



Progress towards
Millennium Development Goals 4, 5 and 6
in the WHO European Region:
2011 Update



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Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral treatment
DOTS	directly observed treatment, short-course
EEA	European Economic Area
EU	European Union
DHS	Demographic and Health Surveys
HIV	human immunodeficiency virus
IGME	Inter-agency Group for Child Mortality Estimation
MDGs	Millennium Development Goals
MDR-TB	multidrug-resistant tuberculosis
MICS	Multiple Indicator Cluster Survey
RMNCH	reproductive, maternal, newborn and child health
TB	tuberculosis
UNICEF	United Nations Children's Fund
XDR-TB	extensively drug-resistant tuberculosis

Executive summary

As called for by Regional Committee for Europe Resolution EUR/RC57/R2, this report constitutes the biennial update on the progress made towards the health-related Millennium Development Goals in the European Region. It draws on the most recent data sources available, as of July 2011, for Millennium Development Goals 4, 5 and 6 on, respectively, reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria and other diseases (including tuberculosis). Following up on the commitments to action in the outcome document of the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals, the report also conveys policy considerations for accelerating progress towards each of the health-related Millennium Development Goals in the European Region.

Millennium Development Goal 4: reduce child mortality

In the European Region, the average regional mortality rate for children under 5 years of age (under-five) declined from 34 deaths per 1000 live births in 1990 to 13 deaths per 1000 live births in 2009. This corresponds to a reduction of almost two thirds and is very close to the 2015 target of 11 deaths per 1000 live births. The estimated regional average infant mortality rate was 12 deaths per 1000 live births in 2009, down from 28 deaths per 1000 live births in 1990. Neonatal deaths constitute half of under-five deaths in the European Region. Premature birth and low birth weight, congenital anomalies, birth asphyxia and birth trauma, and neonatal infections are among the leading causes of neonatal death.

The estimated average measles immunization coverage for the Region in 2010 was 95%. This is a 15% increase from the estimated 80% in 1990. The number of cases of measles went from 234 827 in 1990 down to 37 421 in 2000, further decreasing to 7499 in 2009. It rose back up to 30 638 in 2010 due to a large outbreak in one Member State and an increase in cases in a few other countries. In the first six months of 2011, outbreaks across the European Region resulted in more than 24 000 confirmed measles cases. Factors contributing to immunity gaps and recent outbreaks include social exclusion experienced by marginalized groups, low risk perception, lack of confidence in vaccine safety and quality, and perceived inconvenience.

Millennium Development Goal 5: improve maternal health

In the European Region, the estimated average maternal mortality ratio decreased from 44 to 21 deaths per 100 000 live births between 1990 and 2008. The annual reduction of 4.1% is below the 5.5% needed to reach the target. A significant proportion of maternal deaths can be prevented if women who desire contraception have access to it. The contraceptive prevalence rate for the European Region was 70.7% for the period 2000–2010. An average of 9.7% women (of reproductive age who were married or in a union) had an unmet need for family planning in the European Region during the period 2000–2009. It is estimated that half a million unsafe abortions were performed in 2008 in the European Region, causing 7% of maternal deaths. Adolescents face a higher risk of complications and death as a result of pregnancy than do older women. The Region had an average adolescent birth rate of 24 live births (per 1000 women aged 15–19 years) for the period 2000–2008.

In the Region, high-quality antenatal care and the attendance of adequately skilled health personnel at births reduce the risks of maternal mortality. The percentages of births attended by skilled health personnel are generally high when compared with countries in other regions of the world. The percentage of births assisted by skilled health personnel between 2000 and 2010 was 98% in the European Region, compared with 66% globally. A regional average of 97% of women received antenatal care from skilled health personnel at least once during pregnancy during the period 2000–2010.

Millennium Development Goal 6: combat HIV/AIDS, malaria and other diseases

The European Region faces considerable challenges in meeting some Millennium Development Goal 6 targets related to HIV/AIDS and tuberculosis, while the prospects for eliminating malaria

by 2015 are promising. The estimated number of people living with HIV in the European Region increased by 60% during the period 2001–2009, from 1.4 million to 2.22 million. The HIV epidemic in Europe remains concentrated in key populations at higher risk, with no evidence of generalizing. Although the number of diagnosed AIDS cases and AIDS-related mortality declined in the WHO European Region as a whole, both continued to rise in eastern Europe and central Asia, with a fourfold increase in estimated AIDS-related deaths during the period 2001–2009. There are significant differences in access to antiretroviral treatment across countries of the Region. Whereas many countries in the western part of the Region have among the best antiretroviral treatment coverage rates in the world, only 19% of adults in need were receiving antiretroviral treatment in the Region's low- and middle-income countries in 2009.

In the European Region, the estimated prevalence of tuberculosis (best estimates) fell from 80 to 63 cases per 100 000 population between 2000 and 2009. This is still far from the 48 cases per 100 000 population target for 2015. The estimated mortality from tuberculosis decreased from 8.6 to 6.9 deaths per 100 000 population between 2000 and 2009. However, the 2009 mortality rate was slightly higher than the figure estimated for 2008, which is 6.8 deaths per 100 000 population. To meet the Millennium Development Goal 6 target, mortality from tuberculosis must decline to 6.0 deaths per 100 000 population by 2015. In 2009, the proportion of new cases of tuberculosis detected in the Region was 80%, higher than the global target of 70%. Yet, the European Region has the poorest treatment outcomes in the world, with 67% and 47%, respectively, among new and previously treated smear-positive cases – that is, much lower than the respective 87% and 72% reported globally. Low adherence to acknowledged tuberculosis control practices has led to high levels of multidrug-resistant tuberculosis and extensively drug-resistant tuberculosis.

The European Region has seen a dramatic reduction of locally acquired cases of malaria, from 90 712 cases in 1995 to 32 385 cases in 2000 to only 176 cases in 2010. In 2010, the locally acquired cases occurred in five Member States: Azerbaijan, Kyrgyzstan, Tajikistan, Turkey and Uzbekistan. Authorities in countries affected by malaria are confident that they can eliminate the disease from the Region by 2015. Global population mobility has contributed to an increase in the number of imported malaria cases in the European Region.

Policy considerations

The priorities for accelerating progress towards Millennium Development Goals 4 and 5 in the European Region include: greater emphasis on health system strengthening that ensures quality service provision across the reproductive, maternal, newborn and child health continuum of care; increased attention to reducing neonatal deaths; fortified information, monitoring and evaluation systems; optimizing the combination and introduction of new vaccines and immunization service delivery strategies, to achieve and sustain very high coverage; providing adolescent-friendly and gender-sensitive services; and using multisectoral approaches, combined with engaging civil society, to tackle health inequities.

Key action areas for scaling up progress towards Millennium Development Goal 6 HIV targets are: optimizing HIV prevention, diagnosis, treatment and care outcomes; leveraging broader health outcomes through HIV responses; ensuring synergy between national HIV programmes and the development of health systems; and reducing vulnerability and removing structural barriers to accessing HIV services. Important action areas for combating tuberculosis include: addressing the factors that influence the emergence and spread of drug-resistant tuberculosis; providing patient-centred accessible, affordable, and acceptable tuberculosis services; fostering the development of new diagnostic tools, medicines and vaccines against tuberculosis; and monitoring the trends of multidrug-resistant and extensively drug-resistant tuberculosis in the Region, among other tasks. For the malaria target, it is crucial to maintain strong regional and national malaria elimination programmes, so that the transmission of autochthonous malaria can be interrupted and the disease can be eliminated within the Region by 2015.

For all health-related Millennium Development Goals, sustained political commitment and adequate financing are needed. Attention is required to address inequities in progress, including action on the social determinants of health addressed by other Millennium Development Goals. Synergistic linkages with efforts to address noncommunicable diseases are also needed.

Introduction

The United Nations Millennium Declaration, adopted in 2000 by 189 countries, embraces a vision of a world in which countries work in partnership for the betterment of all – particularly, the most disadvantaged. This vision was transformed into eight Millennium Development Goals (MDGs). MDGs 4, 5 and 6 are specific to health and, respectively, aim to reduce child mortality, improve maternal health and combat HIV/AIDS, malaria and other diseases, including tuberculosis.

WHO Regional Committee for Europe Resolution EUR/RC57/R2 calls on the Regional Director to report to the Committee every two years on progress made towards the MDGs in the European Region (WHO Regional Office for Europe, 2007a). In an earlier form, the present document – an informal background document open to comment – provided an update on progress towards MDGs 4, 5 and 6 for the sixty-first session of the WHO Regional Committee for Europe, which was held in Baku, Azerbaijan, 12–15 September 2011.

Scaling up efforts towards the MDGs is an integral part of the Regional Director's vision for how the Regional Office can contribute to better health in Europe. The new European policy for health (Health2020), support to national health policies and strategies, the follow-up to the Tallinn Charter: Health Systems for Health and Wealth, and the European Review of Social Determinants and the Health Divide provide guidance and orientations for accelerating progress towards the MDGs. WHO Regional Office for Europe technical programmes are also consolidating their assistance to Member States, to achieve specific MDG targets. For example, both the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-resistant Tuberculosis in the WHO European Region 2011–2015 and the European Action Plan for HIV/AIDS 2012–2015 strengthen capacity to reach MDG targets (WHO Regional Office for Europe, 2011f,g).

The Regional Office's work towards the Action Plan for Implementation of the European Strategy for Prevention and Control of Noncommunicable Diseases synergizes with support to Member States for accelerating MDG progress. Noncommunicable diseases account for no less than 86% of deaths and 77% of the disease burden in the European Region (WHO Regional Office for Europe, 2011h). As highlighted in this report, addressing them is an integral part of efforts to achieve MDG targets. Likewise, many of the health-system-strengthening actions needed to achieve the MDGs will fortify efforts to curb the epidemic of noncommunicable diseases.

This report explores the relevance for the European Region of the actions called for in the outcome document of the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals (New York, September 2010). The outcome document expresses the commitment of United Nations Member States around the world to specific action areas deemed essential to accelerating global progress to meet the 2015 MDG deadlines. For each of the three health-related MDGs, this report presents the global call for action contained in the outcome document, as well as considerations on Regional priorities and areas requiring greater focus.

When reviewing global data on MDG progress, a reader may easily conclude that – for some MDG targets – the European Region is in an advantaged position with respect to other regions. However, interregional comparisons based on aggregates of national averages can mask the most unacceptable development reality in the Region – that is, that the populations most in need often are not adequately benefiting from MDG progress. Within countries, inequities in progress cross the social gradient and result in worse outcomes for populations experiencing multidimensional social exclusion. While varying by country and by target, such populations generally include the poor, people with lower educational attainment, people living in rural areas, ethnic minorities, and disadvantaged migrants, among others. Throughout this report, special attention is given to highlighting the realities of MDG progress for these populations.

