



Water and sanitation in the WHO European Region:

2014 Highlights



Abstract

Despite overall high levels of access to improved drinking-water sources and sanitation facilities in the WHO European Region, the 2014 update of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation shows that there are still people with unmet basic needs in the Region. Significant discrepancies between sub-regions and countries, urban and rural areas as well as wealth-related disparities remain. While 68 million people gained access to improved sanitation between 1990 and 2012, the WHO European Region is not on track to meet the sanitation target of the Millennium Development Goals (MDG) in 2015. Moreover, the Caucasus and central Asia is the only MDG region globally where access to improved drinking-water sources has declined between 1990 and 2012.

Keywords

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Introduction

The WHO European Region is home to more than 904 million people, of whom about one third live in rural areas (WHO & UNICEF, 2014a). It comprises 53 Member States with highly diverse socioeconomic, environmental and health conditions. It includes high-, middle- and low-income countries ranking between 1 and 133 on the United Nations (UN) Human Development Index (UNDP, 2013). Geographically, the Region spans two continents. According to the UN geo-classification system, it has Member States in six geographical subregions: central Asia, eastern Europe, northern Europe, southern Europe, western Asia and western Europe (United Nations Statistics Division, 2013).¹

The WHO European Region as a whole has a high level of access to improved drinking-water sources and sanitation (Tables 1 and 2). Averages calculated for the entire Region, however, tend to mask the challenges experienced by countries with lower levels of development. It has been estimated that about 10 people per day die from diarrhoea caused by inadequate water, sanitation and hand hygiene in the Region's low- and middle-income countries (Prüss-Ustün et al., 2014). This illustrates that people in the WHO European Region still have unmet basic needs and that not everybody is protected from health risks related to water and sanitation.

The purpose of this regional highlight report is to describe the current status

of water and sanitation coverage in the Region, with particular emphasis on addressing gaps in access related to subregional and urban–rural discrepancies, as well as wealth-related disparities. The WHO/UNICEF [United Nations Children's Fund] Joint Monitoring Programme for Water Supply and Sanitation (JMP) is the official monitoring mechanism of the water and sanitation-related targets of the Millennium Development Goals (MDGs). This report is based on the 2014 JMP progress report (WHO & UNICEF, 2014b) and on data providing estimates for 2012 (WHO & UNICEF, 2014a).

The report also includes financing and policy information related to water, sanitation and hygiene (WASH) from the 2013/2014 UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS), in which 12 countries from the WHO European Region participated. GLAAS monitors inputs such as finances and human resources, as well as the enabling environment – such as laws and institutional arrangements – required to extend and sustain WASH services for all (WHO, 2014).

Tables 1 and 2 present the current JMP estimates for access to drinking-water and sanitation in urban and rural areas in the WHO European Region. For the purposes of global monitoring the JMP makes a distinction between “improved” and “unimproved” drinking-water sources and sanitation facilities, using the following definitions.

¹ Geographical subregions in the UN geo-classification system include the following countries:

- central Asia: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan;
- eastern Europe: Belarus, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Ukraine;
- northern Europe: Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom of Great Britain and Northern Ireland;
- southern Europe: Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Malta, Montenegro, Portugal, San Marino, Serbia, Slovenia, Spain, the former Yugoslav Republic of Macedonia;
- western Asia: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Turkey (note: western Asia is a subregion with countries extending beyond the WHO European Region – the countries listed are those within the Region only);
- western Europe: Austria, Belgium, France, Germany, Luxembourg, Monaco, Netherlands, Switzerland.

- An improved drinking-water source is one that, by the nature of its construction, adequately protects the source from outside contamination, particularly faecal matter.
- An improved sanitation facility is one that hygienically separates human excreta from human contact.

It should be noted that the JMP estimates the use of improved sources and facilities as a proxy indicator for “safe” sources and facilities. Many aspects of safety, however – such as the level of microbial or chemical contamination of water sources and prevailing water supply and wastewater management practices – are currently not considered in the data routinely collected.

Table 1. Access to drinking-water sources in the WHO European Region

Water location	Improved (%)		Unimproved (%)	
	Piped on premises	Other improved	Other unimproved	Surface water
Urban	96.5	2.9	0.5	0.1
Rural	71.2	23.0	3.7	2.1
Total	89.1	8.7	1.5	0.7

Source: WHO & UNICEF (2014a).

Table 2. Access to sanitation in the WHO European Region

Sanitation location	Total improved (%)	Unimproved (%)		
		Shared	Other unimproved	Open defecation
Urban	94.3	3.5	2.0	0.2
Rural	88.5	3.2	8.0	0.3
Total	92.6	3.5	3.7	0.2

Source: WHO & UNICEF (2014a).

