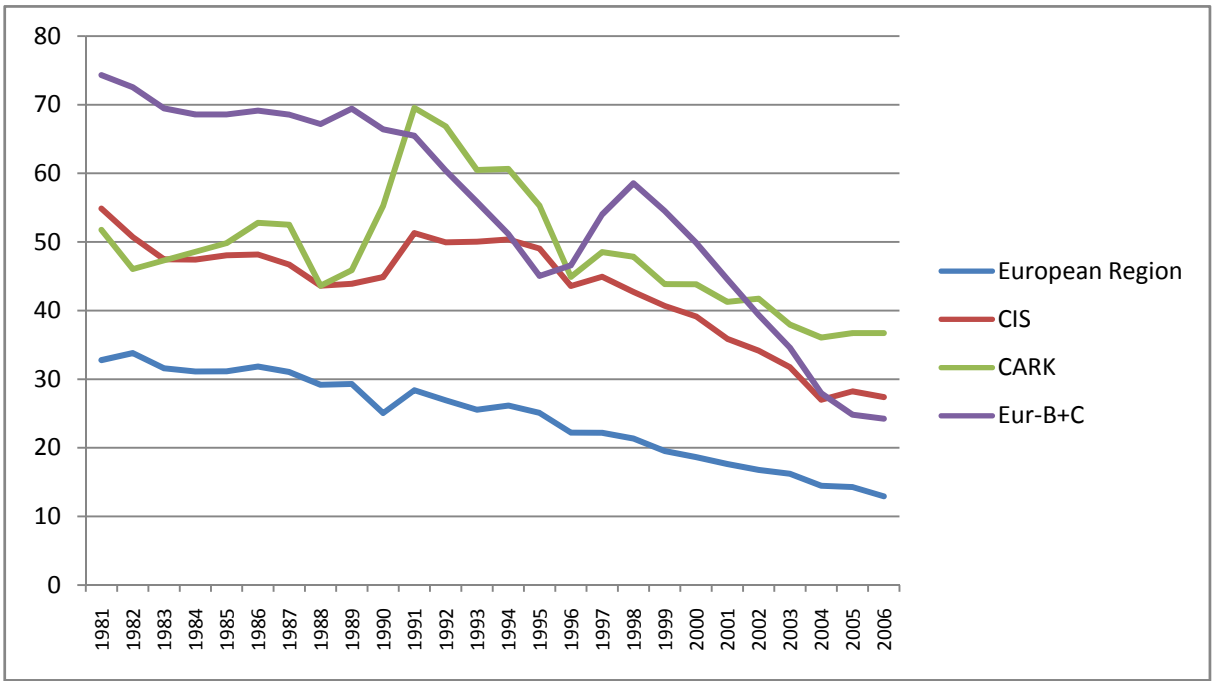
This review began in December 2008 and was completed in February 2009. During that time the WHO Health for All database and WHO Statistical Information System uploaded key indicators for 2007 and some countries were able to access 2008 data. Where possible the most up-to-date and verified data available at the time of the review has been used; however, some indicators used in the main table (Table 1) show data from 2006, which was uniformly available for the majority of countries.

A few countries have recently undertaken relevant surveys and are awaiting the publication of the reports; both Albania and Turkey are due to publish demographic health surveys which are likely to provide new information and new interpretations on the state of maternal health.

Regional overview of key indicators for and trends in maternal health in Eastern Europe and Central Asia

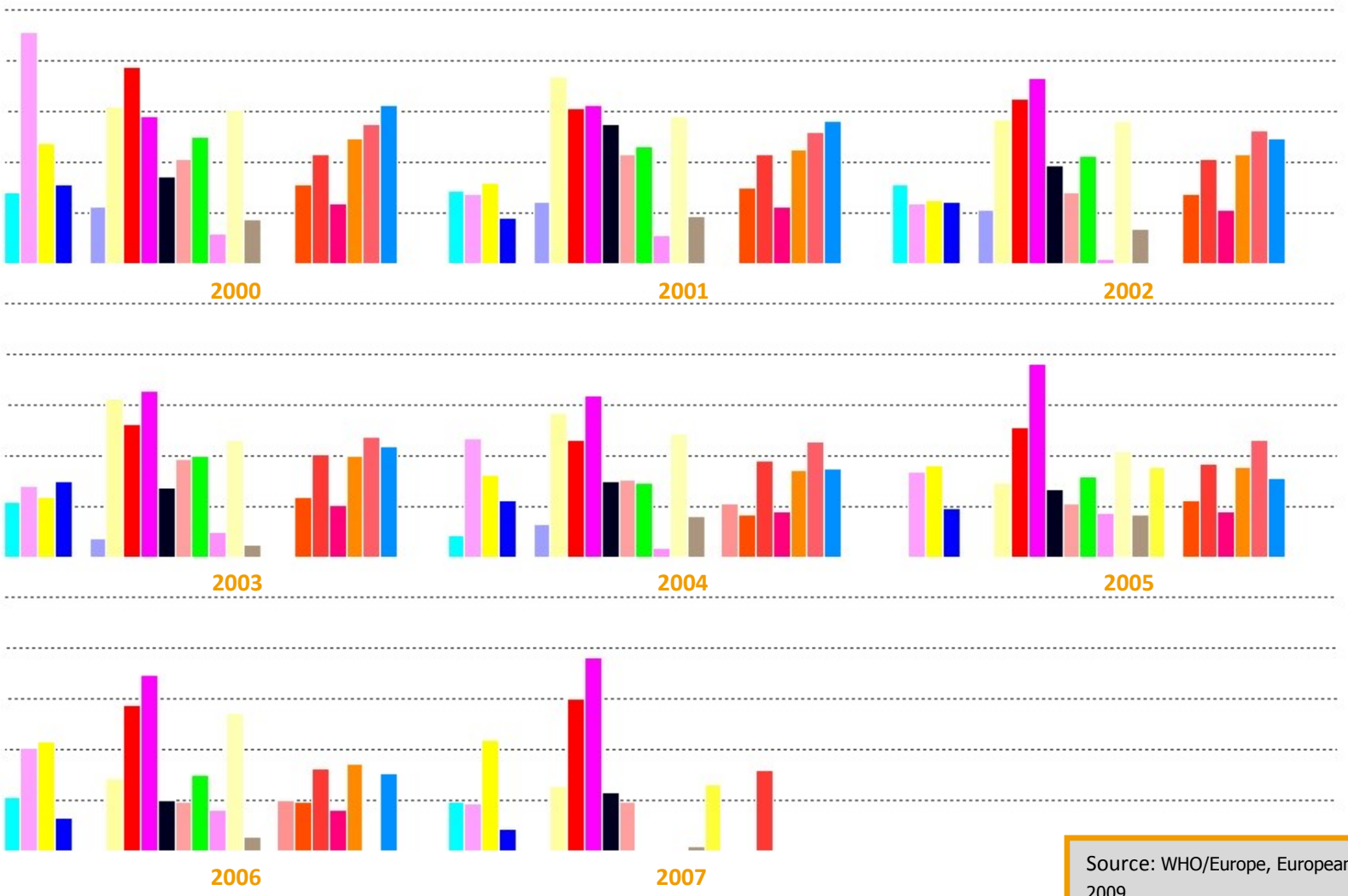
Maternal Mortality Ratios: This review has focused on the maternal mortality ratio (MMR) reported by the respective countries, the vast majority of which are for 2007 and were found in the WHO Health for All database. In some cases the WHO 2005 adjusted estimates have been presented; these estimates take into account the impact of such factors as data collection and varying methodologies. Not all country authorities or individuals accept these alternative estimates. The methodology for obtaining a country-specific MMR is subject to variation. Annex 1 outlines the main sources of information and methodology recognized by WHO and outlines some of the cautions associated with direct comparisons. In addition to annual rates, some countries have developed a compound MMR estimate based on the trend in a specific number of years prior to the review. These provide an alternative perspective on longer-term trends. The variation in annual versus compounded estimates is illustrated by recent MMR estimates for Armenia: the MMR for 2006 is 34.4 deaths per 100,000 live births while the Ministry of Health estimates an overall maternal mortality ratio for the three years prior to 2006 at 28 per 100,000.

The overall trend in MMR in the region is a downward one although the potential for underreporting of maternal deaths is an issue in a number of countries including Azerbaijan, Kyrgyzstan, Serbia and Uzbekistan.



Graph 1: Trends in regional maternal mortality rates 1981- 2006
Source: WHO/Europe Health for All database 2009 (Note CARK 2006 figure not available). Please see the notes on page 18 for definitions.

The following graph provides an overview of the fluctuation of ratios by country and indicate that while some countries have made significant progress since 2000, some (including Azerbaijan, Kazakhstan, Kyrgyzstan and Tajikistan) have made very limited if any progress. Data for Armenia and Moldova for 2008 (not reflected in the graphs below) indicate possible increases in the reported annual rates.

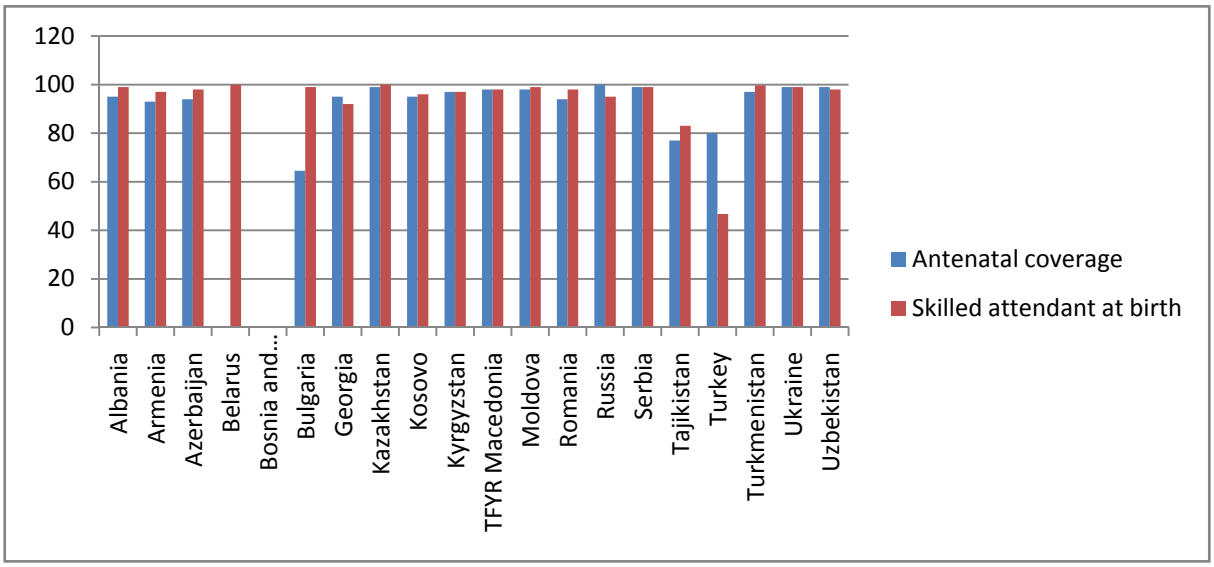


Albania
Armenia
Azerbaijan
Belarus
Bosnia and Herzegovina
Bulgaria
Georgia
Kazakhstan
Kyrgyzstan
Republic of Moldova
Romania
Russian Federation
Serbia
Tajikistan
TFYR Macedonia
Turkey
Turkmenistan
Ukraine
Uzbekistan
European Region
CIS
CARK
Eur-B+C

Source: WHO/Europe, European HFA Database, January 2009

Access to antenatal care and attendance of a skilled provider at birth: Across Eastern Europe and Central Asia the percentage of antenatal care coverage(ANC) (at least one visit to antenatal services) and the presence of a skilled attendant at birth are generally high as indicated in graph 2 below. In many countries antenatal services coverage is almost universal and generally, across the region, there is evidence of a steady improvement in both indicators. Tajikistan and Turkey in particular have lower rates. Information on the number of women receiving a minimum of four episodes of ANC as recommended by WHO is not uniformly accessible.

As noted, these quantifiable indicators are generally used to monitor key aspects of maternal health care; however, their value is compromised in situations where there has been heavy investment in developing the infrastructure to deliver services at high volume (such as the previous Soviet health-care system). A reliance on these indicators alone does not necessarily reflect concerns over the quality of the services, and a number of individual country surveys identified issues regarding the quality of care. Nor do the figures indicate variations in access as a result of location, cost, background characteristics of clients and other variables. In many countries (including Albania, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkey) there are variations in antenatal care and attended deliveries due to rural locations, education, age and/or socio-economic status. Roma women tend to have lower access and usage in all relevant countries included in this review.



Graph 2: Percentage coverage of antenatal care and skilled attendance at birth

The above data is generally sourced from Ministry of Health data and/or surveys and therefore is not generally comparable. Some data is old and Bulgaria in particular operates a different monitoring system which may affect its representation in the chart. Please see Table 1 for details on the sources of information.

Emergency Obstetrics Care: Record keeping for emergency obstetrics care and caesarean section is generally not of a uniform standard across the region. The rates of provision of services allow some comparison between countries and against international standards. The UN Process Indicators for emergency obstetrics care recommend that caesarean sections should account for not less than 5 percent nor more than 15 percent of

all births. In many instances the data available for this review was insufficient to review performance against this recommended standard.

In the case of Turkey and Bulgaria, caesarean rates were significantly higher at 36 percent and 28.7 percent respectively. The data was not disaggregated to show the percentage of medically indicated procedures nor the proportion related to foetal morbidity and/or mortality; the high overall rates and increases seen in some countries should not automatically be associated with maternal health interventions. They may be indicative of higher levels of non-emergency procedures and/or of changes in recording systems. At 2.8 percent the estimated caesarean rate for Tajikistan is the lowest in the region and below the UN recommendation.

The majority of the countries meet the UN recommendation of four basic emergency obstetrics care facilities per 500,000 people. Both Georgia and Uzbekistan have less than one emergency facility per 500,000 and Kosovo has less than 2 in 500,000. The Russian Federation ratio is 148 in 500,000. The place of delivery is often viewed as a proxy indicator for the accessibility of such emergency care (UN Process Indicators anticipates that at least 15 percent of all births should take place in either basic or comprehensive emergency obstetrics care facilities.) Across the region there is a high level of births taking place in health facilities, which may indicate a high level of emergency obstetric care provided if required. Tajikistan continues to record a relatively high number of unattended home births and in some countries, including Georgia, there are concerns over the possible underreporting of home births.

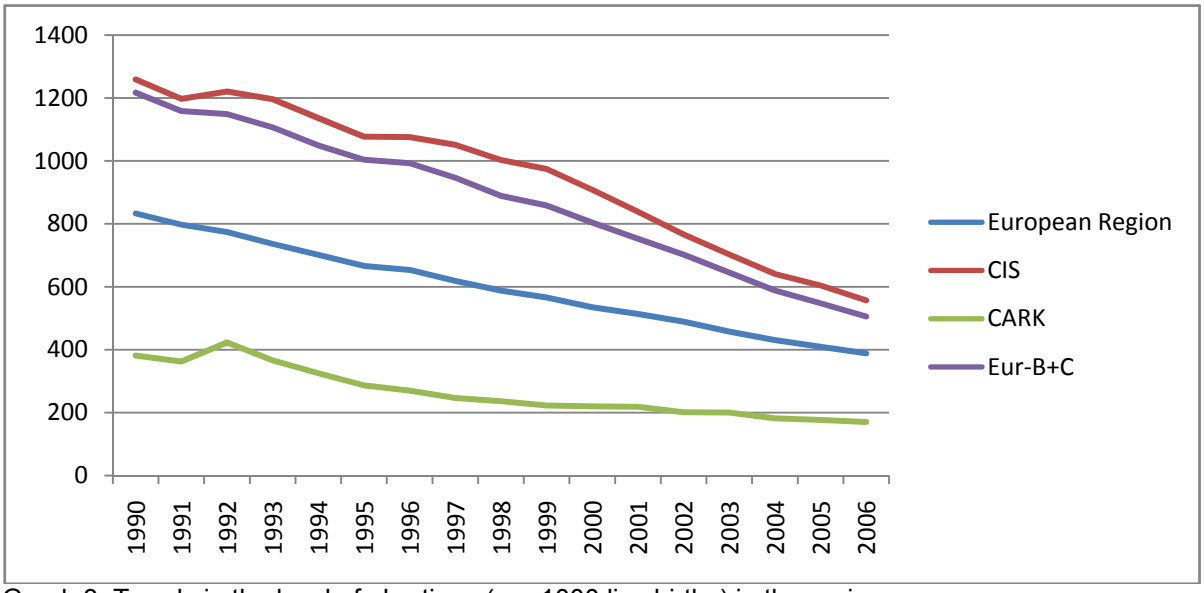
The UN Process Indicator recommends one comprehensive as opposed to basic emergency obstetrics care facility per 500,000 population, but it is not possible to determine the level of such care for the majority of countries. In addition, it is beyond the scope of this review to comment on the quality of emergency obstetric care. However, a number of countries have identified concerns with the technical knowledge of service providers and/or physical infrastructure.

Family planning and abortion: In some countries abortion continues to be considered as a form of family planning. Although the provision of “safe” abortions by trained providers is known to be relatively low risk, the volume of procedures being undertaken in the region (with the exception of a small number of countries) raises the level of associated maternal mortality and morbidity. A number of countries have undertaken initiatives to reduce the rate of induced abortions and in many these are concurrent with initiatives to increase the use of contraception. The decrease in the funding available for reproductive health commodities including contraceptives is likely to have affected the uptake of family planning and potentially on reduction of abortion rates.

It is beyond the scope of this review to analyse the specific relationship between access to family planning and abortion; however, it is highly likely that there is a close relationship in many countries. A few countries have reformed the delivery of family planning services that affected the accessibility of contraceptives; in the former Yugoslav Republic of Macedonia, the responsibility for providing family planning services has been moved to private providers, which is creating additional barriers to access and jeopardizing utilization of modern contraception; elsewhere integration into primary and/or family health services appears to have improved access.

The level of reported induced abortions appears to be declining across the region. However, in many countries the data available are not comprehensive as certain providers may not be included or providing accurate figures. There is some concern about possible links between abortion and gender selection in some countries including in Kosovo. Graph 3 shows the

general downward trend in reported abortions (per 1,000 live deliveries) in the region since 1990.



Graph 3: Trends in the level of abortions (per 1000 live births) in the region.
Source: WHO/Europe Health for All Database

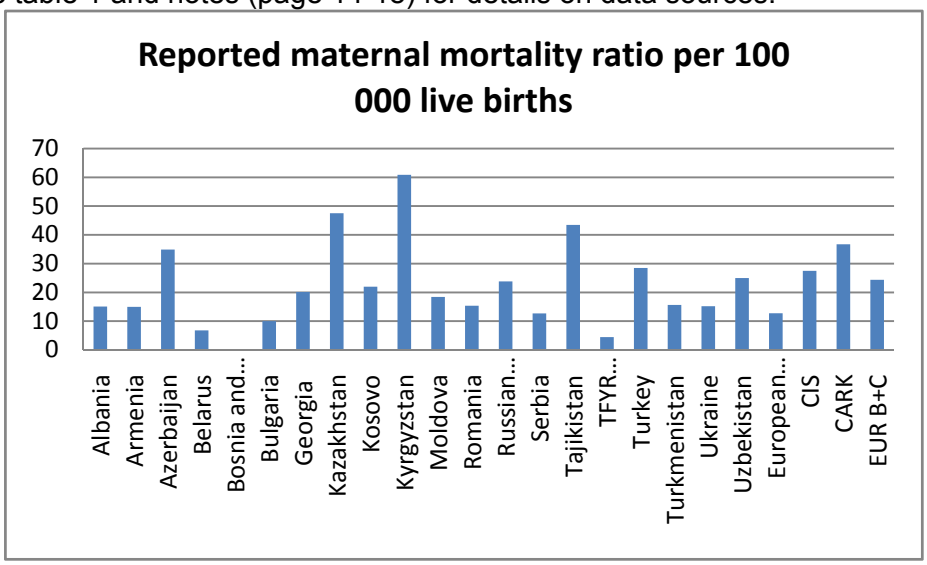
Accessibility to maternal health-care services and information: Unequal provision of services and lack of access are issues in many countries including Albania, Azerbaijan, Bulgaria, Kazakhstan, Kosovo, Kyrgyzstan, Moldova, Romania and Turkey. Key issues include disparities in the distribution of service providers between rural and urban areas and barriers to access to family planning.

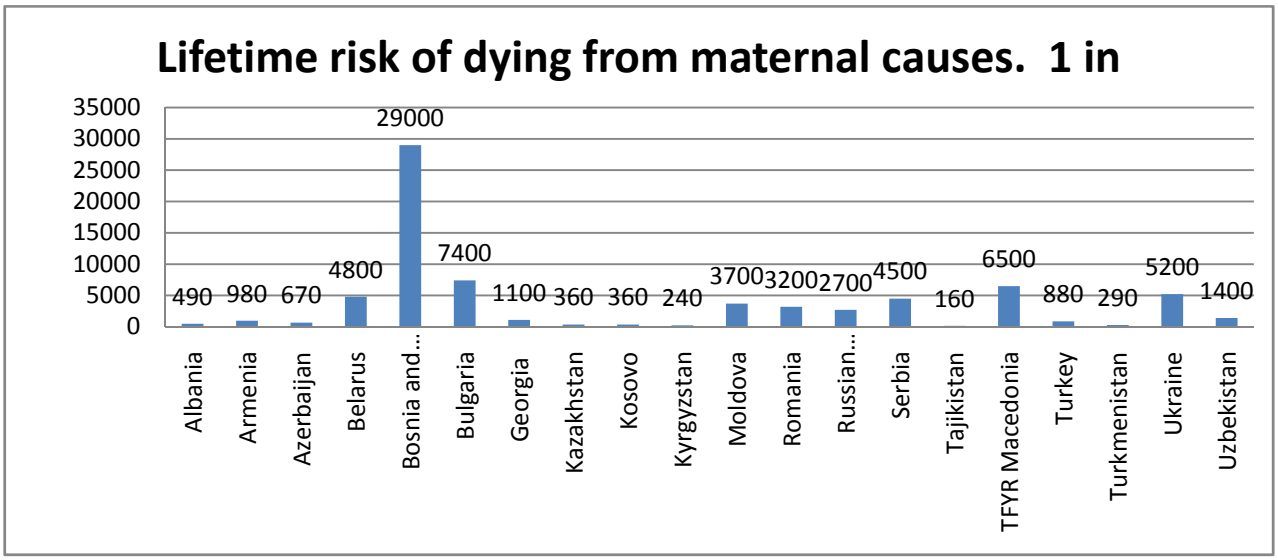
Although only nine countries indicated the existence of barriers to access to care there is evidence of problems in many countries. Key among them are inequity in the distribution of qualified service providers; cost of services; lack of public awareness; gender inequality and lack of transportation to services. No groups are officially excluded from accessing services and/or information in any countries; however, there is some evidence that in practice some groups such as young people and asylum seekers feel excluded and that poorer women and Roma women are less likely to use such services. In general the impact of the range of barriers to care is well understood but may not be evidence-based. The impact of informal payments is assumed to be high in many countries but studies supporting this assumption are limited.

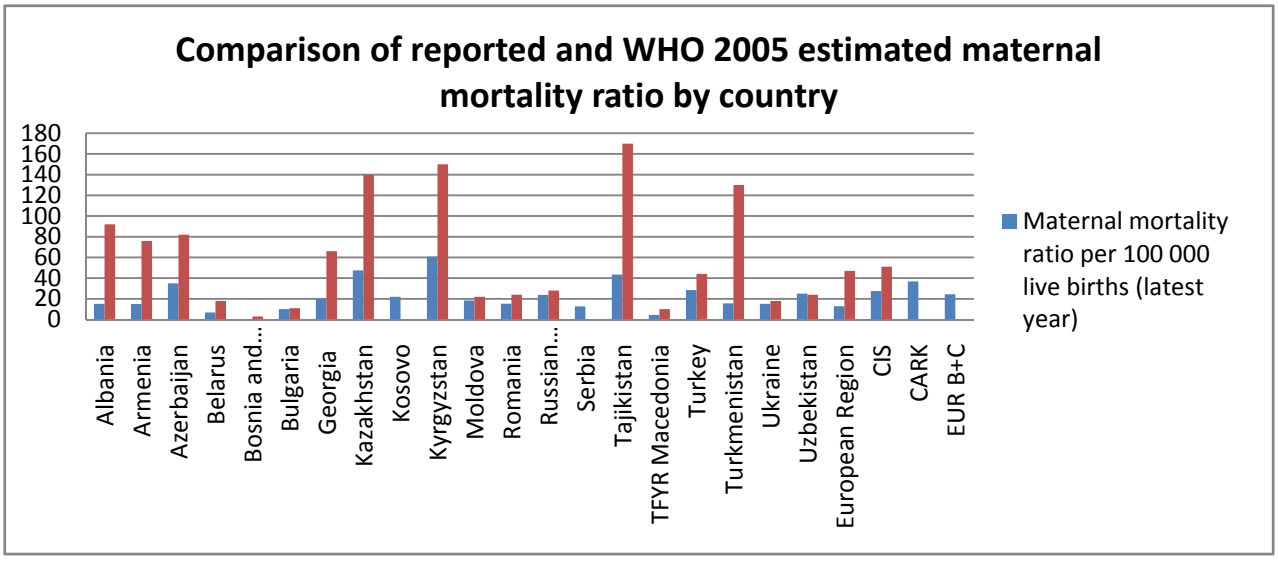
The majority of maternal care is provided through public services with the exception of Georgia where 100 percent of care is provided by private facilities. Very few countries are able to estimate the level and nature of care provided by the private and the non-governmental sectors.

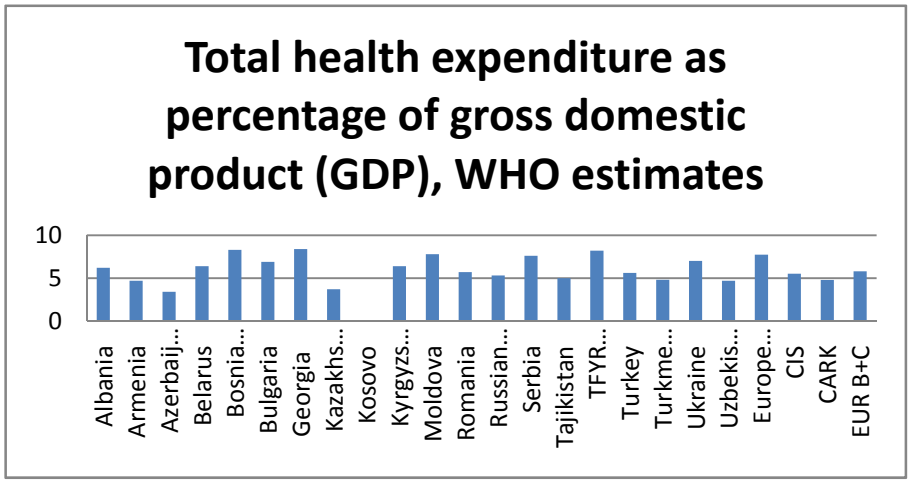
Quick reference graphs of key information

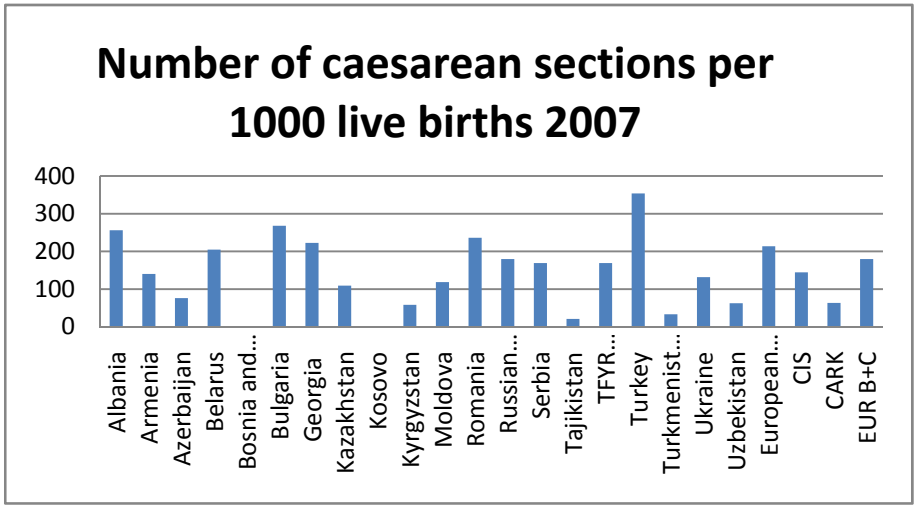
Please see table 1 and notes (page 14-18) for details on data sources.

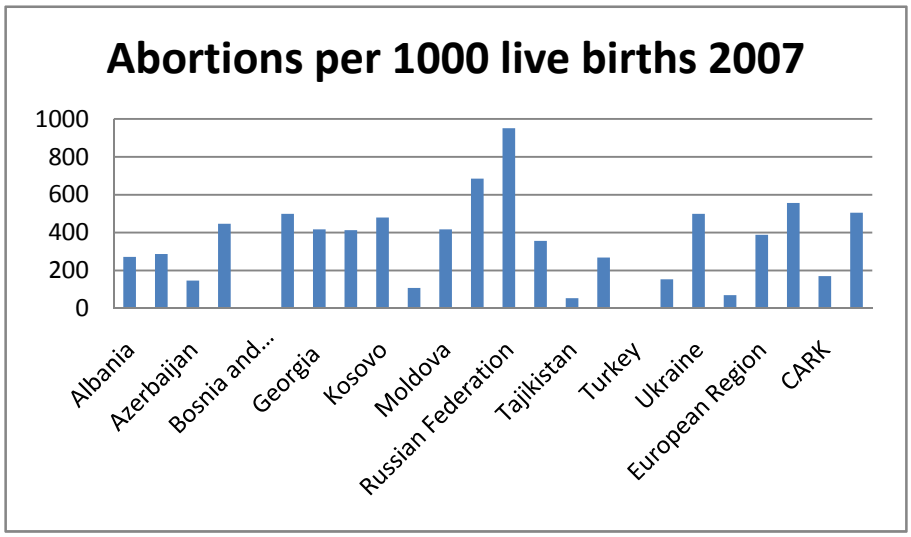












Notes:
Maternal mortality ratios for Bosnia and Herzegovina are likely to be significantly underreported, which impacts the reported lifetime risk statistics.
Abortion rates for Romania, Russian Federation, Tajikistan, Turkmenistan, Ukraine, European Region and CARK are 2006 data.
Caesarean section rates for Russian Federation, Tajikistan, Turkmenistan, Ukraine, European Region and CARK are 2006 data.

A tabular presentation of key indicators and overview of regional variations

Table one: Key maternal health data for countries included in the desk review.

Indicators [1]	Albania	Armenia	Azerbaijan	Belarus	Bosnia and Herzegovina	Bulgaria	Georgia	Kazakhstan	Kosovo [4]	European Region [2]	CIS [2]	CARK [2]	EUR B+C [2]	**data source**
Maternal mortality ratio per 100 000 live births (latest year)	15.08***	14.96***	34.88***	6.79***	...	10.02*	20.12	47.52***	10.7	12.77	27.5	36.73	24.37	HFA 2006 * 2004 ** 2005 *** 2007
Estimated maternal mortality ratio per 100 000 live births (WHO/UNICEF/UNFPA estimates 2005)	92	76	82	18	3	11	66	140	...	47	51			WHOSIS 2005
Lifetime chance of dying from maternal causes – 1 in:	490	980	670	4800	29000	7400	1100	360	360					PRB 2007
Number of caesarean sections per 1000 live births	256.4	140.58	76.16	204.87		267.91	222.49	109.52		213.85*	144.8	63.54*	192.53	HFA 2007 * 2006
Total fertility rate	1.6	1.7	2.3	1.4	1.2	1.4	1.4	2.5	3					PRB 2008
Midwives (PP) per 100 000	...	41.41	114.13	51.58	31.99*	44.7	27.26	57.22		44.27	52.34	65.15	50.56	HFA 2006 * 2005
Abortions per 1000 live births	272.29	286.77	146.91	446.65	...	498.93	417.25	413.39	480	388.22*	541.3	170.2*	493.33	HFA 2007 *2006
Proportion (%) of births attended by skilled health personnel **see footnotes (f) p13**	100	98***	97	100*** f1	100 f2, f3	99	92*** f4	100 f5	96					WHOSIS 2006 *2003 **2004 ***2005
Hospitals per 100 000	1.56	4.35	8.56	7.24	0.95*	4.15	5.96	7.09	...	3.76	4.96	4.76	3.85	HFA 2006 * 2005
Hospital beds per 100 000	296.92	446	821	1112	303	642	392	776	...					HFA 2005
Primary health care units per 100 000	76.96	32.29	41.83	69.41	30.28	21.97	14.76	52.95	...					HFA 2006
Physicians, obstetric & gynaecological group of specialties (PP), per 100 000	...	27.07	23.01	25.91	...	...	31.97	27.63	...					HFA 2006

See page 18 for notes. Data sources for Kosovo are listed on page 10

Indicators [1]	Albania	Armenia	Azerbaijan	Belarus	Bosnia and Herzegovina	Bulgaria	Georgia	Kazakhstan	Kosovo [4]	European Region [2]	CIS [2]	CARK [2]	EUR B+C [2]	**data source**
% of contraceptive use among currently married women aged 15-49, all methods	75	53	51	50	48	41	47	66	54.9					HFA 2006 * 2005
% of contraceptive use among currently married women aged 15-49, modern methods	8	20	14	42	16	26	27	53	22.6					PRB 2008
% of women receiving at least 4 antenatal care visits Kosovo= minimum 3 visits		71	45*****	...	...		75	70***	25					WHOSIS 2005 *1996 **1997 ***2001 *****2003 ******2004
Total health expenditure as % of gross domestic product (GDP), WHO estimates	6.2	4.7	3.4	6.4	8.3	6.9	8.4	3.7	...	7.74	5.51	4.78	5.8	WHOSIS 2006
Per capita government expenditure on health (PPP int. $)	127	112	67	428	454	443	76	214	...					WHOSIS 2006
Per capita total expenditure on health (PPP int. $)	358	272	218	572	794	741	355	330	...					WHOSIS 2006
External resources for health as percentage of total expenditure on health	3.7	14.5	0.8	0.2	1	0.2	6.7	0.3	...					WHOSIS 2006

See page 18 for notes

Data for Kosovo:

Maternal mortality rate - Perinatal Report (2000-2007) Ministry of Health, UNFPA, UNICEF and WHO
Total fertility rate - 2003 DHS (published 2005)

Number of abortions - 1999 DHS. This is an indirect calculation

Attended births - 2003, Promoting Effective Perinatal Care in Kosovo -Evaluation Report

CPR - 2003 DHS (published 2005)
Antenatal visits- Micronutrient status survey, quoted in Perinatal situation in Kosovo 2000-2004. UNICEF 2005

Indicators [1]	Kyrgyzstan	Serbia	Tajikistan	TFYR Macedonia	Turkey	Turkmenistan	Ukraine	Uzbekistan	European Region [2]	CIS [2]	CARK [2]	EUR B+C [2]	**data source**
Maternal mortality ratio per 100 000 live births (latest year)	60.85***	12.68	43.44	4.43	28.5**	15.63	15.21	25.01***	12.77	27.5	36.73	24.37	HFA 2006 * 2004 ** 2005 *** 2007
Estimated maternal mortality ratio per 100 000 live births (WHO/UNICEF/UNFPA estimates 2005)	150	...	170	10	44	130	18	24	47	51			WHOSIS 2005
Lifetime chance of dying from maternal causes – 1 in:	240	4500	160	6500	880	290	5200	1400					PRB 2007
Number of caesarean sections per 1000 live births	58.36	169.39	21*	169.27	353.91	33.53*	132.01*	62.87	213.85*	144.8	63.54*	192.53	HFA 2007 * 2006
Total fertility rate	2.8	1.4	3.3	1.5	2.2	2.9	1.3	2.7					PRB 2008
Midwives (PP) per 100 000	40.1	31.99	56.56	63.13	59.27	21.51	50	85.07	44.27	52.34	65.15	50.56	HFA 2006 * 2005
Abortions per 1000 live births	108.1	356.42	54.39*	268.42	...	153.75*	498.77*	70.24	388.22*	541.3	170.2*	493.33	HFA 2007 *2006
Proportion (%) of births attended by skilled health personnel **see footnotes (f) p13**	98 f6	99*** f7	83***	98*** f8	83*	100	100***	100 f9					WHOSIS 2006 *2003 **2004 ***2005
Hospitals per 100 000	2.85	1.39	6.81	2.7	1.65	2.45	5.63	3.7*	3.76	4.96	4.76	3.85	HFA 2006 * 2005
Hospital beds per 100 000	551	553	586	470	267	433	868	519					HFA 2005
Primary health care units per 100 000	15.24	2.28	49.78	81.41	44.37	36.29	14.57	24.55					HFA 2006
Physicians, obstetric & gynaecological group of specialties (PP), per 100 000	19.13	15.44	19.1	14.46	6.06	14.51	24.94	21.97					HFA 2006

See page 18 for notes

Indicators [1]	Kyrgyzstan	Serbia	Tajikistan	TFYR Macedonia	Turkey	Turkmenistan	Ukraine	Uzbekistan	European Region [2]	CIS [2]	CARK [2]	EUR B+C [2]	**data source**
Contraceptive use among currently married women aged 15-49 (%), all methods	60	41	38	14	71	62	67	65					HFA 2006 * 2005
Contraceptive use among currently married women aged 15-49 (%) , modern methods	49	19	33	10	43	53	48	59					PRB 2008
% women receiving at least 4 ANC visits Kosovo= minimum 3 visits	81**				54*****	83*****		79*					WHOSIS 2005 *1996 **1997 ***2001 *****2003 ******2004
Total health expenditure as % of gross domestic product (GDP), WHO estimates	6.4	7.6	5	8.2	5.6	4.8	7	4.7	7.74	5.51	4.78	5.8	WHOSIS 2006
Per capita government expenditure on health (PPP int. $)	55	373	16	446	461	172	298	89					WHOSIS 2006
Per capita total expenditure on health (PPP int. $)	127	525	71	623	645	259	542	177					WHOSIS 2006
External resources for health as percentage of total expenditure on health	6.1	0.8	6.4	1.1	0	0.1	0.5	1.7					WHOSIS 2006

See page 18 for notes

1. WHO definitions used. For full definitions please see annex 1
2. HFA regional categorization used, see below. For estimated MMR European region = Europe and the Commonwealth of Independent States (UNFPA region)
3. For full information on data used to compile databases, please see Annex 1

HFA = European health for all database (HFA-DB) World Health Organization Regional Office for Europe
WHOSIS =WHO Statistical Information System
PRB = Population Reference Bureau

4. Data for Kosovo is currently not included in WHO databases. Information has been obtained from the sources listed on pages 9-10.
Footnotes:
f1: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f2: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f3: Data from years 2005-2006
f4: Institutional births.
f5: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f6: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f7: Includes 5-15% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f8: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.
f9: Includes <5% of deliveries by cadres of health workers other than doctors, nurses and midwives.

