

Indicator name	Access to safe drinking water	
<p>Note: For charting progress towards the Millennium Development Goals, the United Nations has classified countries into three regions: developed regions, countries in the Commonwealth of Independent States, and developing regions. The developing regions are further divided into subregions.</p>		
Prepared by	UNICEF	
Example	<b>WWDR3, Chapter 7, Figure 7.3</b> <b>WWDR2, Chapter 6, Map 6.1</b> <b>See updated map</b>	
Rationale	Lack of safe drinking water is a major cause of illness and mortality, as a result of exposure to infectious agents, chemical pollutants, and poor hygiene. Inadequate access to water in the home is also a source of economic disadvantage by requiring large commitment of human resources to fetching and carrying water. This indicator provides a proxy measure both of exposure, in terms of access to safe drinking water and the effectiveness of actions to improve access.	
Position in DPSIR chain	Impact	
Definition of indicator	The proportion of the population (total, urban and rural) with access to an improved drinking water source as their main source of drinking water:	
Underlying definitions and concepts	Drinking water is defined as water for ingestion, basic personal and domestic hygiene and cooking. It excludes water for clothes washing, an activity that frequently happens at the water source, water point, in rivers or streams. An improved drinking water source is defined as a type of drinking water facility or water delivery point that by the nature of its design protects the drinking water source from external contamination, particularly of faecal origin. An improved facility would include any of the following: <ul style="list-style-type: none"> <li>- Piped water into dwelling, plot or yard</li> <li>- Public standpipe/Public tap</li> <li>- Protected dug well</li> <li>- Protected spring</li> <li>- Rainwater</li> </ul> Definitions used for urban and rural areas are defined by individual countries.	
Specification of determinants needed	The use of the main source of drinking water for a household. Household sizes are computed into population figures. National population figures used are those provided by the UN-Population	

	Division; Population projections used are based on medium variant population growth rate.
Computation	Population based data regarding the use of the main source of drinking water, obtained from nationally representative household surveys are used to calculate the proportion of the population with access to safe drinking water. Results of several household surveys are plotted against a time scale. A linear regression line is drawn through these points to estimate the coverage for a certain year. As a rule projections from the last data point are made up to a maximum of six years.
Units of measurements	Percentage
Data sources, availability and quality	<p>The data sources used to calculate this indicator are nationally representative household surveys. Worldwide, estimated averages of 25-35 of such surveys are conducted annually, with occasional peak years. Most surveys are done in low- and middle-income countries. As a result higher income countries are data poor. The frequency of all surveys combined amounts to one survey conducted per country in every 3-4 years. This frequency is adequate to determine actual changes in access to safe drinking water. Data sources include household surveys, such as:</p> <ul style="list-style-type: none"> <li>- The Demographic and Health Surveys (DHS)</li> <li>- Multiple Indicator Cluster Surveys (MICS)</li> <li>- National Censuses</li> <li>- Reproductive Health Surveys</li> <li>- World Health Surveys (WHS)</li> <li>- Health and Nutrition surveys</li> <li>- Living Standards and Measurements Surveys (LSMS)</li> </ul>
Scale of application	<p>At national and global level  For urban and rural areas  By service level or facility type  By household income level, determined by the wealth index – a composite of household assets and characteristics of the dwelling.</p>
Geographical coverage	Urban, Rural, National, Regional and Global
Interpretation	<p>According to the definition of the WHO: Safe drinking water implies that the water meets accepted drinking water quality standards and poses no significant threat to health. Determining the micro-biological and chemical safety of drinking water of each household is too costly and practically and technologically too challenging. The use of an “improved” facility type as a proxy for the safety of drinking water is therefore accepted as the best alternative given the current information available.</p> <p>With regard to access:</p> <p>(1) The questions in household surveys specifically ask about the use of a source to obtain drinking water. Broken hand pumps or public standpipes that no longer provide water are thus not counted in household surveys and therefore not reflected in the indicator.</p> <p>(2) In addition to good quality of water, accessibility to water as defined in the Right to Water includes a continuous supply of a minimum amount of water sufficient for drinking, personal and domestic hygiene, for an affordable price, within a reasonable distance. These issues like continuity (including seasonality), quantity, affordability and distance to a source are not taken into account in the current indicator. The reasons for this are the following:</p> <ul style="list-style-type: none"> <li>- Non-availability of historic data</li> <li>- Questionable reliability of data collected through household surveys assessing the available water quantity or actual quantity used per person per day.</li> <li>- Non-availability of data on continuity combined with the lack of a definition for continuity and the difficulty of interpreting continuity when e.g. intermitted supply is dealt with through storage at household</li> </ul>

	level.
Linkage with other indicators	Safe water being a basic need for survival as well as a determinant of health, should be considered with the use of sanitary facilities and practices of appropriate hygiene behaviour if positive health outcomes are to be maximized. The indicator relates to most other health indicators, in particular those on water related diseases, as well as the under-five mortality. Recent studies show the importance of safe drinking water and sanitation for the survival of people living with HIV/AIDS.
Alternative methods and definitions	<p>According to WHO basic access can be defined as the availability of at least 20 litres of drinking water per person per day within a distance of not more than 1 km of the dwelling, corresponding to a maximum water hauling round trip of 30 minutes. While this definition is deemed adequate for rural areas, it does not apply to urban areas where the distance to a source is usually not a problem. In such densely populated areas, a water hauling trip of 30 minutes or less, including queuing time would be a more appropriate indicator of access.</p> <p>The MDG target is formulated in terms of sustainable access. Though officially not further defined, sustainable access refers to a continuous and affordable drinking water supply. There is no widely accepted standard of what is an affordable drinking water supply, neither is continuity sufficiently defined yet, as to make it measurable.</p>
Related indicator sets	<p>Access to basic sanitation</p> <p>Incidence of diarrhoeal disease in children under five years of age</p> <p>Under-five mortality</p> <p>Prevalence of stunting in children under five years of age</p> <p>Prevalence of underweight children under five years of age</p>
Sources of further information	<p>UN-Water Global Annual Assessment of Sanitation and Drinking Water (GLAAS)WHO/UNICEF website: (Accessed 02 March2009)  <a href="http://www.who.int/water_sanitation_health/glaas/en/">http://www.who.int/water_sanitation_health/glaas/en/</a></p> <p>WHO/UNICEF Joint Monitoring Programme (JMP), 2008. Progress on Drinking Water and Sanitation SPECIAL FOCUS ON Sanitation  <a href="http://www.who.int/water_sanitation_health/monitoring/jmp2008/en/index.html">http://www.who.int/water_sanitation_health/monitoring/jmp2008/en/index.html</a>  (Accessed 02 March 2009)</p> <p>UN-HABITAT, 2003. <i>Water and Sanitation in the World's Cities.</i></p>
Other institutions involved	WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation UN-Habitat