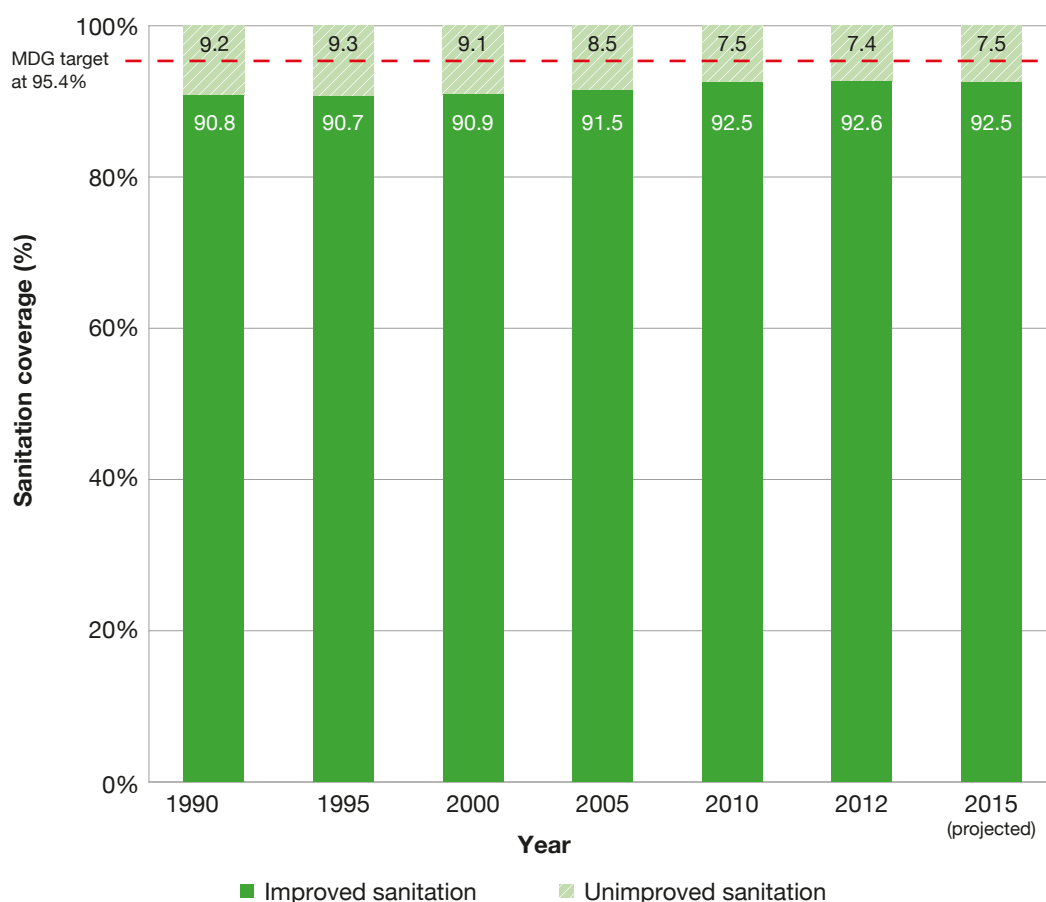
Message 1: Region not on track to meet MDG sanitation target

Target 7c of the MDGs is to halve the proportion of people without sustainable access to safe drinking-water and basic sanitation between 1990 and 2015. According to the 2014 JMP estimates the sanitation target will not be met in the WHO European Region (WHO & UNICEF, 2014b). As 9.2% of the population did not have access to improved sanitation in 1990, this number should be reduced to 4.6% in 2015 to meet the MDG target. In 2012, however, 7.4% of the population still did not have access to improved sanitation, which means that – assuming the current rate of progress continues – the 2015 target cannot be achieved

(Fig. 1). In addition, five countries are not on track or have made insufficient progress towards the sanitation target.

In consequence of this lack of progress, 69 million people in the WHO European Region still did not have access to improved sanitation in 2012 (the latest available data), which means that they are using unsafe, unsustainable or shared sanitation solutions or practising open defecation.² Nonetheless, the good news is that 68 million people gained access to improved sanitation between 1990 and 2012.

Fig. 1. Progress towards the MDG sanitation target in the WHO European Region, 1990-2015



Source: WHO & UNICEF (2014b).