The Annex to this report contains a list of Web links with information about WHO Regional Office for Europe activities, information products and resources for all MDGs.

MDG 4: reduce child mortality

The MDG 4 target is to reduce by two-thirds, between 1990 and 2015, the mortality rate for children under 5 years of age (under five). Indicators used to monitor this MDG include the under-five mortality rate, the infant mortality rate and the proportion of 1-year-old children immunized against measles.

Under-five and infant mortality rates

Monitoring progress towards the MDG 4 targets in the European Region has faced challenges related to weak information systems and differences between official data and estimates of international agencies. The United Nations Inter-agency Group for Child Mortality Estimation (IGME) – which is made up of representatives of the United Nations Children’s Fund (UNICEF), WHO, the World Bank and the United Nations Population Division – is working to compute infant and child mortality estimates, using standard categories and criteria for data, as well as standard methods to ensure cross-national comparability. The IGME methodology is regularly reviewed in light of newly emerging evidence. The present report draws upon IGME estimates.¹

The under-five mortality rate is the probability of a child born in a specific year or period dying before reaching the age of five. It is expressed as a ratio per 1000 live births. Worldwide, the under-five mortality rate declined from 89 deaths per 1000 live births in 1990 to 60 deaths per 1000 live births in 2009, a reduction of one third (WHO, 2011a). The number of under-five deaths globally declined from 12.4 million in 1990 to 8.1 million in 2009 (IGME, 2010). The global average annual rate of decline for under-five mortality increased over the period 2000–2009, compared with the decline in the 1990s. The global average annual rate of decline went from 1.3% for the period 1990–1999 to 2.7% for the period 2000–2009 (WHO, 2011a).

In the European Region, the average regional under-five mortality rate declined from 34 deaths per 1000 live births in 1990 to 13 deaths per 1000 live births in 2009. This corresponds to a reduction of almost two thirds and is very close to the 2015 target of 11 deaths per 1000 live births (WHO, 2011a). The regional number of under-five deaths declined from 439 000 in 1990 to 144 000 in 2009. Reflecting the global trend, the average annual rate of decline for under-five mortality also accelerated in the European Region. It went from 3.7% for the period 1990–1999 to 5.6% for the period 2000–2009 (WHO, 2011a).

As cited in the *World Health Statistics 2011* report, the European Member States with the highest estimated under-five mortality rates in 2009 were Tajikistan, Turkmenistan and Kyrgyzstan, with estimated rates of 61, 45 and 37 deaths per 1000 live births, respectively (WHO, 2011a). The countries with the lowest were San Marino and Luxembourg, with estimated under-five mortality rates of 2 deaths per 1000 live births, followed by Cyprus, Finland, Iceland, Slovenia and Sweden, each with an estimated rate of 3 deaths per 1000 live births (WHO, 2011a). In 2009, the countries in the Region that reached their MDG 4 target were Albania, Cyprus, the Czech Republic, Luxembourg, Poland, Portugal, San Marino, Serbia, Slovenia, the former Yugoslav Republic of Macedonia and Turkey (WHO, 2011a).

The infant mortality rate is defined as the probability of dying before the age 1 year per 1000 live births in a given year or period. In the European Region, the estimated regional average infant mortality rate was 12 deaths per 1000 live births in 2009, down from 28 deaths per 1000 live births in 1990. This decline correlates with a decrease in the number of infant deaths from 362 000 in 1990 to 127 000 in 2009 (WHO, 2011a). In the Region, the three countries with the highest estimated infant mortality rates in 2009 were Tajikistan, Turkmenistan, and Uzbekistan, with estimated rates of 52, 41 and 32 deaths per 1000 live births, respectively (WHO, 2011a).

¹ GME estimates are not necessarily the same as official national estimates, which may be found in WHO databases, such as the European health for all database. Note: the most recent survey in Turkey at the time of publication gave an infant mortality rate of 17 deaths per 1000 live births for the period 2003–2008 and another newly completed survey gave a preliminary estimate of 12 deaths per 1000 live births for infant mortality in 2006–2010. The Ministry of Health of Turkey reports an infant mortality of 13 deaths per 1000 live births in 2009. In addition, Turkey is extending coverage of death registration to all provinces; WHO takes note of this information. The impact of these new data on WHO estimates for infant and child mortality for Turkey is being evaluated.

In the European Region, neonatal deaths constitute half of under-five deaths. Premature birth and low birth weight, congenital anomalies, birth asphyxia and birth trauma, and neonatal infections are among the leading causes of neonatal death (WHO, 2011a). Noncommunicable diseases, acute respiratory infections, diarrhoeal diseases and injuries are among the leading causes of post-neonatal deaths in the European Region (WHO, 2011a). Malnutrition leaves children more vulnerable to illness and early death. According to the Multiple Indicator Cluster Survey (MICS) in Georgia in 2005, Kyrgyzstan in 2006 and Uzbekistan in 2006, the prevalence of stunting in children under five is 10.4%, 13.7% and 14.6%, respectively (State Department of Statistics of Georgia & National Centre for Disease Control of Georgia (2008); National Statistical Committee of the Kyrgyz Republic & UNICEF (2007); State Statistical Committee of the Republic of Uzbekistan & UNICEF (2007)).

National averages that highlight the progress made in reducing child deaths mask inequities. As cited in the UNICEF report *Progress for children: achieving the MDGs with equity*, children from poorer households are disproportionately vulnerable across all regions of the low-income world (UNICEF, 2010a). Under-five mortality rates are, on average, more than twice as high for the poorest 20% of households as for the richest 20%, and children from rural areas are more likely to die before their fifth birthday than those in urban areas (UNICEF, 2010a). Table 1 highlights how children living in rural areas, of lower wealth quintiles and born to mothers with lower levels of education are disadvantaged with regard to MDG 4 progress in the European Region.

Table 1. Estimated under-five mortality rates in select European Member States

Country	Year	Under-five mortality rate (deaths per 1000 live births) ^{a, b}								
		Residence			Wealth quintile			Mother's level of education ^c		
		Rural	Urban	Ratio	Lowest	Highest	Ratio	Lowest	Highest	Ratio
Albania	2008–2009	28	13	2.2	...	...	...	...	...	...
Armenia	2005	42	26	1.6	52	23	2.2	...	...	...
Azerbaijan	2006	64	52	1.2	63	41	1.5	68	58	1.2
Georgia	2005	45	24	1.9	...	...	...	...	...	...
Kazakhstan	2006	43	30	1.4	...	...	...	...	...	...
Kyrgyzstan	2006	50	35	1.4	...	...	...	...	...	...
Republic of Moldova	2005	30	20	1.5	29	17	1.7	...	...	...
Tajikistan	2005	83	70	1.2	...	...	...	...	...	...
The former Yugoslav Republic of Macedonia	2005–2006	26	10	2.6	...	...	...	...	...	...
Ukraine	2007	20	19	1.1	23	9	2.7	...	...	...
Uzbekistan	2006	59	51	1.2	72	42	1.7	...	...	...

... indicates data not available or not applicable.

^a Unless otherwise stated, disaggregated data are derived from the Demographic and Health Survey (DHS) for 2005 or a more recent year, by place of residence, wealth quintile and education level of the mother. The DHS figures were extracted using STATcompiler software (Measure DHS, 2011). For some countries and some of the indicators, there were differences in the figures obtained from the country reports and from STATcompiler software. In these cases, following discussions with staff from the Measure DHS implementation group (ICF Macro), data from the country reports were used. Further information regarding the source of individual country data can be obtained on request from WHO.

^b For all countries where the source is Measure DHS, the under-five mortality rate relates to the decade preceding the survey.

^c The lowest educational level achieved by a mother is "no education"; the highest level is "secondary school or higher".

Source: Compiled from WHO (2011a).

There is evidence of higher under-five and infant mortality rates among migrant and internally displaced populations. Several studies also show that child mortality rates have been consistently higher in foreign-born groups than in the national populations (Schulpen, 1996; Carballo & Nerukar, 2001). High levels of child mortality among migrants have been associated with their concentration in low-quality housing and, in part, with the mother's educational attainment. A study conducted among ethnic minority women in Finland revealed that women from countries of the African Region and Somalia had higher perinatal mortality rates than women of Finnish origin (Malin & Gissler, 2009). The lack of regularized status of mothers in a country can influence exposure to risk factors for child mortality and morbidity. A study done by Wolff et al. (2008) in Geneva found that, compared with women who were legal residents of Geneva, irregular migrants had more delayed prenatal care, used fewer preventive measures and were exposed to more violence during pregnancy.

Existing data also point to a lack of progress towards MDG 4 targets for Roma children. In Bulgaria and Romania, evidence suggests that child mortality among Roma is significantly higher than the national averages (UNDP, 2005). In Serbia, the MICS for 2005–2006 reports that the probability of a child in a Roma settlement dying before the age of 5 is approximately 28 deaths per 1000 live births, which is almost three times higher than the national average (Statistical Office of the Republic of Serbia & Strategic Marketing Research Agency, 2007). A study aiming to quantify the differences in birth outcomes between Roma and non-Roma mothers in the Czech Republic and to investigate the potential causes of such differences found that Roma infants had a considerably lower birth weight, somewhat shorter gestation, and a much higher rate of intrauterine growth retardation (Bobak et al., 2005). Maternal education made the largest contribution to the differences between Roma and non-Roma (Bobak et al., 2005).

Proportion of 1-year-old children immunized against measles

Measles is one of the most readily transmitted communicable diseases and the most deadly of all childhood rash and/or fever illnesses (WHO, 2011b). Measles vaccination coverage – an indicator for monitoring progress towards MDG 4 targets – corresponds to the percentage of children aged 12–23 months vaccinated against measles. MDG 4 emphasizes achieving coverage with one dose of measles-containing vaccine of at least 95% of eligible children. In 2010, the estimated worldwide average measles immunization coverage was 85%, representing a 13% increase since 1990 (WHO, 2011a).

In the European Region, measles and rubella are diseases targeted for elimination by 2015. One of the key strategies to eliminate measles is to achieve and sustain coverage greater than or equal to 95% with two doses of a measles-containing vaccine at national and subnational levels in all Member States of the Region. This strategy has a direct and indirect effect on under-five measles morbidity and mortality rates, by increasing the immunity of immunized children and by decreasing chances for measles infection in children not old enough to receive a measles-containing vaccine.

The estimated average measles immunization coverage for the Region in 2010 was 95%, a 15% increase from the estimated 80% in 1990 (WHO, 2011c). In 2010, 33 European Member States had measles vaccine coverage of at least 95% (WHO, 2011c). As a result of improved coverage in the Region, the number of cases of measles went from 234 827 in 1990 to 37 421 in 2000 and to 7499 in 2009 (WHO, 2010a). In 2010, the number of measles cases sharply increased to 30 638 after a large outbreak in Bulgaria and a few other western European countries (WHO Regional Office for Europe, 2011a). Between 2000 and 2010, the proportion of measles cases among children under five varied from 10% to 35% (WHO Regional Office for Europe, 2011a).