European Region: the 53 countries in the WHO European Region
CIS: the 12 countries of Commonwealth of Independent States;
CARK: the central Asian republics (Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) and Kazakhstan;
Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality
(Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Montenegro, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Tajikistan, TFYR Macedonia, Turkey, Turkmenistan, Ukraine)

A snapshot of each country highlighting the main maternal health issues

ALBANIA

Indicators at a glance	Albania	European Region	CIS	CARK	EUR B+C
Population (million)	3.241				
Rate of natural increase of population	0.7				
Projected change in population 2008-2050 (%)	11				
Total fertility rate	1.6 PRB [iv] 2.3 UN				
Contraceptive prevalence rate (CPR) all methods	75				
CPR for modern methods	8				
Unmet need for contraception	46%				
Number of abortion per 1000 births (2007)	272.29	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	95% MICS 2000				
Skilled attendance at birth	99%				
Number of EmOC facilities	43				
Number of EmOC facilities per 500,000 *	6.63				
Number of caesarean sections per 1000 births (2007)	256.4	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	15.08	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	92	47	51		
Lifetime risk of pregnancy related death 1:	490				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Despite substantial progress in reducing maternal deaths in the last decade, there is no clear recent trend in the maternal mortality ratio (MMR) in Albania (12 per 100,000 live births in 2004, 23 per 100,000 in 2005 and 15.08 in 2007). Indications are of a relatively high level of births being attended by skilled assistants; however, the high maternal and neonatal mortality rates may indicate a lack of quality of care. Recent needs assessments and surveys have supported the need for improved quality of care within a comprehensive plan to address a number of challenges. A reproductive health strategy is being developed.

Available data for antenatal and obstetric care are not conclusive but may indicate that use of antenatal services is relatively low and the level of caesarean sections relatively high. There are concerns that informal payments for health-care services may be exacerbating inequity of access. The unmet need for modern forms of contraceptives is high; there is currently limited information available to explain the reasons for this.[v]

The UN MDG monitor assesses that Albania is "off track" with regard to meeting its target of an MMR of 10 per 100,000 live births.

1. Country overview

1.1 Population and demographics. The 2001 census estimated Albania's population at 3.1 million and the Population Reference Bureau provides a mid-2008 estimate of 3.241 million.[vi] In comparison to other Eastern European countries, Albania has a relatively high birth rate. Until 1990 the Republic of Albania pursued a pronatalist policy; however, fertility has dropped substantially from a total fertility rate (TFR) of 7 to the current rate of 2.2 despite the very limited access to contraception and abortion.[vii] The rate of natural increase is 0.7 percent and the total population is projected to grow by 11 percent by 2050.

1.2 Health-care systems. Albania continues to work towards significant and substantial reforms in the health-care sector, with a move towards increased policymaking and planning and the introduction of health insurance financing. In addition to the Health System Strategy (2007-2013), Albania has a mid-term budget programme which proposed improvements at primary and secondary level by increasing training in family planning for doctors and an increase in the number of consultations undertaken by obstetricians.

Despite the creation of 12 regional prefectures and the strengthening of the role of local government resulting in some responsibility for primary health care shifting to rural areas, the health system is remains centralised and hierarchical.[viii]

1.3 Legal context of sexual and reproductive health care. The Republic of Albania has ratified and adopted the key relevant international conventions and declarations including the UN Convention on the rights of the child, the programme of action of the International Conference on Population and Development, the Millennium Declaration, the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) and the International Covenant on Economic, Social & Cultural Rights which recognises the "right of everyone to the enjoyment of the highest attainable standard of physical and mental health." Albania's new constitution came into force in 1998 and a number of laws and decrees have been put in place to promote and protect women's rights and the individual's rights to health. Significant progress has been made in developing legislation to promote gender equity and the Gender Equity Law came into force in mid-2008.

2. Overview of maternal health

The maternal mortality ratio (MMR) saw an overall decline of 83 percent in the period 1994 to 2004 with a reported sharp drop between 2003 and 2004.[ix] As in many countries there is variation among current estimates of maternal mortality. The latest reported figure is 15.08 deaths per 100,000 live births (2007 WHO HFA). The WHO 2005 adjusted ratio is 92 per

100,000.[x] The Ministry of Health estimates the 2007 MMR at 14.5 for 100,000 live births.[xi] This remains higher than the European regional average rate.

Information on the most common causes of maternal death and morbidity is not easily accessible and maternal death was not included in the 2002 reproductive health (RH) survey.[xii] The survey found that 24 percent of women who had received prenatal care had experienced a complication, the most common being the risk of premature delivery and pregnancy-related anaemia.

Abortion was legalized in 1995 and in recent years there has been a significant decrease in the rate of abortion (to 272.29 per 1,000 live births in 2007[xiii]). The recent reproductive health survey recognized the potential for significant underreporting of abortions and raised questions about the confidence of data.[xiv]
The overall use of contraception is relatively high with estimates of 70 percent to 75 percent of women; however, the rate of modern methods is very low at 7 percent to 8 percent.[xv] It is estimated that 46 percent of all women and 68 percent of married women have an unmet need for modern contraception.[xvi] One review of fertility trends identifies a lack of knowledge among women as the main barrier to increased usage of modern contraceptives due to the interplay between traditional and modern norms of Albanian society.[xvii]

3. Discussion of key indicators

3.1 Antenatal care (ANC). There is no recent data on the level of antenatal care in Albania. The 2000 Multiple Indicator Cluster Survey, conducted by UNICEF, estimated that 95 percent of women had received at least one form of care, 45 percent of which was delivered by a doctor.[xviii] The 2002 RH survey indicated that 19 percent of women in the survey had received no antenatal care; rural, older and poorer women were less likely to have received care.[xix] Of those who had received antenatal care, 24 percent reported a complication.

3.2 Attended deliveries. The level of births attended by a skilled professional is almost universal at 99 percent.[xxxxi] The place of delivery can be an indicator of access to emergency care: In Albania an estimated 93 percent of births are in health-care institutions, the majority attended by doctors.[xxii] Some 6.2 percent of births are attended by a nurse or midwife.[xxiii]

3.3 Emergency obstetrics care. Emergency obstetrics care (EmOC) is provided by 43 secondary-level maternity units. There is very limited information available on the number and type of EmOC cases per annum or on the rate of complications. Estimates from maternity unit data suggest an increasing trend in the rate of caesarean sections (CS); it is currently estimated at approximately 20 percent.[xxiv] The UN Process Indicators of EmOC indicate an acceptable CS rate is between 5 percent and 15 percent.

3.4 Accessibility. No groups are formally excluded from reproductive health-care services and information but barriers exist. Examples of barriers to health care include the following: geographical remoteness; low levels of service provider knowledge and motivation; lack of essential drugs and basic equipment; improper use of medications; and a lack of referral system guidelines including between referring organizations. Other barriers include the lower status of women, cost of care and lack of awareness of obstetric risk and of the right and availability of care.

The 2007 strategic health needs assessment said the need to make formal and informal payments (despite the existence of the basic package of services) was a barrier to care for "many people."[xxv] There is a high level of unmet need for contraception, which may be indicative of lack of awareness and/or access to family planning methods.

Obstetric care (including basic emergency care) is provided in secondary-level maternity facilities only; primary health-care centres provide care for the mother before and after birth. Therefore access to emergency obstetrics care may be limited in some areas. There is incomplete data available on access to antenatal services; however, as noted above, one survey found that 19 percent of women had received no care.

Sexual and reproductive education is included in the school curriculum although it is not comprehensive. New curricula are being developed but haven't been finalized or implemented.

3.5 Health-care systems and financing for maternal health. Maternal health care is provided through the primary health-care network and 43 maternity units. The responsibility for reproductive health services at district level lies with the district Public Health Directorate. In relation to both its size and to other Eastern European countries, Albania has a low number of trained health professionals; for example, there are an estimated 47 nurses and midwives for every 10,000 people.[xxvi] Professionals tend to be concentrated in secondary health-care centres. A Ministry of Health/WHO survey conducted in the late 1990s revealed serious concerns with the level and quality of maternal care, including problems with staff skills, drugs, equipment and operational practices.[xxvii] A 2007 strategic health needs assessment said that midwives in health centres are inadequately skilled, poorly paid and working in difficult conditions; additionally the lack of essential drugs and equipment along with inadequate maintenance of equipment contributed to low-quality maternal health services.[xxviii]

Private health services in Albania are limited mostly to pharmaceutical, dentistry and diagnostic facilities. The number of women giving birth in private facilities is estimated at 2.5 percent and they tend to be women of higher socio-economic status.[xxix] The state budget provides the large majority of financing for all health-care services. Revenue from the existing mandatory taxation insurance scheme covers only 25 percent of public health sector expenditure with the rest coming from general revenues.[xxx] A health insurance program for primary and maternity care will be introduced during 2009. Health-care expenditure as a percentage of GDP is estimated at 6.2 percent to 6.5 percent; it is not possible to determine what proportion is spent on reproductive and/or maternal health care.[xxxi] Some 3.7 percent of all heath care expenditure is financed by external resources.[xxxii] The level and impact of informal payments in Albania is hard to determine; however, there is evidence that poorer Albanians spend proportionately more of their income on health services and are more likely to incur catastrophic health expenditures.[xxxiii]

3.6 Enabling environment. Albania has made a commitment to universal access to reproductive health, which will be monitored through the National Strategy for Development and Integration. The National Reproductive Health Strategy, prepared by the National Committee for Reproductive Health, is due for completion in 2009. The strategy is informed by WHO and EU strategies for child and adolescent health and by the WHO Making Pregnancy Safer/Promoting Effective Perinatal Care programme for maternal health care. The 2007 health needs assessment highlights maternal and child health as a national priority: "An ultimate goal of the Albanian Government's Growth and Poverty Reduction

Strategy is to reduce infant and maternal mortality." The assessment recommends a comprehensive approach to improving maternal health care and addressing the specific issue of quality.

The assessment recommendations include the following initiatives: improve the quality of data collection, processing and analysis; define indicators and monitoring processes; review and develop national policies, strategies and action plans; unify protocols, guidelines and nationally standardized recommendations; provide adequate equipment necessary for follow-up of maternal and child health; upgrade the level of knowledge and skills of health staff; improve legislation for mother and child health; support advocacy, education, communication and counselling to increase community awareness of maternal, child and adolescent health as a priority for Albania's development and as a fundamental human right. The overarching maternal health target is for a maternal mortality ratio of 10 per 100,000 live births by 2015. Other specific targets are likely to be included in the reproductive health strategy which is being developed.

3.7 Monitoring and evaluation. The National Reproductive Health committee is responsible for the coordination of reproductive health and maternal activities. The committee includes representatives of the ministries of Health and of Education, NGOs, UN and other international organizations involved in maternal and child health. The committee is led by the deputy minister of health and meets quarterly. There are coordination mechanisms within the Ministry of Health, hospitals and the public health directorates.

As noted above, there are some concerns over the quality of data collection, processing and analysis and also over the quality of care and the monitoring of quality. The Ministry of Health does not monitor the quality of service provision. Albania has standardized client registration and recording processes and data on maternal deaths and case fatalities are collected. Maternal health reports are produced semi-annually at the national level using district-level data. Information on emergency obstetrics care, caesarean section rates and complication rates is not routinely collected and/or analysed. The 2005 MDG National Report notes the need for further coordination of data collection systems and improved accuracy and monitoring/analysis of problems.[xxxiv] Standardized guidelines and protocols for clinical care are in place but the 2007 strategic health assessment recommends strengthening them.

Ongoing challenges

Despite significant progress there is room to reduce maternal mortality further and to improve the quality and impact of maternal health care as outlined in the 2007 strategic health needs assessment undertaken by the Ministry of Health and WHO. Unequal access to care, particularly antenatal care, as a result of unequal distribution of staff and equipment and the biases associated with informal payments are ongoing challenges.

Albania is currently undertaking a demographic health survey and finalizing a reproductive health strategy. Both are likely to provide new information about the current maternal health situation in Albania.

ARMENIA

Indicators at a glance	Armenia	European Region	CIS	CARK	EUR B+C
Population (million)	3.084				
Rate of natural increase of population	0.5				
Projected change in population 2008-2050 (%)	7%				
Total fertility rate	1.7				
Contraceptive prevalence rate (CPR) all methods	53				
CPR for modern methods	20				
Unmet need for contraception	11.8				
Number of abortion per 1000 births (2007)	286.77	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	93%				
Skilled attendance at birth	97%				
Number of EmOC facilities	64				
Number of EmOC facilities per 500 000 *	10.37				
Number of caesarean sections per 1000 births (2007)	140.58	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	14.33 estimated				
Rate of complications (% all births)	37-40				
Reported maternal mortality ratio (MMR)	14.96	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	76	47	51		
Lifetime risk of pregnancy related death 1:	980				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500,000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The 2007 maternal mortality ratio (MMR) of 14.96 deaths per 100,000 live births shows a significant decrease over previous years. However, the 2008 estimate from Ministry of Health data indicates a rate of 33.7 out of a total of 41,454 births.[xxxv] The 2006 rate was at 34.4. Notwithstanding an apparent drop in 2007, the rates are high, especially in comparison with other countries categorized as EUR B+C. Armenia has a relatively high rate of potential complications in pregnancy and an upward caesarean section trend, but a relatively low rate of emergency obstetrics care. There are difficulties in assessing the accurate rate of abortion and its impact on maternal health; overall the trend appears to be downward but the rate remains high. The use of contraception appears to be low and there is some evidence of declining usage recently. The coverage of minimum antenatal care is very high although there is some concern over the quality and content. Armenia has a comprehensive reproductive health strategy within the context of broader health sector reforms; however, the lack of integration of reproductive health into primary health care and some concerns regarding access to information and services may compromise maternal health. The overall financial investment in health care including maternal health care is low,

which raises concerns about quality of care, affordability of services, especially for poorer people, and sustaining the number of health professionals in remote areas.

The UN MDG Monitor assesses that the MDG5 goal is possible if some changes are made. The 2007 figure indicates that the original 2015 MMR target of 20 deaths per 100,000 live births has been achieved; however, estimates from 2006 and 2008 are not supportive of a sustained achievement. The revised MDG 5 target is 10.3 maternal deaths per 100,000 live births as indicated in the Poverty Reduction Strategy Paper (PRSP 2).

1. Country overview

1.1 Population and demographics. The population of Armenia is 3.1 million. Like many counties in the region, Armenia is experiencing a decline in population growth; the population is projected to grow by only 7 percent by 2050.[xxxvi] Emigration and seasonal migration have affected recent demographic trends. In addition to existing policies, the government plans to introduce a new demographic policy to increase the birth rate, protect motherhood and childhood, reduce the mortality rate, increase life expectancy, halt emigration and encourage immigration.[xxxvii]

1.2 Health-care systems. Armenia inherited a centralised health-care system at independence and has subsequently undertaken a series of reforms focused on developing primary health care and access for vulnerable groups. The system has been progressively decentralised and strategic prioritization has been introduced.[xxxviii] Delivery is free of charge for all women; however, the funds allocated to cover this commitment are not adequate to pay for any medical interventions resulting from complications. To improve access to and quality of maternal and newborn care in 2008 the government almost doubled financing of perinatal services and introduced “birth certificates.” For each woman who delivers a baby, the government allocates approximately $350 to a health facility and 60 percent of this money can be used for salaries of health staff. This system motivates personnel to improve the quality of offered services and also substantially increases access of pregnant women to medical care.

1.3 Legal context of sexual and reproductive health care. Armenia has ratified the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Under its constitution, “family, motherhood, and childhood are protected and supported by the Government of Armenia and society” (Article 32) and everyone has a right to health (Article 34). Under the law “Health Care and Services for the Population” everyone also has a right to receive health care free of charge from state medical programs. The 2002 Reproductive Health and Human Reproductive Rights law includes a main focus on safe motherhood; it declares that motherhood and childhood are protected by the state and that women have the right to safe motherhood and protection of their health during pregnancy, childbirth and after delivery. Legislation such as the HIV Prevention Law also contributes to the protection of reproductive and maternal health rights.

2. Overview of maternal health

There is some fluctuation in recent maternal mortality rates (MMR). The latest reported rate is 14.96 per 100,000 live births (2007 WHO HFA) and as noted above, the 2008 MMR is estimated at 33.7.[xxxix] The 2007 figure is lower than the average regional rates but remains higher than the European regional average rate. The 2006 MMR was estimated at 34.4 per

100,000 and the Ministry of Health estimated an overall ratio for the three years prior to 2006 at 28 per 100,000.[1] The 2005 WHO adjusted estimate is 76 per 100,000. In 2005, the average rate of maternal mortality from induced abortion was 5 percent; all the abortions were undertaken as the result of medical indications and the death was not necessarily due to the abortion.[xl]

The major causes of maternal deaths are haemorrhage/bleeding (22 percent), complications during pregnancy (15.6 percent), abortions (12.5 percent) and infections (9.4 percent). The expected rate for complications in pregnancy is 37 percent to 40 percent.[xli] There are some concerns over the reporting of the actual number of abortions; only registered procedures are included.[xlii] Notwithstanding this, there has been an apparent decline in the number of induced abortions. The 2005 Demographic Health Survey (DHS) estimates that 45 percent of pregnancies were terminated in the prior three years as opposed to 55 percent in the 2000 survey.[xliii] Statistics on the rate of abortions per 10,000 live births show the rate declining from 343.36 in 2000 to 286.77 in 2007.[xliv] Despite the reductions, the level of abortions and the high rate among women under the age of 20 (132.75 in 2006[xlv]) remain a concern to the health ministry and have become a priority in the current reproductive health strategy.

A 2002 UNFPA survey outlines the factors that have contributed to an apparent desire for fewer children; however, there is concern about access to family planning.[xlvi] The Population Reference Bureau estimates an 11.8 percent unmet need for family planning. Contraceptive prevalence rates are relatively low and are in decline; the 2005 DHS shows a decrease in the use of any methods by married women of reproductive age from 61 percent to 53 percent and a 2 percent decrease in the prevalence rate over this period. The national estimates for contraceptive prevalence rates are low at 53 percent for all methods and 20 percent for modern methods.[xlvii]

3. Discussion of key indicators

3.1 Antenatal care (ANC). ANC coverage is very high at 93 percent of women receiving professional help during pregnancy[xlviii] and an estimated 71 percent participating in at least four antenatal visits (the WHO recommended minimum).[xlix] The DHS identifies a slight disparity between urban and rural populations (94 percent and 83 percent respectively). There is an indication of a shift in the number of ANC providers between the 2000 and 2005 DHS, mainly in rural areas; ANC provided by a doctor increased to 90 percent from 84 percent with a corresponding decrease in ANC provided by nurses and/or midwives.

3.2 Attended births. The 2005 DHS indicates that the vast majority of deliveries are within health facilities (97 percent) and are attended by a doctor; the proportion of home births declined from 9 percent in 2000 to 2 percent in 2005. Only 4 percent of these cases were attended by a nurse or midwife. The number of facility-based deliveries and the numbers attended by doctors are both increasing; facility-based deliveries increased from 91 percent to 97 percent between 2000 and 2005 and the percentage attended by doctors increased from 83 to 93 over the same period).[l]

[1] National Strategy for Reproductive Health

3.3 Emergency obstetrics care. There are 64 maternity hospitals providing emergency obstetrics care in Armenia.[li] Out of them 10 health centres with intake of up to 100 deliveries per year provide basic emergency obstetric care and 54 hospitals can provide comprehensive emergency obstetrics care. This is over 8 times the UN Process Indicator recommendation of 1 per 500,000 in the population.

An estimated 7,000 pregnant women use such emergency services each year. Despite a relatively high rate of expected complications (37 percent to 40 percent) the rate of emergency obstetrics care is low at 6.3 percent (2,529 cases) of total deliveries in 2007. There has been no significant change in the rate over the last seven years; the 2000 rate was 6.2 percent. The number of caesarean sections (CS) has increased significantly from 2,553 reported in 2000 to 5,755 in 2007. The latter figure exceeds the number of emergency obstetrics cases in 2007. It is not known what percentage of cases is related to foetal morbidity and/or mortality. This increasing rate may suggest a high level of non-emergency caesarean sections, foetal distress and/or be explained by reporting systems. The estimated CS rate for 2007 (based on an estimated 40,143 total deliveries) is 14.33 percent, which is within the UN Process Indicator recommendation of 5 percent to 15 percent.[lii]

3.4 Accessibility. No groups are formally excluded from receiving reproductive health care. Refugees and asylum seekers legally have the same access to maternal care as Armenian citizens; however, in practice their access is limited due to their poor socio-economic status. Following the adoption of the new refugee law, the 'temporary asylum' status has been abolished, but the enforcement of legal access for this group will take some time.

Maternal health care is free of charge. Recently introduced monetary incentives to service providers' salary structures have reduced occurrence of informal payments by patients. This initiative had a positive impact on making maternal health services more accessible. Barriers to access to care include poverty and geography, the latter for women who live in mountainous regions. The lack of reproductive health services including maternal health care provided at the primary health level forces women from rural areas to travel to district and regional centres to receive RH and maternal care. As a result women may experience problems associated with cost and availability of transport.

Elective courses on sex education have been provided on a voluntary basis in schools since 1995. Following a government decree in 2008, high school grades receive instruction in sexual and reproductive health care that are integrated into Healthy Lifestyles curriculum. There have been extensive peer education and outreach programmes, and services for young people will be available across the country in 2009.

There is some evidence that access to information on sexual and reproductive health among all populations is a challenge. A 2002 survey of adolescents concluded that awareness of and access to SRH information and services was insufficient and often inadequate.[liii] According to the DHS (2005) only 46 percent of women were informed about the signs of pregnancy complications despite high levels of antenatal coverage. There is evidence that information on family planning methods is declining; the proportion of Armenian women who had not heard a family planning message quadrupled over the five years between the two DHS surveys, from 12 percent in 2000 to 44 percent in 2005.

3.5 Health-care systems and financing for maternal health. Maternal and reproductive health care has not yet been integrated into the primary health-care system. The health-care system, however, is trying to establish a family doctors' structure that will

integrate RH services at the primary health-care level. Presently RH services are available at the secondary level. Secondary level of outpatient care is provided at Marz (regional level) through 15 autonomous urban maternity hospitals, eight medical unions and 44 obstetrical/gynaecological inpatient care departments in regional hospitals. Consequently there is very limited or no reproductive care in rural and remote communities. Also, very few obstetricians work outside urban areas. While family doctors are authorized to provide a basic level of care and health centres may assist in uncomplicated deliveries, most deliveries and all abortions must be performed in in-patient centres.[liv]

Two specialized national centres (Institute of Perinatology, Obstetrics and Gynaecology and the Research Centre of Mother and Child Health Protection) provide tertiary-level care. The National Reproductive Health Strategy notes that reproductive and maternal care is costly and generally underutilized. It also points out the lack of delineation of roles of service providers. It is not possible to determine the percentage of maternal care that is provided by non-governmental service providers but the diversity of providers is low. In the capital there are six known in-patient private providers and only one NGO providing maternal care; there are no NGO providers in districts and regions. All service providers are obliged by the state order to provide maternal care free of charge. There has been significant investment in maternal and reproductive health programming by the UN agencies.

Armenia doesn't require the collection of data on health-care financing. As a result, estimates vary.[lv] The state budget allocation is the main source of health sector funding and the majority of care is provided free of charge. The government doubled its expenditure on health care between 2003 and 2006. The target for proportional investment to GDP is 2.2 percent in 2012.[lvi] The 2008 government estimate is 1.3 percent of GDP, which is significantly lower than comparable countries in the region.[lvii] The national reproductive health strategy document acknowledges that the 2006 amount (1.6 percent of GDP) is insufficient. Problems include inefficient centralised procurement of medicine, medical supplies and equipment and low salaries for health-care providers. The current poverty reduction strategy paper confirms that primary health care will absorb 40 percent to 45 percent of the health sector budget allocation in the medium term. An estimated 0.6 percent of the state allocations go to reproductive services and 7.6 percent of the governmental health-care expenditure is on reproductive health care.[lviii] In total an estimated 20 percent of the health budget is allocated to reproductive and maternal and child health care.[lix]

3.6 Enabling environment. There is no specific mention of universal access to reproductive health care in the PRSP-2. There is a clear commitment to increased access to and quality of health-care services.[lx] Following the endorsement of the National RH Program (1996-2000), a number of SRH strategies have been adopted, including a National Strategy on Mother and Child Health Protection (2003-2015). The MCH strategy aims to reduce maternal and child mortality and morbidity and to improve health-care services for the most affected populations.

The National Strategy on Reproductive Health Improvement (2007 – 2015) offers a comprehensive programme in line with current best practice. Safe motherhood is one of 11 priorities. Related strategies include the National Strategy on Mother and Child Health Protection (2003-2015), National Program on Improving Reproductive Health of Adolescents and the National Strategy on Children and Adolescents' Health and Development, which is in ~~is~~ the process of adoption.

The overall maternal health objective in PRSP 2 is the reduction of maternal mortality to 10.3 deaths in 100,000 live births by 2015 and to 7.0 deaths by 2021. The Government Programme (2008) provides an operational framework and commitment for increasing the financial resources for maternal health and the PRSP includes a framework for monitoring progress against the objectives. The national reproductive health strategy also includes specific targets for improving maternal health such as:

By 2015:

- the MMR will be reduced to less than 20 deaths per 100,000 live births, since revised as above.
- the MMR due to abortion will be reduced to less than 5 deaths per 100,000 live births.
- the prevalence of anaemia in pregnant women will be reduced to less than 60 in 1,000 births.
- the prevalence of toxaemia in pregnant women will be reduced to less than 10 in 1,000 births.
- pregnant women receiving antenatal care in the first trimester of pregnancy will reach at least 70 percent.
- pregnant women who receive all components of prenatal care will reach at least 95 percent.
- the percentage of women who delivered at home but received postpartum and newborn care in hospital will reach 0.5 percent.
- the percentage of pregnant and postpartum women who have satisfactory knowledge of pregnancy-related issues will reach 80 percent.

There are also targets for safer abortion. Activities to support the achievement of these targets focus on improvements in the accessibility and quality of safe abortion services. An estimated budget of $1.205 million is required specifically for the safe motherhood initiative. Maternal health activities are overseen by the Obstetric Gynaecological Council, a group chaired by the minister of health.

3.7 Monitoring and evaluation

The Obstetric Gynaecological Council includes one obstetrician–gynaecologist, a judicial physician, a pathological anatomist, a neonatologist, a healthcare administrator/manager and senior management of clinics and scientific research institutions. The council is responsible for the coordination of maternal health-care activities and meets as needed, not less than once per quarter.

Standardized systems for client registration and records apply. Information on complications (disaggregated by type) is collected. Maternal deaths (reported within 3 days) and deaths by cause (case fatalities) are recorded nationally (case fatality rates are collected but not recorded in maternal mortality rates). Maternal health reports are produced at a national and local level on a monthly (perinatal cases, deliveries), quarterly (screening for cervical cancer, examination of adolescent girls) and annual basis (deliveries, human resources, equipment/furnishing of facilities).

A range of clinical protocols for reproductive health exist, including medical criteria for selecting modern contraceptives, antenatal care, integrated management of pregnancy and labour, and maternal death reviews. There is room to improve the number and quality of these guidelines.[lxi] The council has also published a number of textbooks for obstetricians and gynaecologists such as “Evidence-based medicine in perinatology,” “Reproductive health”’ and “Gynaecology”; brochures for pregnant women including “healthy motherhood,” “nutrition during pregnancy” and a manual and diary for pregnant women, “Girq Tsnndots”;

training modules for doctors and midwives, and reports on screening for cancer and pre-cancerous conditions.

The quality of care provided is monitored nationally through such indicators as maternal mortality ratio, obstetric traumas, postpartum hysterectomy and frequency of postpartum septic complications. A system for the licensing of facilities is in place supplemented by periodic monitoring, reviews and evaluations.

Ongoing challenges

Identified challenges include:

- The high level of poverty and low socio-economic status of many women, which act as barriers to access and limit the opportunities to diversify sources of health financing.
- Pricing strategies that do not match the real cost of providing services and result in low salaries for health professionals' service provision (including low salaries of health professionals).
- Lack of awareness of maternal and reproductive health and cultural barriers that make it difficult to promote women's health.
- Insufficient number and quality of standards, protocols, guidelines.

AZERBAIJAN

Indicators at a glance	Azerbaijan	European Region	CIS	CARK	EUR B+C
Population (million)	8.67				
Rate of natural increase of population	1.2				
Projected change in population 2008-2050 (%)	34				
Total fertility rate	2.3				
Contraceptive prevalence rate (CPR) all methods	51				
CPR for modern methods	14				
Unmet need for contraception	23%				
Number of abortion per 1000 births (2007)	146.91	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	77% DHS 94% MoH				
Skilled attendance at birth	89% DHS 98% MoH				
Number of EmOC facilities	300				
Number of EmOC facilities per 500 000 *	17.30				
Number of caesarean sections per 1000 births (2007)	76.16	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	23				
Reported maternal mortality ratio (MMR)	34.88	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	82	47	51		
Lifetime risk of pregnancy related death 1:	670				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500,000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The level of maternal mortality in Azerbaijan remains high at 34.88 deaths per 100,000 live births. Even allowing for poor data collection, which prevents effective analysis of trends, it appears that little progress has been made in addressing maternal health in the last five years. Notwithstanding the data issues there is evidence of significant disparities between the coverage and quality of care received in urban and rural areas at all levels. The shortage and unequal distribution of service providers exacerbate concerns over quality and access to care, particularly antenatal care and attended deliveries. The estimated level of unmet need for contraception is high. The cost of care is recognized as a barrier to access. A national strategy for reproductive health has been recently developed to address a range of critical issues; however, the current environment in terms of legislation and oversight appears to be weak. The level of expenditure on health care (expressed as a percentage of GDP) is one of the lowest in the region at 3.4 percent; the role of private transactions in financing health is not fully understood but is assumed to be high.

The UN MDG Monitor states that there is insufficient information to assess whether MDG 5 targets will be met.

1. Country overview

1.1 Population and demographics The Azerbaijan Republic has a population of approximately 8.67 million of which 48 percent reside in rural areas. The country has a moderate rate of population growth, with a natural increase of 1.2 percent. The current population is projected to increase by 34 percent by 2050.[lxii]

1.2 Health-care systems. The Ministry of Health (MoH) operates a centralised administration of over 3,000 state-owned health-care facilities at primary, secondary and tertiary level. All services, including antenatal care, family planning and deliveries, are provided free of charge. In addition the health departments within other ministries (such as oil and defence) provide health-care services for their employees. These facilities have a higher level of autonomy; however, the MoH retains responsibility for setting standardized protocols and standards for all facilities. The private sector within Azerbaijan is small and mostly associated with pharmacies and dental services. The government has been pursuing a programme of health reforms since 2006 with the aim of restructuring financing and basic care packages. In addition the reforms will look to decrease out-of-pocket payments and increase service provider motivation.[lxiii]

1.3 Legal context of sexual and reproductive healthcare. The 1995 constitution of Azerbaijan maintains the formal guarantees of access to health care as a citizen's right. These rights are further specified in the 1997 law on Protection of Health of the Population. Maternal health care is intended to be provided either free at the point of service or, for some designated services, on a fee-for-service basis. Azerbaijan has adopted the relevant international conventions and standards. Additionally a state programme of activities for the protection of maternity and childhood was adopted in 2006.

2. Overview of maternal health

It is recognized that the system of vital data registration in Azerbaijan is subject to many limitations; for example, it is likely to only record events within Ministry of Health facilities and there is a reluctance to report all fatalities.[lxiv] As a result it is possible that mortality rates are likely to be significantly underreported. The low rate of post-mortem investigation (<25 percent of cases[lxv]) prevents the validation of estimates regarding the level and causes of death.

This potential underreporting is to some extent reflected in the WHO 2005 adjusted maternal mortality ratio (MMR) estimate of 82 deaths per 100,000 live births.[lxvi] The reported maternal mortality ratios (34.88 per 100,000[lxvii] in 2006 and 35.5 per 100,000 in 2007[lxviii]) are lower than the WHO estimates; however, even these ratios are high, especially in relation to the comparable regional average (of EUR B+C countries) of 24.37 per 100,000 (2006). The national figures mask significant disparity between urban and rural ratios. The preliminary results of a MoH survey indicate that the risk of a pregnancy death is higher in rural areas (1 in 600) than in urban areas (1 in 1250).[lxix] Official data indicate a higher level of risk in urban areas (with the 2007 MMR in urban areas exceeding the rural estimate at 50.6 and 21.6 per 100,000 respectively).[lxx] It is likely that this disparity reflects inadequate registration in rural areas rather than an actual lower MMR.

The causes of death are largely unchanged over the last decade. The main causes are bleeding, toxaemia, thromboembolism and sepsis. Complications associated with abortions are the most significant contributing factor. Azerbaijan collates information on maternal morbidity; in 2007 anaemia was the only significant medical cause of morbidity (21 percent) while 64 percent of women had no underlying medical condition or disorder.[lxxi] In comparison to all regional averages, the rate of abortion is relatively low in Azerbaijan; however, there is evidence of underreporting of the actual rate and the average number per individual is relatively high (3.2 in 2001[lxxii]). Virtually all induced abortions are performed by a trained provider.

The 2006 demographic health survey (DHS) indicates that the total contraceptive prevalence rate (CPR) is at 51 percent with modern methods at 14 percent.[lxxiii] A comparison of the 2006 DHS and the 2001 reproductive health survey indicates a possible 4 percent increase in use of modern methods, with IUD rates showing a marked increase.[lxxiv] It is possible that this increase explains the ongoing decline in abortions. There is a low level of confidence in the accurate reporting of abortions and consequently in the interpretation of any relationship between the CPR and abortions. There is some evidence of selective abortions related to gender selection.[lxxv] The DHS estimates that the level of unmet need for family planning is at 23 percent of married women. This is relatively high.