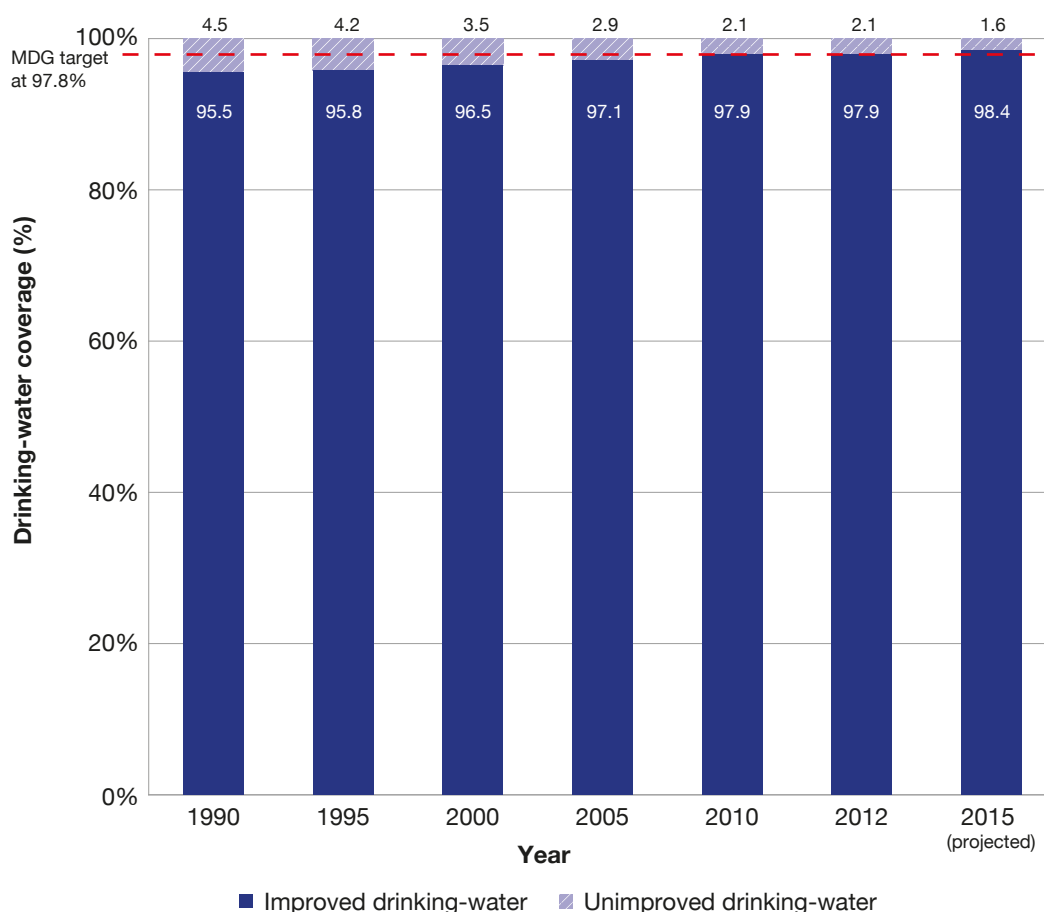
² Although the JMP considers shared sanitation facilities to be unimproved, some national authorities may consider them adequate solutions.

Message 2: MDG drinking-water target met

The MDG target of halving the proportion of people without sustainable access to safe drinking-water was achieved in the WHO European Region in 2009 (Fig. 2). As noted in the introduction, the JMP estimates the use of improved sources as a proxy indicator for “safe” sources, but these are not equivalent since, for instance, water quality is not considered. Even improved sources may thus supply unsafe water.

According to the 2014 JMP report, 885 million people living in the WHO European Region use an improved drinking-water source (WHO & UNICEF, 2014b). This means that 75 million people gained access to improved drinking-water between 1990 and 2012. Despite this progress, however, nine countries are not on track or have made insufficient progress in ensuring access to improved drinking-water sources.

Fig. 2. Progress towards the MDG drinking-water target in the WHO European Region, 1990-2015