Many countries in the Region – including Albania, Andorra, Belarus, Greece, Hungary, Kazakhstan, Kyrgyzstan, Monaco and Turkmenistan – reached 99% coverage in 2010 (WHO, 2011c). Countries with lower measles vaccine coverage include Azerbaijan (67%), Malta (73%), Austria (76%) and Denmark (85%) (WHO, 2011c). Sustained efforts are required to maintain high coverage rates with measles-containing vaccine and to prevent reported declines. Such declines can be attributed to the paradoxical effect of high immunization coverage rates leading to the absence of measles disease, which in turn leads to a decline in the perception of risk of the disease. High immunization rates need to be maintained to prevent disease and achieve elimination.

Unexpectedly, rural areas in some countries of the European Region have higher measles immunization coverage than urban areas (WHO Regional Office for Europe, 2010a). The reasons for this include limited regular access to immunization services by some population groups (particularly those experiencing social exclusion) in large urban centres. One such group includes migrants; they may not be registered at an urban health facility in the absence of active outreach. However, despite high levels in rural areas in some countries, it should be noted that there are still rural pockets of unimmunized populations.

Differences in measles immunization coverage can be seen by wealth quintile and the mother's level of education. While there are limited data available, the most recent DHS for some European countries shows evidence of such inequities. For instance, in 2006 in Azerbaijan, measles immunization coverage among 1-year-olds was 50% for the lowest wealth quintile, compared with 83% for the highest wealth quintile (State Statistical Committee [Azerbaijan]

& Macro International Inc., 2008). With regard to the educational level of the mother, the difference was 46% measles immunization coverage among 1-year-olds whose mothers had the lowest level of education, compared with 55% among those whose mothers had the highest level of education (State Statistical Committee [Azerbaijan] & Macro International Inc., 2008).

Data on measles vaccination coverage among Roma demonstrate inequities. The former Yugoslav Republic of Macedonia MICS for 2005–2006 found that 66% of Roma children were reportedly fully vaccinated, as opposed to 76% of the population overall (State Statistical Office [of the former Yugoslav Republic of Macedonia], 2007). The WHO Regional Office for Europe Programme for Vaccine-preventable Diseases and Immunization investigated a measles outbreak in Romania and discovered that 90% of the reported 6000 infected were among Roma (Loewenberg, 2006).

Recently, measles outbreaks have also occurred in Roma settlements in Bulgaria, Germany, Greece, Italy, Poland, Portugal, Romania, Serbia and the former Yugoslav Republic of Macedonia; the largest measles outbreak was reported from Bulgaria in the period 2009–2011, with 23 986 cases and 24 deaths, affecting mostly unimmunized Roma communities (Seguliev et al., 2007; Marinova et al., 2009; WHO Regional Office for Europe, 2009; Lopalco & Martin, 2010; Orlikova et al., 2010; Stanescu et al., 2010; WHO Regional Office for Europe, 2011b). According to the United Nations Development Programme survey of vulnerable groups, conducted in 2004 in south-eastern Europe, 15% of Roma children under the age of 14 years were not vaccinated, in comparison with 4% of the majority children (UNDP, 2006).

However, while lower rates of immunization among some marginalized populations in the Region are linked to social exclusion processes, it is important to acknowledge additional factors driving recent outbreaks and raising alarm across the Region. The dangerous combination of complacency and low risk perception, lack of confidence in vaccine safety and quality, and perceived inconvenience has contributed to a significant immunity gap in some countries.

For instance, drawing from the most recent available data, a total of 24 493 confirmed measles cases were reported from the European Region during the period from January to June 2011. Of these, 43% were among unvaccinated persons, 8% were among persons who had received only one dose and 2% were among persons who had received two doses of measles vaccine. A further 47% of reported cases were missing data on vaccination status (WHO Regional Office for Europe, 2011a). For the period from January to June 2011, 57% of the measles cases were reported from France (14 025 cases; incidence: 222.8 cases per million). The outbreak in France – similar to the outbreaks in Germany (1343 cases; incidence: 16.2 cases per million) and Spain (2589 cases; incidence: 55 cases per million) during the same period – was not limited to a single ethnic group, income quintile or socioeconomic cluster (WHO Regional Office for Europe, 2011a).

Policy considerations

The outcome document of the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals expresses the commitment of Member States to scaling up progress towards MDG 4 globally, through actions that include (but are not limited to) those featured in Box 1.

The Global Strategy for Women's and Children's Health was launched at the time of the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals (September 2010), and there is a synergy between the Strategy and the commitments in the outcome document. The Strategy delineates key areas where action is urgently required to enhance financing, strengthen policy and improve service delivery. These areas include: support for country-led health plans; integrated delivery of health services and life-saving interventions; stronger health systems, with sufficiently skilled health personnel at their core; innovative approaches to financing, product development and the efficient delivery of health services; and improved monitoring and evaluation, to ensure all actors are accountable for the results (United Nations Secretary-General Ban Ki-Moon, 2010).

Box 1. Actions for meeting MDG 4

The Member States commit themselves to accelerating progress in order to achieve Millennium Development Goal 4, including by:

- (a) "Scaling up efforts to achieve integrated management of childhood illnesses, particularly actions to address and prevent the main causes of child mortality, including newborn and infant mortality, these being, inter alia, pneumonia, diarrhoea, malaria and malnutrition. This can be achieved by developing, implementing and evaluating appropriate national strategies, policies and programmes for child survival, preventive pre-natal, para-natal and post-natal measures, vaccinations and immunization and by working to ensure that medicines, medical products and technologies are affordable and available. In addition, this can be achieved by improved nutrition, including nutrition prior to birth, as well as by strengthening specific health interventions, including emergency obstetric care and skilled attendance at birth to reduce maternal and child mortality. International support to national efforts, including financial resources, will continue to be key in this regard;
- (b) "Sustaining major successes and scaling up prevention and vaccination programmes as one of the most efficient tools to reduce child mortality, including the measles, polio, tuberculosis and tetanus campaigns, by ensuring sufficient funding, political commitment and conscientious implementation of control activities, especially in priority countries;
- (c) "Taking action to improve child nutrition through an integrated package of essential interventions and services, including, in particular, access to nutritious food, appropriate supplements, prevention and early management of diarrhoeal diseases and information and support for exclusive breastfeeding and for the treatment of severe acute malnutrition;
- (d) "Maintaining progress with regard to combating malaria and the extension of the use of insecticide-treated bed nets;
- (e) "Stepping up the fight against pneumonia and diarrhoea through the greater use of proven highly effective preventive and treatment measures, as well as new tools, such as new vaccines, which are affordable even in the poorest countries;
- (f) "Scaling up efforts, including awareness raising, to address the critical impact of increasing access to safe drinking water, sanitation coverage and hygienic care, including hand washing with soap, on reducing the death rate among children as a result of diarrhoeal diseases;
- (g) "Working to ensure that the next generation is born HIV-free by providing, on an urgent basis, extended and sustainable coverage and improved quality of services to prevent mother-to-child transmission as well as increasing access to paediatric HIV treatment services."

Source: United Nations (2010).

Accelerating equitable progress towards the MDG 4 targets in the European Region will require concerted efforts in areas that include the following.

- Tackle inequities. This requires addressing the determinants of maternal and child health through a genuine cross-sectoral approach. To address health inequities, programmes should be gender-sensitive and contribute to reducing gaps across the social gradient and between rural and urban areas. Special attention should be given to populations that experience multidimensional social exclusion, including minorities, refugees, internally displaced persons, and children deprived of parental care. The most vulnerable groups should have access to a basic package of services and should be assured of service availability in disadvantaged areas; these are key tasks to eliminating inequities and making progress towards MDG 4. Scaling up equitable progress towards MDGs that address key determinants of child health (such as: MDG 1, which covers food security; MDG 3, which deals with gender inequality; MDG 7, which attends to water and sanitation; and MDG 8, which deals with essential medicines) will also contribute to greater equity in progress towards MDG 4.
- Strengthen health systems. This requires providing an effective reproductive, maternal, newborn and child health (RMNCH) continuum of care and integrated comprehensive quality services. This involves addressing poor referral systems for pregnancy and childbirth, as risky and complicated pregnancies and deliveries must be referred to specialist care, following evidence-based guidelines; otherwise, all the benefits of access to care are lost (UNECE et al., 2010). In parallel, strengthened RMNCH care as an integral part of primary health care can help prevent unnecessary bypassing of this level of service provision.
- Improve measures to reduce neonatal deaths. Measures to reduce such deaths, which constitute half of under-five deaths in the European Region, should be improved, as called for by 2011 World Health Assembly resolution 64.13 on the reduction of perinatal and neonatal mortality

(WHA, 2011b). The resolution defines measures that include: increased application of evidence-based strategies and interventions; strengthened perinatal and neonatal mortality surveillance systems; and development of plans for universal access to cost-effective interventions (with the latter including actions to address sepsis and nosocomial infections, information and behaviour change communication, qualifications of skilled birth attendants and early postnatal care and early and exclusive breastfeeding).

- Ensure the quality of the services provided to all population groups. The quality of services remains a concern in many settings (WHA, 2011c). For example, women seeking skilled care during childbirth may receive care, but the quality of that care may not meet the standard implicit in the term skilled care, leading to medical complications and, still worse, to death. Overall, the indicators used to assess the quality of services that are provided to women during pregnancy, childbirth and the postnatal period, as well as to newborn infants and children, need to be strengthened (WHA, 2011c).
- Strengthen information, monitoring and evaluation systems. These systems should be strengthened by including mechanisms that ensure the proper use of data, in keeping with the findings of the Commission on Information and Accountability for Women's and Children's Health. Information systems need to provide accurate and disaggregated data (by sex, age, level of education and income, geographical area, migrant status and ethnicity, in accordance with national law, among other things) to adequately monitor progress and to adopt suitable strategies both at the national and subnational level.
- Prevent vaccine-preventable diseases. This can be accomplished through the introduction of new vaccines, including pneumococcal vaccines, and strengthening immunization systems to deliver measles, pertussis, and *Haemophilus influenzae* type b vaccines, which will directly prevent pneumonia. This includes: providing an optimized combination of immunization service delivery strategies to achieve and sustain very high coverage (> 95%) with two doses of measles and at least one dose of rubella vaccine, including among high-risk groups and through supplementary immunization activities, as needed; improving the availability of high-quality, valued information for health professionals and the public on the benefits and risks associated with immunization against measles and rubella; and ensuring that: (a) immunization staff are well trained and have the right blend of skills, (b) access to services is well established geographically, and (c) vaccines and supplies are safe, accessible and used appropriately.
- Address the links between noncommunicable diseases and MDG 4. For instance, mothers who smoke are likely to breastfeed for shorter periods of time and have lower quantities of milk and milk that is less nutritious. In parallel, exposure of children to second-hand tobacco smoke increases the risk of childhood respiratory infections, sudden infant death and asthma (WHO, 2011f). Exposure to the risk factors for noncommunicable diseases during early childhood can have lifelong implications. An example of this is poor nutrition during pregnancy and early life, which causes a predisposition to high blood pressure, heart disease and diabetes later in life (United Nations, 2011c).MDG 5: improve maternal health

MDG 5 improve maternal health

Its targets are:

(A) to reduce the maternal mortality ratio 75% between 1990 and 2015

(B) to achieve universal access to reproductive health by 2015.