The impact of violence against women on reproductive health is significant worldwide. In Azerbaijan domestic violence has been linked to a loss of independence, a loss of access to reproductive health services and to selective abortion. The Ministry of Health estimates that domestic violence accounts for 8 percent of maternal mortality by limiting access of women to antenatal care.[lxxvi]

3. Discussion of key indicators

3.1 Antenatal care (ANC). There are varying estimates of the level and content of antenatal care in Azerbaijan. Official statistics indicate 94 percent of women have at least one act of care.[lxxvii] The DHS estimated that 77 percent of women had received ANC from a trained provider during their most recent pregnancy; 75 percent had seen a doctor at least once.[lxxviii] The number of women receiving the WHO recommendation of four visits is estimated at 45 percent. In all instances the DHS found significant disparities between urban and rural access with 90 percent of urban women and 63 percent of rural women receiving ANC care. The survey also indicated that the content of the care provided was not adequate or in line with recommendations; for example, only 43 percent of women had received information on potential complications.

Allowing for the variation in estimates it appears that the level and content of ANC is considerably lower than in other countries in the region, many of which have near universal coverage. This assumption is supported by a review of fatalities in 2006 that revealed that 70 percent of those who died had received no antenatal care.[lxxix]

3.2 Attended deliveries. The level of attended births is also subject to differing estimates: The 2006 DHS estimated a level of 89 percent while the official statistics for the same year indicated a national rate of 98 percent. The DHS estimates that 10 percent of all births are delivered by a traditional attendant (mamachi). The DHS estimated that 78 percent of births took place in a health facility. There are marked differences between rates in rural (less than 66 percent) and urban (91 percent) areas. The place of delivery can provide an indication of access to emergency care and the disparity may indicate problems with access

to care. There is some evidence of a move away from deliveries in health centres in the early 2000s due to the cost of care. The 2001 reproductive health survey estimated that 36 percent of rural women delivered at home and that income is a key factor with lower income women four times more likely to have a home delivery.[lxxx]

3.3 Emergency obstetrics care. Some 300 health-care facilities provide emergency obstetrics (EmOC) care in Azerbaijan; this equates to over 17 centres per 500,000 population, which exceeds the UN Process Indicator for EmOC guidelines. Data on the level of usage and the number and types of EmOC cases is not collected and/or analysed. No specific maternal health assessments or surveys have been undertaken to provide an indication of the level of need for and access to EmOC. The estimated rate of complications is 23 percent.[lxxxi] Data on caesarean sections (CS) are also not collected and/or analysed. The DHS estimated a CS rate of 5 percent. The UN Process Indicators for EmOC set the acceptable level at 5 percent to 15 percent.

3.4 Accessibility. No groups are formally excluded from reproductive health-care information and services. The 2006 state programme for the protection of maternity and childhood provides the framework for the provision of services; however, socio-economic and geographical factors have resulted in unequal access to care.[lxxxii] The DHS determined that 81 percent of women identified at least one serious barrier to care; the two most common barriers were inability to pay (63 percent) and the lack of a service provider (52 percent). One third of women were affected by the lack of transportation and 15 percent cited problems with gaining permission from their husbands and mothers-in-law to visit an antenatal clinic. As indicated above, it is possible that the relatively low level of antenatal care and higher level of home births among rural and lower-income women are related to issues of access to care and information. Until recently access to family planning was limited by the requirement of a specialist-level practitioner working within dedicated health centres. Programmes are underway to address this and to integrate family planning services into primary and public health activities.

Sexual and reproductive health education is included in the school curriculum. A 2007 survey indicated that there is an unmet need for further information among adolescents.[lxxxiii] Reproductive health services are not included in the network of adolescent clinical services.

3.5 Health-care systems and financing for maternal health. Maternal and child health services in Azerbaijan are mostly provided through primary and secondary health-care institutions. Some 800 centres provide basic obstetrics care and 300 provide EmOC. Almost all deliveries occur at maternity hospitals and, in rare cases, at regular or peripheral hospitals, village ambulatories or "feldsher accoucher" posts (FAP) in rural areas. Antenatal care is provided mainly by doctors at women's consulting centres, rural hospitals and ambulatories, and FAPs. The ongoing health reforms and growing private sector have created a strong infrastructure for the delivery of maternal health care. Statistically Azerbaijan has a high number of hospital beds per head compared to regional averages; however, access to health services is not evenly distributed and there are concerns over the quality of care provided.[lxxxiv] There is evidence of overstaffing by nurses in obstetrical institutions and critical shortages of obstetrician-gynaecologists in rural areas. An estimated 12 percent of maternal health care is provided by non-governmental organizations including private providers.[lxxxv]

The main source of finance for the health-care system in Azerbaijan is the central state budget. In 2006 the total expenditure on health as a percentage of GDP was 3.4 percent,

one of the lowest in the region.[lxxxvi] The role of private financing is officially estimated at approximately 5 percent of all funding but this is considered an underestimate; the percentage of direct private payments (formal and informal) made in 2001 has been estimated as constituting 57 percent of the total health expenditure.[lxxxvii] An estimated 2.4 percent of the total central budget is allocated to reproductive and/or maternal health care.[lxxxviii]

3.6 Enabling environment. Azerbaijan has made a commitment to universal access to reproductive health care and progress is assessed by a monitoring unit. A comprehensive national reproductive health strategy (2008-2015) exists which is in line with international best practice. Maternal health (in the context of maternal and child health) is one of five priorities within the strategy with the overall goal of reducing maternal mortality. Activities to achieve this as well as goals on reduced perinatal and neonatal morbidity and mortality include reforming maternal care at the primary level and improving public awareness and responsibility; quality of services; material and technical supplies; and information collection, analysis and accountability. Key success factors for the overall strategy include addressing legislative and administrative measures, developing health service capacity, reviewing financing mechanisms, improving inter-departmental cooperation, expanding human resources and increasing operational and reproductive health research.

There are no specific targets for maternal health to support the goal of a 75 percent reduction in maternal mortality. The reproductive health strategy proposes annual “all interested parties" discussion of the progress made against the indicators. There is no national committee or other formal mechanism for coordinating maternal health care. No national assessments of maternal health care have been undertaken.

3.7 Monitoring and evaluation. Azerbaijan does not have standardized national client registration and recording systems. Information is not routinely collected and/or analysed on complications, emergency cases (including caesarean section rates) and case fatalities. Maternal deaths are recorded. There are no reports on maternal health. Clinical guidelines and protocols are in place although the 2008 reproductive health strategy underscores the need for evidence-based protocols, for alignment with WHO Safe Motherhood recommendations and for updated antenatal care protocols. The Ministry of Health does not monitor the quality of care provided.

Ongoing challenges

As noted, the lack of reliable data is a significant challenge for understanding maternal care needs and for planning and monitoring services. There are concerns about the quality of care, which is heightened by a shortage of and unequal distribution of service providers. Additional areas of concern listed in the reproductive health strategy include:

- Weak legal framework for issues of reproductive health;
- Poor level of public awareness, including among teenagers, about healthy lifestyles and reproductive health;
- Gender stereotyping affecting reproductive health;
- Absence of stage-by-stage and continuity of reproductive health services;
- Absence of clinical protocols on diagnosis and treatment of patients;
- Absence of confidentiality and anonymity when services are provided;
- Insufficient integration between specialists and health-care system;
- Application of traditional financing principles;

- Insufficiency of the material and technical logistics at RH institutions;
- Insufficient level of prenatal diagnosis of congenital malformations and hereditary diseases.

BELARUS

Indicators at a glance	Belarus	European Region	CIS	CARK	EUR B+C
Population (million)	9.678				
Rate of natural increase of population	-0.3				
Projected change in population 2008-2050 (%)	-20				
Total fertility rate	1.2 BUCEN-IDB 1.4 PRB				
Contraceptive prevalence rate (CPR) all methods	50				
CPR for modern methods	42				
Unmet need for contraception	N/A				
Number of abortion per 1000 births (2007)	446.65	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	NA				
Skilled attendance at birth	99.9%				
Number of EmOC facilities	NA				
Number of EmOC facilities per 500 000 *	NA				
Number of caesarean sections per 1000 births (2007)	204.87	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	6.76	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	18	47	51		
Lifetime risk of pregnancy related death 1:	4800				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Belarus has one of the lowest maternal mortality ratios of the CIS countries. There are significant disparities between rates of death in rural versus urban areas-with 50 percent of maternal deaths occurring in district-level hospitals that are ill equipped to address emergencies; that raises potential concerns over access to and quality of emergency care. There are recognized challenges with the recording of maternal health data that limits the interpretation of information. Although there is no data available on the actual funds allocated to reproductive health care, overall Belarus has higher than average total spending on health care in comparison to other countries within the region and places a high priority on maternal health. Despite the relatively high level of prioritization of maternal and reproductive health care in national policy, there is no specific reproductive health strategy. UN MDG Monitor indicates that Belarus is very likely to achieve its MDG target of a reduction in maternal mortality to 12 deaths per 100,000 live births by 2015. The 2007 reported MMR figure (6.76 per 100,000) indicates that this goal has already been achieved.

1. Country overview

1.1 Population and demographics. Over the past decade there has been a decrease in the population size and growth rate and Belarus currently has a negative rate of natural increase. Latest estimates of the total fertility rate are 1.2[lxxxix] to 1.4.[xc] In addition to developing measures to increase the birth rate, the National Programme on Demographic Security for 2006 – 2010 includes obligations to carry out research on the population's reproductive health needs and reproductive behaviour.[xci]

1.2 Health-care systems. According to a 2006 WHO review the organization and structure of the Belarusian health-care system is largely unchanged since independence.[xcii] Health policy is determined at the national level and implemented at the local level. Health care is provided free of charge (funded by a compulsory taxation scheme) with user fees applying to some services but not reproductive health. Pilot reforms at the regional level are being extended with increased local autonomy and an emphasis on improved primary health care, the development of standardized protocols and a package approach to free services. The 2002 Health Policy Report notes that despite the large number of physicians within Belarus, many are not working in service delivery.[xciii]

1.3 Legal context of sexual and reproductive healthcare. The Articles of the Constitution of the Republic of Belarus provide the legal framework for the provision of health care in Belarus. In addition to the law on health care, the republic has a series of specific laws and presidential decrees and orders.

2. Overview of maternal health

The 2005 MDG report notes that despite the lack of formal management information systems to measure exact rates, there is evidence of a downward trend in maternal mortality rates. The 2006 reported rate is 15.47 deaths per 100,000 live births (compared to a WHO adjusted rate in 2005 of 18 per 100,000); the latest rate (2007 WHO HFA) is 6.76 per 100, 000. Analysis of the 2006 data shows that the MMR is 1.4 times higher in rural areas, a disparity that was not present in the early 1990s. Additionally there are disparities across regions with one region reporting an MMR of 47 per 100,000. Some 50 percent of all maternal mortality cases were recorded in district-level medical facilities that were poorly equipped to attend to high-risk births.[xciv]

The main causes of maternal death are haemorrhage (4.8 percent), abortion (19.8 percent), toxaemia (4.8 percent), abnormal pregnancy (4.8 percent), non-genital pathology (38.1 percent) and thromboembolism and embolism (18.9 percent). Obstetric causes are secondary to pre-existing, non-genital pathology-related causes.[xcv] There is no estimate of the rate of actual or anticipated complications.

At 50 percent the contraceptive prevalence rate is low although above average for the region. The usage of modern methods is relatively high at 42 percent. Abortion rates are high and recognized as the dominant method of family planning.[xcvi] As noted above, abortions account for 20 percent of reported maternal deaths.

3. Discussion of key indicators

3.1 Antenatal care (ANC). The coverage of ANC is high; the Ministry of Health routinely monitors the rate of ANC for pregnant women over 12 weeks.

3.2 Attended deliveries. The rate of skilled assistance at birth is also almost universal at 99.9 percent.[xcvii] Some 97 percent to 98 percent of deliveries take place in health-care institutions.[xcviii]

3.3 Emergency obstetrics care. Obstetrics care is provided by 763 maternity hospitals and 2,475 facilities in rural areas, usually with a part-time nurse or midwife. Although data are collected on complications, there is no overall indicator of the rate of complications and no state-level data on the number of emergency obstetrics care (EmOC) cases. The level of caesarean sections (CS) is relatively high in comparison to WHO regional estimates at 198 per 1,000 live births in 2006.[xcix] There is insufficient data to calculate the CS rate.

3.4 Accessibility. No groups are formally excluded from reproductive health care and there are no reported barriers to access to information and services. The disparities between rural and urban mortality rates may be indicators of issues of accessibility; in the absence of data on the usage of emergency obstetrics care, it is not feasible to speculate on this area.

Sexual and reproductive health care is not included in the school curriculum. Some schools use the Healthy Life curriculum on an optional basis; there are no other sources of formal education in reproductive health. The MDG report recommends the improvement of health education for high-risk groups and improved access to family planning, potentially indicating that there are concerns over the current levels of access.

3.5 Health-care systems and financing for maternal health. Maternal health care is provided exclusively by the state health-care system through a network of centres from primary to tertiary level. The 2005 MDG National report provides a useful overview of the challenges related to providing maternal health services in Belarus. Key among them are regional and rural/urban disparities in maternal outcomes, maintaining continuity between inpatient and outpatient services, and therapeutic and obstetrical/gynaecological services for women with pathologies. The shortage of hospital beds and medical professionals in prenatal clinics is also an important obstacle. Recommendations include better training of providers to improve early recognition of potential complications of pregnancy, improvement of family planning services, prenatal screening, re-equipment of maternity homes, improvement of EmOC services, improvement of reproductive health monitoring and increased health education among high-risk groups.

The health-care system is funded predominantly from central and local government budgets with income raised through taxation; formal user charges comprised approximately 2 percent to 5 percent of health spending in 2002. There is limited information on the breakdown of budget and expenditure or on the funds available to support reproductive/maternal health care. The 2002 Health Policy Note notes the need for improved information on the allocation of finances and the lack of systematically collected data on spending. The report also notes that the government intends to increase its budget to 7 percent of GDP in 2005.[c] However, this was subject to delays and the reported figure for 2006 was 6.4 percent (WHOSIS database). Funding from external sources is relatively low at 0.2 percent of GDP (WHOSIS 2006).

3.6 Enabling environment. There is no national strategy for reproductive or maternal health. However, since independence and the increase of pronatalist policies, reproductive and maternal health have received a higher level of prioritization with additional allocation of state budget funds for medical equipment and an extended range of services, including screening.[ci] The MDG report notes a recent intensification of efforts to promote safe motherhood including in the Women of Belarus National Programme and the National Strategy of Sustainable Socio-economic Development to 2020. The 2002 Health Policy Report includes reproductive health care and makes reference to high abortion rates. There is no statement regarding universal access to reproductive health in any relevant national document. The National Programme on Demographic Security by 2010 includes the following indicators for maternal health: a reduction in maternal mortality by 10 percent and an increase in non-complicated deliveries to 35 percent from the current level of around 25 percent. These indicators are reviewed annually using available reports. The MDG target for 2015 is an MMR of 12 deaths per 100,000 live births.

No national or regional assessments of maternal health appear to have been undertaken. There is no national committee for the coordination of maternal health in Belarus.

3.7 Monitoring and evaluation. The Ministry of Health Department of Mother and Child Care and the chief obstetrician-gynaecologist are responsible for the coordination of maternal health care at the regional and district levels. The Ministry of Health monitors indicators such as maternal mortality, morbidity, complications and some antenatal care access information. There is no information on the monitoring of operational quality of care. Protocols and guidelines for the management of reproductive health and maternal care are in place; there is no information on the value of these. The 2002 Health Policy Note outlines the need for further developments in the quality of health care in general but no specific references are made to maternal health care.

Maternal health reports are available by services provided and by location. Data are collected quarterly at the local and national level and monthly on infant and maternal health cases.

Ongoing challenges

Despite the relatively high level of prioritization of maternal and reproductive health care in national policy, there is no all-encompassing strategy to ensure a shared sense of direction among policy makers and service providers.

The MDG report and Health Policy Note are key documents in highlighting the ongoing challenges which include:

- Training of health-care professionals, especially in early recognition of complications;
- Improvement of family planning services;
- Improved pre-natal care and EmOC;
- Re-equipment of maternity homes;
- Improvement of reproductive health monitoring;
- Increased health education among high-risk groups.

BOSNIA and HERZEGOVINA

Indicators at a glance	Bosnia and Herzegovina	European Region	CIS	CARK	EUR B+C
Population (million)	3.843				
Rate of natural increase of population	0				
Projected change in population 2008-2050 (%)	-20				
Total fertility rate	1.2				
Contraceptive prevalence rate (CPR) all methods	48				
CPR for modern methods	16				
Unmet need for contraception	NA				
Number of abortion per 1000 births (2007)	...	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	NA				
Skilled attendance at birth	NA				
Number of EmOC facilities	193 to some extent				
Number of EmOC facilities per 500,000 *	NA				
Number of caesarean sections per 1000 births (2007)	...	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	...	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	3	47	51		
Lifetime risk of pregnancy related death 1:	2900				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Despite a low maternal mortality ratio estimate (3 deaths per 100,000 live births), there are concerns over the quality and accessibility of maternal care services in Bosnia and Herzegovina. The lack of service and morbidity data prevents any meaningful analysis of the relationships between health care and health outcomes. This is exacerbated by the apparent low level of prioritization of reproductive health by the government and the lack of a comprehensive strategy and a mechanism to coordinate and monitor reproductive and maternal health care.

The UN MDG Monitor assesses that it is highly likely that Bosnia and Herzegovina will achieve the MDG target of a maternal mortality rate of 2.5 per 100,000 by 2015.

1. Country overview

1.1 Population and demographics. Bosnia and Herzegovina is comprised of two entities roughly equal in size: the Federation of Bosnia and Herzegovina and the Republic of Srpska. Additionally there is the independently administered district of Brčko over which neither entity has jurisdiction. There has been no official population census and estimates of the population size vary. Recent demographic trends have reflected the impact of conflict and migration. Behaviours including early sexual debut, declining fertility rates and use of abortion as a method of family planning have been noted.[cii] The current natural increase rate is stagnant and projections to 2050 show substantial negative population change.

1.2 Health-care systems. There is no state level Ministry of Health (there is a health section within the Ministry of Civil Affairs) and no central institute for public health. Each government entity is separately responsible for administering and financing its own health system, and the district of Brčko runs its own health-care system over which neither entity has authority. Beyond this split the basic outline of health-care provision is very similar to the pre-war period. Health sector reforms are underway but decentralisation of the health system has been blamed for an uneven distribution of and access to secondary-level care.[ciii] Other problems are low salaries for professionals in the health sector and the use of outdated equipment.

1.3 Legal context of sexual and reproductive healthcare. The Federation Constitution of Bosnia and Herzegovina has directly incorporated 21 international documents (all similarly incorporated into federation law) including the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). Under the constitution the law of gender equality ensures access to health-related resources.

2. Overview of maternal health

The fragmented nature of the health-care systems affects reliable data collection. There are no standardized records or registration processes at the national level. Information regarding maternal health is based on estimates made by using a variety of methodologies and national health surveys. There has been no comprehensive assessment of maternal health since 1999.

Bosnia and Herzegovina has not reported a maternal mortality ratio since 1991. The WHO 2005 adjusted estimate is 3 per 100,000 live births, which represents a significant decrease over the 2000 estimate of 31 per 100,000. The ratio is supported by a UNDP estimate of 8 per 100,000 for the period 1999-2004.[civ] The maternal mortality ratio of 3 per 100,000 (and associated lifetime risk of dying through a pregnancy-related cause) is very low and comparable with European countries such as Denmark.

The contraceptive prevalence rate is relatively low at 48 percent and 16 percent (total and modern methods respectively) and Bosnia and Herzegovina lacks a comprehensive family planning service. The overall incidence of abortion is thought to be low (particularly when compared to other former republics of Yugoslavia); however, there is a high rate of abortion among adolescents, which is a concern.[cv] There is no verified data on the rates of abortion or on its impact on maternal morbidity and mortality.

Information on complications during pregnancy and labour are collected at health-care provider level but are not centrally collated. Maternal deaths are recorded in the federation

but the very low numbers recorded (1-2 per year) have led to assumptions of misreporting of deaths.[cvi]

3. Discussion of key indicators

3.1 Antenatal care (ANC). There is no information available on the coverage or quality of antenatal care in Bosnia and Herzegovina.

3.2 Attended deliveries. There is no information available on the coverage and nature of assisted deliveries or on the location of deliveries. The Bosnia and Herzegovina poverty reduction strategy paper (PRSP) makes reference to maintaining a rate of 100 percent of births being attended by a skilled professional, suggesting an existing baseline rate of 100 percent. However, this has not been verified.

3.3 Emergency obstetrics care. Some 193 health providers offer basic obstetrics care. All hospitals that provide obstetric care also provide emergency obstetric care (EmOC). Primary health-care centres and private gynaecologist centres also provide emergency obstetric care but are limited by human and technical resources available. In reality the level of emergency care is basic and limited. There is no information available on the numbers or proportion of women using EmOC (basic or comprehensive). Rates of caesarean sections are assumed to be high; however, the lack of centralised data collection and analysis means that there is no evidence to support this.

3.4 Accessibility. There is no formal exclusion from maternal health care for any groups; however, unaddressed socio-cultural factors such as taboos and embarrassment influence accessibility for young people. Participants in a recent study on condom use confirmed that they remembered contact with health professionals as a frightening experience.[cvii] Sexual and reproductive health care is not included in the mainstream school curriculum. Some information may be provided through biology classes but there is an indication of reluctance among some teachers. A study in 2001 confirmed that young people lacked knowledge and were supportive of opportunities to learn.[cviii]

Barriers to access for the general population include geography; a lack of funds and/or health insurance; and a lack of knowledge about state welfare support and its requirements for the uninsured. There are currently no publicly produced directories providing information on sources of health care.

3.5 Health-care systems and financing for maternal health. Overall, the country has three health-care systems administered by 13 health ministries. There are 193 centres currently providing obstetrics care ranging from basic to comprehensive emergency obstetrics care. There is evidence that the infrastructure of centres needs improving.[cix] There are concerns that the decentralisation and fragmentation of the health-care systems have created geographical inequities and corresponding concerns around access to services.[cx] The health-care reforms have prioritized the development of family doctors, which will increase access to primary health care and improve referral systems; all of this will potentially improve maternal health. Private practice and private ownership of health-care facilities are allowed but the management and monitoring of the public/private mix remains a challenge.[cxi] Private care is increasing and there is a perception among many that private care is of a higher quality. There is no data available on the proportion of maternal health provided privately; it is assumed to be low. The provision of basic care by NGOs is minimal.

The investment in health care is among the highest in the region at 8.3 percent of GDP,[cxii] [cxiii] and international donor support of the reforms is significant. However, the high investment may not be matched by improvements to the effectiveness and efficiency of the health-care system, and the benefits associated with the economies of scale are not being capitalized on.

The health-care system is financed through a combination of funding sources. The main source is from public health insurance schemes, supplemented by user fees for the uninsured. The health insurance schemes are administered at Republic/Federation and canton level. Individuals registered in one canton may not be able to access services in another canton. There is no information available on the allocation of resources to maternal health care.

3.6 Enabling environment. There is no state-level reproductive or maternal health policy or strategy. A draft policy exists for the Republic of Srpska, which is unapproved. There is no policy for the federation. The poverty reduction strategy paper includes key actions to achieve the MDGs, and sets targets for the reduction of maternal mortality to 2.5 per 100,000 by 2015, maintenance of a 100 percent rate of assisted deliveries and increase in the contraceptive prevalence rate to 55 percent by 2007.[cxiv] It is not clear how these targets are monitored. There is no explicit statement concerning the achievement of universal access to reproductive health care.

3.7 Monitoring and evaluation. There is no formal committee in place to coordinate maternal health-care activities. The respective Associations of Gynaecologists for the Republic of Srpska and the Federation of Bosnia and Herzegovina play a semi-formal role as does the Association of Midwives of Bosnia and Herzegovina. The latter organization is funded mostly by donations and the level of their activities is low.

The quality of care provided is monitored to some extent by the licensing of gynaecologists to practice privately. Due to the lack of standardized records and client registration procedures, there is very limited information to allow effective monitoring of data that may serve as an indicator of quality. Maternal deaths are recorded centrally in the federation; however, the level of recorded deaths is unrealistic, causing concerns about the accuracy of the data. Case fatalities, near misses and complications are not recorded or collated centrally.

There are no specific maternal health reports though maternal health can be included in general reports such as the annual report on the health status of the population by the Public Health Institute of the federation.

There are no guidelines, standards or protocols in place for family planning services and protocols for other reproductive health services are incomplete.

Ongoing challenges

The following challenges have been identified:

- improving data collection to inform policy;
- building health infrastructure and developing technical and client management skills of service providers;
- developing guidelines, protocols and standards for reproductive health services.

BULGARIA

Indicators at a glance	Bulgaria	European Region	CIS	CARK	EUR B+C
Population (million)	7.62				
Rate of natural increase of population	-0.5				
Projected change in population 2008-2050 (%)	-35				
Total fertility rate	1.4				
Contraceptive prevalence rate (CPR) all methods	41				
CPR for modern methods	26				
Unmet need for contraception	NA				
Number of abortion per 1000 births (2007)	498.93	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	64.5%				
Skilled attendance at birth	99%				
Number of EmOC facilities	72				
Number of EmOC facilities per 500 000 *	4.73				
Number of caesarean sections per 1000 births (2007)	267.91	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	28.7				
Rate of complications (% all births)	12-15				
Reported maternal mortality ratio (MMR)	10.02(2004) 7.53(2005)	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	11	47	51		
Lifetime risk of pregnancy related death 1:	7400				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

With a maternal mortality ratio (MMR) of 7.53 deaths per 100,000 live births and a 99 percent attended birth rate, Bulgaria appears to have achieved its MDG 5 targets. In 2008 it refocused attention and targets on the high level of morbidity and mortality associated with cervical cancer. Notwithstanding the severity of the latter and the need to take action, there remains room to reduce the MMR further. The national figures may also mask significant regional variations and disparities in the quality and accessibility of services between urban and rural locations. Abortion rates remain high and the use of family planning is relatively low; there are concerns that family planning services are not integrated or affordable. The level of antenatal/pregnancy monitoring is low at 64.5 percent and the government has set a target for 2015 of 90 percent. Caesarean section rates are very high.

1. Country overview

1.1 Population and demographics. Bulgaria has one of the lowest birth rates in the world and a corresponding natural increase rate of -0.4. The population is projected to

decline by 35% by 2050.[cxv] The percentage of young mothers is one of the highest in Europe, accounting for 8.9 percent of live births in 2002.[cxvi]

1.2 Health-care systems. Bulgaria began to reform its health-care system in the early 1990s by focusing on primary health care, introducing general practitioner cadres, developing standardized medical guidelines and decentralising and privatizing medical facilities.[cxvii] Ongoing reforms are aimed at further rationalizing the system and increasing resources for health.[cxviii]

Many facilities are private and are commissioned by the Health Insurance Fund to provide services. Private practice encompasses dental offices, physicians' offices providing consultation and surgeries, pharmacies, outpatient clinics and 18 inpatient establishments. Private hospitals comprise 6 percent of hospitals.[cxix] All types of institutions, whether state-owned, municipal or private, have equal status and rights. The statutory insurance system guarantees a package of services.

1.3 Legal context of sexual and reproductive healthcare. Bulgaria is a signatory of the major international and regional conventions and instruments that provide the framework for the delivery of sexual and reproductive health care including the Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights, Convention on the Rights of the Child, Convention on the Elimination of All Forms of Discrimination against Women and the European Social Charter. In addition to adopting the relevant international conventions and frameworks, Bulgaria includes women's health in state policy and legislation. The constitution includes a section on reproductive health care and the Law of Health includes a specific section on maternal and child health. There is also a set of separate structures and institutions addressing gender equality issues including women's health.

2. Overview of maternal health

Bulgarian demographic recording practice does not follow the criteria for "giving birth" and "abortion" recommended by the World Health Organization, according to the 2008 MDG report. In Bulgaria these criteria have been completely altered, which significantly distorts demographic data. Recording births and abortions as other EU countries do would result in higher perinatal mortality indicators.[cxx] Direct comparisons of data should be avoided.

Bulgaria has made significant progress in reducing the maternal mortality ratio; the 2005 MMR of 7.3 deaths per 100,000 live births corresponds to five actual deaths across the country.[cxxi] The latest reported rate is 10.2 (2004 WHO HFA) with the WHO 2005 adjusted estimate at 11. A 2004 survey estimated significant variation between rural and urban mortality; the estimate for rural areas was 25.5 per 100,000 compared to 16.5 per 100,000 for urban areas.[cxxii] Recent information on the main causes of maternal death is not available.

The overall rate of complications is low at 12 percent to 15 percent; the majority of these are premature births (9 percent to 10 percent) followed by pre-eclampsia.[cxxiii] The caesarean section rate for 2007 is at 28.7 despite the relatively low rate of complications; this may be related to the system for recording complications.[cxxiv]

Although they have been decreasing in the last few years, abortion rates remain high at 498.93 per 1,000 live births, which is significantly higher than the European Region average.

The use of contraceptives remains low with an all-methods prevalence rate of 41 percent and modern methods at 26 percent. Abortions are provided free of charge and are easily accessible while the cost of contraceptives is not covered by insurance and appears unaffordable.[cxxv]

3. Discussion of key indicators

3.1 Antenatal care (ANC). The proportion of pregnant women under medical monitoring (until the third month of pregnancy) was at 64.5 percent in 2006.[cxxvi] This appears to be low in comparison to other regional countries which operate at a near universal level of antenatal care (minimum of one visit). However the definitions of care may not be consistent and it is not possible to make a direct comparison. The data do suggest that up to 36.5 percent of women receive no medical monitoring during the first trimester. Currently access to antenatal care is not universally free and discussions regarding this are ongoing.

3.2 Attended deliveries. The rate of skilled assistance at birth is almost universal at 99.4 percent.[cxxvii] Deliveries are provided free of charge.

3.3 Emergency obstetrics care. All deliveries are treated as potential emergencies unless planned as a caesarean. As a result, all 72 obstetrics centres provide emergency obstetrics care.[cxxviii] There is no data available on the number and type of emergencies. The national complication rate is estimated at 12 percent to 15 percent and the caesarean section (CS) rate for 2007 was 28.7 percent (or 20,187). The rate of CS deliveries has increased steadily from 14 percent (9,927) in 2000.[cxxix] The UN Process Indicators of EmOC indicate an acceptable CS rate is between 5 percent and 15 percent.

3.4 Accessibility. No groups are formally excluded from reproductive health-care services and information. Deliveries are provided free of charge even when individuals are not insured. Pregnancy monitoring (antenatal care) is not provided free of charge and some insurance packages may limit the level of free care. The National Demographic Strategy recognizes that Roma women in particular have a higher rate of maternal mortality and that access may be a contributing factor. The report also notes the potential negative impact on at-risk groups (including pregnant women) of the removal of the patronage system, which provided systematic health care. The shortage of specialists in outlying and harder to reach areas is also a potential limiting factor.[cxxx] The annual report on the status of public health monitors issues of access.

Sexual and reproductive health education is included in the school curriculum. A pilot project of specialized classes with peer education and life-skills approaches is ongoing. In addition, health-care providers based in schools provide health information as do general practitioners within communities.

3.5 Health-care systems and financing for maternal health. Some 72 centres provide specialized inpatient obstetrics care at the EmOC level. Deliveries are almost universally undertaken in these centres and the service is provided free of charge. Any associated inpatient care is covered by health insurance. Outpatient care is provided by diagnostic-consultative medical centres and medical centres with OB/GYN specialists, and general practitioners play a role in antenatal care and monitoring. Although the exact data is not readily available, it is assumed that a low percentage of maternal care is provided by private

providers. Family planning counselling and services do not constitute an integral part of reproductive health services.[cxxxi]

The health-care system is financed by a combination of insurance and central government budgets. Ten percent of the National Health Insurance Fund budget for health care is allocated for obstetrics and gynaecological services. Approximately 25 percent of the budget for outpatient health care is allocated for monitoring and check-ups of pregnant women up to the 42nd day after delivery, and for prophylactics.[cxxxii]

Although apparently decreasing recently (to 6.9 percent in 2006 from 7.7 percent in 2004), total health expenditure as a percentage of gross domestic product (GDP) is a relatively high level of investment. There is an ongoing trend of declining public health expenditure as private sources increase. Health-care budgets are reviewed and restated annually.

3.6 Enabling environment. Bulgaria has made a documented commitment to universal access to reproductive health, which is monitored through the National Health Strategy and the National Health Map. There is no separate reproductive or maternal health strategy; the National Health Strategy includes maternal health goals and targets. In recognition of the high level of cervical cancer morbidity and mortality, the target for a reduction in the maternal mortality ratio (against which significant progress has been made) has recently been replaced by a target to reduce the incidence of cervical cancer. The target of 99.4 percent of births being attended by a skilled health provider is considered to be achieved and is "no longer an issue for Bulgaria."[cxxxiii] Remaining targets include the stabilization of abortion rates and the provision of antenatal care (to 90 percent by 2015). There are no targets to increase the use of family planning methods.

In addition the National Demographic Strategy includes substantial commitments to improving maternal, sexual and reproductive health care and a multi-sectoral approach to identifying tasks required to meet the objectives /indicators (which include a reduced MMR, reduction in abortion rates and increased knowledge). Progress towards meeting the targets is reviewed annually.

The recent health reforms lead to the removal of the patronage system, which previously met the needs of high-risk groups who may not have otherwise received information and care. The lack of such patronage care is perceived as an obstacle to implementing the recommendations to prevent high-risk pregnancies and births in the 1994 Cairo Action Plan for Population and Development.[cxxxiv]

3.7 Monitoring and evaluation. There is no national committee for maternal and child health although the department of maternal and child health care under the Ministry of Health plays a coordinating role. A substantial number of governmental institutions are involved in policies and activities related to maternal care including the health-care committee at the National Assembly; the Ministry of Health, Ministry of Labour and Social Policy, Ministry of Education and Science, Ministry of Youth and Sports; the National Centre of Public Health; the National Centre of Health Information; the National Social Security Institute; the National Committee of HIV/AIDS and STD Prevention and Control; and the health promotion divisions of the Regional Inspectorates of Public Health Prevention and Control.

All health-care services, including maternal health services, are monitored in accordance with the National Policy of Outpatient Healthcare Services. Consideration is given to medical standards for health-care facilities, equipment and staff qualifications. There are no specific

protocols or guidelines but every health facility keeps records and the medical history of case management.

In addition, an accreditation system regulates the required post-graduate qualification and continuous education of the medical staff. Main indicators monitored with regard to maternal health include maternal mortality, stillbirths and early neonatal mortality. Bulgaria has a nationally standardized system of records and client registration. All information is collected and managed on a local and national level, serving the needs of the National Health Map, National Register of the Health Care Facilities and the National Geo-based Informational System. Maternal deaths and case fatalities are reported at a national level with clear reporting protocols. Records on complications are collected in line with international recommendations.

Maternal health reports (local and national-data) are produced annually as a part of the annual report on public health.

Ongoing challenges

Despite significant progress, there is room to reduce maternal mortality further and to improve the quality of care. Improvements can be made by reducing geographic inequalities and increasing access to antenatal care, particularly among high-risk women who may have previously relied on the patronage system for screening for complications.

GEORGIA

Indicators at a glance	Georgia	European Region	CIS	CARK	EUR B+C
Population (million)	4.64				
Rate of natural increase of population	0.1				
Projected change in population 2008-2050 (%)	-28				
Total fertility rate	1.4				
Contraceptive prevalence rate (CPR) all methods	47				
CPR for modern methods	27				
Unmet need for contraception	16%				
Number of abortion per 1000 births (2007)	417.25	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	95%				
Skilled attendance at birth	92%				
Number of EmOC facilities	2				
Number of EmOC facilities per 500 000 *	0.21				
Number of caesarean sections per 1000 births (2007)	222.49	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	22%				
Rate of complications (% all births)	23.6				
Reported maternal mortality ratio (MMR)	20.12	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	66	47	51		
Lifetime risk of pregnancy related death 1:	1100				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDGs

Estimates on the current maternal mortality ratio for Georgia are wide-ranging from 20.12 deaths per 100,000 live births to 66 and 40.3 per 100,000 respectively. Georgia has a low level of modern contraceptives use and the rate of abortions (particularly per woman) remains high as does the fatality rate associated with abortions. Georgia has a relatively high level of caesarean section deliveries. Georgia appears to have created a supportive environment for maternal health care with endorsement at the highest level of government. There is some concern over the technical capacity of service providers, especially of those who are in private sector, and also over the data collection to inform decision making.

The UN MDG Monitor assesses that it may be possible for Georgia to achieve the MDG goal of a 75 percent reduction in maternal mortality if some changes are made.