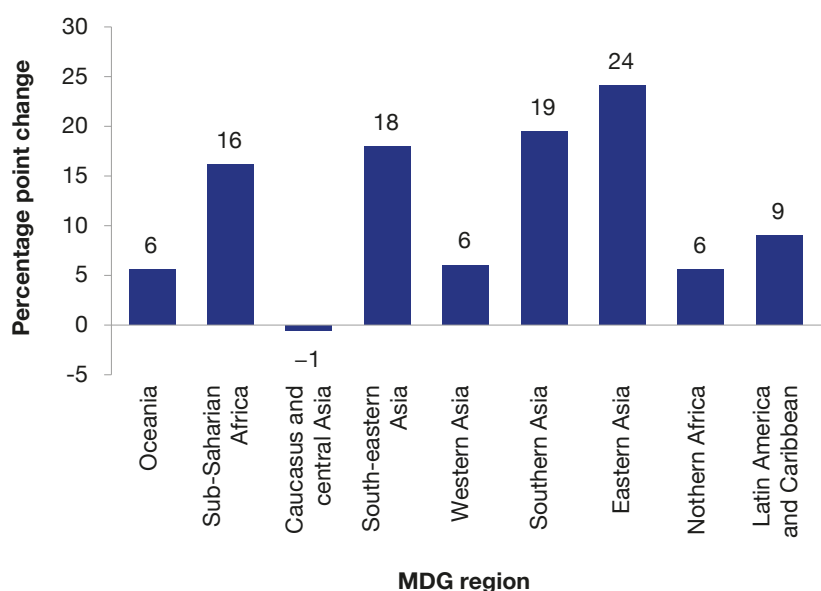
Source: WHO & UNICEF (2014a).

Message 3: drinking-water coverage declining in the Caucasus and central Asia

Although the MDG target for drinking-water has been met on average across the WHO European Region, this is not true for the MDG region of the Caucasus and central Asia.³ While other regions have made remarkable progress between 1990 and 2012, the Caucasus and central Asia is the only region globally

where access to improved drinking-water sources has declined during that time span (Fig. 3). The decline in access is concerning and suggests the need for increased national and international policy attention, including development cooperation on water and sanitation.

Fig. 3. Change in use of improved drinking-water sources, 1990–2012



Source: WHO & UNICEF (2014b).

³ The MDG Caucasus and central Asia region includes Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Message 4: almost 100 million people without piped water supply

In the WHO European Region 97 million people, most living in eastern Europe and central Asia, do not enjoy access to piped water on their premises (Table 3). Although decentralized systems may present a viable and cost-effective solution in a range of circumstances,

the presence of piped water on the premises enables people to have water available in sufficient quantity, decreases time-consuming and burdensome water transport and reduces the risk of contamination while fetching water.

Table 3. Population without access to piped water by subregion

Subregion (UN geo-classification system)	Number of people without access to piped water supply (millions, rounded to the nearest million) ⁴	Proportion of population without access to piped water supply (%)
Central Asia	31	49
Eastern Europe	63	21
Northern Europe	0	1
Southern Europe	4	2
Western Asia	7	7
Western Europe	0	0

Source: WHO & UNICEF (2014b).

Having access to piped water in the house or yard is often a matter of living in cities. Many countries face strong urban–rural discrepancies in access to piped water. Across the WHO European Region the urban–rural difference for piped water

use is 25 percentage points (97% of the urban population versus 71% of the rural population), but in nine countries in eastern Europe and central and western Asia the urban–rural gap is more than 50 percentage points (Table 4).

⁴ The regional totals are lower than the combined subregional totals because of methodological differences in data calculation. Regional totals are calculated by multiplying the proportion of regional coverage by the sum of the populations in those countries for which data are available, although the proportion of regional coverage is calculated on the basis of regional population estimates, which include countries for which no coverage data are available. In contrast, the subregional totals are sums of coverage calculated on the basis of only those countries where coverage data are available.

Table 4. Countries in which the urban–rural difference in access to piped water is greater than 50 percentage points

Country	Piped water on premises – urban (%)	Piped water on premises – rural (%)	Percentage point difference
Ukraine	86	22	65
Romania	92	28	63
Republic of Moldova	87	25	62
Turkmenistan	77	15	62
Kazakhstan	90	28	62
Uzbekistan	85	26	59
Azerbaijan	78	20	58
Tajikistan	82	29	53
Kyrgyzstan	87	36	51

Source: WHO & UNICEF (2014b).



Message 5: 6 million people relying on surface water sources

Meeting the MDG target for drinking-water in the WHO European Region in 2006 should not disguise the fact that 19 million people in the Region still do not have access to improved drinking-water sources. These people have to rely on water that is prone to microbial contamination, such as surface water and water from unimproved sources that do

not have protective features by the nature of their construction. Across the Region 6 million people access drinking-water directly from rivers, dams, canals, streams, lakes, ponds or irrigation channels. In four countries of central and western Asia more than 1% of the population relies on surface water (Table 5).