Maternal mortality ratio

The maternal mortality ratio is defined as the number of maternal deaths per 100 000 live births during a specific period, normally one year, and represents the risk involved with each pregnancy (WHO, UNICEF, UNFPA & World Bank, 2010). There are challenges in monitoring maternal mortality that must be taken into account when considering data. Maternal deaths are likely to be underreported and misclassified².

Globally, progress towards MDG 5 is insufficient. In 2008, there were approximately 358 000 maternal deaths worldwide, representing a 34% decline, compared with 1990 (WHO, UNICEF, UNFPA & World Bank, 2010). Maternal mortality decreased 2.3% a year globally between 1990 and 2008, which is far short of the 5.5% annual reduction necessary to achieve target A (WHO, UNICEF, UNFPA & World Bank, 2010).

In the European Region, the estimated average maternal mortality ratio decreased from 44 deaths per 100 000 live births to 21 deaths per 100 000 live births between 1990 and 2008 (WHO, UNICEF, UNFPA & World Bank, 2010). This represents a 52% decline when compared with 1990. The annual reduction of 4.1% is also below the 5.5% needed to reach the MDG 5 target (WHO, UNICEF, UNFPA & World Bank, 2010).

Maternal mortality is influenced by interlinked social determinants that prevent pregnant women from accessing the health services they need and are entitled to as a basic human right. These determinants, of which the health system is one, collude to result in "three delays" that – when considering maternal mortality globally – are understood to encompass (OHCHR, 2010):

1. the delay in seeking appropriate medical help for obstetric emergencies – due to cost, lack of recognition of emergencies, poor education, lack of access to information, administrative barriers and gender inequality;
2. the delay in reaching an appropriate facility – due to distance, infrastructure and transport; and
3. the delay in receiving adequate care when a facility is reached – due (but not limited) to shortages of qualified staff or the unavailability of electricity, water or medical supplies, for example.

Delays can be characterized in a number of ways, depending on the country context and where a woman or adolescent girl finds herself within that context – for example, her socioeconomic position, geographic location, ethnic minority group status or status as a socially excluded migrant.

Due to these social determinants, inequities in maternal mortality between countries are stark in the European Region. According to estimates in *Trends in maternal mortality: 1990–2008*, the country with the highest estimated maternal mortality ratio in 2008 was Kyrgyzstan (with an estimated ratio of 81 deaths per 100 000 live births), and the lowest estimated ratio was in Greece (with an estimated ratio of 2 deaths per 100 000 live births) (WHO, UNICEF, UNFPA & World Bank, 2010). Romania had the fastest rate of decline, with an 84% change in the maternal mortality ratio between 1990 and 2008 (WHO, UNICEF, UNFPA & World Bank, 2010).

Inequities in maternal mortality also persist within countries. Rural populations tend to have higher maternal mortality than their urban counterparts. Ratios and risk vary widely by ethnicity, education and wealth, and remote areas bear a disproportionate burden of deaths. Within urban areas, the risk of maternal mortality and morbidity can also differ significantly between women living in wealthy and poor neighbourhoods (Shakarishvili, 2006). In western Europe, where maternal mortality

² IGME – made up of WHO, UNICEF, UNFPA and the World Bank, as well as independent technical experts – regularly produces estimates of maternal mortality that adjust for misclassification and underreporting.

is generally low, evidence shows significantly higher risks for migrant and refugee populations (Machado et al., 2009). Also, gender inequities, addressed by MDG 3, undermine progress in addressing maternal mortality and morbidity.

Proportion of births attended by skilled health personnel

One of the indicators for monitoring progress towards MDG 5 target A is the proportion of births attended by skilled health personnel. In the European Region as a whole, overall percentages of births attended by skilled health personnel are generally high when compared with countries in other regions of the world (WHO, 2011a). In the Region, the percentage of births assisted by skilled health personnel between 2000 and 2010 was 98%, compared with 66% globally (WHO, 2011a).

Despite most countries in the Region having almost all births attended by skilled health personnel, evidence shows inequities within countries and concerns about the quality of the services provided. Available data indicate that disadvantaged groups (including populations with lower socioeconomic status, socially excluded ethnic minority groups and migrants) and rural populations have poorer access (Lloyd, 2005; WHO Regional Office for Europe, 2007b; WHO, 2011a). The most recent disaggregated DHS data from Armenia, Azerbaijan, Georgia and Tajikistan (for 2005 or 2006) suggest the percentages of births attended by skilled health personnel were lower among the poorest wealth quintile, compared with the richest quintile; figures were: 93% compared with 100% in Armenia; 78% compared with 100% in Azerbaijan; 95% compared with 99% in Georgia; and 70% compared with 91% in Tajikistan (WHO, 2011a). These inequities reflect global trends. For example, according to the UNICEF report *Progress for children: achieving the MDGs with equity*, in all regions worldwide women from the richest 20% of households are more likely than those from the poorest 20% of households to deliver their babies with the assistance of skilled health personnel (UNICEF, 2010a).

Contraceptive prevalence rate and the unmet need for family planning

An estimated one in three maternal deaths globally could be prevented if women who desired contraception had access to it (UNIFEM, 2010). Hence, the contraceptive prevalence rate and the unmet need for family planning are two of the indicators used to monitor progress towards MDG 5 target B – universal access to reproductive health – which is to be achieved by 2015.

Contraceptive prevalence is the percentage of women currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used. It is usually reported for married or in-union women aged 15–49 years. The contraceptive prevalence rate for the European Region was 70.7% for the period 2000–2010 (WHO, 2011a). Evidence suggests that the prevalence of contraceptive use (using any modern method) has generally increased across the European Region since 1990 (United Nations Population Division of the Department of Economic and Social Affairs, 2011).

Women with an unmet need for family planning are those who are fecund and sexually active, but are not using any method of contraception, and report not wanting more children or wanting to delay the birth of their next child. An average of 9.7% women (of reproductive age who were married or in a union) had an unmet need for family planning in the European Region during the period 2000–2009 (WHO, 2011a).

As with other MDG 5 indicators, differences can be seen across the social gradient and by residence – that is, women with higher incomes, levels of education, and urban rather than rural residence tend to use contraceptives more and have a lower unmet need for family planning. An example of urban versus rural differences comes from Turkey, where in urban areas the percentage of women using a method of family planning is higher (74%) than that of women residing in rural areas (69%) (Hacettepe University Institute of Population Studies, 2009).

Multidimensional social exclusion processes – such as those affecting ethnic minorities and some migrants – can also contribute to lower contraceptive prevalence rates. There is evidence that the more pronounced the social exclusion – that is, crossing social, political, economic and cultural domains – the lower the prevalence. For instance, in Bulgaria, 65% of richer and more educated Roma women use any family planning method, compared with 31% among all interviewed Roma women (Krumova & Ilieva, 2008). Several studies suggest that migrants tend to underuse

contraceptive methods, compared with non-migrant populations in Europe; this is largely due to poor family planning information in migrants' home countries and inadequate outreach services within the health services of the destination country (Machado et al., 2009; WHO, 2010b).

Low contraceptive prevalence rates and the unmet need for family planning can contribute to higher rates of abortion. Although records in many countries are not comprehensive, evidence suggests that the eastern Europe and central Asia Region has one of the highest abortion rates in the world (UNFPA, 2009). Cultural considerations in some population groups, including reliance on traditional methods of birth control (such as withdrawal), can contribute to higher rates of abortion. The average induced abortion rate in the countries of western Europe is low, but there is evidence that requests for abortion are higher among women with low socioeconomic status, particularly if they also have migrant status (WHO, 2010b).

In some countries of the European Region, abortion still causes more than 20% of all cases of maternal mortality (WHO Regional Office for Europe, 2011i). In most of the Member States of the European Region, laws permit abortion to save a women's life, and in more than half of the countries abortions on request are permitted. Despite this, it is estimated that half a million unsafe abortions were performed in 2008 in the European Region, causing 7% of maternal deaths (WHO, 2011d). Exposure to unsafe abortion is socially determined and linked to weak health systems. Globally, a woman with low income residing in a rural area is three times more likely to suffer from complications due to unsafe abortion and 50% less likely to receive medical treatment, compared with a woman residing in an urban area and having a high income (Singh et al., 2009). Lack of quality equipment, facilities and care may enhance the risk of post-abortion complications. Stigma and psychosocial considerations (including those influenced by age and cultural beliefs), as well as irregular migrant status, can also be risk factors for unsafe abortion.

Adolescent birth rate

The adolescent birth rate measures the annual number of births to women aged 15–19 years per 1000 women in that age group and is an indicator for MDG 5 target B. Pregnant women under 20 years of age face a considerable burden of pregnancy-related death and complications. When compared with women aged 20–29 years, the risk of dying from pregnancy-related complications is twice as high for girls/women aged 15–19 years and five times higher for girls aged 10–14 years (Neelofur-Khan, 2007). Many health problems are, in particular, associated with negative outcomes of pregnancy during adolescence. These include anaemia, sexually transmitted diseases, postpartum haemorrhage and mental disorders, such as depression (WHO, 2011e).

Taken as a whole, the European Region had an average adolescent birth rate of 24 births per 1000 women in the age group for the period 2000–2008 (WHO, 2011a). According to the latest data available,³ San Marino has the lowest adolescent birth rate (1 birth per 1000 women in the age group) and Turkey (56 births per 1000 women in the age group) has the highest. Adolescent birth rates have decreased in countries across the European Region (WHO, 2011a). In the Caucasus and central Asia, the adolescent birth rate declined from 45 births per 1000 women in the age group in 1990 to 29 births per 1000 women in the age group in 2008 (United Nations, 2011a).

Adolescent fertility is influenced by a range of social and cultural factors. These include (but are not limited to) gender inequities, low levels of education, household poverty and lack of job prospects, stigmatization related to seeking services, and early marriage (WHO, 2010b). When these factors combine, the result is more socially disadvantaged adolescents having lesser access to needed services and lesser awareness about sexual and reproductive health and rights than other women in their age group. Adolescents living in poverty are particularly vulnerable. Globally, evidence from developing countries suggests that an adolescent from a household in the poorest quintile is 1.7–4.0 times more likely to give birth than an adolescent from the wealthiest quintile (WHO, 2010b).