1. Country overview

1.1 Population and demographics. Like many countries in the region, Georgia has very low natural rate of increase (with a total fertility rate of 1.4) and an overall negative rate of population growth. The current population is estimated to decrease by 28 percent by 2050.[cxxxv]

1.2 Health-care systems. The Ministry of Labour, Health and Social Affairs is the lead agency for the implementation of government policy on health care and for the coordination of all activities. The government is undertaking a series of health reforms focusing on improving primary health care as the most effective means of improving the overall health of the nation.[cxxxvi] The majority of reproductive health care (excluding antenatal care and deliveries) costs are not provided free of charge and individuals bear the cost of services.[cxxxvii]

1.3 Legal context of sexual and reproductive health care. Georgia has committed to several relevant international agreements including the International Conference for Population and Development (ICPD) Plan of Action, the Convention on the Rights of a Child (CRC), the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) and the Millennium Declaration. In 1994, the government ratified Article 12 of the International Covenant on Economic, Social & Cultural Rights, which recognizes the "right of everyone to the enjoyment of the highest attainable standard of physical and mental health" and elaborates the state's responsibilities in this regard. The Law on Health Care defines the rights of mothers and children and is supported by legislation such as the Law on Patients' Rights.

2. Overview of maternal health

The maternal mortality rate in Georgia has steadily declined from 49.2 to 23.4 per 100,000 (2000-2005). The latest reported rate is 20.12 per 100,000, which is below the CIS reported average. However, there are varying estimates of this ratio; the WHO 2005 adjusted ratio is at 66 per 100,000 (WHOSIS), which is significantly higher than regional averages. The recent assessment of perinatal care uses a three-year average to provide a more precise but less optimistic trend and an estimated MMR in 2003-2005 of 40.3 per 100,000.[cxxxviii] A ratio of 45.28 per 100 000 (2004) equates to 21 maternal deaths during that year, more than three times the EU regional average.[cxxxix] The perinatal report revealed that the majority of maternal deaths were of rural women between the ages of 19 and 34; the majority of deaths happened within the post-partum period and mostly within 10 days of delivery. The study identified the main causes of maternal mortality as haemorrhage, infection, hypertension and thromboembolism.

The estimated rate of complications in 2007 (using data collected from women enrolled in antenatal care and maternity homes and therefore representative only of registered cases) is 23.6 percent to 24.6 percent respectively.[cxl] Information on morbidity is harder to access; the results of a "near miss" study quoted in the perinatal assessment report showed that for every death, there were approximately 26 cases of severe morbidity. The report notes that this is unfavourably high when compared with the developed world data (1:118).[cxli]

The use of contraceptives is low with a total prevalence rate of 47 percent (27 percent modern methods).

The overall government expenditure on reproductive health commodities represents a very low part of the total expenditure on reproductive health.[cxlii] Maternal and reproductive health services and commodities are mostly supported by donors, particularly UNFPA, which provides contraceptives and other reproductive health supplies to be provided free of charge to clients. Supplies are also available through the UNFPA-supported social marketing programme; however, a recent review of the ability to pay for family planning indicated that the lower 40 percent of income earners in 2004 and 2006 could not afford any contraceptive brand of condom, oral pill or three-month injectable.[cxliii] The estimated unmet need for contraception is at 16 percent.[cxliv]

Despite recent decreases in the rate of abortions, Georgia continues to have one of the highest recorded rates of induced abortion in the region at 3.1 abortions per woman.[cxlv] Abortion is considered as a form of contraception. The reproductive health strategy notes that there is very little data on the rate of post-abortion complications experienced by women in Georgia, and awareness of the importance of post-abortion care is relatively low among providers.[cxlvi]

3. Discussion of key indicators

3.1 Antenatal care (ANC). The 2005 reproductive health survey estimated that 95 percent of women received at least one ANC visit; 75 percent received at least four prenatal care visits and this was more common among women in urban areas (86 percent) than in rural areas (64 percent). The perinatal assessment reports that geographical access to ANC facilities was found to be more or less adequate; however, the satisfaction of pregnant women with antenatal care is low.

3.2 Attended deliveries. The rate of births attended by a skilled professional is high at 92 percent.[cxlvii] The place of delivery provides insight into the access and use of emergency obstetrics care. National statistics indicate that 98.5 percent of all deliveries took place in health-care institutions, while the reproductive health survey estimates a rate of 92.5 percent and raises the potential of underreporting of home births.

3.3 Emergency obstetrics care. Obstetrics care in Georgia is provided by 97 units nationally. Two units provide comprehensive emergency obstetrics care (EmOC) representing 0.21 comprehensive units per 500,000 population (the UN Process Indicators recommendation is for 1 per 500,000). The number of women referred to EmOC in 2007 totalled 3,089. This represents a significant increase compared to 2006 when 1,935 women were referred. Initial figures for 2008 suggest that the increase was maintained.[cxlviii] The number of caesarean sections has also increased from 4,334 in 2000 to 11,008 in 2008.[cxlix] According to the Ministry of Health, this rise requires further analysis but is likely to be linked to an increase in the number of pathological pregnancies.[cl] The perinatal assessment report estimates a national caesarean section rate of 22 percent (with significant region variations). This rate is higher than the acceptable levels (5 percent to 15 percent) outlined in the UN Process Indicators for EmOC.

3.4 Accessibility. No groups or individuals are excluded from accessing reproductive and maternal health-care services. A recent report noted that approximately 53 percent of antenatal patients reported paying for ANC despite it officially being provided free of charge.[cli] It is possible that lower income earners may face financial barriers similar to those identified for access to family planning commodities. Information on sexual and reproductive

health is not included in the school curriculum. Peer education programmes and youth camps exist as alternative sources of information and education for young people.

3.5 Health-care systems and financing for maternal health. A number of ongoing health reforms will have an impact on the provision of maternal health services. These include refining the essential care package, developing the capacity of family doctors and reorganizing hospital licensing and financing. Recent reviews of the health-care systems in Georgia have revealed challenges in how maternal health care is delivered. One survey found that while 93 percent of maternity facilities have the necessary equipment to perform caesarean sections, only 53 percent were equipped for non-surgical interventions such as forceps and vacuum extraction.[cliii] The same report raised concerns about capacity of service providers working at primary and secondary health-care levels to provide quality maternal care due to their insufficient experience with managing deliveries and emergencies. Specific recommendations for further development of maternal health care include: adopting evidence-based protocols; ensuring availability of adequate hospital infrastructure, equipment and supplies; upgrading the skills of obstetricians, midwives and other attending staff to practice evidence-based care; establishing systems of supportive supervision and a functioning referral system for patients requiring very specialized levels of care.[cliii]

Georgia has pursued large-scale privatization of services and 100 percent of medical facilities are private organizations. Since 2000 UNFPA has operated reproductive health mobile teams to provide services free of charge throughout Georgia.

The Georgian health-care system is financed by a social insurance scheme, state-funded programmes, state-subsidized funding and user fees. Private expenditure forms the majority funding at 88 percent to 89 percent of total payment for reproductive health services.[cliv] During 2001-2003 total expenditure on reproductive health was 11 percent to 12 percent of the total national health budget; the proportion spent on reproductive health grew by 5 percent in 2002 and another 6 percent in 2003.[clv] The current total budget for maternal health (not including state-funded insurance payments) is 11.3 million Georgian Lari. In relation to GDP, Georgia's investment in reproductive health care is high (in comparison to similar GDP per capita countries); however, the contribution of public funding is low.[clvi] Some 6.7 percent of total expenditure on health care is sourced externally (WHOSIS 2006).

3.6 Enabling environment. Maternal health has a high priority in Georgia, which has made a commitment to universal access to reproductive health through the primary health-care system and subsequent appropriate referrals. The Georgia Reproductive Health Policy Framework (2007-2015) was introduced in 2006 as the framework to enable delivery of improved reproductive health. Improved maternal health is a priority within the strategy. Particular targets include a reduction in maternal mortality; reduction in unwanted pregnancies and use of abortion; and reduction in infertility, adolescent pregnancy and rates of anaemia in pregnant women. The targets are specific and comprehensive. In addition to specific maternal health targets, the RH strategy includes targets in related areas which are likely to affect maternal health. These include safer abortion and access to family planning; providers' attitude and supporting health system. All objectives within the reproductive health strategy have stated activities, time frames, responsibilities and means of verification.
The multi-sectoral National Reproductive Health Council Georgia (NRHC) was created in 2007 to support and improve the reproductive health of the people of Georgia, enhance the country's demographic indicators and ensure universal access to high quality reproductive health services in Georgia. The NRHC has several areas of technical focus including maternal health. The systems priorities of the council include addressing the skill levels of

service providers, development of health infrastructure and promotion of reproductive health with a focus on youth education. The council also has a fundraising mandate. The chairperson of the council is the First Lady of Georgia.

3.7 Monitoring and evaluation. The NRHC, which was established and operates with UNFPA support, will provide oversight, monitoring and supervision of program activities in areas of identified need, and serves as an advisory body to the Ministry and other government structures on reproductive health policy and program issues. In addition, there is a Commission Against Maternal and Child Mortality, which performs a coordination role.

Currently there are 11 approved guidelines/protocols covering reproductive and maternal health, and a number are currently being developed. Maternal health services in Georgia are provided by private health-care institutes, and the state is not able to intervene unless there is direct involvement in a state programme or when a complaint is received. The State Agency for the Regulation of Medical Activity (under the Ministry of Health and Social Affairs) is responsible for the investigation of patient complaints. The insurance company has the right to monitor institutes with which they have an agreement.

There are standardized national systems for client registration. The recent perinatal report raised some questions about the reliability and maintenance of medical reports in centres it reviewed. Information on maternal deaths, case fatalities and complications are routinely collected at a national level and disaggregated by cause of death or complication. Reports on maternal health based on the maternal indicators are produced nationally on an annual basis. The annual national report on the health status of Georgia also includes a specific section on maternal health. The practice of undertaking maternal death audits appears to have been reduced in recent years.[clvii]

Ongoing challenges

The main challenges appear to be the continued education and development of medical personnel and the development and successful implementation of evidence-based guidelines to support their practice and further develop effective referral systems. As with most countries in the region, the funding of health care and the effectiveness of the insurance scheme remain issues as does the overall economic situation.

KAZAKHSTAN

Indicators at a glance	Kazakhstan	European Region	CIS	CARK	EUR B+C
Population (million)	15.65				
Rate of natural increase of population	15.5**				
Projected change in population 2008-2050 (%)	70**				
Total fertility rate	2.5				
Contraceptive prevalence rate (CPR) all methods	50.7 MICS 2006 66 PRB				
CPR for modern methods	48.7 MICS 2005 53 PRB				
Unmet need for contraception	NA				
Number of abortion per 1000 births (2007)	413.39 HFA 404***	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	99%				
Skilled attendance at birth	100%				
Number of EmOC facilities	245				
Number of EmOC facilities per 500,000 *	7.83				
Number of caesarean sections per 1000 births (2007)	109.52 HFA 114.99***	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	11.5				
Rate of complications (% all births)	24.6				
Reported maternal mortality ratio (MMR)	47.52 HFA 2007 46.8 ** 2007	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	140 WHO 2005	47	51		
Lifetime risk of pregnancy related death 1:	360 PRB				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500,000.
Statistics marked ** are provided by the Kazakh Agency for Statistics (http://www.stat.kz/digital/naselsenie/Pages/default) and ***Kazakh Centre for Obstetrics, Gynaecology and Neonatology

Please see annex 1 for definitions and sources of information in the “At a glance section”.

Summary of maternal health in relation to MDG 5

The 2007 MMR of 46.8 deaths per 100,000[clviii] live births is one of the highest in the region and significantly higher than the regional average. There is some evidence that the ratio may be increasing. Kazakhstan has almost universal access to antenatal care and a very high level of attended births, raising concerns that the high rate of mortality is related to poor quality of care, inadequate referral systems and/or delays in accessing care. Inadequate recording means that the impact of abortion on morbidity and mortality is not understood. The ongoing reforms to the health sector appear to have had a detrimental effect on maternal health by creating unequal distributions of services and skilled providers and by channelling financing into infrastructure rather than the delivery of quality care.

The UN MDG Monitor assesses that Kazakhstan is “off track” in terms of meeting its MDG target.

1. Country overview

1.1 Population and demographics. Over the last decade Kazakhstan has seen a reversal in the significant decline in population at the end of the 1990s. Sustained economic development has been accompanied by a rise in fertility which appears to have not yet been reflected in some international statistics (including the Population Reference Bureau data and projections). In 2007 the crude birth rate was 20.5 per 1,000 compared to 14.9 per 1,000 in 2000 and the total fertility rate was 2.5 compared to 1.8 in 1999.[clix] In 2008 the rate of natural increase of the population was 15 per 1,000; the projected growth rate of the population of Kazakhstan is 70 percent.[clx]

1.2 Health-care systems. Similar to the majority of the CIS states, Kazakhstan has undertaken a systematic reform of health-care delivery systems. These reforms were re-strategized in 2004, resulting in the State Healthcare Reform and Development Program for 2005-2010 which divides the responsibility for health protection between the state and the citizen and focuses on addressing financing and inequities in the coverage and quality of health care. A recent health system review highlighted the lack of emphasis on primary health care and the need for improved quality of care, monitoring and evaluation, and improved clinical standards.[clxi]

1.3 Legal context of sexual and reproductive health care. The Republic of Kazakhstan is a signatory of all major international conventions associated with the rights of women. The constitution of 1995 affords citizens the right to health care. Subsequent relevant legislation includes the Law of Healthcare and the Law of Health Protection. Relevant institutions exist to support and implement legislations. Health legislation is supported by the state programme called Health of the Nation.

2. Overview of maternal health

Kazakhstan has never had a comprehensive assessment of maternal health and consequently the sources of information for estimating maternal health indicators are limited. The latest maternal mortality ratio is 46.8 per 100,000 (2007), [clxii] which represents an increase over the apparent 2005 and 2006 rates of 40.5 and 45.6 per 100,000 respectively.[clxiii] The overall rate fails to recognize significant variations in the ratio by geographic location; these range from a rate of 116.5 in Mangistauskaya (the 2006 rate was at 16.9) to 18.8 in West Kazakhstan.[clxiv]

Alternative estimates of MMR use different methodologies, which prevents direct comparison. However, it may be useful to recognize these alternatives, which include the recent multiple indicator cluster survey (MICS), which utilized the indirect sisterhood methodology to estimate an MMR (for the 10-14 years prior to 2006) at 70 per 100,000,[clxv] and the 2005 WHO adjusted ratio of 140 per 100,000 births,[clxvi] which attempted on a global level to adjust to the impact of such things as data collection challenges.

During 1999-2003 the majority of deaths were among rural women in the post-natal period (66 percent);[clxvii] over 50 percent of deaths were due to three causes: obstetric haemorrhages, abortions and extragenital diseases.[clxviii] Despite the introduction of legislation to limit unsafe providers, criminal abortions are the main cause of abortion-related

deaths. Discrepancies between reported and actual (but unreported) abortion rates limit the full analysis of the causes of maternal deaths.

The 2005 MDG report notes that the rate of complications during pregnancy is very high at 89 percent, with the majority being anaemia, hypertension and kidney diseases;[clxix] 66 percent of labours are abnormal.[clxx] While the use of modern family planning methods is relatively high in comparison to other countries in Central Asia (49 percent for modern methods [clxxi]), abortion rates are high at over 30 percent of total deliveries. Although the rate shows a downward trend, this remains one of the highest in Central Asia.[clxxii] An estimated $3.4 million was spent in 2004 to provide abortion services, which equates to 0.8 percent of the total spending on health.[clxxiii] The MDG report notes that family planning is unaffordable for many. There has been no recent assessment of the unmet need for family planning.

3. Discussion of key indicators

3.1 Antenatal care (ANC). The reported figures for access to ANC show that coverage is universal with 99.9 percent of women receiving at least one visit during pregnancy and 70 percent receiving the WHO recommended four visits.[clxxiv] A recent accessibility survey estimated a rate of ANC at 88 percent.[clxxv] The MDG report notes that most women receive ANC from specialist doctors (58.8 percent); however, there is a great disparity between urban (89.2 percent) and rural (29.3 percent) areas. The MIC survey estimates vary with 88.9 percent of care provided by doctors, 9.1 percent by nurses/ midwives, 0.2 percent by auxiliary midwives and 1.7 percent through rural health personnel called “feldshers”.

3.2 Attended deliveries. The MIC survey supported other estimates of almost universal skilled attendance at birth (99.8 percent); 80.9 percent of deliveries were attended by doctors, while 18.2 percent of deliveries were attended by nurses/midwives.

3.3 Emergency obstetrics care. Obstetrics care is provided in 245 health centres and an estimated 50,000 women use emergency obstetrics (EmOC) services annually.[clxxvi] Assuming that all centres provide comprehensive EmOC, the national provision is over 7 times the UN Process Indicators for EmOC recommendation. In 2007 a total of 37,611 caesarean sections were performed;[clxxvii]using MICS estimates of total deliveries, this suggests a rate of 11.5 percent, which is within the acceptable levels (5 percent to 15 percent) outlined in the UN Process Indicators for EmOC.

3.4 Accessibility. While no groups are excluded from reproductive and maternal health services, barriers to access do exist. These include distance, requirement to have a formal proof of residency to receive antenatal care and judgmental attitudes towards unmarried women in rural areas. As noted, contraception is unaffordable to many. A 2001 survey estimated that for 52.2 percent of maternal deaths, hospitalization had been delayed as a result of cost and logistics of transportation in remote areas. [clxxviii] The 2003 UNICEF/UNFPA survey revealed that the average expenditure on transportation to maternal units in rural areas is at least three times more expensive than in urban areas.[clxxix] Additionally the survey showed women were inadequately informed about potential complications; only 58.4 percent of respondents had received any relevant information.

These data may suggest that access to EmOC in rural areas is delayed, making reduction of maternal mortality limited despite high levels of attended births and high levels of antenatal

care. Lack of information regarding complications may be a contributing factor in delays in seeking care.

Sexual and reproductive health teaching is included in the school curriculum.

3.5 Health-care systems and financing for maternal health. The ongoing reforms to the health-care system are focused on improving primary health care among other priorities. The 2005 MDG report noted that the health reforms resulted in a decrease in the coverage of gynaecological (antenatal) consultations. [clxxx] However, full-scale antenatal consultations are now available in the capital cities (Astana and Almaty) and in several provincial (oblast) centres.[clxxxi] Downward trends have been noted in the number of beds and medical professionals available to maternal care; it is possible that these declines are contributing to the aforementioned issues with access to information and services and to the overall status of maternal health. Maternal health care is provided as a free-of-charge service with the possibility to pay extra, or use personal insurance schemes, for higher quality services. A number of private clinics are licensed to provide maternal care; it is not known what proportion of services is provided privately.

Health-care services are funded by local and central government budgets and through private insurance schemes. Kazakhstan's overall investment in health care is low at an estimated 3.7 percent of GDP. It is not possible to estimate the actual proportion of funding available for maternal and/or reproductive health care; the national budget for 2009 is approximately 3.4 trillion Tenge (approximately $22.7 billion).[clxxxii] The MDG Report notes that obstetric care and the financing of obstetric facilities is a high priority in the MCH Protection programme, which includes budget allocation for the improvement of facilities.

3.6 Enabling environment. The national development plan documents do not provide a statement in support of universal access to reproductive health care. However, maternal health is a priority in the state programme for national health. The Mother and Child Health Programme has been developed within the framework of the Kazakhstan 2030 Strategy and prioritizes child and obstetrics care. Financing for the development of the infrastructure for obstetrics facilities is dispersed through the programme. There is no similar commitment to funding improvements in care provided. The maternal and child health protection plan is not fully in line with international best practice as the clinical protocols do not conform to WHO Safe Motherhood recommended protocols. The State Healthcare Reform and Development Programme (2005-2010) also promotes primary health care as a route to strengthening maternal and childcare. However, as noted above, there are some concerns about the effectiveness and impact of activities and financing priorities to date.

The national strategy lists three objectives: reducing maternal and child mortality, strengthening inter-agency collaboration and ensuring the utilization of high-quality reproductive health services. The target maternal mortality ratio is 40.0 per 100,000 live births by 2010. Progress against the targets is reviewed annually against registered reports.

National assessments of reproductive health are undertaken annually by the national centre for mother and child health care and the centre for obstetrics, gynaecology and perinatalogy. A situational analysis is undertaken annually at the regional level.

3.7 Monitoring and evaluation. There is no formal committee for the coordination of maternal health. Coordination is undertaken by two central-level institutions based in Astana and Almaty. District-level centres receive guidance from oblast-level centres.

The quality of care provided by maternal-health providers is monitored using indicators such as the percentage of complications in addition to information on fatalities. A licensing system operates.

Standardized client registration and national records are in place; however, there are some concerns over the accuracy of data and of the capacity for analysis to ensure that information is used to inform decisions. Case fatalities and maternal deaths are reported routinely, and data on complications is collected at the national level. Comprehensive maternal reports using local and national data broken down by services and client age are produced monthly, quarterly and annually.

Protocols and clinical guidelines exist but some do not yet conform to the WHO Safe Motherhood recommendations.

Ongoing challenges

Identified challenges include:

- impact of the early health reforms in creating geographical inequities in the distribution of non-primary health care, therefore increasing burden of travel and costs in rural areas;
- lack of understanding among policymakers of reproductive health (RH) issues;
- low levels of awareness of complications and RH generally among women;
- Prioritization (and funding) of infrastructure over improvements in the quality of care including developing evidence-based care.
- reduced monitoring and evaluation capacities.

KOSOVO

Indicators at a glance	Kosovo	European Region	CIS	CARK	EUR B+C
Population (million)	2.2				
Rate of natural increase of population	NA				
Projected change in population 2008-2050 (%)	NA				
Total fertility rate	2.5 PRB 3.0 DHS				
Contraceptive prevalence rate (CPR) all methods	54.9				
CPR for modern methods	22.6				
Unmet need for contraception	NA				
Number of abortion per 1000 births (2007)	480	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	95%				
Skilled attendance at birth	96%				
Number of EmOC facilities	8				
Number of EmOC facilities per 500,000 *	1.8				
Number of caesarean sections per 1000 births (2007)	4 926	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	8.4 -17.7				
Rate of complications (% all births)	66				
Reported maternal mortality ratio (MMR)	10.7	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	...	47	51		
Lifetime risk of pregnancy related death 1:	360				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”.

Summary of maternal health in relation to MDG 5

Previous estimates for the maternal mortality ratio in Kosovo vary, possibly reflecting the current lack of efficient data collection and analysis. The 2007 estimate is 10.7 deaths per 100,000 live births, which is relatively low. A comprehensive reproductive health strategy has been drafted but not ratified. Concerns remain over the capacity to implement the activities required to meet the targets.

There are concerns over the role of contraception, the impact of abortion (which is likely to be underreported), gender violence, gender selection, a potentially high rate of caesarean section delivery and the quality of maternal (particularly antenatal) care available.

The UN MDG Monitor states that there is insufficient information to assess whether MDG 5 targets will be met; the local UN assessment is that it is unlikely that targets will be met.

1. Country overview

1.1 Population and demographics. Population estimates for newly independent Kosovo are around 2.2 million.[clxxxiii] The demographic trends of the country reflect its recent history and are affected by conflict and migration. Some 65 percent of the population is under 25 years of age.[clxxxiv] The 2003 demographic social and reproductive health survey estimated the total fertility rate at 3.0;[clxxxv] a recent estimate is 2.5.[clxxxvi] The survey revealed that the majority of Kosovar women desire a family with several children (3.2 average); rural women desire more children than urban women and all women want more boys than girls.[clxxxvii]

1.2 Health-care systems. The 2001 reform agenda focused on strengthening primary health care by making family medicine the cornerstone of health care, restructuring secondary care, increasing inter-sectoral collaboration and improving management and education of health workers as well as increasing their awareness. The system is moving towards a health insurance system. There are concerns that the effectiveness of the system is limited by weak governance and incomplete decentralisation of authority to health facility managers.[clxxxviii]

1.3 Legal context of sexual and reproductive health care. The constitution stipulates that international human rights standards are applicable in Kosovo, specifically listing the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW); Universal Declaration of Human Rights; European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols; International Covenant on Civil and Political Rights and its protocols (ICCPR); Convention on the Rights of the Child; European Charter for Regional or Minority Languages; and Council of Europe's Framework Convention for the Protection of National Minorities.

The Kosovo Health Law establishes the "legal grounds for the regulation, advancement and the improvement of the provision of health care for the citizens of Kosovo." The law defines reproductive health care to include health care during "pregnancy, birth and maternity as well as family planning, excluding forcing prevention of pregnancy." Other relevant legislation includes the Law on Gender Equality. The Law on Social and Family Services, adopted in 2005, establishes the "legal grounds for the regulation and advancement of social and family services to persons in need and to families." Laws on reproductive health and pregnancy termination exist.

2. Overview of maternal health

Kosovo data is currently not collated on the WHO international databases. A total of three maternal deaths were reported in 2007, giving an MMR of 10.7 deaths per 100,000 live births.[clxxxix] There is a suggestion of serious underreporting of deaths[cxc] and differing MMR estimates and interpretations of data. The DHS estimated the 2000 maternal mortality rate to be 509 per 100,000. The UNDP National Human Development Report (2002) used the same data to estimate an MMR of 126 per 100,000.[cxci] Other studies (as opposed to surveys) estimated the maternal mortality rate in 2000 and 2001 to be 23 and 12 per 100,000, respectively.[cxcii] More recently (2007), UNDP has adopted an estimate of 22 per 100,000 live births.[cxciii]

A facility-based study in 2002 (estimating MMR at 21 per 100,000) highlighted haemorrhage, infections, hypertension and unsafe abortions as leading reasons for maternal deaths.[cxciv] Additionally inadequate quality and coverage of antenatal care was identified as a significant contributing factor. Complication rates during pregnancy are estimated at 15 percent.[cxcv]

Estimates on the use of contraceptives vary. The 2003 demographic survey estimated a total contraceptive prevalence rate of 35 percent for any method and 14.5 percent for modern methods for all women (54.9 percent to 22.6 percent respectively for currently married women).[cxcvi] The 2008 World Population Data Sheet estimates a rate of 60 percent for all methods and 31 percent for modern methods[cxcvii] while a 2006 survey showed a higher total rate of 63.3 percent (30.6 percent modern).[cxcviii] These figures indicate an increase in use over the last few years, possibly due to international agency efforts and increased awareness.[cxcix] However, there is a suggestion that the availability of and access to preferred methods of contraception is limited and restricted for unmarried individuals.[cc] There are no estimates of unmet need; it is assumed to be high.[cci]

The actual number and impact of induced abortion on maternal morbidity and mortality is not known. It is assumed that there is a high level of illegal and potentially unsafe abortions; the 2006 qualitative review of family planning and pregnancy in Kosovo provides a useful overview of some of the perceptions of abortion in Kosovo (and the related challenges for accessing and reporting procedures). [ccii] The last survey to attempt to quantify abortion was undertaken in 1999. In 2002 the estimated rate of abortion was 5 per 100 live births; however, the estimate acknowledges that the data was incomplete as procedures are likely to be underreported.[cciii] There is some evidence of abortion being sought for gender selection purposes[cciv].

Gender-based violence is known to have an impact on reproductive health. In Kosovo a study provides some estimates of the level of impact on surveyed individuals: 87 percent suffered violence during pregnancy; 33 percent were prevented from visiting the doctor during pregnancy and 73 percent of health professionals had encountered pregnant women experiencing violence as part of their work.[ccv]

3. Discussion of key indicators

3.1 Antenatal care (ANC). There is no firm evidence on the rate on antenatal coverage in Kosovo. The findings of a recent Micronutrient Status Survey indicate that 95 percent of women have access to antenatal care services; the frequency of antenatal care visits is variable but only 25 percent of women received more than three visits.[ccvi] Even accepting this high level of coverage, there are concerns over the quality of care provided. A UNICEF report in 2003 states that the number of women receiving ANC is low and lists this as a main contributing factor to maternal deaths.[ccvii] Another study, focused on ANC, stated that the quality of care during antenatal visits is poor with only one-third of surveyed women receiving advice on normal pregnancy, nutrition, possible complications during pregnancy and breastfeeding.[ccviii] There is anecdotal evidence that some women travel to the former Yugoslav Republic of Macedonia for ANC and deliveries, claiming that the level of care and information is higher.[ccix]

3.2 Attended deliveries. The estimated rate of skilled attendance for 2005 was 96 percent.[ccx] Obstetricians deliver the majority of babies, two-thirds of which are delivered in regional hospitals and one-third in University Clinical Centre of Kosovo.[ccxi]

3.3 Emergency obstetrics care. Eight centres provide emergency obstetrics care (EmOC) in Kosovo. It is estimated that 40 percent to 70 percent of women give birth in EmOC facilities.[ccxii] There is no data or information available on the number or nature of emergencies experienced. The estimated rate of complications is 15 percent. The estimated caesarean section (CS) rate for 2007 is 17.7 percent (total number 4,926). The CS rate has increased steadily from 7.5 percent in 2000.[ccxiii] The UN Process Indicators for EmOC set the acceptable level at 5 percent to 15 percent. National data show the CS rate in Kosovo is within the acceptable level at 8.4 percent. However, there are significant variations in this data. In Pristine town the rate continues to be high; it was 23.7 percent in 2007 and 22.2 percent in 2008 based on three months data. In private sector the rate is even higher: 47.5 percent in 2007 and 40 percent in 2008 over a comparable period.[ccxiv] This may suggest a high referral rate or that some caesarean sections are not medically indicated.

3.4 Accessibility. There are no formal exclusions to reproductive health information and services and no apparent barriers to access. WHO has stated concerns that in principle all Kosovars have access to health care although in practice this is not the case; the most common barrier to health-care access is the cost of the service.[ccxv] Recent surveys suggest that the lack of information about contraceptives and reproductive health (RH) services is a real issue;[ccxvi] one in four respondents of a 2006 survey on knowledge, attitude and practice (KAP) were not accessing RH information.[ccxvii] Those respondents who accessed RH information stated that the private sector was the most important source. As noted above, there is concern over access to preferred methods of contraception, not least as methods (other than condoms) require a consultation and associated fee.[ccxviii]

Sexual and reproductive health care is included in the school curriculum as an optional subject (grade 8 only) and additional educational activities for young people include youth centres, national and international projects on reproductive health, and written and electronic information.

3.5 Health-care systems and financing for maternal health. Basic obstetrics care is provided in 32 centres in Kosovo, eight of which also provide EmOC. Assuming that all eight centres provide comprehensive EmOC, the UN Process Indicator recommendation of one comprehensive centre per 500,000 is being met. The KAP survey included an audit of 14 RH facilities and concluded that the level of care is poor and compromised by the lack of basic infrastructure and supplies.[ccxix]

The private delivery of health-care services and information is increasing in Kosovo. Currently private providers are in the process of being licensed. There is little information available about the range or level of maternal health care provided privately. (The CS rate information above may be an indication of the potential impact of private services.) According to women interviewed as part of a qualitative survey, private facilities are preferred for ANC as the care is better and the doctors are more attentive.[ccxx] However, the fees are considered expensive and unaffordable for some, especially those requiring multiple visits. The KAP survey reported 20 percent of respondents choosing private care.

Information on health-care financing is difficult to access. The proposed health insurance scheme is currently being finalized. Total health expenditure as a percentage is estimated at 6.7 percent for 2006; public sector spending was 3.2 percent of GDP.[ccxxi]

3.6 Enabling environment. Following the conflict and international intervention in Kosovo, much of the health system infrastructure was destroyed. Kosovo has made a

commitment to universal access to reproductive health. A Reproductive Health Strategy (2007-2015) has been developed and proposed but has not been ratified.

The Kosovo Assembly universally ratified the Millennium Development Goals in October 2008 and is making efforts to achieve them by embracing a people-centred, rights-based approach to development.[ccxxii] The overarching goal is the reduction of maternal mortality by two-thirds by 2015. The performance indicators are the rate and cause of maternal morbidity and mortality, the rate of abortions and the level of contraceptive use. The indictors will be monitored through health information systems (in development), through surveys and through information provided by other institutions.

3.7 Monitoring and evaluation. There is a national multi-sectoral maternal and child health (MCH) committee responsible for the coordination of MCH activities. The committee meets quarterly at a minimum. In addition, the office for mother, child and reproductive health in the Ministry of Health, the observatory for mother and child health in the Institute of Public Health and the annual perinatal conference have a role in developing, implementing and monitoring maternal health-care delivery in Kosovo.

Kosovo has standardized national systems of client registration and records. Health information management systems are being developed; currently there is limited collation and analysis of data. There are no maternal health reports produced. Maternal deaths and case fatalities are recorded except in Serb enclaves and private facilities.
The quality of care provided is monitored by the health inspectorate (at municipality and Ministry level), through the appointment of a quality assurance officer in each health institution and through the licensing of health institutions and health personnel. Protocols and guidelines for the provision of care are under development.

Ongoing challenges

Identified ongoing challenges include:

- development and introduction of a health insurance scheme and the overall financing of health care;
- improved capacity for data collection and analysis to inform decision-making and resource allocation;
- addressing the inequities in the distribution of staff and facilities;
- implementing the Reproductive Health Strategy 2007-2015 and targets;
- improving and updating professional knowledge and managerial capacities within public health institutions.

KYRGYZSTAN

Indicators at a glance	Kyrgyzstan	European Region	CIS	CARK	EUR B+C
Population (million)	5.24				
Rate of natural increase of population	1.6				
Projected change in population 2008-2050 (%)	54				
Total fertility rate	2.8				
Contraceptive prevalence rate (CPR) all methods	60				
CPR for modern methods	49				
Unmet need for contraception	11.6				
Number of abortion per 1000 births (2007)	108.1	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	97%				
Skilled attendance at birth	97%				
Number of EmOC facilities	71				
Number of EmOC facilities per 500,000 *	6.77				
Number of caesarean sections per 1000 births (2007)	58.36	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	6.1				
Rate of complications (% all births)	15				
Reported maternal mortality ratio (MMR)	60.85	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	150	47	51		
Lifetime risk of pregnancy related death 1:	240				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Despite a relatively high level of commitment to and investment in improving maternal health, the maternal mortality ratio (MMR) in Kyrgyzstan remains very high. Notwithstanding issues with data collection, changing definitions and varying methodologies for establishing key indicators, it is possible that there has been no significant improvement in maternal health in the last five years and some evidence of deterioration. The level of attended births is almost universal; however, the lack of skills to address emergencies in non-specialist centres appears to be a significant issue. The majority of women who die do so in primary-level centres. The government of the Kyrgyz Republic has identified and strategized to address a number of key areas of concern including the skills level, motivation and distribution of service providers, poor condition of many health centres and barriers to care. These include awareness, cost and inadequate referral systems and physical access to services and supplies.

The UN MDG Monitor assesses that the Kyrgyz Republic is “off track” in its efforts to meet the MDG 5 target of a 75 percent reduction in MMR by 2015.

1. Country overview

1.1 Population and demographics. The population of Kyrgyzstan is estimated at approximately 5.2 million. The country has a relatively low rate of population growth (with a natural increase rate of 1.6), and the current population is projected to increase by 54% by 2050.[ccxxiii] Kyrgyzstan has experienced steady economic development; however, the economic challenges at the household level are affecting the demographic and health profile of the country as many individuals migrate to secure work.

1.2 Health-care systems. Like many countries Kyrgyzstan has undertaken a series of health sector reforms beginning in 1996 with the National Health programme called "Manas Taalimi". The current programme covers 2006-2010. The reforms are aimed at decentralising service delivery and strengthening primary health care while creating central pools of funding through the introduction of a mandatory health insurance scheme. A state benefit package and an essential drugs list have been developed in order to ensure access to services following the cessation of free-of-charge services. It is estimated that out-of-pocket payments continue to contribute approximately 50 percent of the total expenditure on health care.[ccxxiv] A system of official co-payments exists to replace informal payments.[ccxxv] The Ministry of Health implements the health policy and is responsible for the quality of health services and for the quality, safety and effectiveness of pharmaceuticals, medical products and equipment.

1.3 Legal context of sexual and reproductive health care. The Kyrgyz Republic has ratified and adopted the key relevant international conventions and declarations including the UN Convention on the Rights of the Child , the programme of action of the International Conference on Population and Development (ICPD), the Millennium Declaration, the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) and the International Covenant on Economic, Social & Cultural Rights, which recognizes the "right of everyone to the enjoyment of the highest attainable standard of physical and mental health."