Table 5. Countries in the WHO European Region where more than 1% of the population relies on surface water

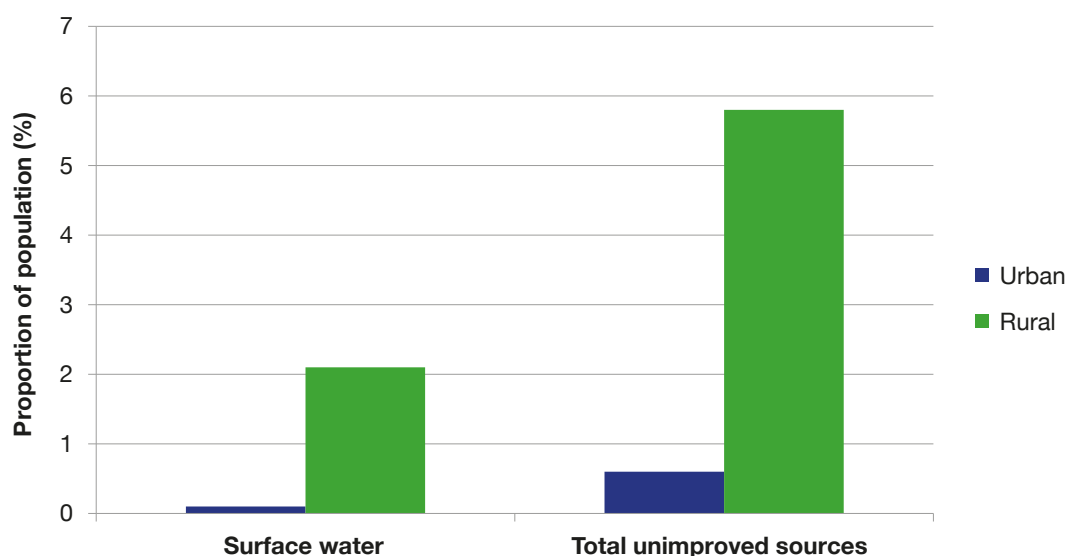
Country	Proportion of population (%)
Tajikistan	22
Kyrgyzstan	9
Azerbaijan	8
Uzbekistan	3

Source: WHO & UNICEF (2014a).

The use of surface water for drinking purposes is 20 times more likely in rural than in urban areas, and the use of all

unimproved sources (including surface water) is 10 times more likely in rural than in urban areas (Fig. 4).

Fig. 4. Population in the WHO European Region relying on surface water and total unimproved sources, urban and rural areas



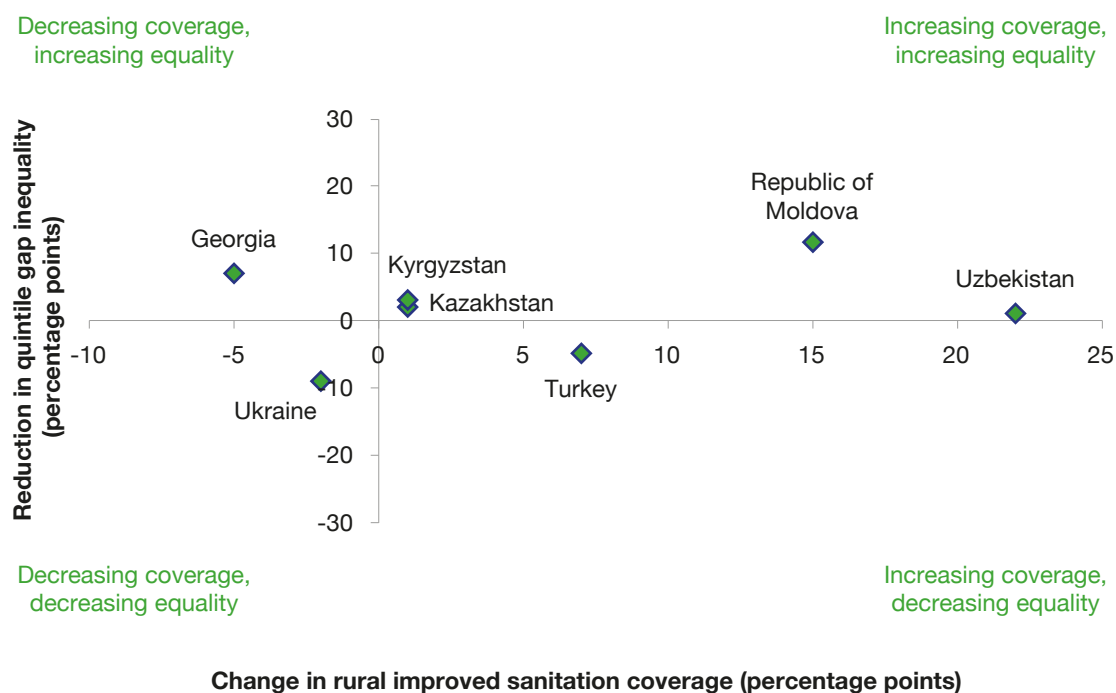
Source: WHO & UNICEF (2014a).