In a qualitative study conducted in eight eastern European and central Asian countries (Colombini, Mayhew & Rechel, 2011), adolescents were asked to discuss factors that limited their access to sexual and reproductive health services. Themes emerging from the focus groups included the scarcity of specialized youth-friendly services, and perceived low levels of confidentiality and adequate responsiveness among health care providers. For example, adolescents who consulted their doctor for related sexual and reproductive information reported feeling doctors perceived

³ Fifty-one Member States provided data. No data were provided for Monaco and Andorra.

them as instigators of sexual acts, and they felt disrespected.

Social and cultural factors play an important role in shaping young people's sexual behaviour. A systematic review of 268 qualitative studies of young people's sexual behaviour confirmed this view (Marston & King, 2006). The findings of the review suggest that such factors as gender stereotypes, social expectations with regard to reputations, and the existence of societal penalties and rewards for sex are strong determinants of behaviour. Stereotypes can lead to refraining from planned or rational behaviour in sex practices, such as using a condom, and can give limited space for young girls to adopt a proactive attitude in negotiating sex practices within a societal paradigm of femininity and masculinity (Marston & King, 2006).

Antenatal care coverage

Antenatal care is an indicator for MDG 5 target B. Adequate antenatal care reduces the risks of maternal mortality, premature birth and other complications of pregnancy and delivery that can result in poor health outcomes for mothers and neonates (WHA, 2011a). Antenatal care includes recording medical history, assessing the mother's needs, conducting screening tests, providing education on self-care during pregnancy, and identifying detrimental conditions during pregnancy, among other services. A minimum of four antenatal visits is recommended for optimal benefits. Globally, although 80% of pregnant women received antenatal care at least once during the period 2000–2010, only 53% received the minimum of four antenatal visits (WHO, 2011a).

For the European Region as a whole, an average of 97% of women received antenatal care from skilled health personnel at least once during pregnancy for the period 2000–2010 (WHO, 2011a). In only Azerbaijan and Tajikistan did fewer than 90% of women have at least one visit during pregnancy, with coverage being 77% and 89%, respectively (WHO, 2011a). Many countries do not have comprehensive data on the minimum four visits. Available records, however, point to inequities (UNICEF, 2010b).

In many countries, globally, women from the poorest households are less likely than women from the wealthiest households to receive antenatal care (Countdown Equity Analysis Group, 2008). While varying considerably by country in the European Region, differences in antenatal coverage can be seen by place of residence, wealth quintile and mother's level of education. For example, according to 2006 DHS data for Azerbaijan, antenatal care decreased from 93.8% among those in the highest level of education to only 63.8% among women in the lowest level of education. Almost all women (95.3%) in the highest wealth quintile received antenatal care, compared with only 53.2% of women in households in the lowest wealth quintile. Rural–urban differences were also significant, with only 63.3% of women in rural areas receiving antenatal care, compared with 89.7% in urban areas (State Statistical Committee [Azerbaijan] & Macro International Inc., 2008).

Other aspects of social exclusion also influence antenatal coverage rates. Inadequate social protection, at times linked to lack of necessary documentation, is one of these. Lack of financial coverage for basic health services contributes to higher maternal mortality ratios among Roma women, especially when family planning and antenatal care services are not covered. Reports from the former Yugoslav Republic of Macedonia show that Roma mothers often lack health insurance and cannot afford the copayment and informal costs linked to regular antenatal care, delivery and postnatal care (Government of the Republic of Macedonia, 2009).

Migrant women can also face challenges in access to antenatal care (WHO, 2010b). Even when socioeconomic and educational background is taken into account, migrant women seem to be less likely to receive and/or seek adequate antenatal care and have good pregnancy outcomes. This is especially the case when the legal status of a migrant in a country is unclear and when women perceive local policies and social attitudes towards them as negative (UNFPA, 2005).

Policy considerations

Box 2 illustrates commitments Member States made at the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals to accelerate progress towards MDG 5 targets.

Box 2. Actions for meeting MDG 5

The Member States commit themselves to accelerating progress in order to achieve Millennium Development Goal 5, including by:

- (a) "Taking steps to realize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, including sexual and reproductive health;
- (b) "Addressing reproductive, maternal and child health, including newborn health, in a comprehensive manner, inter alia, through the provision of family planning, prenatal care, skilled attendance at birth, emergency obstetric and newborn care and methods for the prevention and treatment of sexually transmitted diseases and infections, such as HIV, within strengthened health systems that provide accessible and affordable integrated health-care services and include community-based preventive and clinical care;
- (c) "Building on effective, multisectoral and integrated approaches. We emphasize the need for the provision of universal access to reproductive health by 2015, including integrating family planning, sexual health and health-care services in national strategies and programmes;
- (d) "Taking action at all levels to address the interlinked root causes of maternal mortality and morbidity, such as poverty, malnutrition, harmful practices, lack of accessible and appropriate health-care services, information and education and gender inequality, and paying particular attention to eliminating all forms of violence against women and girls;
- (e) "Ensuring that all women, men and young people have information about, access to and choice of the widest possible range of safe, effective, affordable and acceptable methods of family planning;
- (f) "Expanding the provision of comprehensive obstetric care and strengthening the role of skilled health-care providers, including midwives and nurses, through their training and retention in order to fully utilize their potential as trusted providers of maternal health-care services, as well as expanding family planning within local communities and expanding and upgrading formal and informal training in sexual and reproductive health care and family planning for all health-care providers, health educators and managers, including training in interpersonal communications and counselling."

Source: United Nations (2010).

In the European Region, while these actions are indeed salient to scaling up MDG 5 progress, actions where particular attention will be required include the following.

- There is a need to increase government political and financial commitments for sexual and reproductive health and rights. There is a need to ensure an enabling legal and policy framework to overcome access barriers. The quality needs to be ensured and the RMNCH continuum of care strengthened. Health reforms need to be designed so that they facilitate expanded delivery of quality reproductive health services, including the use of strengthened family planning and service integration in primary health care.
- There is a need to improve the financing of the maternal and perinatal components of basic benefit packages. There is a need to secure sufficient investments in sexual and reproductive health through increased awareness among decision-makers of the contribution of health (including sexual and reproductive health) to the social and economic prosperity of countries.
- There is a need to ameliorate data collection and monitoring and evaluation systems, with mechanisms in place to ensure the effective use of data on maternal health, family planning, reproductive behaviour and the needs of vulnerable populations. The recommendations provided by the Commission on Information and Accountability for Women's and Children's Health with regard to vital events, health indicators, and innovation in the use of information and communication technologies are particularly relevant (United Nations, 2011b). National information systems should account for the health status and needs of adolescents and young people (including pregnant adolescents and, linked to MDG 6, the numbers of adolescents and young people living with HIV).
- There is a need to ensure the quality of sexual and reproductive health services for all populations. There is a need to control for quality in the RMNCH continuum of care, including referrals and follow-ups that allow for effective coverage. There is also a need to increase attention to the production and continuous capacity-building of personnel with the right mix of skills and to ensure their equitable availability for all population groups.
- There is a need to ensure access to and availability of essential medicines and commodities for reproductive health (PATH, WHO, UNFPA, 2006) and to provide adequate well-maintained

equipment at all levels of maternal and/or perinatal and reproductive health care.

- A demand for services needs to be created through appropriate communication on behavioural change. Communication should be culturally and contextually appropriate for the specific gender, age and literacy-level of the target audience (reflecting thorough knowledge of the target audience's evolving needs) and should address men and traditional leaders. Due attention is also required to care provider practices and attitudes, including those towards adolescents and socially excluded populations, that may obstruct a patient's access to services (WHO, 2010b).
- Multisectoral linkages need to be established and actions integrated to address gender inequalities and other social determinants of sexual and reproductive health; these need to be translated into policies, programmes, and laws within and beyond the health sector. There is also a need to strengthen partnerships and coordination between various stakeholders and donors working in sexual and reproductive areas, child health, gender equality and the empowerment of women.
- There is a need to increase government support for the active involvement of civil society and communities in the design, provision and evaluation of sexual and reproductive health policies and programmes. In keeping with this, efforts can also be scaled up to move beyond the historical approach – to promote sexual and reproductive health that focuses on the deficit model – and moves towards an approach that also embraces the assets model and hence accentuates salutogenic resources of individuals and communities (Morgan & Ziglio, 2007). A participatory approach is a key part of this change.
- There is a need to ensure the rights of adolescents to age-appropriate information, confidentiality and privacy, and access to services and commodities. There is a need to reinforce The Convention on the Rights of the Child principle of evolving capacities of the child for autonomous decision-making and informed consent. There is a need to identify and reduce the barriers faced by (pregnant) adolescents in accessing HIV and/or sexual and reproductive health services, including safe abortion and post-abortion care services (where abortion is legal). There is a need to enforce laws and policies that directly protect the most-at-risk adolescents, to decriminalize the behaviours that place them most at risk, and to ensure that they have access to the services they need and are protected from stigmatization.
- There is a need to address the links between noncommunicable diseases and MDG 5. Noncommunicable diseases increasingly affect women and children across the RMNCH continuum of care. For instance, obesity in women increases the risk of gestational diabetes, pre-eclampsia, pregnancy-related hypertension, induced labour, caesarean sections and stillbirths (Partnership for Maternal, Newborn and Child Health, 2011). Obesity also increases the risk of ovulatory and menstrual dysfunction and subsequent infertility (Pasquali, Patton & Gambineri, 2007). The RMNCH continuum of care provides several opportunities to prevent, diagnose and treat noncommunicable diseases. The Global Strategy for Women's and Children's Health recommends that health services for noncommunicable diseases be provided as part of an integrated approach to promote women's and children's health (United Nations Secretary-General Ban Ki-moon, 2010).

MDG 6: combat HIV/AIDS, malaria and other diseases

MDG 6 aims to combat HIV/AIDS, malaria and other diseases. Its targets are to:

(A) have halted and begun to reverse the spread of HIV/AIDS by 2015;

(B) have achieved universal access to treatment for HIV/AIDS for all those who need it by 2010; and

(C) have halted and begun to reverse the incidence of malaria and other major diseases (including tuberculosis) by 2015.

HIV/AIDS

At the end of 2009, worldwide there were an estimated 33.3 million people living with HIV, compared with an estimated 26.2 million in 1999 – a 27% increase (UNAIDS, 2010). In the WHO European Region,⁴ there were an estimated 2.22 million people living with HIV in 2009 (UNAIDS, 2010). This is compared with 1.4 million people living with HIV in the European Region in 2001, evidencing a 60% increase during the period 2001–2009 (UNAIDS, 2010).