The 2000 law on reproductive rights is the main legislation regulating the protection of reproductive health in Kyrgyzstan. It recognizes the reproductive rights of citizens as a human right and guarantees their observance. However, the lack of mechanisms to implement the law and assign responsibility for enforcing it may compromise its effectiveness; the necessary by-laws and relevant normative documents have not been developed and approved.[ccxxvi]

2. Overview of maternal health

There is some variation in the estimates of the maternal mortality ratio (MMR) for Kyrgyzstan; like many countries there are concerns over the accuracy of reporting and the possibility of underreporting due to deaths being concealed. The 2007 reported ratio is 60.49 deaths per 100,000 live births.[ccxxvii] The recent multiple indicator cluster survey (MICS) (using the sisterhood methodology) estimated the ratio to be 104 per 100,000, thereby showing no sign of improvement over the previous 10 to 15 years.[ccxxviii] The WHO 2005 adjusted ratio is 150 per 100,000.[ccxxix] The differing methodologies prevent meaningful comparison. There are some indications of an increase in maternal mortality in recent years. The reported MMR has risen from 55.46 in 2006, and regardless of the ratios and methods for calculating them, there is an observed increase in the number of deaths; during the first half of 2008 there were 38 deaths of pregnant women and women in childbirth. In 2007 there were 33 such cases.[ccxxx]

There is evidence of a higher rate of mortality (1.5 to 2 times higher) in the primary hospitals, which lack the qualified personnel and specialized care required to address the emergency obstetrics conditions that are the main causes of maternal death. The majority of women who die do not reach the maternity or perinatal units at oblast level.[ccxxxi] In addition, there is an indication of differing levels of mortality between the regions; the regions with the highest level of deliveries and lowest number of professionals have the highest mortality rates.[ccxxxii] Toxaemia is estimated to account for 30 percent of deaths, sepsis for 7 percent, extragenital conditions associated with pregnancy for 11.1 percent and reasons not linked to pregnancy, 11.5 percent.[ccxxxiii] Of the aforementioned deaths in 2008, 81.6 percent died during the post-natal period or during the delivery, 10.5 percent died during pregnancy and 7.8 percent after abortion.[ccxxxiv] The estimated rate of complications during pregnancy is 60 percent.[ccxxxv] The prevalence rate of modern methods of contraceptives is estimated at 47.8 percent[ccxxxvi] to 49 percent.[ccxxxvii] However, this represents a substantial drop from earlier periods (60 percent in the 1997 DHS) and coincides with rising fertility rates.[ccxxxviii] The recent MICS found significantly higher use of family planning in the north of the country compared to the south and also estimated that there is no unmet need for contraception. The Population Reference Bureau estimates an unmet need of 11.6 percent.[ccxxxix] The reported rate of abortion is 97.45 per 1,000 live births.[ccxl]

3. Discussion of key indicators

3.1 Antenatal care (ANC). Coverage of antenatal care is almost universal with 97 percent of women receiving at least one visit.[ccxli] There is a growing trend of doctors becoming the main provider of ANC, providing 85 percent.[ccxlii]

3.2 Attended deliveries. The rate of attended deliveries is very high with 97 percent of deliveries being assisted by qualified personnel in a delivery facility.[ccxliii] The level of attendance of doctors has increased from 61 percent to 76 percent between 1997 and 2006.[ccxliv] The MICS revealed that economic status is a variable in the attendance of doctors; in the poorest and richest quintile groups, 60.1 percent and 96.3 percent of women respectively were assisted by a doctor.[ccxlv] The majority of women not attended by a doctor are attended by a midwife. An estimated 25 percent of the population in rural areas do not have easy access to a family practitioner and are therefore reliant on feldshers or a midwife.[ccxlvi]

3.3 Emergency obstetrics care. Some 71 centres provide emergency care (EmOC) including 47 territorial hospitals and 17 branches. The size and capacity range from single-function units with only five beds to 50-70 bed multi-service units with access to some specialty doctors. There are seven maternity wards at multi-profile regional hospitals.[ccxlvii] In theory another 934 primary health service delivery points (feldsher obstetric points) provide EmOC; these are distributed across the country to ensure geographical access to health services for a large share of population. However, these obstetric organizations do not have appropriate equipment and qualified personnel, and it is impossible to ensure the safety of both women in childbirth and newborns. In 2005 a total of 3,809 beds were available for EmOC, an increase of 1.7 percent over 2004.[ccxlviii] The rate of usage of EmOC facilities in 2007 was 58.3 percent (a total of 123,214 deliveries); the average rate between 2001 and 2007 is 58.95, in line with the complications rate.[ccxlix] The caesarean section (CS) rate is 6.10 percent;[ccl] the UN Process Indicators for EmOC set the acceptable level at 5 percent to 15 percent.

3.4 Accessibility. There are no formal exclusions to reproductive health information and services; however, there are barriers to access, and the majority of women are dying in primary-level hospitals that are ill-equipped for EmOC. The identified barriers include the lack of effective referral systems for high-risk patients, limited transportation and communication, and a lack of support for lower-level hospitals from regional hospitals. Although the coverage of ANC is high, the lower quality of care available to higher-risk women in rural areas exacerbates the inadequate referral networks and access to specialist care. The lack of compliance with evidence-based protocols and the high attrition of human resources (linked to the lack of incentives) are also barriers to quality care. Mass domestic migration and an underdeveloped medical infrastructure in the territories where migrants are living limit the access of pregnant female migrants to pre-birth and post-birth medical care. Other factors that limit access to maternal health care are low awareness of maternal health rights and services, gender inequality and poor health seeking behaviour.

As noted above, physical access can be an issue; 25 percent of the population in rural areas do not have easy access to care above the feldsher obstetric points (FAP) level. Although services are technically provided free of charge, out-of-pocket payments are common and the cost of accessing services can be a barrier. One commentator notes that free services are not perceived as offering quality and consequently people believe they have to pay for services of value. Poor women who may already be disadvantaged by poor nutrition and heavy workloads have limited alternatives.[ccli]

Despite recognition in the national strategy of the importance of adolescent reproductive health care, reproductive health is not included in the school curriculum. Other formal educational activities do exist; these include pilot resource centres in Health Lyceums and teacher training.

3.5 Health-care systems and financing for maternal health. Medical supervision of pregnant women and newborns at the primary level is provided by family doctors of Family Group Practitioners/Family Medicine Centres. There are 934 FAPs in the country to ensure geographical access to health services for a large share of population. Some FAPs and FGPs in remote areas have hospital beds designed for deliveries and in theory can provide EmOC. However, in practice these units often do not have appropriate equipment and skilled service providers.[cclii] The infrastructure of the health centres is generally low; a recent needs analysis found a number of issues with the condition of many centres. Some 45 percent of delivery facilities recently reviewed do not have access to WHO MPS/PEPC recommended technologies on maternal and newborn health care, which are proven to reduce maternal deaths.[ccliii]

Maternal health care is provided by 473 obstetrician and gynaecologists and 1,094 midwifes. There is an acknowledged lack of EmOC skills and skilled professionals, which is exacerbated by unequal distribution of specialists, who tend to concentrate in urban areas.[ccliv] There are concerns with the level of practical skills of graduates of medical institutions and the lack of continuous medical education of specialists.[cclv] In addition, the lack of clinical protocols, including the management of referrals and conditions such as eclampsia, is assumed to affect the quality of care.[cclvi] The private health-care sector in Kyrgyzstan is mostly limited to dentistry, pharmacies and ophthalmic services. It is not known what level of maternal care is provided by private providers. In recent years, some of the functions of the Ministry of Health have been transferred to nongovernmental organizations (NGOs). In particular, accreditation of health facilities has been delegated to the Medical Accreditation Commission.[cclvii]

Health care is financed by a combination of central budgets and the health insurance system. Despite an overall growth in total expenditure, the share of the national budget in health spending appears to be decreasing (from 0.87 percent in 1997 to 0.39 percent in 2004).[cclviii] Although co-payments were introduced in 2001, out-of-pocket payments also play a large part in financing the system and are estimated to represent 51 percent of health financing.[cclix] The total health expenditure as a percentage of GDP was estimated at 6.4 percent in 2006; financing received from external sources is relatively high at 6.1 percent of total spending.[cclx] The government plans to increase health spending from 10.3 percent of total government expenditure in 2005 to 13.0 percent by 2010.[cclxi] The current Manas Taalimi includes proposals to reform health budget allocations and distribution to address provider shortages and inequities and to improve infrastructure.[cclxii]

3.6 Enabling environment. Kyrgyzstan has prioritized maternal and newborn health at the highest level as reflected in the Decree of the President of the Kyrgyz Republic and the establishment of a National Maternal and Child Health Centre within the Ministry of Health.[cclxiii] The Kyrgyz Republic has made a commitment to universal access to reproductive health and has developed a National Reproductive Health Strategy (2006-2015). The principle focus of the strategy is on practical measures, human rights, equity of service, socially vulnerable groups and gender equity. Safe motherhood is a national priority. A programme has been established to comply with the International Conference on Population Development, disseminate information and educational materials, revise clinical protocols and other reproductive health policies, and strengthen capacity of RH providers at all levels.[cclxiv] The government is also aware of the impact of effective information management systems and of the issues regarding reporting maternal deaths and is committed to the WHO Behind the Numbers programme.[cclxv] A maternal and child health group which includes MoH representatives and international donors was formed in 2007. The work of this group has increased the transparency and coordination of different activities in the implementation of programmes and provided a forum to discuss how to avoid duplication of services and competition among programmes supported by donors.[cclxvi] Despite this level of commitment, there are concerns that the processes for approving protocols are excessive.

The goals for maternal health include an overall 75 percent reduction of MMR (by 40.0 per 1 000 live births) and 100 percent attended births by 2010. Specific targets related to MDG 5 include improving the coverage of the full antenatal care package, reducing anaemia, increasing the availability and choice of family planning methods, and broadening free medical services under the State Guarantees Program. The Ministry of Health is responsible for the analysis and evaluation of progress indicators, and data on the protection of reproductive health is presented to the government and the Coordination Council.[cclxvii]

3.7 Monitoring and evaluation. The government and the Ministry of Health are responsible for measuring the quality of maternal health services at a national level through the submission of MDG reports, conducting Sector Wide Approach (SWAp) review meetings and annual meetings with stakeholders, donors and other partners. These and other meetings have led to a review of existing legislation on health and nutrition, the development of the National Perinatal Care Programme, the restructuring of the MoH and the improvement of management and donor coordination for maternal and child health activities.

Kyrgyzstan has a standardized system of client registration and national records in place and has launched a database to register maternal, newborn and infant deaths which will provide further information to inform policy. Data on complications are collected. Maternal

reports are produced on a regular basis (monthly, quarterly and annual). As noted, there is evidence of considerable difference between official data and independent sources despite ongoing improvements in data collection systems.[cclxviii] Maternal deaths are reported by phone and e-mail (as appropriate to the guidelines) and are collated on a monthly basis. All deaths are reviewed by specialists from the leading health institutions and are reviewed by the Specialized Headquarters. However, the audit is not anonymous and service providers may be punished; as a result, there is evidence that health workers do not always present the actual picture of clinical cases, thereby preventing meaningful evaluation.[cclxix]

Ongoing challenges

Despite significant progress, there is room to reduce maternal mortality further and to improve the quality and impact of maternal health care as outlined in the RH strategy.

Specific challenges include:

- ongoing revision of protocols for improvements in maternal health care;
- inadequate infrastructure for providing universal access to quality services;
- a need for improving training and motivation of service providers to support needs-based distribution of health cadres;
- strengthening prevention activities including awareness raising on MCH, improved nutrition and access to family planning;
- improving quality of care by adopting WHO-compliant protocols, training service providers and implementing performance monitoring and clinical case reviews;
- revising the guaranteed benefit package to address access issues;
- improving purchasing mechanisms for contraceptives to address current dependency on donor supplies.

MOLDOVA

Indicators at a glance	Moldova (including Transnitrean separatist region)	European Region	CIS	CARK	EUR B+C
Population (million)	4.136				
Rate of natural increase of population	-0.1				
Projected change in population 2008-2050 (%)	-23				
Total fertility rate	1.3				
Contraceptive prevalence rate (CPR) all methods	68				
CPR for modern methods	44				
Unmet need for contraception	7%				
Number of abortion per 1000 births (2007)	417.22	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	98%				
Skilled attendance at birth	99%				
Number of EmOC facilities	133				
Number of EmOC facilities per 500 000 *	16.07				
Number of caesarean sections per 1000 births (2007)	118.95	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	18.43	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	22	47	51		
Lifetime risk of pregnancy related death 1:	3700				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDGs

Moldova has made significant progress in reducing maternal mortality and accordingly has revised its MDG goals for 2015. Abortion remains the largest cause of maternal death and a large number of pregnancies are unplanned and unwanted. The use of modern family planning methods is low, which may be related to financial barriers to access and/or to attitudes towards contraception and reproductive health. There is evidence of inequity in maternal health service provision between urban and rural locations. The role of informal payments is not fully understood; however, the level and impact appears to be increasing, thereby exacerbating inequities of access. Recent maternal mortality ratios show an increase over previous years: 24 deaths per 100,000 live births in 2008, 18.43 per 100,000 in 2007 and 15.96 per 100,000 in 2006.

The UN MDG Monitor assesses that Moldova is on track to meet its revised goals by 2015.

1. Country overview

1.1 Population and demographics. The estimated population for the Republic of Moldova, including Transnistria, is 4.14 million. Like many countries in the region, Moldova has a low birth rate and a natural increase rate of -0.1. The population is projected to decrease by 23 percent by 2050.[cclxx] Migration is a significant influence on the demographic structure, which is of an aging population (25 percent of the population is over 60 years old and 11 percent are over the age of 80).[cclxxi] Data from Transnistria has not been available for inclusion in national statistics since 1997.

1.2 Health-care systems. Moldova has undertaken a programme to rationalize health service delivery and despite the limited resources, appears to have made progress in decreasing the focus on inpatient care and developing primary health care (PHC) and family medicine.[cclxxii] The potential of the PHC system as a service provider, rather than as a referral system, and for equitable distribution of resources, is yet to be fully realized.[cclxxiii] Health care at the regional level is overseen by 32 regional administrations. In addition to the Ministry of Health system, parallel health-care facilities are operated by other ministries. The mandatory health insurance system is seen as successful in providing financing and in initially reducing the level and impact of informal payments.[cclxxiv] The scheme provides a basic package of care, and the state provides minimum services for the uninsured. Moldova continues to have a transitional, dual-health profile of both developed and developing countries.[cclxxv]

1.3 Legal context of sexual and reproductive health care. The Republic of Moldova is a signatory of the relevant international conventions relating to maternal and reproductive health care including the Convention on Elimination of All Forms of Discrimination against Women (CEDAW); the International Conference for Population and Development; the Actions Program Cairo-5; UN Declaration concerning infection with HIV/AIDS; the Platform of Actions Beijing-5; UN Convention on the Rights of the Child and the Millennium Declaration. Legislation has consolidated the right to sexual and reproductive health in Moldova. A series of laws address reproductive health, family planning, perinatology and prenatal care. These include the health-care law, statutes for reproductive health /family planning cabinets (47 in Moldova plus 8 in separatist region of Transnistria) and the law on protection of reproductive health and family planning.

2. Overview of maternal health

Between 1994 and 2004, Moldova saw a 9 percent downward trend in the maternal mortality ratio (MMR) from 50 deaths per 100,000 live births in 1994.[cclxxvi] The latest reported MMR are 24 per 100,000 in 2008[cclxxvii] and 18.43 per 100,000 in 2007[cclxxviii] with the WHO 2005 adjusted rate at 22 per 100,000.[cclxxix] The causes of maternal deaths are largely unchanged over the last decade with complications from abortions being the highest cause of death. Estimates of abortion-related deaths range from 30.3 percent (10 years prior to 2005) to 37.5 percent (2005) of all maternal deaths;[cclxxx] other main causes of death are haemorrhage (19.7 percent), sepsis (18.1 percent) and preeclampsia (11.2% percent).[cclxxxi]

The majority of deaths (58 percent) are women from villages and over 25 percent died at home.[cclxxxii]

The 2005 demographic health survey (DHS) revealed that 61 percent of women reported at least one complication during their most recent pregnancy; the most frequent complications

were anaemia (38 percent), risk of miscarriage (25 percent) and risk of premature delivery (13 percent).[cclxxxiii]

Although the rate of abortions remains high at 417.22 per 1,000 live births,[cclxxxiv] it is lower than the EUR B+C rate of 493.33 per 1,000 and has seen a substantial decline followed by a stabilization.[cclxxxv] The rate of abortion among adolescents is a concern in the national reproductive health (RH) strategy. The rate of abortions in Transnistria in 2005 is estimated at 1,190 for 1,000 live births.[cclxxxvi] The prevalence rate for all forms of contraception is 68 percent (44 percent for modern methods). Recent analysis indicates that the rate is in decline and estimated unmet need at 7 percent, which is relatively low.[cclxxxvii] A 2007 evaluation of the RH services noted that the percentage of service delivery points offering at least three modern methods of contraception at the national level was greater than 90 percent.[cclxxxviii] The RH strategy notes that 60 percent of pregnancies are unwanted. It also stressed the role of health education and training of service providers in increasing utilization of services.[cclxxxix].

3. Discussion of key indicators

3.1 Antenatal care (ANC). The 2005 DHS indicated that almost all (98 percent) of participants reported seeing a health professional at least once for antenatal care during their last pregnancy; 90 percent reported four or more antenatal care visits and 70 percent had their first antenatal care visit in the first trimester.

3.2 Attended deliveries. The level of attended deliveries is very high with 91percent of deliveries being attended by a doctor while the rest were attended by a nurse or midwife. The place of delivery can be a proxy indicator of access to emergency obstetrics care; in Moldova delivery by a health professional in a public health facility is almost universal at 99 percent.[ccxc] The RH strategy indicates that 25.7 percent of maternal deaths in the decade prior to 2005 were at home.

3.3 Emergency obstetrics care. There are 133 centres in Moldova providing emergency obstetrics care (EmOC). Information on the number and type of EmOC cases is not collected. In 2007 a total of 4,517 caesarean sections (CS) were performed in Moldova.[ccxci] The national rate of CS rates is estimated at below 15 percent with urban areas being above this level; this reflects that the majority of CS are referred to urban centres. Only emergency CS will be undertaken in rural areas.[ccxcii] The DHS estimates a CS rate of 9 percent.

3.4 Accessibility. No groups or individuals are excluded from accessing-reproductive and maternal health-care services. The minimum basic health services package guarantees access to service through the compulsory insurance scheme (with non-insured receiving state support). However, there is evidence that financial barriers to access exist. A 2000 survey found that 15.3 percent of participating households had 'total' inaccessibility to health services as a result of cost barriers.[ccxciii] The survey also found significant differences in the availability of family planning materials with a very low level in rural areas and geographic variation in the level of specialist care for ANC and post-partum care. The basic package does not yet include the costs of family planning and/or abortion services.[ccxciv]
The high level of disparity between urban and rural maternal death outlined in the RH strategy is likely to be indicative of a disparity in access to quality services and/or skilled care in rural areas. The high level of deaths at home (25.7 percent) supports this assumption.

Sexual and reproductive health education is included in the school curriculum as an option in "family life education." However, opposition by the church, certain political parties and elements of civil society has led to the failure to incorporate Life-Skills Based Education on reproductive health into the school curriculum. Additional RH interventions focused on youth include the promotion of healthy lifestyle and the concept of youth friendly healthcare services.

3.5 Health-care systems and financing for maternal health. Maternal health (including basic obstetrical care) care is provided by 40 maternity centres and 1,261 family doctors' rural offices. Some 133 emergency health-care institutions provide EmOC. The majority of maternal health care is outpatient care at primary health-care (PHC) level.[ccxcv] There are recognized disparities between health-care professionals in rural and urban areas due in part to low salaries and incentive schemes leading to shortages of providers. The estimated number of midwives and specialist physicians per 100,000 population was at 23.35 and 18.24 respectively in 2006.[ccxcvi] There are no private providers of maternal health care in Moldova.

The majority of expenditures are financed by the compulsory health insurance scheme. Central reserves cover preventive services, administration, teaching and national programmes. Health expenditure as a percentage of GDP is estimated at 7.8 percent.[ccxcvii] There has been a steady increase in the total expenditure on health care[ccxcviii] and the level is higher than the regional average. It is not possible to determine what proportion of the budgets or expenditure is allocated to reproductive and/or maternal healthcare. The level of informal payments appears to be increasing.[ccxcix]

3.6 Enabling environment. The National Development Plan (NDP) 2008-2011 defines the objectives for the development of Moldova and identifies areas of priority. The NDP makes reference to improved maternal health and to access to quality health. The plan does not include explicit reference to the International Conference on Population Development goal of universal access to reproductive health. The National Health Policy expressly includes the ICPD target of ensuring universal access to RH by 2015.

Moldova has developed a reproductive health strategy (2005-2015) which is in line with international best practice. Both this strategy and the Healthcare System Development Strategy for 2008-2017 include interventions for achieving and monitoring universal access to reproductive health.

Moldova adopted a goal to reduce maternal mortality by 50 percent by 2015. The Healthcare System Development Strategy (2008-2017) includes objectives to address improvements in health service delivery. Specific targets within the RH strategy include increasing the prevalence of family planning, integrating family planning into primary health care and promoting safe motherhood by focusing on service delivery, awareness and attitudes. The NDP revised MDG targets are:

- Reduce the maternal mortality rate from 16 (per 1,000 live births) in 2006 to 14.5 in 2010 and 13.3 in 2015.
- Maintain the number of births assisted by qualified medical staff in 2010 and 2015 at 99 percent.

The RH strategy includes a monitoring and evaluation framework. The monitoring and evaluation of the NDP is coordinated by an Interministerial Committee which meets twice a year.[ccc]

3.7 Monitoring and evaluation. The national committee of the Ministry of Health for maternal mortality is responsible for coordinating maternal health activities. The audit evaluation committee in maternal, perinatal and complication deaths meets quarterly. The committees do not include agencies from other sectors.

The quality of maternal health services at the national level is monitored in accordance with approved standards and a range of indicators including maternal mortality rate, infant mortality rate, prenatal mortality rate, stillbirth and early neonatal mortality, premature birth rate, rate of complication and percentage of births assisted by qualified medical staff. Moldova has standardized systems for client registration and recording. Although the data are not routinely available, complication and case fatality rates are recorded. Maternal deaths are subject to an agreed-upon protocol and Moldova has piloted national-level confidential enquiries into near misses and deaths.[ccci] Maternal health reports are collated by the National Centre of Health Management on a monthly basis.

Guidelines, protocols and clinical standards are in place; the RH strategy highlights the lack of protocols on abortion, which is the largest cause of death.

Ongoing challenges

Challenges highlighted by the RH strategy include the impact of abortion on maternal mortality, the need to address behavioural constraints preventing the goal of “risk-free maternity” and the related need to increase community participation in improving maternal health. In addition, the apparent inequities of access resulting from financial barriers and/or unequal distribution of resources may be increasing.

ROMANIA

Indicators at a glance	Romania	European Region	CIS	CARK	EUR B+C
Population (million)	21.498				
Rate of natural increase of population	-0.2				
Projected change in population 2008-2050 (%)	-20				
Total fertility rate	1.3				
Contraceptive prevalence rate (CPR) all methods	70				
CPR for modern methods	38				
Unmet need for contraception	39% (2004 estimate)				
Number of abortion per 1000 births (2007)	684.55 2006	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	94%				
Skilled attendance at birth	98%				
Number of EmOC facilities	700				
Number of EmOC facilities per 500,000 *	16.28				
Number of caesarean sections per 1000 births (2007)	236.44	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	15.37	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	24	47	51		
Lifetime risk of pregnancy related death 1:	3200				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Romania achieved its original MDG 5 maternal mortality ratio of 17 deaths per 100,000 live births (representing a 50 percent reduction compared to the 1990s) in 2005. The target was subsequently amended to 10 by 2015.

Despite this achievement and an apparently supportive environment, the latest reported ratio of 15.37 remains higher than the European regional average and the overall investment in health when compared to GDP is relatively low. As the rates of abortion decline the associated mortality risk is also decreasing. However, the access to antenatal care and obstetrics care in rural areas and the overall inequities in care between urban and rural locations remains a concern and indicates room for ongoing improvements in maternal health care.

1. Country overview

1.1 Population and demographics Romania has a population of approximately 21.5 million. Like many countries in the region, it has experienced a decrease in the rate of population growth and currently the natural rate of increase is estimated at -0.2. The projected change in population (2008-2050) is for a decline in the population size by 20 percent. Romania pursued a pronatalist policy until 1990.

1.2 Health-care systems. The Ministry of Health is responsible for the development of policy, for regulation of public sector services (the majority of service provision) and for matters of public health. The system is financed by a compulsory health insurance scheme and the insurance funds at district level are responsible for collecting contributions and for contracting and reimbursing service providers. Reforms to the system are ongoing, with a focus on improving primary health care (PHC) through the network of family doctors. A 2002 review of the reforms noted concerns over the equity of service provision, the lack of social care and the overuse of hospital care.[cccii] In addition to projects to rehabilitate the existing 6,000 primary health-care centres, there is a need to increase the distribution and technical capacity of service providers. Efforts to increase the number of professionals in rural areas have included financial incentives.[ccciii]

1.3 Legal context of sexual and reproductive health care. Romania has in place the legal framework and the regulations needed to ensure access to reproductive health-care services within the context of international standards and conventions. The fundamental right for women to freely decide on the number and spacing of their children was reinstated in 1989 as part of the decree to liberalize abortion.

2. Overview of maternal health

The latest reported maternal mortality ratio (MMR) is 15.37 deaths per 100,000 live births.[ccciv] The ongoing decline in the ratio is attributed largely to the liberalization of abortion and a subsequent decline in deaths due to the provision of unsafe terminations. Recent trends have also seen an increase in the number of young women dying; the 2007 MDG draft report noted that the rate of deaths among young women in 2004 was "alarming."[cccv] The overall ratio is higher than the European regional average rate.

Ministry of Health statistics indicate that of the overall MMR, 10.25 per 100,000 were due to direct obstetrical risks and 5.12 were due to abortions including those that were spontaneous.[cccvi] The main causes of direct obstetrics deaths in 2007 were haemorrhage (28 percent), toxaemia (23 percent) and complications in labour (23 percent); 79 percent of these deaths occurred in health units and 9 percent in maternity centres.[cccvii]

Use of contraception is comparatively high for the region with a prevalence rate of 38 percent for modern methods and 70 percent for all methods.[cccviii] A reproductive health survey undertaken in 2004 suggests a lower estimate of 34 percent and 58 percent respectively and estimates an unmet need for contraception at 39 percent.[cccix] The increasing trend in the use of family planning (rising from 10 percent using modern methods in 1993) has been paralleled by a decrease in the rate of abortion from 91.93 percent in 1993 to 17.35 percent in 2006.[cccx]

3. Discussion of key indicators

3.1 Antenatal care (ANC). The recent reproductive health survey estimated that the provision of prenatal care in Romania is high with 94 percent of pregnant women receiving some care,[cccxi] 74 percent within their first trimester. Some 76 percent of women receive the WHO recommended four visits or more.[cccxii] The Ministry of Health in Romania recommends 10 visits; 30 percent of women are receiving care at this level.[cccxiii] The RH survey revealed a disparity between urban and rural locations: the percentage of women receiving care from an obstetrician in urban areas is nearly double that of rural areas (47 percent to 26 percent respectively). One article estimated that half of the women who die during delivery did not benefit from any prenatal care.[cccxiv]

3.2 Attended deliveries. Some 98 percent of births in Romania are in maternity units or obstetrics departments of hospitals and therefore attended by skilled professionals. Sixty-nine percent will be attended by an obstetrician. Again, there is a disparity between urban and rural areas with 80 percent of urban and 60 percent of rural women being assisted by an obstetrician.[cccxv] The balance of care is provided mostly by midwives.

3.3 Emergency obstetrics care. Emergency obstetrics care is provided at 389 hospitals and 311 hospital ambulatories.[cccxvi] There is no data available on the number of women using these centres or the reasons for visits. In 2007, 50,771 caesarean sections (CS) were undertaken nationally; the absolute number of caesareans has steadily increased from 34,035 in 2000.[cccxvii] The 2004 RH survey estimated a CS rate as 20 percent to 27 percent in urban areas. This rate appears high but it may include referrals from rural areas (where the number of obstetricians is lower) and therefore not be nationally representative. The UN Process Indicators for EmOC recommends acceptable rates for CS between 5 percent and 15 percent of live births.

3.4 Accessibility. No groups are excluded from accessing reproductive health service or information; however, some barriers exist. These include geographical obstacles and distances to health centres.

Sexual and reproductive health education is not included in the national school curriculum. The Ministry of Education and Research implements a national health education programme, which is optional. In addition, NGOs operate peer education programmes.

3.5 Health-care systems and financing for maternal health. The ongoing health system reforms focus on improving the role of the family doctor. Obstetrics care is provided by 8,900 family physicians, 22 polyclinics, 389 hospitals, 83 ambulatories and 311 hospital ambulatories.[cccxviii] The Obstetrics and Gynaecology Hospital within the Mother and Child Care Institute in Bucharest is the main referral centre. Private health facilities (particularly pharmacies) do exist in Romania and are increasing in number. It is not known what number provide maternal health care, and to what extent.

As noted there are some disparities in the provision of maternal care between urban and rural locations and an acknowledged uneven distribution of health-care providers. Plans to further improve the infrastructure and coverage of PHC centres require underpinning with strategies to attract and retain well-trained and motivated staff; in 2004 the MoH initiated a programme of financial incentives for doctors relocating to rural areas.[cccxix] Romania has a nationwide family planning system supported by the three-pillars approach. The approach is focused on creating key conditions at the same place and time: trained providers;

contraceptive supplies; and activities to improve both the quality and effectiveness of service provision.

The national health insurance scheme is the main source of funding for primary and hospital care. Commodities for family planning are included in Ministry of Health programmes and budget. The total national expenditure on health care is equivalent to 5.7 percent of the GDP, a figure that is lower than the European regional average (7.74 percent) and the comparable EUR B+C categorization of countries (5.8 percent).

In 2008 $14.4 million was allocated to health-care programmes (including maternal and childcare interventions); this represents 0.12 percent of the total budget.[cccxx] The specific proportion or value allocated to maternal and/or reproductive health is not available.

3.6 Enabling environment. Reproductive health care receives a high priority among policymakers in Romania. A Sexual and Reproductive Health Strategy 2002 – 2006 was developed in 2002 as the framework for the development of reproductive health-care services. A subsequent strategy for 2004-2007 was developed. The strategy includes the principle of universal access to reproductive health care.

The Safe Motherhood component of the RH strategy includes short-term goals (2002-2006) and targets aimed at achieving MDG 5. These short-term goals include targets to increase awareness among population and improve quality of care to reduce MMR and rate of anaemia. The original MMR target (a decline of 10 percent by 2006 with an overall goal of an MMR of 17 per 100,000 by 2015) has been achieved and a new target of 10 per 100,000 has been proposed. The next revision of the MDGs is due in 2010.[cccxxi]

In addition there is a commitment to supporting and carrying out surveys and assessments used to inform policy and strategy. An 18-month National Programme for Evaluation of the Health Status of the Population ended in December 2008.

3.7 Monitoring and evaluation. There is no national committee for the coordination of maternal health; the Mother and Child Care Institute in Bucharest may fulfil an informal role as the main referral centre.

Romania has standardized national systems for client registration and record keeping although recent reports by the Centre of Health Statistics note that not all centres are accurate, comprehensive or timely in their completion of required forms.[cccxxii]
Maternal deaths and case fatalities are measured and guidelines for undertaking obstetric/gynaecology clinical audits are being developed. The methodology for analysing maternal mortality is in the process of changing. A National Maternal Health Report (broken down by district) is produced annually.

It appears that information is not collected on non-fatal complications and/or complication rates and information on the use of EmOC is not available.

There are 20 approved guidelines for the management (including clinical management) of maternal care covering the most important public health issues.

Ongoing challenges

Meeting the revised MMR target is likely to be challenging despite the supportive enabling environment and significant successes to date. Ongoing challenges are likely to include the reduction of inequalities in the quality of care between rural and urban locations and the need for improved antenatal care.

RUSSIAN FEDERATION

Indicators at a glance	Russian Federation	European Region	CIS	CARK	EUR B+C
Population (million)	141.875				
Rate of natural increase of population	-0.3				
Projected change in population 2008-2050 (%)	-22				
Total fertility rate	1.4				
Contraceptive prevalence rate (CPR) all methods	67 1996				
CPR for modern methods	49 1996				
Unmet need for contraception	NA				
Number of abortion per 1000 births (2007)	950.94 2006	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	95-100%				
Skilled attendance at birth	95%				
Number of EmOC facilities	42 018				
Number of EmOC facilities per 500 000 *	148				
Number of caesarean sections per 1000 births (2007)	179.9 2006	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	26.32				
Reported maternal mortality ratio (MMR)	23.79 2006	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	28	47	51		
Lifetime risk of pregnancy related death 1:	2700				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The Russian Federation is unique in the region as a result of its size, diversity and the impact of abortion on maternal care. Additionally the structure of the health-care system and a possible tendency towards over-medicalisation mean that standard process indicators are of little value.

While significant progress has been made in reducing the number of abortions and the overall maternal mortality ratio (MMR), there remains a high level of maternal morbidity and a high level of abortions. Abortions continue to be a very significant factor in both maternal mortality and morbidity due to the sheer volume of procedures undertaken. The utilization of modern contraception remains low. There are concerns that maternal health has a relatively low level of prioritization and about a failure to invest in the assessment and improvement of services. There is some limited evidence of some marginalized groups not having full access to services.

UN MDG Monitor indicates that the Russian Federation is very likely to achieve its MDG target of a 50 percent reduction in maternal mortality by 2015.

1. Country overview

1.1 Population and demographics. Over the past decade, Russia has experienced what is referred to as a demographic crisis, with a decline of about 800,000 in population per year. The natural rate of increase is -0.3 and the population is projected to decline by a further 22 percent by 2050.[cccxxiii] The low fertility and natural increase rates have prompted the adoption of pronatalist policies including the "maternal capital" financial incentive scheme. The federation is large and with a population is excess of 140 million there are substantial variations in health, social and economic status and the indicators used to measure them.

1.2 Health-care systems. The health-care system is aligned to the administrative structure, with federal, regional and municipal levels of responsibility. Over 18 parallel health-care systems operate; in addition to the Ministry of Health and Social Development, other ministries and public enterprises operate systems. Some 15 percent of all outpatient and 6 percent of all inpatient facilities are provided by non-MoHSD facilities.[cccxxiv] The health-care reforms have focused on decentralisation and comprehensive insurance schemes, which may have exacerbated existing inequities.[cccxxv] According to the constitution and via the mechanism of the Guaranteed Package Programme, all essential health care is free. Additional payments are a common requirement across all systems. A history of facility-based care, high levels of staffing and systematized incentives are perceived as key factors in the ongoing high level of patient care (in terms of number of visits made) and of inpatient care.

1.3 Legal context of sexual and reproductive health care. The Russian Federation is guided in its legislation by the following major international human rights obligations: Millennium Declaration and Development Goals; International Covenant on Civil and Political Rights (ICCPR); International Covenant on Economic, Social and Cultural Rights (ICESCR); Convention on the Rights of the Child; and UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The International UN Conferences on Population and Development (Cairo 1994), Fourth World Conference on Women (Beijing 1995) and other conferences, even if not ratified, also play a role in defining the framework for Russian legislation. In general legislation is compliant with international laws.
There is no definition of reproductive health and rights in Russian legislation. However, the Russian State Constitution is based on principles of international law and is responsible for promoting the health and well-being of all its citizens and support to maternity and childhood. It also states that any form of discrimination is unacceptable.

2. Overview of maternal health

The latest reported maternal mortality ratio is 23.79 per 100,000 live births;[cccxxvi] the 2005 WHO adjusted estimate is 28 per 100,000. The Ministry of Health estimate for 2007 is 24.1 per 100,000, which equated to 388 deaths; for comparison the number of deaths in 2001 was 479.[cccxxvii] As noted, the variation across the federation is significant and this is the case with the MMR. For example, both St. Petersburg and Kaliningrad have higher ratios, which may be linked to drug abuse and HIV rates.[cccxxviii]

The very high rate of abortion in Russian means that, even acknowledging that abortion has a four times lower risk of death than birth, the sheer volume of procedures undertaken will affect the ratio. In order to make a comparison with regional averages, this must be taken into consideration. A recent World Bank document indicated that as many as 10 per 100,000 deaths are due to abortions (compared to 1 per 100,000 in the European Union).[cccxxix] There is no information on the level of morbidity associated with abortion; it is assumed to be high. The provision of illegal abortion remains a problem, which also prevents the collection of data that is fully representative of the actual situation. Official statistics only include abortions undertaken in public facilities; data for private facilities is not collected.