Message 6: wealth and ethnicity linked to inequitable access to water and sanitation

Having access to piped water or sanitation connected to sewerage is not only a matter of living in cities; household wealth can also influence access to improved technologies. For several countries in the WHO European Region access to improved technologies was correlated with wealth quintiles

in 1995 and 2010 to compare trends in differences in access. The data on improved sanitation in rural areas show that four countries were able to increase coverage while reducing wealth-related inequalities, while in two countries access to improved rural sanitation became less equitable (Fig. 5).

Fig. 5. Reduction in wealth quintile gap inequality/change in improved sanitation coverage in rural areas 1995–2010

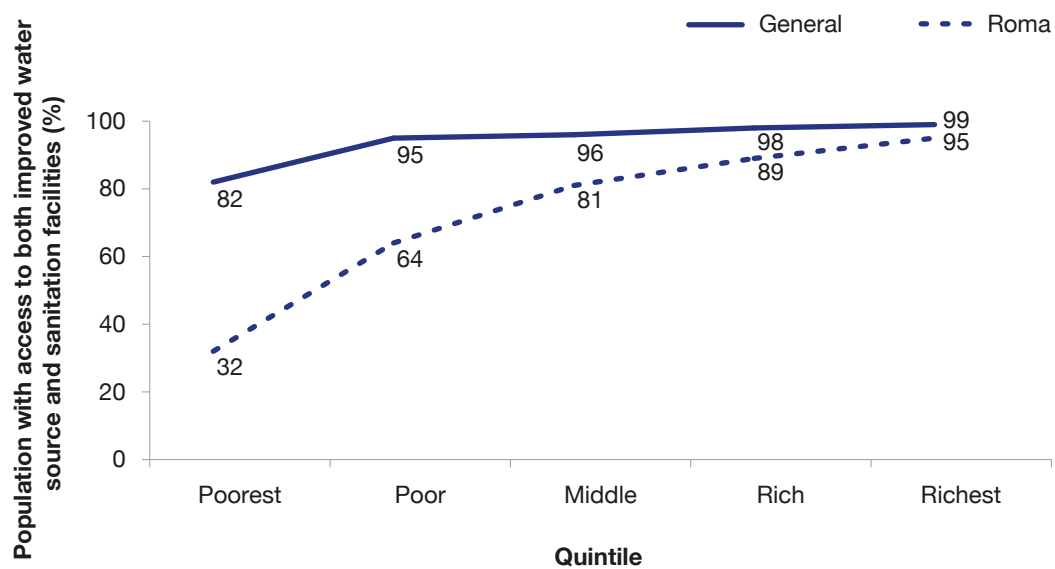


Source: JMP, unpublished data, 2015.

Ethnicity can also be a dimension by which to assess inequalities. In Bosnia and Herzegovina, for example, the difference in access to improved water and sanitation between the richest and

the poorest population quintiles was significantly greater within the Roma ethnic group than within the general population (Fig. 6).

Fig. 6. Improved water and sanitation coverage by wealth quintile for the general population and Roma ethnic group, Bosnia and Herzegovina in 2010



Source: WHO & UNICEF (2014b).



Message 7: open defecation practised by 2 million people

Although the WHO European Region is among the most developed regions in terms of water and sanitation coverage, more than 2 million people in 11 countries in the Region still defecate in the open (Table 6). The proportion of people practising open defecation in these

countries ranges from 0.1% to 2.3% in rural areas and from 0.1% to 1.0% in urban areas. The 2 million people without access to appropriate sanitation facilities are denied the opportunity to live in a healthy environment and deprived of the human right to adequate sanitation.

Table 6. Population practising open defecation in countries in the WHO European Region

Country	Proportion of population practising open defecation (%)
Georgia	1.1
Greece	1.1
Russian Federation	1.0
The former Yugoslav Republic of Macedonia	0.6
Turkmenistan	0.5
Croatia	0.4
Azerbaijan	0.3
Turkey	0.3
Albania	0.2
Montenegro	0.2
Tajikistan	0.2