HIV in Europe disproportionately affects populations that are socially marginalized and people whose behaviour is socially stigmatized (such as men who have sex with men) or illegal (such as people who use illicit drugs). In the Region, specific key populations at higher risk of HIV exposure and infection are people who inject drugs and their sexual partners, men who have sex with men, transgender people, sex workers, prisoners and migrants (WHO Regional Office for Europe, 2011b). The HIV epidemic in Europe remains concentrated in these key populations at higher risk, with no evidence of generalizing. In some eastern European and central Asian countries, more than 60% of newly diagnosed HIV infections in 2009 were among people who inject drugs, and the interaction between sex work and injecting drug use is accelerating the spread of HIV in the Region (WHO Regional Office for Europe, 2011b). In western and central Europe, men who have sex with men accounted for about half of all newly diagnosed HIV-infections in 2009, with a notable increase over the last five years (WHO Regional Office for Europe, 2011b).

Four countries did not officially report HIV surveillance data to WHO and the European Centre for Disease Prevention and Control for 2009. This limited the analysis in the latest report *HIV/AIDS surveillance in Europe 2009*, which grouped countries into three geographical areas:⁵ West, Centre and East. According to this report, the rate of newly diagnosed cases of HIV increased from 6.6 cases per 100 000 population in 2004 to 8.5 cases per 100 000 population in 2009 (ECDC & WHO Regional Office for Europe, 2010). The rate of newly diagnosed cases of HIV varied widely among the three geographical areas in Europe, as illustrated in Fig. 1. The highest rate was reported in the East (18.9 cases per 100 000 population), which is more than twice that reported in the West (6.7 cases per 100 000 population) and more than ten times that in the Centre (1.4 cases per 100 000 population) (ECDC & WHO Regional Office for Europe, 2010). As noted, rates would have been different had all data from all countries been included, but these give indications of subregional variations. Inclusion of publicly available data from non-reporting countries would approximately double the number of newly diagnosed HIV infections in the Region in 2009.⁶

4 The calculation does not include data from Albania, Andorra, Bosnia and Herzegovina, Cyprus, Monaco, Montenegro, San Marino, the former Yugoslav Republic of Macedonia and Turkmenistan.

5 Countries are grouped as follows:

- West, 23 countries: Andorra, Austria*, Belgium*, Denmark*, Finland*, France*, Germany*, Greece*, Iceland, Ireland*, Israel, Italy*, Luxembourg*, Malta*, Monaco, the Netherlands*, Norway, Portugal*, San Marino, Spain*, Sweden*, Switzerland and the United Kingdom*;

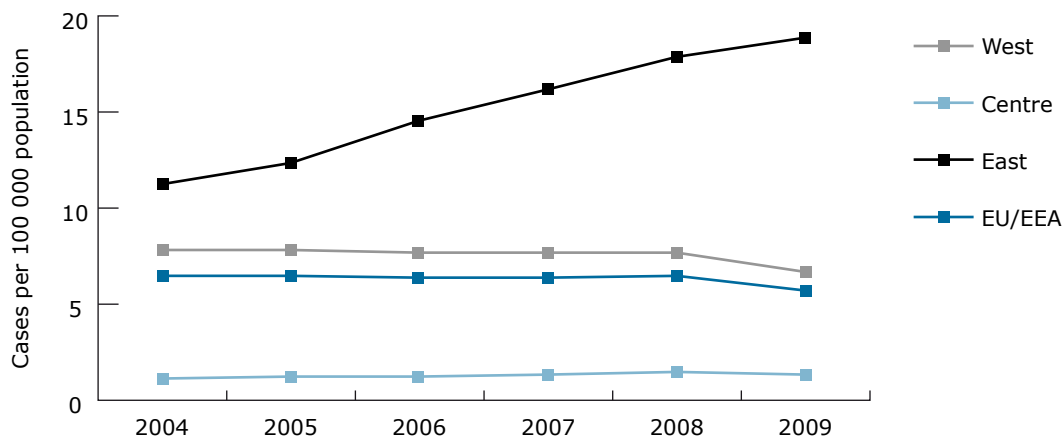
- Centre, 15 countries: Albania, Bosnia and Herzegovina, Bulgaria*, Croatia, Cyprus*, the Czech Republic*, Hungary*, Montenegro, Poland*, Romania*, Serbia, Slovakia*, Slovenia*, the former Yugoslav Republic of Macedonia and Turkey;

- East, 15 countries: Armenia, Azerbaijan, Belarus, Estonia*, Georgia, Kazakhstan, Kyrgyzstan, Latvia*, Lithuania*, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

The asterisk (*) indicates countries that constitute the European Union as of 1 January 2007.

6 Sources for this calculation are: ECDC & WHO Regional Office for Europe (2010); 2010 UNGASS country report for the Russian Federation (Russian Federation Federal Service for Surveillance of Consumer Rights Protection and Human Well-being (2010)); and data for Turkey reported to the WHO Regional Office for Europe.

Fig. 1. HIV infection in the three geographical areas and EU/EEA, WHO European Region, 2004-2009



Data from Austria, Russia, Monaco and Turkey not included

EU/EEA: European Union/European Economic Area countries.
Source: ECDC & WHO Regional Office for Europe (2010).

HIV/AIDS surveillance in Europe 2009 also reports that the overall rate of HIV cases diagnosed was higher for men than for women, at 11.4 and 5.8 cases per 100 000 population, respectively (ECDC & WHO Regional Office for Europe, 2010). The sexual transmission of HIV from males who inject drugs to their female partners is a concern, particularly since partners of risk group members are rarely targeted by prevention programmes (Matic et al., 2008).

A number of Member States in the European Region have virtually achieved the elimination of mother-to-child HIV transmission, well in advance of the global goal set for 2015. Overall, in the Region, only 4–7% of infants born to mothers living with HIV acquired the infection in 2009 (the elimination target is set to less than 2%), representing the lowest rate among WHO regions globally and an almost fivefold decrease since 2000 (WHO Regional Office for Europe, 2011c).

The sharp increase in HIV infections observed in the Region is strongly correlated with social exclusion processes. Poverty, underdevelopment, illiteracy, unemployment, social breakdown and the absence of a positive outlook are factors that contribute to the spread of HIV/AIDS (WHO Regional Office for Europe, 2004). Special consideration should be given to key populations at higher risk, to further promote equity in the prevention and treatment of HIV (UNECE et al., 2010; WHO, EQUINET, REACH Trust & TARSC, 2010).

With regard to HIV prevention, the existence of barriers to accessing medical and social services can challenge migrants (Matic et al., 2008). Separation from families, poverty and exploitative working conditions all increase the risk of HIV infection (Ujhelyi et al., 2007). In the European Union (EU) and European Economic Area (EEA) countries in 2009, an estimated 38% of heterosexually acquired infections were diagnosed in individuals originating from countries with generalized epidemics (ECDC & WHO Regional Office for Europe, 2010). Unacceptably, this may result in stigmatizing migrants, worsening social exclusion and impeding their access to services.

Although the number of diagnosed cases of AIDS and AIDS-related mortality declined in the WHO European Region as a whole, both continued to rise in eastern Europe and central Asia (ECDC & WHO Regional Office for Europe, 2010; Ministry of Health of Ukraine, 2010; and annual bulletins of the Federal AIDS Centre of the Russian Federation), with a fourfold increase in estimated AIDS-related deaths during the period 2001–2009 (UNAIDS, 2010).

Treatment and care for people living with HIV, including antiretroviral treatment (ART), delays the progression of the disease, reduces disability, improves quality of life and increases life expectancy. Access to ART also has a public health dimension. As part of a prevention plan, it can significantly reduce HIV transmission and affect the epidemic's development (WHO Regional Office for Europe, 2011d).

A higher number of individuals located in all regions of the world are now receiving ART, compared with previous years (UNAIDS, 2010). Access to ART in many countries of the Region is among the lowest globally. Whereas many countries, especially in the western part of the Region, have among

the best ART coverage rates in the world, in 2009 only 19% of adults in need were receiving ART in the Region's low- and middle-income countries (WHO, UNAIDS & UNICEF, 2010).⁷ This represents almost half the global average for low- and middle-income countries. Though people who inject drugs account for the majority of people living with HIV in eastern Europe and central Asia, they account for less than 25% of all people living with HIV who are receiving ART (United Nations, 2009).

Tuberculosis

Under its call for combating "other diseases", MDG 6 addresses tuberculosis (TB). The targets for TB control were developed within the framework of the MDGs, the Stop TB Partnership, and the World Health Assembly. These targets require that (by 2015):

- the incidence of TB should be declining;⁸
- the TB prevalence and death rates should be halved,⁹ compared with their level in 1990;
- at least 70% of incident sputum smear-positive cases should be detected and treated in DOTS (directly observed treatment, short-course) programmes; and
- at least 85% of incident sputum smear-positive cases should be successfully treated.

The indicators used to monitor progress towards these targets include the incidence, prevalence and death rates associated with TB (MDG indicator 6.9), as well as the proportion of TB cases detected and successfully treated under DOTS (MDG indicator 6.10) programmes.

In 2009, global prevalent cases were estimated to be 14 (12–16) million, and the incident cases were estimated to be 9.4 (8.9–9.9) million (WHO, 2010c). There were 1.3 (1.2–1.5) million deaths among HIV-negative people and 0.38 (0.30–0.5) million deaths among HIV-positive people (WHO, 2010c). Globally, the incidence of TB is decreasing. Mortality is falling at a rate that, if sustained, will reach the 2015 target. Prevalence is also falling, but more slowly, and is unlikely to reach the 2015 target.

Taken as a whole, the most recent data available (for 2009) suggest that the European Region faces significant challenges in reaching the MDG 6 TB targets. While the estimated TB prevalence fell from 80 to 63 cases per 100 000 population between 2000 and 2009, this is still far from the 48 cases per 100 000 population target for 2015 (WHO, 2010c). Estimated mortality from TB decreased from 8.6 to 6.9 deaths per 100 000 population between 2000 and 2009. However, the 2009 mortality rate was slightly above the figure estimated for 2008, which is 6.8 deaths per 100 000 population. To meet the MDG 6 target, TB mortality must decline to 6.0 deaths per 100 000 population by 2015 (WHO, 2010c).

In 2009, there were a total of 396 992 reported cases of TB across 51 countries of the WHO European Region,¹⁰ of which 329 391 cases were new episodes of TB (new cases and relapses) (ECDC & WHO Regional Office for Europe, 2011). Member States located in the eastern part of the Region had much higher notification rates than those in the western part. The notification rate of new and relapsed cases in the 18 high-priority countries was twice as high as the rate for the Region (73 compared with 36.8 cases per 100 000 population) and more than five-and-a-half times higher than the rate in the EU/EEA (13.2 cases per 100 000 population) (ECDC & WHO Regional Office for Europe, 2011).^{11,12}

7 Based on WHO guidelines 2010 (treatment initiation at a CD4 count of less than 350 cells/mm³). CD4 is a glycoprotein expressed on the surface of T helper cells, monocytes, macrophages, and dendritic cells and is part of the immune system.

8 The *incidence* of a disease is the number of new cases arising in a given period in a specified population

9 The *prevalence* of a disease is the number of cases (new and previously occurring) in a defined population at a given point in time.