The official statistics indicate that 25 percent of deaths are attributable to abortion-related factors and that 15 percent of maternal deaths in Russia are due to haemorrhage and 10 percent due to toxaemia (eclampsia).[cccxxx] The 2005 UNDP Human Development Report raised questions about the accuracy of data analysis and this estimate, including the cause of death for the 75 percent of non-abortion related deaths. The report suggests that the cause of death in half of the cases was anaesthesiological malpractice, while two deaths were due to late admission of women with relatively manageable conditions. The late admission was due to geographical remoteness and lack of means of communication and transportation. The report highlights potential issues with misreporting of deaths to prevent blame.[cccxxxi]

Overall maternal health in the federation has improved substantially since 1994; the MMR dropped by over 50 percent, the frequency of normal childbirth has increased (from 31.1 percent in 2000 to 36.7 percent in 2007) and the rate of abortions in women of fertile age has dropped from 42.9 percent (2001) to 33.3 percent (2007). The estimated complication rate is 26.32 percent and the rate of morbidity is high. Teenage pregnancy and the relatively high (although decreasing) rate of abortion are ongoing concerns.

The currently stated contraceptive prevalence rate (CPR) (67 percent for all methods and 49 percent for modern methods) is based on data collected in the 1996 reproductive health survey and is widely believed to be irrelevant. Current estimates of the CPR are of approximately 25 percent.[cccxxxii] This unconfirmed rate is very low for a middle-income country; the high but declining levels of abortion may prevent greater use of modern methods. There is very little information available on the barriers to use of effective contraception such as cost and availability and/or other factors that influence usage.

3. Discussion of key indicators.

The Russian Federation tends to have a high level of compliance with international indicators (which tend to be quantitative) and therefore interpretation of the data can fail to acknowledge issues regarding quality and the effectiveness of services. In addition, not all data are routinely monitored, presumably due to the high level of compliance. Where indications have been provided it is likely that they will mask regional variations.

3.1 Antenatal care (ANC). This information is not routinely collated and the usage of ANC is assumed to be near universal. One review of indicators confirms an estimated 94 percent to 100 percent use of antenatal care among pregnant women, and multiple visits are common.[cccxxxiii]

3.2 Attended deliveries. There is no national information on the level of attended births but it is assumed to be high and near universal. Regional indicators (such as the Tula region) report a level of 95 percent.[cccxxxiv] The same study indicated that the level of deliveries occurring in EmOC facilities in the selected areas were high at 95 percent.

3.3 Emergency obstetrics care. There are 42,018 centres providing EmOC; assuming that all provide comprehensive EmOC, this represents 148 per 500,000 people. In 2007, 196.94 in 1,000 deliveries (308,989 in total) were recorded as EmOC cases. There has been a steady increase in the EmOC rate since 2001, when the recorded rate was 156.28 per 1,000 deliveries.[cccxxxv]

The proportion of caesarean sections (CS) has also increased, from 150.4 per 1,000 deliveries to 192.7 per 1,000 in 2007.[cccxxxvi] A CS rate has been estimated for 2000 at 14.3 percent of all deliveries and an upward trend was also noted.[cccxxxvii] Although up-to-date data on the CS rate was not available, it is reasonable to assume that the rate will have risen in line with the proportion of CS deliveries and will exceed 15 percent. The UN Process Indicators for EmOC recommend an acceptable CS rate of 5 percent to 15 percent.

3.4 Accessibility. There is no formal exclusion of any groups from reproductive health care and apparently no barriers to access. However, as noted above, it is acknowledged that there is very little information available about the usage of contraception and whether it is accessible. There are no standardized processes for the review of accessibility to services and/or information. One review highlighted issues with the accessibility to abortion care, arguing that although abortion services are generally easily accessible, there are still women from marginalized groups (adolescents, migrants and the destitute) who are dying from "backstreet abortions."[cccxxxviii]

Sexual and reproductive health education is not included in the school curriculum and there are no other formal educational programmes or activities.

3.5 Health-care systems and financing for maternal health. A network of over 47,543 centres provides obstetrics and pregnancy care in Russia. These range from antenatal clinics to 197 dedicated maternity hospitals; 42,018 centres provide EmOC. The level of geographical coverage is high with only very remote areas (with low population density) likely to have gaps in provision. Throughout the health sector there is an ongoing tendency towards inpatient care and overuse of the hospital system. Arguably maternal care is over-medicalised with high numbers of ANC visits per pregnancy and high levels of hospitalization of women during pregnancy. There are also concerns about differing practices of care between facilities and regions; for example, huge variations have been noted in the caesarean section rates and the episiotomy rates. One study also highlighted that despite near universal services in maternal health, some groups appeared to be consistently marginalized from using these services.[cccxxxix] There is also an argument that antenatal care and family planning in particular remain low priorities, and little effort has been made to improve the quality of care or to equip front-line staff with information or support in integrating them into PHC.[cccxl]

There is no information available on the role and level of service of private providers.

The health system is financed through a combination of user fees, insurance schemes, central government budget, federal target programmes and municipal budgets. The total expenditure on health as a percentage of GDP is estimated at 5.3 (WHOSIS 2006), which is slightly lower than the CIS regional average of 5.51 percent and relatively low for a middle-

income country. There is no information available on the proportion of funding made available to maternal and/or reproductive healthcare.

3.6 Enabling environment. The Russian Federation appears to have not made a statement of support for universal access to reproductive health care in its core country development documents. There is no separate RH and MCH policy or programme; it is mentioned in the demographic policy as a concept on health-care improvement, and it exists as a part of the National Health Care Project. MCH improvement is seen as a priority, and special measures were taken in recent years to support this including the so-called "maternal capital" (a sum of approximately $10,000 given to mothers for each child they deliver after their first). Other child-focused initiatives include building new perinatal centres and providing child allowances. There is concern that family-planning programmes have not been prioritized or integrated into existing and planned health-care systems.[cccxli]

Russia adapted the MDG 5 target to reduce maternal mortality by at least 50 percent in the period 1990-2015. The specific targets for the MMR are 22.0 per 100,000 in 2009 and 21.00 in 2010.

No national or regional assessments of maternal health appear to have been undertaken. There is no multi-sectoral national committee for the coordination of maternal health activities and services in Russia. There is a national level Coordination Council responsible for increasing the effectiveness of maternal and childcare; it consists of leading specialists and professors. It sits once a month to update information on MCH care in regions. Similar councils exist in the regions.

3.7 Monitoring and evaluation. As noted, there is no national committee responsible for coordinating maternal care activities.

The quality of care provided is monitored through the review of indicators such as the MMR, perinatal mortality rate, infant mortality rate, child mortality rate, number of complicated cases, number of complicated cases as a result of abortion, number of teenage pregnancies, number of abortions, user satisfaction as a criteria of quality of care (incorporated into "birth certificates"), morbidity rate (general and gynaecological) and monitoring of obstetric care. In addition, there are licensing systems that play a role in monitoring quality.

Standardized national systems for client registration and records exist, and maternal deaths, case fatalities and disaggregated information on complications are recorded at the national level. As noted, there are some concerns that unsafe abortions and maternal mortality cases are underreported due to fear of administrative penalties.

There is a system for maternal death audits; however, one study reported that they are largely an administrative formality and are hampered by a lack of investigative expertise. The study concluded that as a result, there is little evidence of tangible improvements to quality of maternal care.[cccxlii]

Maternal health reports are produced at the national, regional and district level.

Ongoing challenges

While significant progress has been made in improving maternal health care, a number of ongoing challenges have been highlighted. These include:

- a high level of maternal morbidity and a high level of abortions;
- low usage of modern contraception;
- relatively high level of adolescent pregnancy;
- poor quality of care and lack of access among all socio-economic groups;
- inadequate prioritization of maternal health care and subsequent commitment to planning and resource allocation.

SERBIA

Indicators at a glance	Serbia	European Region	CIS	CARK	EUR B+C
Population (million)	7.354				
Rate of natural increase of population	-0.4				
Projected change in population 2008-2050 (%)	-21				
Total fertility rate	1.4				
Contraceptive prevalence rate (CPR) all methods	41				
CPR for modern methods	19				
Unmet need for contraception	28.5%				
Number of abortion per 1000 births (2007)	356.42	388.24 2006	541.32	170.2 2006	493.33
Antenatal care coverage	99%				
Skilled attendance at birth	99%				
Number of EmOC facilities	NA				
Number of EmOC facilities per 500 000 *	NA				
Number of caesarean sections per 1000 births (2007)	169.39	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	NA				
Rate of complications (% all births)	TBC				
Reported maternal mortality ratio (MMR)	12.68	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	...	47	51		
Lifetime risk of pregnancy related death 1:	4500				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The maternal mortality ratio (MMR) in Serbia is relatively low; however, there are concerns over the potential underreporting of deaths and limited verifiable data from which to interpret trends. Notwithstanding this, and although the MMR is favourable in comparison with other Balkan countries and similar to the European regional average, there is room for a further reduction of the maternal mortality ratio and improved obstetric and antenatal care, particularly for Roma women.

The UN MDG Monitor assesses that it is very likely that the MDG target of 4.5 deaths per 100,000 live births will be achieved.

Note that the methodology for collecting some of the data for this desk review included the use of a questionnaire for local UN offices for data not available elsewhere. In a small number of countries it was not possible to obtain the full range of requested information, for a variety of reasons. This was the case for Serbia, where it was not possible to obtain up-to-date information on obstetrics services, users and morbidity and additional information to

assess the levels of monitoring and evaluation and the strength of the supporting environment.

1. Country overview

1.1 Population and demographics. Serbia's current population is just under 7.5 million. Recent demographic trends have been affected by conflict and associated migrations. The projected population change is expected to decline by 20 percent in 2050; the current natural rate of increase is - 0.4.[cccxliii] In January 2008 the Serbian government adopted a strategy to encourage a higher fertility rate.

1.2 Health-care systems. The war inflicted significant damage on much of the Serbian infrastructure. In 2002 the government identified a series of immediate priorities. A Strategy for Health to 2015 was drafted in 2003. This includes specific goals for a reform programme and proposed changes to the essential care package, to health financing and the management of health institutions.[cccxliv] Montenegro declared independence in June 2006. Serbia has an integrated model of publicly owned facilities which are contracted by the national Health Insurance Fund. Services at primary, secondary and tertiary level are generally well distributed through the republic and are managed within a system of regional institutions comprising at least one district hospital and several primary health-care centres.[cccxlv].

1.3 Legal context of sexual and reproductive health-care. The right to health is guaranteed by international instruments ratified by Serbia (and Montenegro), such as the International Convention on the Elimination of All Forms of Racial Discrimination; the International Convention on the Elimination of All Forms of Discrimination against Women; the 1989 Convention on the Rights of the Child; and the International Covenant on Economic, Social and Cultural Rights. The government of the Republic of Serbia adopted the UN Millennium Declaration in 2005 and is therefore committed to monitoring progress towards internationally defined goals.

2. Overview of maternal health

Data collected prior to 2006 includes data from the Republic of Montenegro. As a result, estimates and analysis based on data from this period is not directly comparable to more recent information.

The reported maternal mortality ratio for 2006 is 12.68 deaths per 100,000 live births, slightly lower than the total European ratio but higher than the ratio seen in other successor states to the Federal Republic of Yugoslavia. A Ministry of Health estimate for 2002 is 8.9 per 100,000, suggesting either an increase in the ratio or changes or inaccuracies in reporting.[cccxlvi] The 2006 MDG Report recognizes numerous problems in the quality of maternal death records, which may contribute to underreporting of the number of deaths.[cccxlvii]

A prior level of investment in health and maternal education, the comparatively good level of maternal nutrition, the relatively small number of births, and the level of antenatal, delivery and postnatal services may have prevented a significant decrease in maternal health during and after the conflict.[cccxlviii]

The causes of maternal death in Serbia are not available. An increase in the reported levels of anaemia in women is a serious concern.[cccxlix]
The use of contraception is low; the prevalence rate for married-women is 19 percent for modern methods and 41 percent for all methods. Traditional methods are more popular than modern methods. The recent multiple indicator cluster survey (MICS) identified regional variations (ranging from 27 percent in Central Serbia to 54 percent in East Serbia) and links between use and education, ethnicity and wealth index.[cccl] The survey estimated unmet need for contraception at 28.5 percent with the highest unmet need among the Roma women who are also the poorest and least educated. The rate of abortions per 1,000 is close to the regional average at 356.42 (2007).[ccli]

3. Discussion of key indicators

3.1 Antenatal care (ANC). Antenatal care is almost universal with 99 percent of pregnant women receiving care at least once; there is no data available on the numbers receiving the WHO recommended four visits. Lower antenatal care coverage is noted among Roma, the youngest and less educated women, and women from the poorest households. Doctors provide 98 percent of ANC; this is significantly lower among Roma and less educated women.[cclii]

3.2 Attended deliveries. Skilled attendance at delivery is also near universal at 99 percent. The MIC survey found no statistically significant differences between categories of respondent, except ethnicity; Roma women from Roma settlements and Muslim/Bosnian women have slightly lower rates at 93 percent and 94 percent respectively. Some 66 percent of Roma women, who had births attended by health personnel, were served by doctors. The national average for doctor-assisted deliveries is 87 percent. A total of 6 percent of Roma women were unattended by a skilled professional.[ccliii]

3.3 Emergency obstetrics care. There is no information on the level of provision and use of emergency obstetrics care (EmOC). Serbia has 41 general and 16 specialist hospitals and it is assumed that general hospitals will provide comprehensive EmOC; however, this has not been verified. The number of caesarean sections per 1,000 live births in 2007 was 169.39.[ccliv] With no data on the total number of deliveries, it is not possible to interpret this figure; however, as the birth rate is relatively low, it is possible that the overall rate is high. The UN Process Indicators for EmOC set a rate of 5 percent to 15 percent of deliveries as acceptable.

3.4 Accessibility. It is not possible to comment on whether any groups are actively excluded from accessing reproductive and maternal health care and information.
It is not possible to comment on any barriers to access to information and/or services. The findings of the MIC survey indicate that access to obstetrics care may be compromised for some ethnic groups. In addition, the high level of unmet need for contraception (nearly one third of women wants contraception) may be linked to issues of access to information and supplies.

The MDG Report notes an improvement in the promotion of reproduction health in young people since 2005. In addition to promotional materials, two manuals have been designed for use by teachers. The Reproductive Health Association also provides some information. It is not known if sexual and reproductive health education is included in the school curriculum in Serbia.

3.5 Health-care systems and financing for maternal health. As noted, Serbia has a model of integrated health care and a system of regional level institutions to encourage the continuity of care between primary and secondary care. Serbia has a total of 300 facilities, including 161 primary health-care (PHC) centres, 36 health centres, 41 general and 16 specialized hospitals.[ccclv] Serbia has 15.94 specialist physicians per 100,000 population, among the lowest in the region.[ccclvi] The 2003 review of the Integrated Maternal and Childhood Health (IMCH) initiative highlighted the potential to improve maternal health through improved obstetrics care.[ccclvii]
It is not possible to comment on the role of private providers of maternal health care.

The health-care system is funded by a national Health Insurance Fund. The total expenditure on health care as a percentage of GDP is 7.6 percent, which is above the European B+C average of 5.8 percent and similar to the European regional average of 7.74 percent. It is not possible to comment on the financial commitments for funding reproductive or maternal health care.

3.6 Enabling environment. The poverty reduction strategy paper (PRSP) includes strategies required to achieve the MDG target. It is not possible to comment on whether this or other national development documents include an explicit statement regarding the goal of universal access to reproductive health care.

The Integrated Maternal and Childhood Health (IMCH) programme was introduced in 1996 following the adoption of the government decree on Mother and Child Health Protection at the Serbian National Assembly.[ccclviii] Its goal is to build the capacity of primary health-care providers to incorporate the health needs of mother and child into existing systems, recognizing that a healthy mother is a prerequisite for a healthy child. In addition, the National Strategy for the Development and Health of the Young supports mechanisms for the monitoring and promotion of the reproductive health of adolescents, and the National Strategy to Combat HIV/AIDS includes considerable elements regarding the reproductive health of women, including the use of modern contraceptive methods.[ccclix]

It is not possible to comment on whether any national or regional assessments of maternal health and health care have been undertaken or are planned. The recent MICS provided limited information on maternal health and morbidity.

The MDG target maternal mortality ratio is 4.9 per 100,000 live births by 2015. It is not possible to comment on how this specific target is being monitored or on any other possible targets associated with MDG 5.

3.7 Monitoring and evaluation. A task force for monitoring the implementation of goals and plans from the UN Millennium Declaration was set up by the government in 2004. This is a multi-sectoral group composed of the representatives of government ministries, the Statistical Office of the Republic of Serbia, the Standing Conference of Towns and Municipalities, the Poverty Reduction Strategy Implementation Team, the EU Integration Office, the Institute for Public Health and UN agencies.

It is not possible to comment on the existence of any national or regional bodies, formal or informal, which are responsible for monitoring and coordinating maternal health-care activities in Serbia.

It is not possible to comment on the existence of systems for standardizing, monitoring and managing the quality of maternal health care in Serbia.

It is not possible to comment on the capacity for monitoring performance, including existence of accurate data collection, and reporting and analysis systems. The concerns regarding potential underreporting of maternal deaths may be indicative of the level of capacity in this area.

Ongoing challenges

Although a number of challenges are apparent, there is insufficient information to make substantial comment or confirm the level of challenges.

TAJIKISTAN

Indicators at a glance	Tajikistan	European Region	CIS	CARK	EUR B+C
Population (million)	7.285				
Rate of natural increase of population	2.2				
Projected change in population 2008-2050 (%)	57				
Total fertility rate	3.3				
Contraceptive prevalence rate (CPR) all methods	38				
CPR for modern methods	33				
Unmet need for contraception	24% MICS				
Number of abortion per 1000 births (2007)	54.39 2006	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	77%				
Skilled attendance at birth	83%				
Number of EmOC facilities	88				
Number of EmOC facilities per 500 000 *	6.04				
Number of caesarean sections per 1000 births (2007)	21 2006	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	2.8				
Rate of complications (% all births)	30				
Reported maternal mortality ratio (MMR)	43.44	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	170	47	51		
Lifetime risk of pregnancy related death 1:	160				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The maternal health indicators for Tajikistan are amongst the worst in the region. Contributing factors include a relatively high rate of home (unattended) births, ongoing gender inequalities and limited knowledge and utilization of services including family planning. While strategies for safe motherhood have been developed, there are concerns about the capacity to implement and deliver them and low use of maternal service. Although caesarean section rates remain low, the use of emergency obstetrics services has grown by 20 percent since 2000 and national statistics indicate that 20 percent of women use emergency care.

There are significant variations in estimates of maternal mortality which may reflect some of the ongoing challenges associated with the provision of services and data collection. The 2015 target is 30 deaths per 100,000 live births,[ccclx] which is higher than the current average rates for the CIS region.

Both the MDG national report and the UN MDG Monitor indicate that Tajikistan is "off track" with regard to achieving MDG 5.

1. Country overview

1.1 Population and demographics. Unlike many countries in the region, Tajikistan has a relatively high rate of population growth and a total fertility rate of 3.3.[ccclxi] Seasonal intra-regional migration has a significant impact on the collection of demographic information as well as on health-care requirements and planning. Early marriage is common with almost 15 percent of women in Tajikistan being married before the age of 18.[ccclxii]

1.2 Health-care systems. A 2000 review noted that the "structure of the health system in Tajikistan has not undergone significant changes since Soviet times. The state remains the main public funder and provider of health-care services, although private out-of-pocket payments constitute a substantial but unknown part of health expenditure, and are now believed to be larger than public sources of revenue."[ccclxiii] There are a number of challenges to providing effective health care as noted in a 2008 study including inadequate infrastructure, equipment and drugs and a lack of evidence-based skills among health workers. The introduction of a sector-wide approach (SWAp) to improve efficiency and effectiveness began in January 2009. [ccclxiv]

The Guaranteed Benefit Package and Paid Services programme (2004) makes provision for free-of-charge prenatal care for pregnant women and free hospital care for childbirth.

1.3 Legal context of sexual and reproductive health care. Tajikistan is a signatory to the policies agreed to at the International Conference on Population and Development (ICPD and ICPD+5) and has ratified international conventions in the field of women and children's rights protection such as the Convention on Elimination of All Forms of Discrimination against Women. A law on reproductive health (RH) and reproductive rights was adopted in 2002, and several laws and decrees relevant to the protection of maternal and child health and the enhancement of women's roles in political and socio-economic life have been approved. The 2008 Bill on Social and Legal Protection against Domestic Violence will provide a framework for issues arising from violence and gender inequity.

2. Overview of maternal health

There is significant variance in maternal mortality ratios (MMR), suggesting a lack of confidence in official data. The reported ratio is 43.4 per 100,000. The WHO 2005 adjusted rate is 170 per 100,000. The UN MDG Needs Assessment team and the Government Working Group on Health have agreed to a baseline maternal mortality figure of 120 per 100,000 live births (2005).[ccclxv]

In 2002, the major causes of maternal death were haemorrhages (30.4 percent), eclampsia (30.4 percent), extragenital diseases (13.9 percent) and complications resulting from infection (10.1 percent).
Anaemia is very common, affecting between 50.3 percent and 83 percent of registered pregnant women; 30.1 percent of cases of displacement of the placenta are reported to be caused by anaemia, and overall this blood deficiency is regarded as a leading cause of maternal mortality.[ccclxvi]

The Ministry of Health estimates an anticipated complication rate of 30 percent.[ccclxvii] The number of abortions performed is very low in comparison to neighbouring countries and consequently abortion-related morbidity and mortality is low.

The 2005 multiple indicator cluster survey (MICS) indicated that 38 percent of married women were using contraception.[ccclxviii] This represented only a slight (4 percent) increase over results from 2000; however, the 2008 Annual Report of the Ministry of Health (MoH) estimated a recent decrease to 26.8 percent as a result of the energy crisis and cold winter.[ccclxix] As in many countries, the rate of contraception use, regardless of type, increases with education.[ccclxx] The MICS estimated unmet need for contraception at 24 percent.

3. Discussion of key indicators

3.1 Antenatal care (ANC). The coverage of ANC is relatively low with only 77 percent of pregnant women receiving care at least once (WHO guidelines recommend a minimum of four visits). The coverage rate is 10 percent higher in urban areas and lower among older and/or less educated and poorer women. In 2005 68 percent of ANC was provided by medical doctors, a 10 percent rise from 2000.[ccclxxi]

3.2 Attended deliveries. Some 83 percent of births were attended by skilled personnel in 2005; skilled attendance was higher in urban areas (89 percent) compared to rural areas (81 percent).[ccclxxii] The place of delivery can provide an indication of access to emergency obstetrics care (EmOC). Estimates of the number of births taking place in health facilities vary. Government statistics estimate 80 percent of all births were in health facilities, but the 2005 MICS and the 2003 Tajikistan Living Standards Survey[ccclxxiii] estimate rates of 60 percent and 66 percent respectively. Home births are assumed to be unattended by a skilled provider and are therefore high risk. The RH strategy includes targets to reduce the number of home births to 25 percent and to increase the medical attendance rate of homebirths to 75 percent by 2014.[ccclxxiv]

3.3 Emergency obstetrics care. A total of 88 facilities provide EmOC (the breakdown between basic and comprehensive care is not known); this is within the UN Process Indicator guidelines; however, as noted, there are concerns over the quality of care provided and accessibility. According to official data, 20 percent of women used EmOC services in 2007; this represents a 20 percent increase since 2000. The increase is attributed to poor quality reproductive health care including infrastructure and equipment; poor expertise of health workers and lack of evidence-based guidelines, protocols and standards. As noted above, the estimated rate of complication is 30 percent. The estimated caesarean section rate (using 2007 data) remains low at 2.8 percent. [ccclxxv] This is below the UN Process Indicator acceptable rate of 5 percent to 15 percent.

3.4 Accessibility. While no groups are actively excluded from accessing information and/or services, there are significant barriers to access including extreme environmental (physical and climate) challenges; inadequate financing of health sector; poverty; poor quality of care; poor ANC; lack of referral system; inadequate resource planning; and lack of transportation. In addition, there is insufficient knowledge including among policymakers of issues related to reproductive rights. It is likely that these and other factors all contribute to the relatively low usage of ANC and EmOC services and the high rate of home births. Information on sexual and reproductive health is included in the Healthy Life Styles programme, which is incorporated into the school curriculum (grades 1-11).

3.5 Health-care systems and financing for maternal health. A rapid assessment of health facilities undertaken in 2008 revealed that the infrastructure and maintenance of many

centres is inadequate. Overall, obstetrics (among other services) was identified as having a low level of functioning.[cccLxxvi] In addition, medical staffing is inadequate. A slightly higher than regional average of midwives to population rate (of 56.56 per 100,000) is not matched by an acceptable rate of medical doctors.[cccLxxvii] The 2008 rapid health assessment identified a lack of staff in all regions, with some suffering critical shortages.

There are four private providers offering ANC in Tajikistan and no NGO service provision.

Health provision in Tajikistan is financed by the state budget. The official estimate for total health expenditure as a percentage of GDP is 5 percent; however, the MoH Annual Report for 2008 indicates a rate of 1.7 percent.[cccLxxviii]

There is no information available on what percentage of the total budget is allocated to or spent on reproductive or maternal health care. There is a growing trend of informal personal payments including for those services that are in the general service package, which is free for ANC and deliveries.[cccLxxix]

3.6 Enabling environment. Both the Poverty Reduction Strategy Paper (PRSP) and National Development Strategy (NDS) refer to achieving universal access to reproductive health by strengthening public health services and improving medical statistics and access to and quality of primary health-care services.

The Tajikistan National Reproductive Health (RH) Strategic Plan (2005-2014) was approved in 2005. The strategy identifies several priority areas including safe motherhood; family planning and contraceptive security; and adolescent sexual reproductive health. The strategy includes targets aligned to the MDGs. The overall safe motherhood goals in the strategy are reduction of maternal mortality and morbidity by 25 percent and increase in contraceptive use by 40 percent.

Specific targets are tabulated below.

The monitoring of progress against the strategy's objectives, goals and targets is delegated to the National Committee on Reproductive Health. This committee, formed in 2007, is charged with developing and implementing a monitoring and evaluation plan which will include planned regular reviews.

Despite the availability of well-developed strategic documents on RH there are concerns with actual implementation of the strategies. The challenges associated with delivering and utilization of quality safe motherhood services and the relatively weak systems for monitoring quality and collating information are exacerbated by limited financial resources and institutional/administrative capacity. The National MDG report for 2005 noted a weak but improving supportive environment.

Safe Motherhood targets in the 2005-2014 reproductive health strategy	Actual level 2002	Forecasted level by 2014
Maternal mortality ratio	49.6 (MoH) 120 (WHO)	35.0 30.0 by 2015 (MDG)
Coverage of pregnant women with regular medical check-up	53.5%	80.0%
Anaemia incidence among pregnant women	85.3%	50.0%
Coverage with medical care at in-home deliveries	43.8%	75%
Number of home deliveries	38.7%	25%
Contraceptive prevalence rate (modern)	21.8%	30.0%

3.7 Monitoring and evaluation. A National Committee of Reproductive Health was established in 2007 with responsibility for the coordination, monitoring and evaluation of reproductive health activities, including maternal health. Maternal Child Health (MCH) departments in the three provinces and in the capital coordinate MCH-related issues.

Monitoring and accountability for quality of care rests with the Ministry of Health. There are no formal mechanisms for monitoring the operational quality of maternal health services; however, data are routinely collected for maternal deaths, complications and case fatalities. Standardized systems for client registration and recording are in place, and regular maternal health reports are produced at the local and national level. There are concerns over the accuracy of data (as reflected in the varying MMR estimates). The MoH has established a system for reviewing maternal deaths and for near-miss analysis; however, there are issues associated with administrative punishment of health providers and confidentiality which may compromise the effectiveness of this system.[ccclxxx]

Currently there are only four national clinical standards for maternal health: obstetrics bleeding, toxaemia, physiological/normal deliveries and management of ANC.

Ongoing challenges

Official documents and surveys such as the UNFPA-funded 2008 review of reproductive health have identified the following as ongoing challenges:

- very limited resources for health;
- gender inequalities;
- poor access to RH services exacerbated by a lack of public transportation, ambulances and poor communication systems;
- poor quality of care including inadequate health infrastructure and RH supplies and commodities;
- health workers not trained to deal with RH conditions, particularly EmOC;
- insufficient evidence-based guidelines, protocols and standards dealing with safe motherhood;
- Lack of public awareness including among policymakers about reproductive rights, safe motherhood, family planning, adolescent sexual health and sexually transmitted infections including HIV/AIDS;
- inadequate and unreliable information on RH.

TFYR MACEDONIA

Indicators at a glance	TFYR Macedonia	European Region	CIS	CARK	EUR B+C
Population (million)	2.049				
Rate of natural increase of population	0.2				
Projected change in population 2008-2050 (%)	-15				
Total fertility rate	1.5				
Contraceptive prevalence rate (CPR) all methods	14				
CPR for modern methods	10				
Unmet need for contraception	34%				
Number of abortion per 1000 births (2007)	268.42	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	98%				
Skilled attendance at birth	98%				
Number of EmOC facilities	Tbc				
Number of EmOC facilities per 500 000 *	NA				
Number of caesarean sections per 1000 births (2007)	169.27 2006	213.85 2006	146.75	63.54 2006	192.53
CS rate where known					
Rate of complications (% all births)	tbc				
Reported maternal mortality ratio (MMR)	4.43	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	10	47	51		
Lifetime risk of pregnancy related death 1:	6500				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Although the maternal mortality ratio is relatively low at 4.43 deaths per 100,000 live births (2006) and has decreased over the last few years, the 2005 National MDG report notes that the rate is still too high. The report also notes the significant variability in the data indicating that, along with improvement of general health status and other conditions, more attention should be paid to surveillance and monitoring mechanisms. Macedonia has almost universal attendance of a skilled provider at birth and deliveries within health centres; however, there are some indications of reduced access to reproductive health services for Roma women and those unable to pay for the mandatory insurance scheme and/or informal payments.

UN MDG Monitor indicates that Macedonia is very likely to achieve its MDG target of a reduction in maternal mortality by three-quarters by 2015.

1. Country overview

1.1 Population and demographics. Like many countries in the region, Macedonia has a relatively young population (according to the 2002 census the average age is 35.5) but with a low natural increase rate, it has a negative growth projection and an increasingly aged population.

1.2 Health-care systems. The Ministry of Health is responsible for the national health-care system and develops health policy and health-care law. Since independence, there has been a period of centralised management followed in 2001 by widespread decentralisation. Health care is delivered through a system of health-care institutions covering the country's territory relatively evenly. Like many Eastern European countries, Macedonia is currently implementing a series of health reforms and has introduced co-payment/user fees. The public health facilities are comprised of health-care stations and centres at the primary health-care (PHC) level; specialist-consultative and inpatient departments at the secondary level; and university clinics and institutions at the tertiary level.[cccLxxxi] There are inequalities within the health system both geographical, with a lack of services in rural areas, and financial, with easier access to specialist care for those who choose to pay.[cccLxxxii] The privatization of public facilities and services will continue to be the subject of further discussions.[cccLxxxiii]

1.3 Legal context of sexual and reproductive health care. Macedonia is a signatory of the major international and regional conventions and instruments that provide the framework for the provision of sexual and reproductive health care including the Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights, Convention on the Rights of the Child, Convention on the Elimination of All Forms of Discrimination against Women and the European Social Charter. Article 39 of the Macedonian Constitution guarantees the right to health to every citizen. The normative aspects of sexual and reproductive health are covered by the overall legal system of the Republic of Macedonia, rather than only the health legislation.

2. Overview of maternal health

Despite increases in the maternal mortality ratio between 1999 and 2002,[cccLxxxiv] the overall trend has been downward and the 2006 reported rate is low at 4.43 deaths per 100,000 live births. The 2005 WHO adjusted estimate for MMR was 10 per 100,000. Only one case of death due to maternal causes was reported in 2006, with the rate being 4.4 per 100,000 live births.[cccLxxxv] There is no evidence available on possible underreporting; however, the 2005 MDG National report notes that reported numbers may not include women not using facilities and women without insurance and may attribute deaths to other causes.[cccLxxxvi] Macedonia has no precise data about the cause of maternal deaths and morbidity.

The contraceptive prevalence rate is very low at 14 percent for total methods for married women (10 percent for modern methods). The 2008 assessment of contraception and abortion noted that there is no routine reporting of disaggregated data on the use of contraceptives.[cccLxxxvii] Abortion is the most widely practiced form of contraception. The Republic Institute for Health Protection reported the total number of abortions in 2006 at 6,690.[cccLxxxviii] The overall trend is downwards; however, abortions performed in private institutions, which may constitute a significant percentage of procedures, are not registered.

The 2005/2006 multiple indicator cluster survey (MICS) estimates the unmet need for family planning at 34 percent.[ccclxxxix]

3. Discussion of key indicators

3.1 Antenatal care (ANC). The coverage of ANC is almost universal at 98 percent to 99.2 percent (2006) [cccxc] of pregnant women receiving ANC at least once; there are no significant differences between women from urban and rural areas. Women receive 99 percent recommended care.[cccxci]

3.2 Attended deliveries. The rate of skilled assistance at birth is also almost universal at 98 percent. The MICS estimated that 84 percent of births in the year prior to the survey were attended by a doctor; 14 percent by a nurse or midwife and 2 percent by a traditional birth attendant, friend or relative. The percentage assisted by a doctor is lower among Roma women (70 percent) and women with no education (78 percent).[cccxcii] The place of delivery can provide an indication of access to emergency obstetrics care (EmOC). Estimates of the number of births taking place in health facilities are consistent at 98 percent to 99 percent.[cccxciii]

3.3 Emergency obstetrics care. In principle all obstetrics centres are able to perform emergency obstetric care; in practice, all emergency cases are transferred to and treated at the University Gynaecological Clinic in Skopje. There is no information collected on actual and anticipated complication rates. The information on emergency cases has been superseded by a proxy indicator of surgically assisted deliveries. In 2007, a total of 3,823 caesarean sections were performed; in 2005, the total was 3,647, which constituted 15.9 percent of births,[cccxciv] slightly above the UN Process Indicator for EmOC acceptable rate of 5 percent to 15 percent of all births.

3.4 Accessibility. No groups are formally excluded from reproductive health care (RH); however, the unregistered Roma community is subject to legal and policy-related barriers. The 2005 MDG national report notes that Roma mothers often do not have health insurance and cannot afford the co-payments and informal costs associated with ANC (even where in theory services are subsidized). The impact of additional costs (co-payment, user fees and informal costs) in reducing access is heightened by increasing levels of poverty and unemployment. In addition, some rural areas face geographic barriers to accessing maternal health services. Also, ongoing health-care reforms are causing a number of access problems related to work management, health resources management, outdated physical infrastructure, lack of equipment and lack of financial resources.[cccxcv] The move to provide family planning through private family doctors and gynaecologists may also have presented additional barriers to access of contraception for some women.

Sexual and reproductive health-education is included in the school curriculum; additional activities to promote awareness and use of RH services include two youth friendly services centres, peer education activities by a number of NGOs, and use of pamphlets, posters, manuals, brochures and other health education materials by public health centres and NGOs.

3.5 Health-care systems and financing for maternal health. As noted above, Macedonia operates a three-tier health service delivery system. Obstetrics care is provided through 100 primary health-care delivery points, 32 health centres with community

patronage and 10 outpatient obstetrics care stations. The 2008 strategic assessment of policy, access and quality of contraceptive and abortion services concluded that the health indicators for Macedonia show that "health care focused on sexual and reproductive health is well planned, organized, accessible and of a high quality, but also that further improvement is required."[cccxcvi] However, as noted above, there is evidence of real barriers to access to family planning supplies and maternal health services (mainly associated with cost, remote location and access for Roma women) and concerns over some aspects of the quality of care provided (as discussed below). Macedonia has made legal provisions to allow for large-scale privatization of health services, in particular in primary health care. The privatization of dentists' offices at PHC level has been completed recently, and the process of privatizing publicly owned pharmacies by sale or leasing has been initiated.[cccxcvii] The family planning service was dismantled in 2006 and responsibility for the provision of family planning moved to private family doctors and to gynaecologists. In 2007 there were 101 individual private providers of maternal care. (99 specialists –gynaecologist/obstetricians and 2 private hospitals)[cccxcviii]

The WHO estimates that for 2006, total health expenditure as a percentage of gross domestic product (GDP) amounted to 8.2 percent. A mandatory health insurance system is the main source of health financing; combined with user fees this totals 95 percent of health revenue. Uninsured individuals are entitled to subsidized maternal treatment. Informal payments are recognized as relatively common; the scale and impact of these payments is not known. In addition, specialized care is easier to access for those who choose to pay.[cccxcix] Funds for maternal health are allocated to sexual and reproductive health programmes as well as directly to health centres annually from the national budget and from the health insurance fund. There is no information on the specific amounts or proportions of funding allocated to reproductive and/or maternal health.