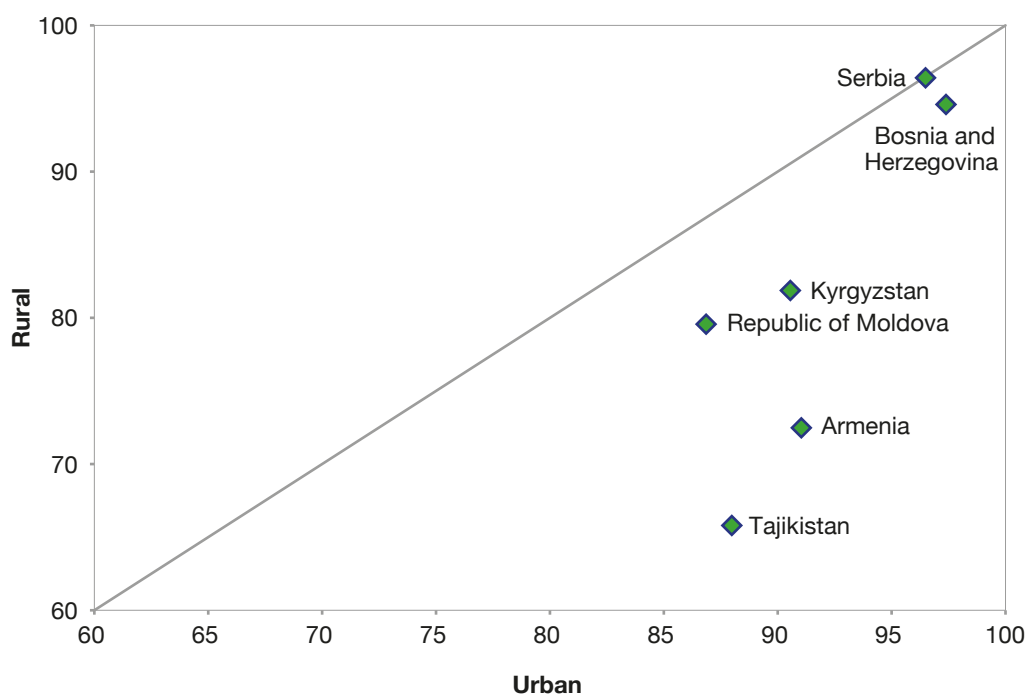
Source: WHO & UNICEF (2014a).

Message 8: water and soap for hand washing more common in urban areas

The importance of hand washing with water and soap after toilet visits and prior to food preparation for health is well established. Nonetheless, not everyone in the WHO European Region has both water and soap in designated hand-washing places. The JMP recently estimated the presence of water and soap in hand-washing places in six countries in the Region. The results show

considerable urban–rural differences: having water and soap in hand-washing places is more common in urban areas (Fig. 7). People who do not practise hand washing with water and soap are more prone to sanitation-related diseases (Freeman et al., 2014) and are not making use of a simple and low-cost intervention to prevent them.

Fig. 7. Urban–rural differences in presence of water and soap in hand-washing places



Source: MICS 2010-2012; DHS 2012.

Message 9: practical implementation lagging behind universal access policies

Of the 12 countries in the WHO European Region that participated in the 2013/2014 GLAAS cycle, six have policies in place that aim at universal access to water and sanitation and specifically include measures for remote or hard-to-reach areas. Instruments for practical implementation in terms of monitoring and human resources, however, are less often in place (Table 7). For instance,

only three countries have a monitoring system that tracks progress in extending sanitation services to remote areas and only four countries consistently apply financial measures to reduce disparities in access to sanitation between urban and rural areas. Four countries have strategies for human resources in place, mainly addressing the shortage of skilled workers in the rural areas (WHO, 2014).

Table 7. Proportions of GLAAS countries with different measures in place to ensure equitable access

		GOVERNANCE	MONITORING	HUMAN RESOURCES	FINANCE
	Number of countries	Universal access policy specifically includes measures for remote or hard to reach areas	Monitoring system tracks progress in extending services to remote or hard to reach areas	Human resource strategy exists for rural areas	Finance measures to reduce disparity between urban and rural areas are consistently applied
Sanitation	12	50%	25%	33%	33%
Water	12	50%	33%	33%	42%

Source: WHO, 2014.

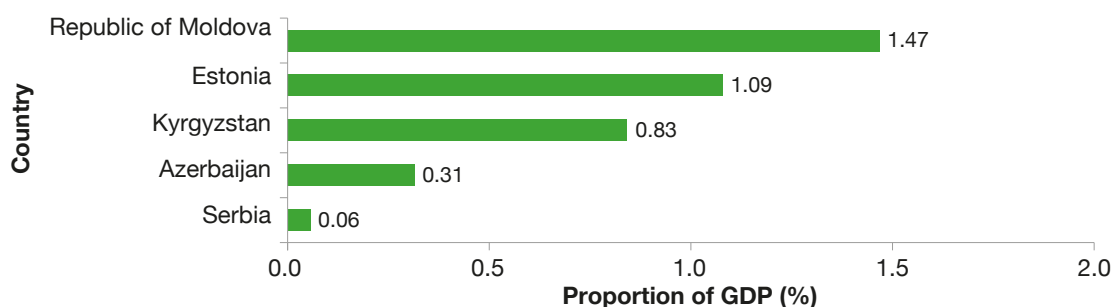


Message 10: domestic funds committed to WASH well absorbed

Of the 12 countries in the Region that participated in the 2013/2014 GLAAS cycle, eight indicated that they have an approved financing plan for drinking-water and sanitation and that over 75% of domestic commitments are used (WHO, 2014). Reasons given for underutilization of funds included delays in public procurement processes, short budget periods, funding release procedures being too lengthy, complicated tender procedures and a lack of technical and human capacity. It should be noted that