10 No data were available from Liechtenstein, Monaco or San Marino.

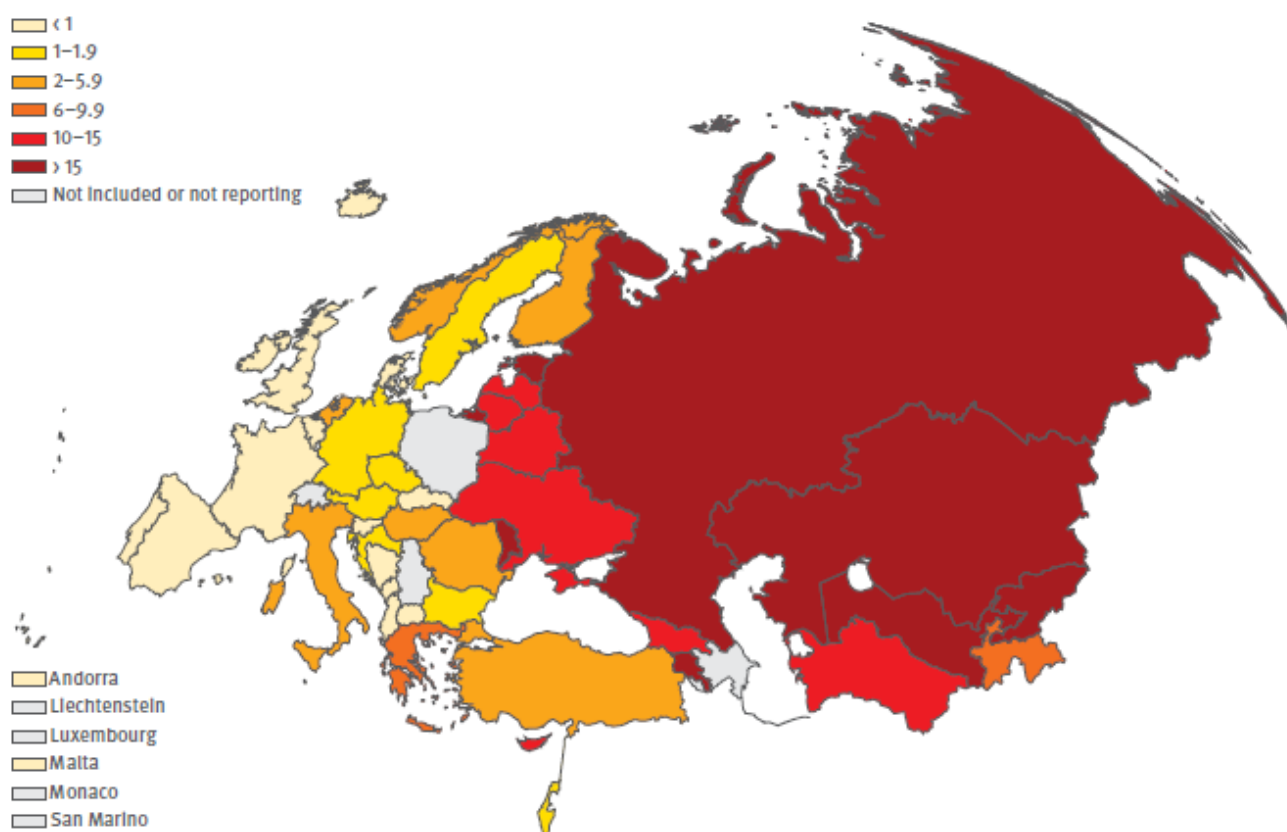
11 The 18 high-priority countries are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

12 The 30 EU and EEA countries are: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

The Region reported 46 241 deaths from TB in 2008 (the most complete reporting), the majority of them – 92.1% – in the 18 high-priority countries of the Region (ECDC & WHO Regional Office for Europe, 2011). Countries with a TB mortality rate of more than 10.0 deaths per 100 000 population were: Ukraine (22.5), the Russian Federation (18.0), Kazakhstan (17.0), the Republic of Moldova (15.6), Kyrgyzstan (11.6) and Lithuania (10.3) (ECDC & WHO Regional Office for Europe, 2011).

Low adherence to evidence-based TB control practices has led to high levels of multidrug-resistant tuberculosis (MDR-TB) and extensively drug-resistant tuberculosis (XDR-TB) (WHO Regional Office for Europe, 2007c). The Region reflects alarming percentages of MDR-TB. The percentage of multidrug resistance notified among new TB cases rose from 11.1% in 2008 to 11.7% in 2009, and it fell from 46.9% to 36.6% among previously treated TB cases; these data are difficult to interpret, considering that only 47.3% of the TB cases are confirmed by culture (ECDC & WHO Regional Office for Europe, 2011). Fig. 2 shows the percentage of notified TB cases with primary multidrug resistance in Europe in 2009. The increase of drug susceptibility testing of second-line drugs in non-EU/EEA countries, even if still narrowly practised, increases the reported number of patients with XDR-TB, which tripled in 2009, compared with 2008 (from 132 cases in 2008 to 344 cases in 2009) (ECDC & WHO Regional Office for Europe, 2011).

Fig. 2. Percentage of notified TB cases with primary multidrug resistance, Europe, 2009



Note. Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) are not included in the figures reported for Serbia.

Source: ECDC & WHO Regional Office for Europe (2011).

In 2009, the proportion of new TB cases detected in the Region (assumed indicative also of those smear-positive cases targeted by MDG 6) was 80%, well above the global target of 70% (WHO, 2010c). However, the European Region has the poorest treatment outcomes in the world, with 67% and 47%, respectively, among new and previously-treated smear-positive cases – that is, much lower than the respective 87% and 72% reported globally (WHO, 2010c).

Worldwide, an estimated 12% (11–13%) of the 9.4 (8.9–9.9) million incident cases of TB in 2009 were HIV-positive (WHO, 2010c). In 2009, in the European Region, the number of registered HIV cases coinfecting with TB increased to 13 821, increasing the prevalence of HIV among TB patients from 2.3% in 2007 to 3.9% in 2009 (ECDC & WHO Regional Office for Europe, 2011). This increase is seen entirely in non-EU/EEA countries (from 2.3% in 2007 to 4.2% in 2009) and is probably the

results of improvements made in reporting and intensified HIV-care services for TB patients, rather than an actual increase in coinfection prevalence (ECDC & WHO Regional Office for Europe, 2011).

TB can be transmitted and thrive with greater ease under the adverse living conditions that weaken resistance to disease and limit health system access. Exposure to TB bacteria, the likelihood of becoming ill once exposed, the likelihood of receiving a timely diagnosis and completing treatment, and the impact (such as financial) of having had TB are differentially distributed across the social gradient, both within and between countries (Lönnroth et al., 2010a). The poor and socially excluded are more likely to experience suboptimal health outcomes, punitive (rather than autonomy-enhancing) treatment and negative economic impacts as a result of their contact with the health care system (WHO Regional Office for Europe, 2010b). Among the poor and socially excluded, particularly vulnerable groups include prisoners and former prisoners, people who inject drugs, alcoholics, the homeless, migrants, and others.

A study from Spain (García-García et al., 2011) illustrates the role of social determinants of health in the epidemiological situation of TB among migrants. The study was undertaken to identify the differential TB characteristics within the migrant population with respect to the non-migrant population in Spain. The variables – including but not limited to the following – were significantly associated with migrant TB cases: a group living situation, primary or emergency care admission, drug resistance, treatment deferral, and poor understanding of TB and its treatment. The study's findings highlighted the need to introduce specific measures into the management of TB among the migrant population. Such measures would include the improvement of social and work conditions.

Across the region, TB is twice as common in males as in females, reflecting the overrepresentation of males in the various risk groups for TB, notably the homeless, prisoners and people infected with HIV (ECDC & WHO Regional Office for Europe, 2011). However, there may be important gender inequities that limit females from obtaining access to TB diagnosis and treatment.

The increasing burden threatens the possibility of effectively controlling TB (Lönnroth et al., 2010b; Creswell et al., 2011). Several noncommunicable diseases, such as diabetes mellitus, alcohol use disorders and smoking-related conditions, are responsible for a significant proportion of TB cases globally. In the European Region, these noncommunicable diseases represent a larger attributable fraction for TB than HIV (Creswell et al., 2011). Noncommunicable diseases put patients at increased risk of developing TB and at risk of poor treatment outcomes. However, these diseases also present an opportunity to provide better care, through increased case-detection activities, improved clinical management and better access to care for both TB and noncommunicable diseases (Creswell et al., 2011).

Malaria

MDG 6 aims to halt by 2015 and begin to reverse the incidence of malaria. Globally, deaths from malaria decreased by an estimated 20% between the period 2000 and 2009, from nearly 985 000 deaths in 2000 to 781 000 deaths in 2009 (WHO, 2010d). In parallel, the number of malaria cases rose from about 233 million in 2000 to 244 million in 2005, but decreased to 225 million in 2009 (WHO, 2010d). Behind the decreases in all countries are intensive control efforts. The largest percentage drops in deaths from malaria were found in Europe and the Americas (WHO, 2010d).

The European Region has seen a dramatic reduction of locally acquired cases of malaria, from 90 712 cases in 1995 to 32 385 cases in 2000, to only 176 cases in 2010 (WHO, 2010d; WHO Regional Office for Europe, 2011e). In 2010, the locally acquired cases occurred in five Member States: Azerbaijan, Kyrgyzstan, Tajikistan, Turkey and Uzbekistan (WHO Regional Office for Europe, 2011e). In 2009, the WHO European Region reported for the first time no cases of *Plasmodium falciparum* malaria. Thus, in 2009, all locally acquired cases in the Region were due to *P. vivax* (WHO, 2010d).

Since 2006, all malaria-affected countries endorsed the Tashkent Declaration: the move from malaria control to elimination in the WHO European Region (WHO Regional Office for Europe, 2006a). Since 2008, all malaria-affected countries in the Region have undertaken activities towards malaria elimination. The activities include those articulated in the *Regional strategy: from malaria control to elimination in the WHO European Region 2006–2015* (WHO Regional Office for Europe, 2006b).

WHO, at a country's request, can certify malaria elimination when it has had no locally acquired malaria cases for at least three consecutive years. Turkmenistan was certified as malaria-free in October 2010, as was Armenia in October 2011 (WHO, 2010d; WHO Regional Office for Europe, 2011e). Experts are optimistic that the transmission of malaria has been interrupted in Georgia. Authorities in countries affected by malaria are confident that they can eliminate the disease from the Region by 2015.