3.6 Enabling environment. While universal access to RH is explicitly included in national development plans, there is a need to improve both the policies and capacity of the health system to deliver this objective. Despite the existence of five national preventive RH programmes (including one for MCH), there is no specific strategy for the improvement of RH in Macedonia. In addition, there is no framework for an organized, coordinated plan to implement improvements or to monitor and assess the results.[cd] The 2008 National MDG report notes the need to address non-health-related issues such as violence and socio-economic factors that influence maternal health.

Macedonia's aims match the MDG goal of reducing maternal mortality by three-quarters by 2015. The target related to the level of attended births is not clear.

3.7 Monitoring and evaluation. The National Committee for Safe Motherhood convened in 2008. Members of the group include representatives of the MoH, the public health sector, specialists in neonatology, gynaecology and obstetrics, and nurses as well as international organizations including UNICEF, WHO, UNFPA, World Bank and UNAIDS. The Institutes for Health Protection and for Mother Child are responsible for coordinating service delivery.

The Ministry of Health monitors the quality and outcomes of maternal health through the review of indicators. These include clinical cases of maternal deaths, maternal mortality rate, number of caesareans, number of abortions, number of preventive health services versus curative services, of births with medical assistance, number of births in medical facility, number of stillborn children, infant mortality rate by age group, number of medical staff employed to provide obstetrics care, and other indicators for reproductive and child health.

In addition the Ministry of Health operates a licensing system. However, there is no formal system of control over the quality and accreditation of health-care providers.[cdi]
In addition to the above indicators, information on maternal deaths, morbidity evidence for cases with complications and case fatalities is routinely recorded on a national level. Reports on services for women's health care (broken down by location and patient profile) are produced annually.

Protocols, guidelines and standards for the management of maternal care are not standardized or complete. There is a need to develop guidelines, protocols and standards for the clinical management of ANC, delivery, post-partum care and family planning.

Ongoing challenges

Common areas highlighted by the various surveys and national reports (MDGs) include:

- improved surveillance and monitoring for evidence of maternal mortality, abortions, use of contraception and patient satisfaction;
- quality control of health-care providers and more comprehensive guidelines and protocols;
- improving health sector infrastructure and equipment.

TURKEY

Indicators at a glance	Turkey	European Region	CIS	CARK	EUR B+C
Population (million)	74.776				
Rate of natural increase of population	1.2				
Projected change in population 2008-2050 (%)	19				
Total fertility rate	2.2				
Contraceptive prevalence rate (CPR) all methods	71				
CPR for modern methods	43				
Unmet need for contraception	10.1				
Number of abortion per 1000 births (2007)	NA	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	80%				
Skilled attendance at birth	46.7% DHS 2003				
Number of EmOC facilities	600				
Number of EmOC facilities per 500 000 *	4.01				
Number of caesarean sections per 1000 births (2007)	353.91	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	36				
Rate of complications (% all births)	NA				
Reported maternal mortality ratio (MMR)	20.94	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	44	47	51		
Lifetime risk of pregnancy related death 1:	880				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Turkey amended its MDG 5 target on maternal mortality to a 50 percent reduction in the maternal mortality ratio (MMR) by 2015. The UN MDG Monitor acknowledges that this has been achieved.

With an estimated maternal mortality ratio of 20.94 deaths per 100,000 live births and significant regional variation (including an MMR of 40.3 in rural areas), maternal death remains a significant issue in Turkey. There is evidence of substantial disparities in level of care and maternal health outcomes across the regions. As a result, the Health Strategy includes targets for a narrowing of the gap between the regions in addition to national targets. There are concerns regarding a relatively low level of antenatal care and a related failure to recognize problems leading to delays in accessing care, which is seen as the most significant factor contributing to death. There is a strong suggestion that the quality of care received and the capacity to deal with emergencies at time of delivery, the most common cause of death, is inadequate. There is limited evidence of strategies to improve the monitoring and management of quality among providers.

The collection and analysis of data from maternal health-care facilities to date has been inadequate, leading to a lack of confidence in some analysis and a reliance on survey data.

At the time of collating this desk review, the 2008 demographic health survey was due for publication. Data was not available for inclusion in this review. It is anticipated that the findings of the DHS may differ from existing and previous data quite substantially in some areas.

1. Country overview

1.1 Population and demographics. Despite having a young population, with 33 percent under the age of 15, Turkey is experiencing a decline in fertility rates and the current natural increase rate is estimated at 1.2.[cdii] There are wide variations in fertility rates across the regions; the 2003 demographic health survey (DHS) notes a closing of the gap between urban and rural rates.[cdiii]

1.2 Health-care systems. The Ministry of Health is responsible for providing health-care services throughout the country with a focus on primary health care. The responsibility for delivering the services and implementing programs is shared by various General Directorates (Primary Health Care, Mother and Child Health and Family Planning, Health Training) and by various departments (Tuberculosis Control, Malaria Control, Cancer Control). Health directorates are responsible for the health-care system at provincial level. Despite a series of reforms, the health system remains challenged by low population coverage, heavy reliance on out-of-pocket payments and an uneven distribution of facilities and personnel, all of which will potentially lead to unequal access and lower quality public services.[cdiv] Recent years have seen a rapid expansion of the private sector and an expectation that higher income earners will use these services, potentially exacerbating the inequalities of access and quality.

1.3 Legal context of sexual and reproductive health care. Turkey is a signatory of the major international and regional conventions and instruments that provide the framework for sexual and reproductive health-care delivery. The law on the Nationalization of Health Care Delivery underpins the concept of comprehensive PHC. The Population Planning Law legalized abortion and voluntary surgical contraception along with other measures to improve the access to and quality of family planning and maternal health.

2. Overview of maternal health

The latest reported maternal mortality ratio is 20.94 deaths per 100,000 live births, a rate which is higher than the European regional average. The WHO 2005 adjusted ratio is 40 per 100,000. The National Maternal Mortality Survey (NMMS) identified significant variations between urban and rural areas for the period 2005-2006: the urban MMR was 20.7 and the rural ratio was 40.3 per 100,000.[cdv] The NMMS also estimated the overall ratio of pregnancy-related deaths at 38.3 per 100,000 live births. This ratio was also subject to urban (28.2) and rural (53.7) discrepancies and revealed substantial regional variation ranging from West Anatolia (12.4) to Northeast Anatolia (93.3).

There is an acknowledged concern over the adequacy of maternal mortality data;[cdvi] for example, non-hospital deaths and women dead on arrival are not routinely reported.[cdvii] As a result, there is a reliance on surveys to provide estimates. The maternal death detection and declaration system was revised following the NMMS and was due for implementation in 2007.

Estimates on the causes of maternal deaths indicate that approximately half die in delivery.[cdviii] The NMMS estimated that 58.4 percent died from direct obstetrics causes including haemorrhage (17 percent) and hypertensive disorders (14 percent). Twelve percent died from ante-, intra- or postpartum conditions such as embolism, ruptured uterus or causes directly related to a surgical procedure; one or more avoidable factors contributed to 61.6 percent of maternal deaths. An estimated 40 percent of pregnant women may face a pregnancy-related health problem and 15 percent of all pregnancies may have life-threatening or long-lasting complications.[cdix]

Turkey has a high rate of contraception usage (71 percent total, 43 percent modern methods) and the national unmet need for contraception is accordingly low at 6 percent.[cdx] The 2003 DHS estimated that rate of induced abortion is also relatively high at 24 percent of married women; 80 percent of these reported procedures were undertaken in private health-care facilities.

3. Discussion of key indicators

3.1 Antenatal care (ANC). The 2003 DHS results indicate that four out of five mothers received antenatal care from a health professional, more than 75 percent received care from a doctor and more than 50 percent received care at least four times (the WHO recommendation). There are significant discrepancies by location with double the number of urban compared to rural women receiving four or more visits. The NMMS estimates that the women who died during pregnancy had an ANC attendance rate of 5 percent to 10 percent below the average.

3.2 Attended deliveries. The 2005 MDG National report noted that the Ministry of Health is unable to "provide information related to births attended by health-care staff across Turkey; births occurring in health-care facilities that are not affiliated to the MoH cannot be tracked." It also noted that births attended by health-care personnel at home and unattended births are insufficiently monitored.

The DHS estimates that during 1998-2003, 46.7 percent of births were attended and 45.1 percent of these were attended by a midwife or nurse. Again, there are inequities related to location (59.7 percent attended in East Anatolia compared to 95.3 percent in West Anatolia) and level of education.

The DHS estimates that 80 percent of deliveries took place in a health facility; public facilities were preferred (65 percent) compared to private (13 percent). The NMMS estimated 68 percent of deliveries were within a health facility and 19 percent of deliveries were at home.

3.3 Emergency obstetrics care. Emergency obstetrics care (EmOC) is provided in up to 600 centres in Turkey. Assuming that these centres provide comprehensive EmOC, the overall coverage exceeds UN Process Indicators for EmOC recommendations fourfold. However, in rural areas access to EmOC is compromised by distance and a high turnover of medical staff. Conversely, higher levels of accessibility in urban areas may have adverse

effects due to ineffective coverage and delays in deciding which service to use.[cdxi] There is no information available on the use (numbers and type of emergency) of EmOC services. The NMMS notes the relationship between the most common causes of maternal death (obstetric haemorrhage and eclampsia, conditions which usually occur shortly before, during or after delivery) and the need for access to EmOC.

The caesarean section (CS) rate provided by the Ministry of Health is high at 36 percent (2008);[cdxii] the level of maternal deaths may suggest that the CS rate is inflated by non-emergency cases. The MoH is actively trying to decrease this rate. The NMMS estimated a rate of 48.5 percent and the DHS a rate of 21.2 percent. The UN Process Indicators for EmOC suggest an acceptable level of CS at 5 percent to 15 percent of all deliveries.

3.4 Accessibility. No groups are formally excluded from accessing reproductive health care; however, there are some barriers. These include the political approach to supporting pronatalist policies, the lack of youth-focused care, socio-cultural behaviours and attitudes, and the low status of women. The information regarding the level of skilled attendance at birth is variable and inconclusive; however, it is probable that the relatively low rates of skilled attendance are related to issues of access and that this is more prevalent in rural areas with generally lower levels of medical staff. The regional variation of health outcome data supports concerns of access.

Of the 13.7 percent of avoidable maternal deaths identified in the NMMS, the majority were due to the failure of the woman or her family to recognize a problem. This and the delay in seeking care contributed to 44.3 percent and 40.7 percent of pregnancy-related deaths respectively and may be indicative of poor access to information. The World Bank notes that cost is also a significant barrier to access which results in huge disparities in health outcomes and health status in Turkey.[cdxiii]

Sexual and reproductive health-care education is not included in the school curriculum or other educational programmes.

3.5 Health-care systems and financing for maternal health. Health-care reforms in Turkey have focused on primary health care and on attaining a high level of national coverage. Obstetrics services are provided through approximately 4,000 centres, 600 of which provide EmOC.[cdxiv]

There are significant concerns over the quality of care provided. The MDG National Report refers to "both supply and demand problems related to a significant portion of deliveries taking place in unhealthy conditions." To improve maternal health the report says "health-care services need to develop full capacity to follow up all pregnancies, mothers need to be motivated to utilize routine pregnancy care, and obstacles like cost and lack of health insurance need to be eliminated."[cdxv] The NMMS reported the failure of early diagnosis, inadequate management by obstetricians and poor quality of antenatal care as the most significant health service provider factors contributing to maternal deaths. The survey indicates that health service supply factors such as the availability of staff, diagnostic and treatment facilities, and pharmaceuticals and medical supplies played a relatively minor role in contributing to both pregnancy-related and maternal deaths (at 1.8 percent and 2.1 percent of each respectively). This suggests that access to quality care is a more important factor.

The private health sector is well established in Turkey and increasing in size and significance. Approximately 25 percent of maternal care is delivered by private providers[cdxvi] with 13 percent of the total number of facility-based deliveries taking place in private facilities.[cdxvii]

The health-care system is funded by the central government budget and the universal health insurance scheme. In 2008, 9.27 percent of the total health budget was allocated to MCH/family planning. The total health expenditure in 2006 was estimated as 5.6 percent of GDP.[cdxviii]

3.6 Enabling environment. The National Development Framework includes a statement on universal access to reproductive health, and the NMMS notes that mother and child health and family planning services have been given priority in the policies of the government in recent decades.

There is no specific strategy for sexual and reproductive health; it is included in the national strategic action plan for the health sector (2005-2015). This plan in turn sits within the Turkish Health Transition Project and the targets and strategies are not necessarily in line with international current best practice.
The overall goal is that maternal mortality will be reduced in Turkey (as a whole and at regional level) by 50 percent of the levels in 2005 by the year 2015. In addition, differences in MMR between regions will be reduced by 50 percent by the year 2015.
The health strategy recognizes five priorities to be addressed:
1. High maternal mortality rate.
2. High frequency of unwanted pregnancies.
3. Increasing prevalence of STI/HIV/AIDS.
4. Poor sexual and reproductive health of young people.
5. Disparities in RH access to and quality of care between regions.

Specific targets in these areas include:

- The proportion of women receiving antenatal care will be at least 98 percent by 2013; the proportion receiving it at least once from a doctor or trained midwife/nurse will be increased to over 90 percent by the year 2008.
- The proportion of births attended by trained health personnel will increase to over 98 percent by the year 2013.
- In both these instances, the differences between the lowest and highest regional rates will be reduced by 50 percent by the year 2013.
- The mortality due to induced abortion will be reduced to less than 5 per 100,000 live births.

3.7 Monitoring and evaluation. The Ministry of Health (MoH) General Directorate of MCH and Family Planning is the national mechanism for the coordination of maternal and childcare and family planning. There are also local management units in every province but no multi-sectoral national committee.

Turkey has a nationally standardized (ICPD 10 compliant) recording and client registration system. Maternal deaths and case fatalities are recorded nationally; these form the basis of the system for monitoring the quality of care. The information is supplemented by surveys such as the NMMS which comment on quality of care as a contributing factor in maternal mortality. There are guidelines and protocols for ANC, delivery, post-partum care and family planning.

Information on the rate and type of compilations is not collected. As noted, the level of confidence in data collection is low. The MDG national report and NMMS both refer to inadequacies, which are also highlighted in DHS 2003; these include recording only data from facilities and not including individuals dead on arrival in maternal mortality statistics. A National Maternal Mortality Review of data determined 72 maternal cases that the MoH system did not find.[cdxix] Following the NMMS, the Maternal Death Detection and Declaration System has been revised. Turkey has a history of undertaking surveys and research projects to support the routinely collected information. Reports on maternal deaths are produced annually and the DHS is scheduled for every five years.

Ongoing challenges

Despite having achieved the national MDG 5 target of a 50 percent reduction in the MMR (since 2005), there remain some substantial challenges to maternal health care and a relatively high rate of maternal deaths. Many socio-cultural challenges including the low status of women, the need to educate young people and the lack of male involvement provide a complex environment which needs to be addressed along with improvements in health-care systems.

Ongoing challenges include:

- addressing the disparities in care and information across regions;
- increasing access to information and ANC to decrease life-threatening delays;
- improving quality of care and technical capacity for EmOC;
- continuing improvements in the collation and analysis of data.

As noted, the 2008 DHS is currently being finalized and is likely to provide new information on the current maternal health situation in Turkey.

TURKMENISTAN

Indicators at a glance	Turkmenistan	European Region	CIS	CARK	EUR B+C
Population (million)	5.18 PRB 2008 6.9 SSO				
Rate of natural increase of population	1.7				
Projected change in population 2008-2050 (%)	47				
Total fertility rate	2.9				
Contraceptive prevalence rate (CPR) all methods	62				
CPR for modern methods	53				
Unmet need for contraception	10.1				
Number of abortion per 1000 births (2007)	153.75 2006	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	97%				
Skilled attendance at birth	99.7%				
Number of EmOC facilities	59				
Number of EmOC facilities per 500 000 *	5.69				
Number of caesarean sections per 1000 births (2007)	33.53 2006	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	4%				
Rate of complications (% all births)	TBC				
Reported maternal mortality ratio (MMR)	15.63	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	130	47	51		
Lifetime risk of pregnancy related death 1:	290				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The level of data and information available for this review limits the ability to comment on the current situation regarding maternal health. There is clear evidence of an improvement in the maternal mortality ratio (MMR) but an ongoing high level of disparity between the reported MMR and other available estimates. The latest reported MMR is 15.63 deaths per 100,000 live births. The level of caesarean sections is low at 4 percent and, there is no information regarding complications and the need for emergency obstetrics care.
The UN MDG monitor assesses that Turkmenistan is very likely to reach the MDG 5 target.

1. Country overview

1.1 Population and demographics. The population of the Republic of Turkmenistan is approximately 6.9 million.[cdxx] Turkmenistan is experiencing moderate population growth with an estimated natural increase rate of 1.7. The current population is projected to increase by 47 percent by 2050.[cdxxi] Like many central Asian countries, Turkmenistan has a relatively young population reflecting high fertility rates into the late 1990s.

1.2 Health-care systems. Turkmenistan began a series of health reforms in 1995 with the aim of increased equity, efficiency and solidarity. The reforms have taken a systematic approach to addressing identified issues with a focus on the development of primary health care.[cdxxii] The Cabinet of Ministers are responsible for determining policy and the Ministry of Health and Medical Industry is responsible for implementation. The actual administration and management of services is shared by the ministry and regional administrative structures. In addition, parallel systems are operated by the Ministry of Defence, Ministry of Internal Affairs, National Security Services, National Border Service, national airlines and airport services. The private sector is represented by one hospital.

User fees have been incrementally introduced with a range of criteria for exemptions including free services for pregnant women and a 50 percent discount for members of the voluntary health insurance scheme. The level of informal payments, shown to be high in other CIS states, has not been assessed in Turkmenistan.

1.3 Legal context of sexual and reproductive health care. Turkmenistan has ratified and adopted the key relevant international conventions and declarations including the UN Convention on the Rights of the Child , the programme of action of the International Conference on Population and Development, the Millennium Declaration, the Convention on Elimination of All Forms of Discrimination Against Women (CEDAW) and the International Covenant on Economic, Social & Cultural Rights which recognises the “right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” The 1992 constitution of Turkmenistan declares the rights of the citizens in the country. The health-care system is regulated by laws, presidential decrees and decrees of the Ministry of Health and Medical Industry in accordance with the constitution. The 2002 law that protects the health of citizens provides the framework to improve reproductive health in conformity with the principles of ICPD. The law underscores the importance of access to maternal health care and to contraceptives and treatment for infertility. It also highlights the importance of informed consent and the reproductive health needs of young people.[cdxxiii]

2. Overview of maternal health

Turkmenistan is recognized as having achieved significant results in maternal care in the years since independence. The maternal mortality ratio (MMR) was more than halved between 1991 and 2000; it was estimated at 65 deaths per 100,000 live births in 2000.[cdxxiv] The latest reported MMR is 15.63 per 100,000 (2006).[cdxxv] However, as in many countries, there are differing estimates of mortality rates and concerns over the accuracy of data collection and analysis.[cdxxvi] The WHO 2005 adjusted estimate is 130 per 100,000.

The causes of maternal deaths are equally divided between haemorrhage, thromboembolism, indirect causes and other obstetrical problems.[cdxxvii] A 2005 evaluation of maternal health care noted declining but high levels of anaemia in pregnant women (58.6 percent of all pregnant women in 1999 and 49.6 percent in 2004); the incidence of preeclampsia was recorded at 5 percent in 2004.[cdxxviii] Recent information on maternal health, such as rates of complications, is not widely available and access to the 2006 multiple indicator cluster survey is restricted.

The prevalence of modern contraceptives is relatively high at 53 percent (62 percent total prevalence rate).[cdxxix] The 2000 demographic health survey estimated the rate of use of modern methods at 39.2 percent; it is reasonable to assume that there has been a

significant increase in use in the last few years. The increase is matched by a downward trend in the rate and number of abortions and a perception of increased awareness of family planning.[cdxxx] There is an estimated 10.1 percent unmet need for contraception[cdxxxi] and indications of the need for further strengthening of the planning, monitoring and distribution of supplies.[cdxxxii]

3. Discussion of key indicators

3.1 Antenatal care (ANC). The coverage of antenatal care is very high at over 97 percent. A 2004 study estimated that 82.6 percent of women started ANC within the first trimester of pregnancy.[cdxxxiii] WHOSIS data for 2003 indicates that 83 percent of women received at least four ANC visits (the WHO recommended level).[cdxxxiv] A 2005 evaluation noted that some women were receiving 19 ANC visits.[cdxxxv]

3.2 Attended deliveries. Delivery in health centres with assumed attendance by a skilled service provider is almost universal at 99.7 percent.[cdxxxvi] Recent analysis of deliveries at monitored sites revealed that 61 percent of deliveries were in safe motherhood sites managed according to WHO standards.[cdxxxvii]

3.3 Emergency obstetrics care. A total of 59 sites provide emergency obstetrics care which equates to 5.60 facilities per 500,000 population.[cdxxxviii] The UN Process Indicators for EmOC recommend four basic and one comprehensive EMOC facilities per 500,000. There is no available information on the use of EmOC services (volume and nature of emergencies). Caesarean section (CS) rates are available for 2006 and 2007 at 3.8 percent and 4 percent respectively.[cdxxxix] The UN Process Indicators of EmOC indicate an acceptable CS rate is between 5 percent and 15 percent.

3.4 Accessibility. No groups are formally excluded from reproductive health-care services and information and there are no stated barriers to access. There are some indications of concerns over access to contraceptives; as noted above, there is a 10 percent unmet need and a suggestion of the need for further strengthening of the planning, monitoring and distribution of supplies. The 2005 evaluation of reproductive health services noted that the reproductive health offices were the only sources of contraceptives including condoms; there were no supplies in public drug stores.[cdxl] Male condoms are also available free of charge in AIDS centres (procured by UNFPA).

Sexual and reproductive health education (within the context of family life education) will become mandatory for grades 1-10 in schools in 2009. In addition the Y-peer network operates formal educational programmes to raise adolescent awareness of and access to information.

3.5 Health-care systems and financing for maternal health. Following a decree in 1998, reproductive health (RH) units have been established in all five provinces with the aim of providing better quality services, particularly family planning services.[cdxli] Reproductive health services are managed over four levels of the health system: primary (health houses), district (etrap), regional (velayat) and national level. The capital Ashgabat is administered as a separate structure with its own governance and health care that refers to the national level directly. There is one private hospital which is thought to be insignificant in the amount of maternal health service provided. The 2005 evaluation of RH services made a number of general recommendations for the continuing improvement of RH services; these include the need for increased collaboration to decrease duplication and to improve patient involvement;

revision of guidelines on ANC and inpatient care; development of common RH training packages; better monitoring against indicators; and better quality of care.[cdxlii]

There is very limited up-to-date information available on the financing of the health-care system. Overall the system is funded by a combination of user fees, medical insurance and central government budget, which remains the largest source of health revenue. Estimates for total health expenditure expressed as a percentage of GDP show a relatively low investment of 4.8 percent in 2006.[cdxliii]

3.6 Enabling environment. Turkmenistan adopted the National Reproductive Health Strategy (2000-2010) in 2000; this is currently being revised with the assistance of UNFPA and WHO. Additionally Turkmenistan is currently implementing a National Safe Motherhood Programme (2007-2011). A national committee for safe motherhood is in place and meets twice a year; it is composed of several agencies from different sectors but does not include international organizations. The safe motherhood programme (implemented jointly by UNICEF, UNFPA, WHO and the USAID) is reviewed on an annual basis. Turkmenistan has set a goal to reduce maternal mortality by two times by 2015 (having already reached a 75 percent reduction).[cdxliv] Information on specific targets and indicators is not available. The safe motherhood programme has clearly defined outcomes; however, it is noted that some delays have been experienced and activities cancelled.[cdxlv]

3.7 Monitoring and evaluation. The Ministry of Health and Medical Industry is responsible for monitoring the quality of care provided and does so monthly. Standardized systems for client registration and record keeping exist and information on case fatalities and deaths is recorded but not made available. Information on the number and type of complications is collected and maternal health reports are produced regularly (monthly, quarterly and annually) at the local and national level. A series of clinical protocols have been developed and are recently approved or awaiting approval.

Ongoing challenges

The recent evaluation made a number of recommendations. In the absence of more information about the level of maternal health, it is not possible to identify any further challenges.

UKRAINE

Indicators at a glance	Ukraine	European Region	CIS	CARK	EUR B+C
Population (million)	46.23				
Rate of natural increase of population	-0.6				
Projected change in population 2008-2050 (%)	-28				
Total fertility rate	1.3				
Contraceptive prevalence rate (CPR) all methods	67				
CPR for modern methods	48				
Unmet need for contraception	13.7.				
Number of abortion per 1000 births (2007)	498.77 2006	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	99%				
Skilled attendance at birth	99%				
Number of EmOC facilities	NA				
Number of EmOC facilities per 500 000 *	NA				
Number of caesarean sections per 1000 births (2007)	132.01	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	14.6 2007 MoH estimate				
Rate of complications (% all births)	44%				
Reported maternal mortality ratio (MMR)	15.21 HFA 2006 17.8 WHO 2007	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	18	47	51		
Lifetime risk of pregnancy related death 1:	5200				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

The level of data and information available for this review limits the ability to comment on the current situation regarding maternal health. There is some evidence that the maternal mortality ratio has increased recently and a suggestion that this is due to a motivation to reduce interval between births to receive welfare payments while pregnant. The latest reported MMR is 17.8 deaths per 100 000 live births.[cdxlvi]
The UN MDG monitor assesses that Ukraine is very likely to reach the MDG 5 target of MMR at 14.1 per 100,000 by 2015.

1. Country overview

1.1 Population and demographics. The population of the Republic of Ukraine is estimated at approximately 46.2 million. Ukraine is experiencing the highest rate of population reduction in Europe and the current population is projected to decrease by 28

percent by 2050.[cdxlvii] The demographic profile of the country has been altered by the rapid decline, and the country has a relatively low proportion of children and high proportion of people over 60. In 2006 the government adopted a national strategy of demographic development to address the demographic crisis.

1.2 Health-care systems. Like many countries, Ukraine has undertaken a series of health-care reforms since independence. Goals include restructuring with a focus on primary health care (PHC), mobilizing alternative financing and decentralising management and administration functions.[cdxlviii] In theory all services are provided free of charge using revenue generated through taxation. In practice the level of informal payments is high and a fee-for-service system operates. Attempts to introduce a health insurance scheme are ongoing. There is currently no basic service package. The majority of services and institutions are provided by public organizations and although parallel systems exist, the state retains overall responsibility for supervision of the health-care sector. Despite the reforms, there are concerns that the health-care systems have become complex and ambiguous in terms of division of responsibilities and financing and that the policy of decentralisation is not consistent.[cdxlix] There are also indications that there is limited scope for the public and the medical community to influence policy and management decisions.[cdl]

1.3 Legal context of sexual and reproductive health care. Ukraine has ratified and adopted the key relevant international conventions and declarations including the UN Convention on the Rights of the Child, the programme of action of the International Conference on Population and Development, the Millennium Declaration, the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) and the International Covenant on Economic, Social & Cultural Rights, which recognises the “right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” The 1996 constitution stipulates that ensuring health care for the whole population is one of the key functions of the state.[cdli] A number of laws and decrees create the framework for the delivery and utilization of health care. Ukrainian health protection laws are deemed to generally meet the international standards of human rights and freedoms.[cdlii] There is no specific legislation on the reproductive rights of women and adolescent girls.[cdliii] There is an indication that the actual delivery of health care including issues of payment may violate the country’s declared standards of justice and equality.[cdliv]

2 Overview of maternal health

Information regarding maternal health in Ukraine is not easily available. Maternal health and health care was not included in the 2005 multiple indicator cluster survey (MICS) and the 2007 demographic health survey (DHS) was limited in scope. In addition, there are concerns regarding the consistency and accuracy of data collection and analysis systems in Ukraine.[cdlv]

The maternal mortality ratio has seen a substantial decline from a rate of 44.8 deaths per 100,000 live births in 1980 to 17.8 per 100,000 in 2007.[cdlvi] However, the MMR over the last five years has fluctuated between the current high and a low of 11.5 per 100,000 in 2006. There are concerns that the recent rise in mortality may be associated with women becoming pregnant to get maternity welfare payments (at a time of economic pressure); these individuals tend to have lower incomes, a lower health status and are less likely to attend antenatal care or be able to recognize complications. In addition, there is a higher rate of late stage and unsafe abortion.[cdlvii] Overall the expected rate of complication in

pregnancy is 44 percent.[cdlviii] The available data on the nature of these complications and the relationship to maternal deaths and overall health is very limited; induced abortion is estimated to account for 10 percent of maternal deaths.[cdlix]

Generally the level of abortions has declined; the 2007 DHS estimated the total abortion rate at 0.4 per woman; the 1999 DHS estimate was 1.57. The decline is assumed to be due to public awareness campaigns and to the rise in use of contraception. The current total contraceptive prevalence rate estimates are 67 percent[cdlx] to 71.6 percent[cdlxi] with 48 percent reliance on modern methods. The 2007 DHS found a 2 percent increase in the prevalence rate since the 1999 survey. The DHS and MICS did not estimate the level of unmet need for family planning; the UNFPA programme has assumed a rate of 20 percent.[cdlxii]

3 Discussion of key indicators

3.1 Antenatal care (ANC). Antenatal care coverage in Ukraine is almost universal at 99 percent according to the 2007 demographic health survey (DHS).[cdlxiii] This survey noted that background characteristics did not influence coverage. This indicator has increased significantly from a figure of 90 percent recorded in the 1999 DHS.

3.2 Attended deliveries. Ninety-nine percent of births are delivered by a professional and almost all take place in a health facility.[cdlxiv] The 2007 DHS noted some slight variation in the type of facility used depending on the woman's background characteristics (location and education in particular).

3.3 Emergency obstetrics care. There is no information available on the number of centres providing emergency obstetrics care (EmOC) in Ukraine. The UN Process Indicators for EmOC recommend a minimum of four EmOC facilities and one comprehensive EmOC facility per 500,000 population. In 2007 a total of 11,471 emergency cases were recorded in Ukraine.[cdlxv] There is a steady downward trend in the number of cases seen (from 12,201 in 2000). There is no information available on the nature of the emergencies and or level of usage of EmOC facilities. The number of caesarean sections (CS) performed in 2007 was 71,953; despite a declining birth rate and downward trend in the number of EmOC cases, there has been a steady increase in the number of CS from 40,206 in 2000.[cdlxvi] One estimate for the rate of CS in 2007 is 14.6 percent.[cdlxvii] The UN Process Indicators of EmOC indicate an acceptable CS rate is between 5 percent and 15 percent.

3.4 Accessibility. No groups are formally excluded from reproductive health-care services and information and there are no stated barriers to access. However, the national programme for reproductive health recognizes that the high maternal and infant mortality rates are related to "the poor provision of information to the population on healthy lifestyle, responsible sexual behaviour, family planning, modern standards of prevention, diagnostics and treatment of reproductive tract diseases."[cdlxviii] Additionally the lack of technical equipment and inadequate training of specialists are highlighted as concerns to be addressed. A 2004 review of health-care service provision notes the lack of adequate functioning emergency transportation.[cdlxix] The reproductive health strategy is to increase access to service delivery points offering at least three forms of contraception and services compliant with established protocols. The target is an increase from a baseline of 55 percent, suggesting access is a problem. The impact of informal and out-of-pocket payments is not known; however, it is estimated that most services require additional payments. It is possible that the cost of accessing and paying for services may be a barrier to some individuals.

3.5 Health-care systems and financing for maternal health. In 2001 the health-care delivery system in Ukraine was comprised of 9,129 health facilities including multi-specialty inpatient facilities providing both inpatient and outpatient care; independent polyclinics and ambulatories; and 16,197 feldsher-midwife posts (FMPs). Approximately 86 percent of these facilities were publicly owned and 2 percent are in parallel systems.[cdlxx] The role of private providers is currently not known; data collection will start in 2009. As noted, there are concerns over the capacity of some centres as a result of the lack of specialist skills and equipment. General concerns over the provision of health care include the continued tendency towards over-hospitalization, the concentration of skilled providers and the complexity of the health delivery system.[cdlxxi]

The main source of financing for health is state and local budgets. The health service is one of the state's largest items of expenditure; however, it is not considered a priority at the state level. Approximately 3.4 percent of the GDP is spent on health.[cdlxxii] Expressed as a percentage of GDP the expenditure is estimated at 7 percent, which is relatively high in comparison to the investment made elsewhere in the region.[cdlxxiii] Plans to introduce a health insurance scheme are aimed at addressing the gap between the provision of free services and the actual revenue available to fund it.

3.6 Enabling environment. The Reproductive Health of the Nation programme (2007-2015) was adopted in 2006. The main objective of the programme is to improve the "population's reproductive health as an important component of general health, influence the demographic situation and ensure the socio-economic potential of the country."[cdlxxiv] The approach is a comprehensive one, establishing safe motherhood as one of five priorities. The goals would require socio-economic, educational, medical and scientific initiatives and collaboration to ensure implementation, monitoring and evaluation.

Maternal health targets include the following reductions by 2015:

- maternal mortality by 20 percent (MMR of 14.1);
- anaemia rate among pregnant women by 45 percent;
- abortion rate among adolescents by 20 percent.
- artificial pregnancy termination among adolescents aged 15-17 by 20 percent;
- artificial pregnancy termination among adult women by 20 percent;
- ensuring antenatal care for 98 percent of pregnant women;
- introducing youth-friendly clinics to outpatient polyclinics and pediatric health-care facilities by 90 percent;
- raising contraceptive prevalence for unintended pregnancies by 20 percent.

The targets have specific budgeted activities and include details for the independent evaluation of the programme. The total budget is 76,101,000 Ukraine Hryvnia, 60 percent of which will be state funded and 39 percent financed by local budgets.

3.7 Monitoring and evaluation. The state, through the Ministry of Health, retains overall responsibility for monitoring the effectiveness and quality of maternal and reproductive health-care services. Maternal mortality and the level of complicated deliveries are used as indicators. It is not clear if standardized systems of client registration and record keeping are in place. Information is collected on maternal deaths, complications and case fatality rates. It is not clear if dedicated maternal health reports are produced. Guidelines/protocols for maternal and/or reproductive health are in place.

Ongoing challenges

As noted, the national programme for reproductive health has identified the lack of information, high levels of complications, impact of induced abortions and lack of equipment and specialist skills as challenges. The programme seeks to address these through a range of activities.

UZBEKISTAN

Indicators at a glance	Uzbekistan	European Region	CIS	CARK	EUR B+C
Population (million)	27.20				
Rate of natural increase of population	1.7				
Projected change in population 2008-2050 (%)	38				
Total fertility rate	2.7				
Contraceptive prevalence rate (CPR) all methods	65				
CPR for modern methods	59				
Unmet need for contraception	8%				
Number of abortion per 1000 births (2007)	70.24	388.24 2006	541.32	170.2 2006	493.33
Ante natal care coverage	99%				
Skilled attendance at birth	98%				
Number of EmOC facilities	2775				
Number of EmOC facilities per 500 000 *	0.51				
Number of caesarean sections per 1000 births (2007)	62.87	213.85 2006	146.75	63.54 2006	192.53
CS rate where known	6.3				
Rate of complications (% all births)	3.8				
Reported maternal mortality ratio (MMR)	25.01	12.77 2006	27.5 2006	36.73 2006	24.37 2006
Adjusted maternal mortality ratio (2005)	47	47	51		
Lifetime risk of pregnancy related death 1:	1400				

* The acceptable level for emergency obstetrics care provision (UN Process Indicators) is 1 comprehensive EmOC and 4 basic EmOC facilities per 500 000.
Please see annex 1 for definitions and sources of information in the “At a glance section”

Summary of maternal health in relation to MDG 5

Despite concerns regarding the underreporting of maternal deaths (due to the criminalization of maternal death), there is evidence of significant progress in the reduction of maternal mortality. However, the vast majority of deaths are preventable and 45 percent occur in rural hospitals. There are concerns over the quality of emergency obstetrics care and the lack of up-to-date protocols as the basis for improved and consistent clinical management of complications and ANC referrals. The legislative environment is improving with the recent development of a reproductive health programme and measures to address concerns. The value and impact of out-of-pocket payments on health funding and on an individual's ability to receive services is not fully understood; it is assumed that cost is a barrier for some.

The MDG target is a 33 percent reduction in the MMR to 22.6 deaths per 100,000 live births by 2015. The UN MDG Monitor assesses that this is possible if some changes are made.