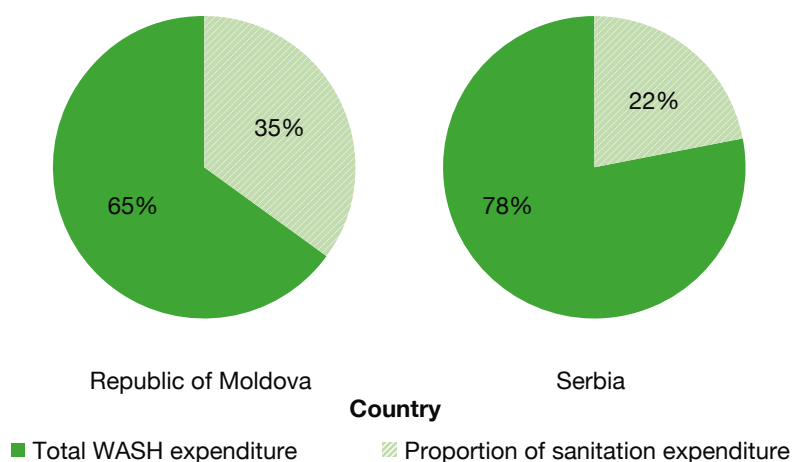
in around half of the countries there is a discrepancy between budgets and plans, and that these countries stated that the allocated resources are not sufficient to meet the MDG targets. Five countries were able to assess their national expenditure on WASH as a proportion of gross domestic product (GDP) (Fig. 8); two countries were able to provide an estimate of expenditure on sanitation as a proportion of total WASH expenditure (Fig. 9).

Fig. 8. Country data on government-coordinated expenditure on WASH as proportion of GDP



Source: GLAAS 2013/2014 country survey.

Fig. 9. Country estimates of sanitation expenditure as a proportion of total WASH expenditure



Source: GLAAS 2013/2014 country survey.

Message 11: 26 countries Parties to the Protocol on Water and Health

In many countries in the WHO European Region, governance on water and sanitation is guided by the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and Lakes of the United Nations Economic Commission for Europe (UNECE) and WHO Regional Office for Europe. The Protocol is a legally binding multilateral agreement linking sustainable water management and reduction of water-related diseases (UNECE & WHO, 2006). To date, 26 countries are Parties to the Protocol, covering approximately 60% of the population in the WHO European Region (UN, 2015).

The Protocol requires Parties to establish, publish and report on firm national targets, including setting dates for their fulfilment. Targets must be tailor-made, reflecting the country's socioeconomic

and environmental conditions, as well as its needs and priorities in the water, sanitation and health domains. The targets provide a clear policy framework for action that directs decision-making and resource allocation at different levels of government (UNECE & WHO, 2006).

The Protocol's 2014–2016 programme of work addresses many of the challenges highlighted in this report, such as water and sanitation in rural areas and equitable access to water and sanitation. The Protocol is a policy instrument unique to the WHO European Region, supporting the uptake of WHO-recommended water safety plan and sanitation safety plan approaches; the achievement of the MDG targets; the reduction in urban–rural, wealth and ethnic disparities; and the prevention of diseases and mortality related to water and sanitation in the Region (UNECE & WHO, 2014).



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All data and statistics quoted in the introduction and messages 1–7 are based on the 2014 JMP progress report (WHO & UNICEF, 2014b) and the corresponding JMP database (WHO & UNICEF, 2014a) unless otherwise noted. Message 8 is based on the Multiple Indicator Cluster Survey (MICS) round four and the Demographic and Health Survey (DHS) phase six as follows: Armenia – DHS

2010, Bosnia and Herzegovina – MICS 2012, Kyrgyzstan – DHS 2012, Republic of Moldova – MICS 2011, Serbia – MICS 2010, Tajikistan – DHS 2012. Messages 9–10 are based on the 2014 GLAAS report (WHO, 2014) and the underlying data collected through the GLAAS 2013/2014 country survey in the WHO European Region.

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