Contracting malaria is influenced by social and environmental determinants of health. At the beginning of the 1990s, the residual reservoir of malaria infection was aggravated by political and socioeconomic conditions, mass population migration, extensive development projects, and discontinued malaria prevention and control activities. All of these combined to provide conditions favourable to the transmission of malaria. Globally, there is evidence that the poor are more adversely affected by the conditions that favour the transmission of malaria and also have lesser access to quality preventive measures. Insecticide-treated mosquito nets are the main preventive measure against malaria. DHS results from 18 countries globally show that overall net use by children (not necessarily insecticide-treated) is more common among the rich than the poor in 13 countries (WHO, 2010d). Information on whether the child slept under a treated net, available from 21 MICS, shows that equity gaps seem to be greater for treated nets than for any bednet use (WHO, 2010d).

Global population mobility has contributed to an increase in the number of imported malaria cases in the European Region. Over the period 1981–2007, the 11 countries in the European Region that were certified as having achieved malaria elimination reported a total of 35 754 imported malaria cases – that is, 1324 cases annually on average (range: 728–2222 cases) (WHO, 2010d). In the EU, malaria is mainly a travel medicine issue. Travellers with little or no immunity that travel from malaria-free regions to malaria-endemic countries are especially vulnerable, given that imported malaria has been related to high case fatality. People may believe they maintain their partial immunity against malaria after migrating to a non-endemic country, not recognizing that immunity wanes rapidly. In addition, so-called airport malaria is sometimes reported in the EU, related to the inadvertent transport of infected mosquitoes from endemic areas (ECDC, 2011). In the eastern part of the Region, the countries affected make concerted efforts to prevent the spread of malaria across neighbouring country borders. Since 2008, national and intercountry strategies on malaria have been revised to address cross-border collaboration (WHO, 2010d).

Policy considerations

In the outcome document of the United Nations High-level Plenary Meeting of the General Assembly on the Millennium Development Goals, Member States made a commitment to strengthen measures towards MDG 6 through the actions featured in Box 3.

While the actions delineated in the outcome document are global in scope, they raise many salient points about combating HIV/AIDS, TB and malaria in the European Region. With regard to HIV/AIDS, the WHO Regional Office for Europe is preparing the European Action Plan for HIV/AIDS 2012–2015 (WHO Regional Office for Europe, 2011b,f). The plan envisages four strategic directions for action.

1. Improve the outcomes of HIV prevention, diagnosis, treatment and care. Specifically, this involves: reducing late diagnosis; reducing new HIV infections among people who inject drugs; decreasing sexual transmission of HIV among men who have sex with men and sex workers; eliminating mother-to-child transmission; and ensuring universal access to care and treatment for people living with HIV.
2. Leverage broader health outcomes through HIV responses. Specifically, this involves: reducing the number of people living with HIV who are dying of TB; supporting countries to make available comprehensive programmes for people who use drugs; increasing linkages to services for sexual and reproductive health and maternal, child and adolescent health; reducing the burden of HIV and viral hepatitis; and decreasing the burden of noncommunicable and chronic diseases in people living with HIV.
3. In the context of strengthening health systems, establish strong and sustainable systems. Specifically, this includes: HIV/AIDS surveillance, monitoring and evaluation; delivery of services; medicines and diagnostics; improvement of quality; health financing; and governance and partnerships.
4. Address the social factors that influence the transmission of HIV and result in barriers to needed services. Action on the wider determinants can include: laws and regulations; intersectoral

initiatives and partnerships; measures to overcome stigma and discrimination; and strengthening community systems.

Box 3. Actions for meeting MDG 6

The actions the Member States commit themselves to include:

(a) "Redoubling efforts to achieve universal access to HIV/AIDS prevention, treatment, care and support services as an essential step in achieving Millennium Development Goal 6 and as a contribution to reaching the other Millennium Development Goals;

(b) "Significantly intensifying prevention efforts and increasing access to treatment by scaling up strategically aligned programmes aimed at reducing the vulnerability of persons more likely to be infected with HIV, combining biomedical, behavioural and social and structural interventions, and through the empowerment of women and adolescent girls so as to increase their capacity to protect themselves from the risk of HIV infection and through the promotion and protection of all human rights. Prevention programmes should take into account local circumstances, ethics and cultural values, including information, education and communication in languages most understood by local communities and should be respectful of cultures, with the aim of reducing risk-taking behaviours and encouraging responsible sexual behaviour, including abstinence and fidelity; expanded access to essential commodities, including male and female condoms and sterile injecting equipment; harm-reduction efforts related to drug use; expanded access to voluntary and confidential counselling and testing; safe blood supplies; and early and effective treatment of sexually transmitted infections, and should promote policies that ensure effective prevention and accelerate research and development into new tools for prevention, including microbicides and vaccines;

(c) "Dealing with HIV/AIDS from a developmental perspective, which requires a national network of sound and workable institutions and multisectoral prevention, treatment, care and support strategies, addressing the stigmatization of and discrimination against people living with HIV and promoting their social integration, rehabilitation and greater involvement in HIV response, as well as strengthening national efforts at HIV/AIDS prevention, treatment, care and support and strengthening efforts to eliminate the mother-to-child transmission of HIV;

(d) "Building new strategic partnerships to strengthen and leverage the linkages between HIV and other health- and development-related initiatives, expanding, to the greatest extent possible and with the support of international cooperation and partnerships, national capacity to deliver comprehensive HIV/AIDS programmes, as well as new and more effective antiretroviral treatments, in ways that strengthen existing national health and social systems, as well as using HIV platforms as a foundation for the expansion of service delivery. In this regard, expediting action to integrate HIV information and services into programmes for primary health care, sexual and reproductive health, including voluntary family planning and mother and child health, treatment for tuberculosis, hepatitis C and sexually transmitted infections and care for children affected, orphaned or made vulnerable by HIV/AIDS, as well as nutrition and formal and informal education;

(e) "Planning for long-term sustainability, including addressing the expected increase in demand for second and third line drug regimens to treat HIV, malaria and tuberculosis;

(f) "Strengthening support to affected countries in order to respond to HIV co-infection with tuberculosis, as well as multi-drug resistant and extensively drug resistant tuberculosis, including through earlier detection of all forms of tuberculosis;

(g) "Sustaining national efforts and programmes, with the support of the international community, to address the challenges posed by malaria by strengthening effective prevention, diagnosis and treatment strategies, including by ensuring the accessibility to and availability of affordable, quality and effective medicines, generics, including artemisinin-combination therapy, as well as progress in the use of long-lasting, safe insecticide-treated bed nets to combat malaria and strengthening ongoing research for the prompt development of malaria vaccines;

(h) "Renewing efforts to prevent and treat neglected tropical diseases, prevention and treatment services for malaria and tuberculosis, including by improving national health information systems, strengthening international cooperation, accelerating further research and development, developing innovative vaccines and medicines and adopting comprehensive prevention strategies;

(i) "Undertaking concerted action and a coordinated response at the national, regional and global levels in order to adequately address the developmental and other challenges posed by non-communicable diseases, namely cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, working towards a successful high-level meeting of the General Assembly in 2011;

(j) "Increasing efforts to achieve universal access to HIV prevention, treatment, care and support, strengthening measures to address malaria, tuberculosis and other diseases, including by providing adequate funding for the Global Fund to Fight AIDS, Tuberculosis and Malaria and through the agencies, funds and programmes of the United Nations system and other multilateral and bilateral channels, strengthening innovative financing mechanisms, as appropriate, and contributing to the long-term sustainability of the response."

Source: United Nations (2010).

Accelerating progress towards both the HIV/AIDS and TB targets will require: the response of strong political mobilization and leadership; an increased focus on the most at-risk and vulnerable populations; and sufficient mobilization and allocation of funds, concentrating on the most effective interventions (UNECE et al., 2010).

With specific regard to TB, the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-resistant Tuberculosis in the European Region 2011–2015 (WHO Regional Office for Europe, 2011g,j) specifies the main priorities for action in the coming years. These include:

- identifying and addressing the determinants and underlying risk factors contributing to the emergence and spread of drug-resistant TB;
- strengthening the response of health systems in providing accessible, affordable, and acceptable services with patient-centred approaches;
- working in national, regional and international partnerships in TB prevention, control and care;
- fostering regional and international collaboration for the development of new diagnostic tools, medicines and vaccines against TB;
- promoting the rationale use of existing resources, identifying gaps and mobilizing additional resources to fill the gaps; and
- monitoring the trends in MDR/XDR-TB in the Region and measuring the impact of interventions.

To reach the most vulnerable populations, it is important that TB services be continuously accessible to all people, regardless of legal or residential status, and be truly free-of-charge for patients (WHO Regional Office for Europe, in press). Innovative mechanisms can be introduced to remove barriers to equitable access to diagnosis and treatment of drug-resistant TB and to create incentives and enabling conditions for patients to complete treatment (WHO Regional Office for Europe, 2011g).

Looking towards 2015, the main goals for addressing malaria in the European Region include:

- interrupting the transmission of autochthonous malaria and eliminating the disease within the Region by 2015;
- certifying the malaria-free status in Armenia by the end of 2011, in Georgia by the end of 2013, and in Turkey and (possibly) some central Asian countries by the end of 2015; and
- maintaining the malaria-free status in countries where malaria has been eliminated.

Reaching these goals will require national malaria elimination programmes with a strong technical management structure capable of mobilizing sufficient resources and implementing technically sound and effective measures adapted to national conditions and responding to local needs. A concern about the future of malaria elimination in the Region is the shortage of national expertise and competence to guide such programmes (WHO Regional Office for Europe, 2011c). A major obstacle for national elimination programmes, when the number of malaria cases becomes very low, is the justification of their cost. New possibilities and approaches for additional resource mobilization should be widely explored at the global, regional and national level (WHO Regional Office for Europe, 2011c).

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Annex. Relevant web links*

Below is a list of Web links that contain information about WHO Regional Office for Europe activities, information products and resources for all MDGs.

MDG 1. Eradicate extreme poverty and hunger:

- Socioeconomic determinants [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/socioeconomic-determinants>).
- Health systems financing [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/Health-systems/health-systems-financing>).
- Nutrition [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/disease-prevention/nutrition>).

MDG 2. Achieve universal primary education:

- Socioeconomic determinants [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/socioeconomic-determinants>).

MDG 3. Promote gender equality and empower women:

- Gender [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/gender>).

MDG 4. Reduce child mortality:

- Child and adolescent health [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/Life-stages/child-and-adolescent-health>).

MDG 5. Improve maternal health:

- Sexual and reproductive health [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/Life-stages/sexual-and-reproductive-health>).

MDG 6. Combat HIV/AIDS, malaria and other diseases [including TB]:

- HIV/AIDS [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/hiv/aids>).
- Malaria [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/malaria>).
- Tuberculosis [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/tuberculosis>).

MDG 7. Ensure environmental sustainability:

- Climate change [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/Climate-change>).
- Water and sanitation [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/water-and-sanitation>).
- Environment and health [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health>).

MDG 8. Develop a global partnership for development:

- Medicines [web site]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-do/health-topics/Health-systems/medicines>).

*All web sites accessed 1 December 2011.

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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