1. Country overview

1.1 Population and demographics. The Republic of Uzbekistan's population is estimated at 27.2 million. Following high population growth in the 1970s and 1980s, the rates of increase have dropped to a current natural increase rate of 1.7. The demographic profile of the country reflects this shift with a substantial decrease in the proportion of the population under 15 years. The current population is projected to grow by 28 percent by 2005.[cdlxxv]

1.2 Health-care systems. Uzbekistan has a single statutory health-care system with service delivery decentralised. The system is comprised of public, private and other forms of non-public health care. They provide primary, emergency and specialized care as well as care for conditions deemed "socially significant and hazardous."
Like many countries in the region, Uzbekistan has undertaken a programme of health system reform aimed at increasing the role of primary health care (PHC). Coordination between the levels of care remains a challenge.[cdlxxvi] The reforms also included the development of a guaranteed package of benefits (including secondary and tertiary care and pharmaceuticals) to be provided free of charge to the user.

1.3 Legal context of sexual and reproductive health care. The Republic of Uzbekistan has ratified and adopted the key relevant international conventions and declarations including the UN Convention on the Rights of the Child, the programme of action of the International Conference on Population and Development, the Millennium Declaration, the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) and the International Covenant on Economic, Social & Cultural Rights, which recognises the "right of everyone to the enjoyment of the highest attainable standard of physical and mental health."
The 1992 constitution provides that "everyone shall have the right to receive skilled medical care." The legislation and decrees support the delivery of maternal health care. These include the 1996 Law on Health Protection, a 2004 decree on measures to implement improvements in women's and children's health, a 2007 presidential order on further reforms of the state health-care programme and a 2007 decree on medical establishments.

2 Overview of maternal health

The latest reported maternal mortality ratio is 25.01 deaths per 100,000 live births,[cdlxxvii] which is below the 2006 CIS average of 28.72 per 100,000. The WHO 2005 adjusted ratio is 47 per 100,000. The 2006 MDG national report noted significant variation between provinces but no correlation between MMR and the socio-economic situation. A survey of 2004 data showed that Tashkent (with a higher level of accessible care) had a MMR of 52.3 while rural areas reported rates of 19.5 per 100,000.[cdlxxviii] The discrepancy is most likely the result of inadequate data collection and possible underreporting. Maternal deaths in Uzbekistan are linked to a criminal offence and are subject to criminal investigations; it is reasonable to assume that this will result in underreporting.[cdlxxix] Notwithstanding problems with data, there is a disparity between urban and rural deaths; 45 percent of deaths occur in rural district hospitals.[cdlxxx]
The main causes of maternal death are from preventable or manageable causes including haemorrhage (40 percent), hypertensive disorders (20 percent), and infections (17.5 percent) and the vast majority of maternal deaths occur within the health-care system, mostly in maternity units.[cdlxxxi] The expected level of complications is very low at 3.8 percent.[cdlxxxii] Anaemia is a significant problem with a reported 74 percent of pregnant women in 2004 suffering from anaemia.[cdlxxxiii]

The contraceptive prevalence rate of modern methods is relatively high at 59 percent.[cdlxxxiv] The 2006 multiple indicator cluster survey (MICS) noted that there is little difference in usage and need by educational status and/or geography.[cdlxxxv] However, there is an apparent reliance on the IUD and a suggestion that the range of contraceptive choice is limited.[cdlxxxvi] The MICS estimated an unmet need for contraception at 8 percent. The rate of abortion is low, especially in comparison to neighbouring countries. The reported rate for 2007 is 70.24 per 1,000 live births, and the MICS estimated that 13 percent of pregnancies in the year prior to the 2006 survey ended with an induced abortion. This may be indicative of a decline in the rate.

3 Discussion of key indicators

3.1 Antenatal care (ANC). The 2006 MICS estimated almost universal coverage of ANC with 99 percent of women receiving at least one act of antenatal care during the pregnancy. There is little difference among rural and urban residents and in 96 percent of the cases, the person providing antenatal care was a medical doctor. An estimated 47 percent of women make their first visit at about three months.[cdlxxxvii] A 2006 assessment of EmOC facilities noted concerns over the lack of WHO-compliant, evidence-based antenatal care and the high numbers of women being hospitalized unnecessarily.[cdlxxxviii]

3.2 Attended deliveries. The level of attended births is high; Ministry of Health statistics suggest that only 2 percent of all deliveries are home births.[cdlxxxix] The MICS confirms that for births in the year prior to the survey, 95 percent had been attended by a doctor with the remainder by health assistants. There was no difference in type of provider based on background characteristics of the women.

3.3 Emergency obstetrics care. Emergency obstetrics care (EmOC) is provided through a network of centres comprised of five units of the National Obstetrics and Gynaecology Research Institute, nine perinatal centres, 46 obstetrics complexes, 280 hospitals, 71 ANC clinics and 2,364 rural medical centres. The overall ratio of EmOC facilities to 500,000 population is 0.51 which is lower than the UN Process Indicator recommendations of four EmOC units and one comprehensive EmOC unit per 500,000. The rate of EmOC deliveries for 2007 was 3.8 percent of all deliveries which is slightly lower that the average rate of 4.12 percent between 2002-2007.[cdxc] The rate of caesarean section (CS) deliveries has increased steadily since 2002 reflecting an increase in technical capacity and skills; the 2007 CS rate is 6.3 percent.[cdxci] A 2006 rapid assessment of EmOC in Tashkent and one province shows significant variation in the rates for individual centres (ranging from 3.2 percent to 13.1 percent) which may reflect the level of referrals, level of skills or other factors.[cdxcii] The assessment also revealed that quality of care was insufficient and that the level of skills of health-care providers involved in EmOC was inadequate.

3.4 Accessibility. The high level of attended deliveries and the concerns of possible over-hospitalization (linked to obsolete ANC screening practices) suggest that access to obstetrics care is not limited. However, there is evidence that out-of-pocket payments (both formal and informal) are major barriers for some individuals.[cdxciii] The 2006 MDG report notes that although there has been a lack of evidence-based understanding of the socio-economic factors affecting maternal mortality, there is an understanding of the role of economic pressures that necessitates continued hard work during pregnancy and prevents access to ANC (time and cost pressures). Despite a relatively low level of unmet need for family

planning, there are concerns that the access to a range of choice may be limited as noted above.

A comprehensive programme of sexual and reproductive health education is incorporated into the school curriculum and the Republican Center for Reproductive Health and its branches, which provide specialist training in RH and also conduct awareness-building activities among specialists working with adolescents.

3.5 Health-care systems and financing for maternal health. An estimated 5,600 obstetricians, 15,230 midwifes, 12,400 paediatricians and 31,000 nurses provide maternal and child health care within Uzbekistan's health-care service.[cdxciv] In addition to those facilities providing EmOC, another 3,108 rural medical centres provide PHC and antenatal care, family planning and other outpatient RH/MCH care. There are no private providers of maternal health care in Uzbekistan. The UN agencies have been involved in implementation of the RH programme including components to develop capacity for service delivery. The provision of maternity care was restructured after independence and services were moved to newly organized central maternity units, which act as hubs providing integrated care for the population in their area. A recent change in bed-level allocation has been interpreted as a possible shift in addressing complications.[cdxcv] As noted, the 2006 assessment of EmOC raised concerns about the quality of care, particularly in the active management of the third stage of labour and the use of unproven, unnecessary and potentially unsafe medications including inappropriate use of steroids.

The level of expenditure on health as a proportion of GDP is relatively low at 4.7 percent.[cdxcvi] The main source of financing is assumed to be central and provincial state budgets; however, the full value of out-of-pocket payments is not understood.[cdxcvii] The total expenditure on health is likely to be understated as a result. Twelve percent of the national budget is currently allocated to reproductive and/or maternal and child health.[cdxcviii]

3.6 Enabling environment. Uzbekistan has made a partial commitment to the inclusion of universal access to reproductive health in state development documents. Health continues to be a governmental priority and a number of programmes have been developed to help reduce maternal and infant mortality, including cross-sectoral programmes such as the “Year of Health” and “Healthy Generation” campaigns.[cdxcix] In addition the Health Sector Reform Programmes have prioritized maternal health care and resulted in substantial restructuring of maternal care alongside strengthened integration into PHC. The Ministry of Health (MoH) has recently undertaken a situational assessment (unpublished) of maternal health care. Prior to this there has been a lack of systematic studies on socio-economic factors affecting maternal mortality. The 2006 MDG report assessed the supportive environment as weak but improving; the areas of statistical analysis and use of analysis to inform policy were deemed weak. In 2006 the Government Program and Interim Welfare Improvement Strategy outlined strategic interventions required to improve maternal health. They include increasing awareness about essential maternal health issues; improving maternal health infrastructure; upgrading national maternal health policies and health provider skills; increasing government investment and efforts in strengthening emergency obstetric care; upgrading national clinical protocols on maternal health and implementing them consistently; strengthening capacity to collect, process and analyse maternal health data; ensuring that policy planning and resource allocation are based on health and demographic statistics.[d]

The overall MDG goal is to reduce the maternal mortality ratio by 33 percent to 22.6 per 100,000. Other specific target indicators of women's health include mortality data, number

of abortions, percentage of women of reproductive age covered with medical examinations, contraceptives coverage and delivery age structure.

A National Programme on Reproductive Health improvement for 2009-2013 has been developed and submitted for consideration to the Cabinet of Ministers. The National Commission on Healthy Generation Upbringing, Women's Health Improvement and Family Medical Culture Enhancement is chaired by the deputy prime minister. The committee holds quarterly sessions at the Cabinet of Ministers. The coordination of maternal health activities is overseen by the General Directorate for Mother and Child Health (MCH). Every provincial health-care department has a deputy head of the department responsible for MCH and a chief obstetrician-gynaecologist.

3.7 Monitoring and evaluation. The reformed structure of maternal health care introduced a vertically integrated management and monitoring framework. National, regional and district health departments coordinate, manage and monitor the activities of all maternity hospitals and related services.[di] Indicators such as case fatality rates and caesarean sections rates are used as measures of quality. Uzbekistan has standardized systems of client registration and record keeping. Case fatality rates and complications are recorded. Maternal deaths are recorded both by the vital events registration system and the Ministry of Health; an annual analysis of maternal mortality is undertaken with the participation of leading specialists in the area of maternal health care and reported to the committee of the head MCH department. Maternal health is included in the annual statistical compendium of the Ministry of Health. The criminalization of some maternal death is recognized as an issue which may compromise data accuracy; the 2006 MDG report outlines plans to introduce confidential investigation and to improve family and community involvement.

A number of regulatory documents exist addressing the following issues: prevention of HIV transmission from mother to child in MoH obstetrical institutions; introduction of modern technologies to increase effectiveness of assistance to pregnant women in primary health-care establishments; reorganization of maternity units to increase effectiveness of perinatal care and measures to prevent hospital-acquired infections; development of gynaecological assistance to children and adolescents; expert assessment of each case of maternal mortality; measures to decrease mortality among pregnant and labouring women; and ratification of instructions and procedures of induced abortion operation.[dii]

However, the lack of clinical protocols (they are in development) has been highlighted; the evaluation of the 2003-2006 safe motherhood project notes that many deaths would be prevented if managed according to up-to-date protocols and if unfavourable outcomes were audited in line with WHO's "beyond the numbers" methodology.[diii] The rapid assessment of EmOC facilities notes the need for substantial improvement in developing the implementation of WHO Making Pregnancy Safer recommendations.[div] Guidelines are currently being developed for managing pregnancy with hypertensive syndrome, obstetric bleeding during natal and postnatal periods, sepsis / septic shock during pregnancy and postpartum period and prolonged labour.[dv]

Ongoing challenges

Ongoing challenges to improve quality of care have been identified as follows:

- improving the skills and knowledge of service providers;
- developing and implementing effective protocols;
- upgrading equipment and technologies;
- increasing the awareness and involvement of communities, especially men, in maternal health issues.

As noted, the 2009-2013 Reproductive Health Programme is being finalized. It is likely that this will provide additional data and interpretation of needs and priorities for maternal health care.

Assessment of challenges and opportunities for advocacy

The main text provides an overview of specific challenges for the individual countries covered in this review. A number of challenges which have the potential to limit further improvements in maternal health are shared by many countries. These are discussed below. In addition to the country sections, information has been drawn from the questionnaires provided to the UN Country Offices. Eighteen of the offices were able to provide responses to the questionnaire, in most instances after consultation with key stakeholders and sometimes as an individual's expert opinion. It should be noted that there is generally insufficient information (qualitative and quantitative) on awareness, behaviours, access and use of reproductive health services in most countries.

Shared challenges

- The need for improved data collection and analysis is a common challenge in the majority of countries.

  The majority of countries have standardized client registration and recording systems as the basis of health information systems; two (Azerbaijan and Bosnia and Herzegovina) have no such systems, and Belarus and Kosovo do not have specific health information management systems. All countries record maternal deaths (although in many there are concerns over the underreporting of deaths due to the possibility of criminal investigation). Fourteen countries routinely collect information on complications associated with pregnancy (although not all are able to provide estimates of anticipated rates). Case fatality rates (a proxy indicator for morbidity) are collected by 16 countries. Data on maternal morbidity are not uniformly available.

  The information collected on emergency obstetrics care (EmOC) services appears less comprehensive. Only five countries are able to provide estimates on the level of usage of EmOC and seven have data on the annual number of cases seen. Twelve countries collect information on the number of caesarean sections (CS) undertaken.

- Inadequate quality of reproductive health including maternal care remains a critical challenge in the region. Lack of quality standards and protocols to guide service providers is recognized as significant in Armenia, Azerbaijan, Bosnia and Herzegovina, Kazakhstan, Kyrgyzstan, Russian Federation, TFYR Macedonia, Tajikistan, Turkey and Uzbekistan.

Of the 18 countries which provided information, 13 confirmed the existence of clinical protocols and/or guidelines for maternal health care. Four countries reported incomplete and/or inadequate protocols. Only one country (TFYR Macedonia) reports that no protocols are in place.

There are differing levels of involvement of the state in monitoring quality of care. As a result of differing interpretations, there is a need for further information in order to understand the effectiveness of controls. Fifteen countries reported some quality control initiatives at either policy and/or operational level. The latter includes the development of licensing systems in some countries.

As noted above, the recording of EmOC and CS cases is not well established across the region. It is not possible to determine the level of comprehensive EmOC for the majority of countries and to make meaningful comparisons against international standards (UN Process Indicators on EmOC).

- Inequity in access to services and their utilization is an issue in many countries including Albania, Azerbaijan, Bulgaria, Kazakhstan, Kosovo, Kyrgyzstan, Moldova, Romania and Turkey.

  Although only nine countries indicated the existence of barriers to access to care (in the questionnaire), there is evidence of barriers and of rural/urban disparities in many countries. In addition to the inequity in the distribution of qualified service providers, the cost of services (out-of-pocket payments), low awareness, gender inequality and problems with transportation to services (particularly in geographically challenging areas) are contributing factors in many countries. Eleven of the countries included in the review analyse information on access in some form. Access to information is generally perceived as low in the region although there are pockets of effective practice.

- Low awareness about reproductive health and related services especially among youth is identified as an ongoing challenge in Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan and Tajikistan.

  Despite significant effort by UNFPA in particular, only 11 countries have included the teaching of appropriate information in the school curriculum in some form. A range of other activities, such as peer education programmes, exist in 10 countries. There is some evidence of a concern about the level of awareness and use of contraceptives and its relationship to abortion practice, which generally remains high. There is insufficient information on awareness, behaviours, access and use of reproductive health services in most countries.

- Poor political support for maternal health is an issue for Azerbaijan, Bosnia and Herzegovina, the Russian Federation and Belarus.

  There is a differing level of commitment to the provision of effective maternal health care across the region. While the majority of countries (14) have reproductive health policies and national coordinating mechanisms, not all (12) have made an explicit

statement of support for universal access to reproductive health. While some countries have very comprehensive plans, targets and mechanisms for monitoring and evaluating progress, not all appear to have developed specific targets related to improving maternal health. In addition, concerns over data collection and analysis of maternal health care (six countries have not undertaken a national assessment) and access to reproductive health services (11 countries analyse information on access in some form) challenge the commitment to making informed and evidence-based decisions about service delivery.

- The sources and level of financing for health care is a significant challenge in the majority of countries.

  The role and impact of informal and out-of-pocket payments is not fully understood in many countries but it is estimated that the requirement for additional payments is high and potentially a barrier to access (even where services are provided free of charge).

  There is limited information available on the proportion of health-care expenditure for maternal health care (seven countries provide information), and the analysis of expenditure is undertaken routinely in only two countries. It is beyond the scope of this review (and possibly the information available) to form an opinion on the impact of health financing

  It is not feasible to comment on whether cost effectiveness of services is considered with other determinants of quality and coverage when services are being planned. In many instances the countries included in this review are progressing with health reforms generally focused on improving primary health-care services and the role of family medicine in the context of improved referral system. It is not always clear how family planning and other reproductive and maternal health services are being integrated into reformed health-care systems, and in some instances there is evidence of deterioration in service provision as a result of reforms.

Advocacy

There are no regional advocacy programmes undertaken by UNFPA. A number of country offices have been advocates for or supported advocacy for a number of reproductive health issues including sexual education for adolescents. It has been beyond the scope of this review to assess these various activities; however, it is noted that the following (with no order of prioritization) may be considered as opportune areas for further advocacy. Family planning services are currently part of a parallel review and therefore no specific recommendations are being made with respect to them.

- To continue to address issues of gender inequity, poverty and reproductive health rights; to help ensure the effectiveness of specific initiatives to help achieve the broader development objectives of the MDGs.
- To support improved data collection and analysis of morbidity and mortality data, including addressing the underreporting of maternal deaths (and abortion in some countries); to inform and improve decision making and monitoring.
- To support assessment of quality of maternal health services; to build on successes and good practices within the region and to support the improvement of quality of care in specific countries.
- To review critical factors in the inequity of service provision and access to services and to build on successes in decreasing disparities in the distribution of services in rural and urban areas and other barriers to access.
- To identify critical factors associated with low awareness of reproductive health and services in specific countries and address the factors drawing on good practices in the region.
- To support a legislative environment for improvements in maternal health care, especially in countries seen as weaker in that area; to advocate for such enabling environments at an appropriate level across the region.
- To support learning and exchange of information about operational and financial best practice (including health financing and procurement models) to help maximize the effectiveness of health-care management and decrease the impact of service delivery costs.
- To support the development of an understanding of the role and impact of informal and out-of-pocket payments on individuals and health-care delivery systems.

Annex 1: Summary of maternal mortality in Eastern Europe and Central Asia and notes on data sources.

Data used in this review comes from multiple sources and every effort has been made to ensure the accurate referencing of all sources (however some documents have been submitted as translations and/or as extracts and it is has not always been possible to ensure full citation). The methodology of this review included a questionnaire format to prompt information and data that is not readily available elsewhere. In many instances information has been sourced through discussion with key informants and stakeholders or is the result of knowledgeable opinion. The scope of this review prohibits inclusion of all responses, and sources of information, provided by the UN country office staff to all questions asked of them. The information is however available on request.

Where possible a single source has been used for individual indicators and where alternative estimates exist this has been highlighted.
The main sources of statistics are the WHO Health for All database and the WHOSIS.
The 2005 adjusted estimates (WHO,UNICEF,UNFPA and World Bank http://www.who.int/whosis/mme_2005.pdf) used an alternative methodology to estimate maternal deaths and attempted to adjust the estimates to allow for some of the common challenges in data collection and analysis (including under reporting of deaths). Although the data are over 4 years old (and significant progress has been made in many countries during this time) and it is not realistic to make direct comparisons, the estimates do serve to highlight the variation in estimates of maternal mortality which is the main indicator for the MDG5 targets. The sources of WHO information and definitions are tabulated below.

	Country Group*	Country PMDF %**	Number of maternal deaths ***	Lifetime risk of maternal death***	MMR*** (matenal deaths per 100,000 live births)	Range of uncertainty on MMR estimates	
				1 in:		Lower estimate	Upper estimate
Countries of the commonwealth of independent states (CIS)(*)			**1800**	**1200**	**51**	**28**	**140**
Central and Eastern Europe and the Commonwealth of Independent States (**)			**2600**	**1300**	**46**	**27**	**110**
Albania	H	5	49	490	92	26	300
Armenia	H	3	26	980	76	23	250
Azerbaijan	H	4	110	670	82	21	290

(*)The CIS countries are Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, the Republic of Moldova, the Russian Federation, and Ukraine.

(**) UNICEF regions

Belarus	A		16	4800	18	18	35
Bosnia and Herzegovina	A		1	29000	3	3	6
Bulgaria	A		7	7400	11	11	22
Georgia	H	3	32	1100	66	18	230
Kazakhstan	H	3	340	360	140	40	500
Kyrgyzstan	H	8	170	240	150	43	460
Republic of Moldova	A	9	3	700	22	22	44
Romania	A		51	3200	24	24	49
Russian Federation	A		430	2 700	28	28	55
Serbia and Montenegro(***)	A		16	4500	14	14	27
Tajikistan	H	12	320	160	170	53	460
The former Yugoslav Republic of Macedonia	A		2	6500	10	10	20
Turkey	D		650	880	44	29	58
Turkmenistan	H	6	140	290	130	37	400
Ukraine	A		71	200	18	18	36
Uzbekistan	A		150	1400	24	24	49

(***) Serbia and Montenegro became separate independent entities in 2006.

*GROUPS
A Maternal mortality data derived from civil registration: countries and territories with good death registration and good attribution of cause of death
D Maternal mortality data derived from studies (RAMOS Turkey)
H Maternal mortality data derived from model
** The proportion maternal among deaths of females of reproductive age (PMDF).
*** The MMR and lifetime risk have been rounded according to the following scheme: < 100, no rounding; 100–999, rounded to
nearest 10; and >1,000, rounded to nearest 100. The numbers of maternal deaths have been rounded as follows: <100, no rounding,
100-999 rounded to nearest 10; 1,000–9,999, rounded to nearest 100; and >10,000, rounded to nearest 1,000.
Figures have been computed to ensure comparability; thus they are not necessarily the official statistics of countries, which may use alternative rigorous methods

SOURCE: http://www.who.int/whosis/mme_2005.pdf

WHO Health for All database http://www.who.int/whosis/mme_2005.pdf
Limitations

All of these sources are subject to certain limitations with respect to data availability and reliability, many of which are well-known and typical of the particular mode of data collection. In addition, the following limitations are of particular relevance to the data of the sub-region: (i)Accuracy of population estimates: Population estimates, and thus all per capita estimates, are subject to a high degree of inaccuracy owing to mass migration movements associated with sub-regional conflicts, as well as incomplete registration of births and deaths.

(ii) Political status of Serbia, Montenegro and Kosovo: Separate data for Serbia and Montenegro are not yet available in most international databases since it is only in 2006 that Montenegro gained independence. There is also no information available for Kosovo in these databases due to its current status as an autonomous province. Data for Serbia, Montenegro and Kosovo, then, are predominantly drawn from World Bank documents, such as health sector notes and public expenditure and institutional reviews.
(iii) Data vintage: For most analyses, this report uses 2004 data, which is the latest year for which validated data are available in most international databases. If earlier or later estimates are used, this is stated.

(iv) Consistency of estimates across sources: For some indicators, the international databases contain different estimates for the same year. In addition, the EU, EU-15 and EU-12 aggregate estimates that are produced by the WHO HFA-DB 2007 and World Bank WDI 2007 databases sometimes differ since the former uses population weights in compiling its estimates, while the latter bases its weights on the denominator. In the event of inconsistencies across databases, we favored the estimates in the World Development Indicators 2007 over other databases, and estimates in World Bank publications over estimates in the publications of other institutions.

Because of these limitations, although data are drawn from the sources thought to be most accurate, they should be interpreted only as indicative of broad trends and of major differences across countries rather than as providing precise quantitative measures of those differences.

Data were compiled, validated and processed in a uniform way in order to improve the international comparability of statistics. Nevertheless, since health data recording and handling systems and practices vary between countries, so do the availability and accuracy of data reported to WHO. Data comparability is also limited, owing to differences in definitions and/or time periods, incomplete registration in some countries or other national specificities in data recording and processing. **International comparisons between countries and their interpretation should thus be made with caution.**

The data for mortality-related indicators are probably the most complete and comparable, although in some countries, particularly in central and eastern Europe, the coding of underlying causes of death may contain some peculiarities. In addition, a few countries are not able to ensure complete registration of all births and deaths. In certain cases under-registration of deaths may be as high as 20% or even more, and this must be borne in mind when making comparisons between countries. This problem can be further aggravated by a lack of sufficiently accurate population estimates used as the denominator when calculating indicators. These problems mainly affect data since the 1990s, and are caused by severe socio-economic difficulties and armed conflicts in some countries. The following regions are most affected: the central Asian republics (particularly Tajikistan), the Caucasus countries (particularly Georgia), some countries in the Balkans region (particularly Albania and Bosnia and Herzegovina).

For some countries, therefore, indicators calculated on the basis of officially registered national mortality data – such as life expectancy, infant mortality, maternal mortality and standardized death rates – may be more or less biased or not available at all.

Mortality data in suitable detail are not available at all for Andorra, Monaco and Turkey.

Country specific information:

Georgia:
Since 1992-1994 the data from Abkhasia and Tzkhinvali (South Osetia) regions are not included in national mortality and other health-related statistics. Population figures, that were used as denominators for calculation of mortality rates and other indicators in HFA-DB, have been adjusted taking into account non-reporting regions and migration. However, they still may be significantly biased and the interpretation of mortality-based and majority of other indicators for Georgia during and after 1990s should be made with caution keeping in mind relatively low accuracy of raw data used for both, numerator and denominator.

Republic of Moldova:
Since1997 the data from Transnistria region are not included in the national mortality statistics.

Russian Federation:
For period 1993-2003 the Republic of Chechnya is not included in the national mortality and other health statistics.

Serbia :
Since 2001 the data from Kosovo and Metohia regions are not included in the national mortality and other health statistics.

Annex 2: Questionnaire

	Albania	Armenia	Azerbaijan	Belarus	Bosnia and Herzogovina	Bulgaria	Georgia	Kazakhstan	Kosovo	Kyrgyzstan	Moldova	Romania	Russian Federation	Serbia	Tajikistan	TFYR Macedonia	Turkey	Turkmenistan	Ukraine	Uzbekistan
Maternal Health Services and Use of Services														did not complete					Incomplete	
1. Has a national situational analysis for Maternal health been undertaken?	Being finalised	N	N	N	N	Y	Y	Y	N	Y	Y	Y	N		Y	Y	Y	Y		Y
2. Do you know of any regional situational analysis?	Y	N	N	N	N	DK	N	Y	N	N	Y	N	Y		N	Y	N	N		Y
3. How many health centres provide basic obstetrics care in the country?	43	64 maternal hospitals (in-patient) 331 ambulatory-policlinic services	800	763* + 2475 **	193	72	97	245	32	Variable quality across 934	2001	8900 family physicians, 22 policlinics, 389 hospitals, 83 ambulatories, 311 hospital ambulatories.	47543		295	100 primary care 32 health centres 10 obstetrics care stations	>4000	59		5 National Obstetrics and Gynecology Research Institute 9 perinatal centres 46 Obstetrics complexes 280 hospitals 71 ANC clinics 2364 rural medical centres ANC and FP at 3108 rural centres
4. Is this information broken down by district and/or state or nationally?	Y	Nationally	N	By type of SDP, urban/ rural, regions	Y	Y	Y	Y	Y	Y	NA	Y	DK		Y	Y	N	Y		Y
5. How many health centres provide emergency obstetrics care?	43 maternity centres	64	300	NA	193 to some extent	72	2	245	8	47 territorial hospitals 17 branches 7 Oblast merged hospitals	133	389 district hospitals and 311 hospital ambulatories	42018		88	in prinicple all centres, in practice emergencies are referred to the national centre in Skopje	>600	59		5 National Obstetrics and Gynecology Research Institute 9 perinatal centres 46 Obstetrics complexes 280 hospitals 71 ANC clinics 2364 rural medical centres
6. Is this information broken down by district and/or state or nationally?	Y	Nationally	N	NA	N	Y	NA	District and region	Y	Y	NA	Y	DK		Y	Y	N	Y		Y
7. How many women use the EmOC services every year?	DK	7000	NA	NA	NA	DK	+/- 3000	DK	40-70%	DK	Not recorded	DK	DK		20%	DK	DK	DK	NA	+/- 6000
8. Is this information broken down by district and/or state or nationally?	NA	Nationally	NA	NA	NA	NA	Y	Y	DK	DK	NA	NA	NA		Y	DK	NA	NA	NA	Y
9. What is the expected proportion of complicated cases in your country?	DK	37-40%	23	NA	NA	12-15%	23.6 -24.6%	89%	15%	60%	DK	TBC	26,32		30%	DK	DK	DK	44%	3,80%
10. How many EmOC cases recorded?	DK	Total /rate	NA	NA	NA	N.B. Every birth is considered as EmOC a planned caesarean.	Number of women referred	N/A	DK	Total	NA	DK	Total and rate/1000 births		Total numbers:	DK	DK	NA		Total / rate
2000		2205 (6.2%)					NA			NA	NA				30754				12201	
2001		2205 (6.2%)					NA			56008			201164 156.28:1000 deliveries		33045				11475	
2002		1958 (5.8%)					NA			490361			218539 159.69:1000		32665				11839	18,787 (4,1% of all deliveries)
2003		2128 (5.8%)					NA			71864			233341 163.46:1000		31885				11835	20,553 (4,5%)
2004		2317 (6.1%)					NA			58970			248837 171.49:1000		35935				11702	19,317 (4,1%)
2005		2433 (6.4%)					1462			66389			256917 182.98:1000		34961				11364	18,326 (4,1%)
2006		2329 (6.1%)					1935			64422			272225 188.06:1000		37498				11707	19,611 (4,2%)
2007		2529 (6.3%)					3089			71834			308989 196.94:1000						11471	18,360 (3,8%)
11. How many caesareans recorded?	DK	Total	NA	Per 1000 deliveries	NO DATA	Total/ rate	Total	Rate	Rate	Rate		Total	Total		Total	Total	Total 2007 Rate 2008	Rate		Total /rate

2000		2553		166,3		9927 14%	4334		7,5			34.035			2499	2672			40206	15,376 (3.2% of all deliveries]
2001		2520		163,4		10023 15.2%	4778		9,1		2458	34.433	193587		2393	2760			42971	17, 856 (3.5%)
2002		2729		172,6		11186 17.2%	5503		10,3		2808	36.273	211822		2895	2918			47624	19,065 (3.7%)
2003		3266		178,2		12141 18.5%	6259		11,3		3116	37.967	227035		2780	3091			52131	26,348 (5.2%)
2004		3611		186,4		13400 19.9%	7755		12,3		3389	42.129	242758		3345	Data not available			57176	23,652 (4.5%)
2005		4248		191		15653 23.1%	9073		13,9	5,20%	3708	47255	250755		3694	Data not available			58319	26,348 (5.1%)
2006		4512		197,6		17478 25%	9934		16,4	5,70%	4154	47269	266192		3981	3823*		3,80%	66376	29,369 (5.5%)
2007		5755				20187 28.7%	11008	11,52	17.7 (4926)	6,10%	4517	50771	302379		4900		508 000 (38%) 36% 2008	4%	71952	36,450 (6.3%)
12. Does the national health service measure the quality of maternal health services?	N	Y	N	Y	To some extent	Y	N	Y	Y	Y	Y	Y	Y		N	Y	Partial	Y	Y	Y
13. Are the number of case fatality rates recorded?	Y	Y	N	Y	tbc	Y	Y	Y	Y	N	Y	Y	Y		Y	Y	Y	Y	Y	Y
Other Health Care Providers																				
14. What % of maternal care is provided by non government health providers?	NA	DK	12	0%	Minimal %	DK	100	TBC	DK	DK	0%	DK	DK		NA	DK	+/-25%	DK very low	NA	0%
15. Is information available broken down by	NA	NA	N	NA	NA	NA			NA	NA	NA	NA	NA		NA	DK	NA	NA	NA	NA
% private providers							100													
% NGOs																				
% other?																				
Enabling Environment																				
16. Is there a national RH and/or MCH policy?	In development	Y	Y	N	N	Integrated	Y	Y	Y	Y	Y	Y	integrated		Y	Y	Y	Y	Y	Y
17. Is this in line with current best practice for the provision of MCH?	Y	Y	Y	NA	NA	Y	Y	N	Y	Y	Y	Y	Y		Y	Y	N	Y	Y	Y
18. Is there a national committee for maternal (and/or MCH) care?	Y	Y	N	N	N	N	Y	N	Y	Y	Y	N	N		Y	Y	N	Y		Integrated
19. Are there any other formal mechanisms for coordinating maternal care services?	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	Y	Y		Y	Y	Y	Y		Y
20. Are there national guidelines, protocols, policies and/or standards for the clinical management of ANC, Delivery, PPC and family planning?	Y	Y	Y	Y	Partial	Y/N	Y	Y	Partial	Y	Y	Y/N	Y		Partial	N	Y	Y	Y	Y/N
21. Are maternal deaths recorded?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Access to Services and Information																				
22. Are there any barriers that limit access to maternal services? 23. Please consider legal, policy, geography, cost, socio-cultural etc.	Y	Y	N	N	Y	N	N	Y	N	Y	N	Y	N		Y	Y	Y	N	N	N
24. Are any groups of women (eg unmarried women, refugees, adolescents etc) excluded from accessing maternal care, including family planning and abortion services?	N	N	N	N	In principle no, but in reality yes	N	N	N	N	N	N	N	N		N	N	N	N	N	N
25. Is there any information available about accessibility? For example surveys or reports by government and/or NGOs.	NA	N	N	Y	Partially	Y	Y	Y	Y	N	Y	Y	N		Y	Y	Y	N		DK
26. Does the main National development framework (for example the PRSP, SWAP, development strategy) explicitly include strategies for Universal Access?	Y	N	Y	There is no SWAP and PRSP	N	Y	Y	N	Y	Y	Y	Y	N		Y	Y	Y	Y		Marginally
27. Is information on SRH provided as part of the school curriculum?	Partial	Y	Y	N	Partially	Y	N	Y	Partial	N	Y	N	N		Y	Y	N	Y		Y
28. Are there other formal educational activities to provide knowledge on SRH?	In development	Y	N	N	N	Y	N	Y	Y	Y	Y	N	N		Y	Y	N	Y		Y

Funding for Maternal Health																			
29. What mechanisms are in place for financing MCH?	central govenrment budget insurance scheme for PHC and maternity hospitals commences 2009	central government budget	central government budget	central and local government budget	combination of public insurance and user fees	combination of insurance schemes and central government budget	combination of state funding, user fees and insurance scheme	central and local government budget, private insurance schemes	central government budget, user fees, insurance scheme in dvelopment	combination of central government budget and mandatory insurance scheme	The funds of Mandatory Health Insurance Company from central budget.	insurance scheme	combination of user fees, insurance schemes and government budget (central, federal and municipal)		central government budget	combination of central government budget,health insurance scheme and user fees	combination of central government budget and insurance scheme	A combination of user fees, medical insurance, central government budget (the main source of funding)		Central and provincial government budget
30. What % of national budgets, or what amount of funds, are allocated to RH/MCH?	NA	Approx 20%	2,4	N/A	DK	10% of the National Health Insurance Fund budget for healthcare are allocated for Ob/Gyn services About 25% of the budget for outpatient health care is allocated for monitoring and check-ups of pregnant women up to the 42nd day of the delivery, and for prophylactics	DK Total GEL 11, 333, 754 (Maternal Health) excl insurance fund	DK	DK	DK	NA	0.12% total health budget for MCH	DK		DK	DK	9.27% MCH/FP	NA		12%
31. Has any analysis of funding for maternal health (and/or RH/MCH) been undertaken?	N	N	N	N	N	Budget process	Y	N	N	N	NA	N	DK		N	N	N	NA		N
Monitoring and Evaluation																			
32. Are standardised national records and client registration systems in place?	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y
33. Are maternal health reports available? Are these national and loca level reports?	Y	Y	N	Y	no specialised	Y	Y	Y	N	Y	Y	Y	Y		Y	Y	Y	Y		Y
34. Is information on rates of complications collected?	N	Y	N	Y	Partially (collected at the level of health care facilities)	Y	Y	Y	N	Y	Y	N	Y		Y	Y	N	Y	Y	Y
35. Are there clear measurable national performance targets for maternal (or MCH or RH) care? Examples of targets include X% reduction in maternal deaths by xxxx, a % of attended births, X centres providing EmOC etc.	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	DK		Y
UNFPA comments																			
In your opinion, has maternal care improved in the last 7 years and what evidence is there to support this?	Y	Y	N	Y	N	Y	Y	No significant	Y	NA	Y	Y	Y		N	Y	Y	Y	NA	Y

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