Goal 6: Ensure availability and sustainable management of water and sanitation for all
Target 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
Indicator 6.2.1: Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water

Institutional information

Organization(s):

World Health Organization (WHO)

United Nations Children's Fund (UNICEF)

Concepts and definitions

Definition:

The Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water is currently being measured by the proportion of the population using a basic sanitation facility which is not shared with other households and where excreta is safely disposed in situ or treated off-site. 'Improved' sanitation facilities include: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets.

Population with a basic handwashing facility: a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water in the household.

Rationale:

MDG target 7C called for 'sustainable access' to 'basic sanitation'. The JMP developed the metric of use of 'improved' sanitation facilities, which are likely to hygienically separate human excreta from human contact, and has used this indicator to track progress towards the MDG target since 2000. International consultations since 2011 have established consensus on the need to build on and address the shortcomings of this indicator; specifically, to address normative criteria of the human right to water including accessibility, acceptability, and safety. Furthermore, the safe management of faecal wastes should be considered, as discharges of untreated wastewater into the environment create public health hazards.

The above consultation concluded that post-2015 targets, which apply to all countries, should go beyond the basic level of access and address indicators of safe management of sanitation services, including dimensions of accessibility, acceptability and safety. The Expert Working Group called for analysis of faecal waste management along the sanitation chain, including containment, emptying of latrines and septic tanks, and safe on-site disposal or the transport and treatment of wastes at a designated

treatment site. Classification of treatment will be based on categories defined by SEEA and the International Recommendations for Water Statistics and following a laddered approach (primary, secondary and tertiary treatment).

Handwashing with soap is widely agreed to be the top hygiene priority for improving health outcomes. In 2008 and 2009, the JMP supported a review of indicators of handwashing practice, and determined that the most practical approach leading to reliable measurement of handwashing in national household surveys was observation of the place where household members wash their hands and noting the presence of water and soap (or local alternative) at that location. This provides a measure of whether households have the necessary tools for handwashing and is a proxy for their behaviour. Observation by survey enumerators represents a more reliable, valid and efficient indicator for measuring handwashing behaviour than asking individuals to report their own behaviour.

Concepts:

Improved sanitation facilities include the following: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets.

Safely disposed in situ; when pit latrines and septic tanks are not emptied, the excreta may still remain isolated from human contact and can be considered safely managed. For example, with the new SDG indicator, households that use twin pit latrines or safely abandon full pit latrines and dig new facilities, a common practice in rural areas, would be counted as using safely managed sanitation services.

Treated offsite; not all excreta from toilet facilities conveyed in sewers (as wastewater) or emptied from pit latrines and septic tanks (as faecal sludge) reaches a treatment site. For instance, a portion may leak from the sewer itself or, due to broken pumping installations, be discharged directly to the environment. Similarly, a portion of the faecal sludge emptied from containers may be discharged into open drains, to open ground or water bodies, rather than being transported to a treatment plant. And finally, even once the excreta reaches a treatment plant a portion may remain untreated, due to dysfunctional treatment equipment or inadequate treatment capacity, and be discharged to the environment. For the purposes of SDG monitoring, adequacy of treatment will initially be assessed based on the reported level of treatment.

A handwashing facility with soap and water: a handwashing facility is a device to contain, transport or regulate the flow of water to facilitate handwashing. This indicator is a proxy of actual handwashing practice, which has been found to be more accurate than other proxies such as self-reports of handwashing practices.

Comments and limitations:

A framework for measuring faecal waste flows and safety factors has been developed and piloted in 12 countries (World Bank Water and Sanitation Program, 2014), and is being adopted and scaled up within the sanitation sector. This framework has served as the basis for indicators 6.2.1 and 6.3.1. Data on safe disposal and treatment are not available for all countries. However, sufficient data were available to make global and regional estimates of safely managed sanitation services in 2017.

Presence of a handwashing station with soap and water does not guarantee that household members consistently wash hands at key times, but has been accepted as the most suitable proxy. Data were available for 70 countries in 2017.

Methodology

Computation Method:

Method of computation: Household surveys and censuses provide data on use of types of basic sanitation facilities listed above, as well as the presence of handwashing materials in the home.

The percentage of the population using safely managed sanitation services is calculated by combining data on the proportion of the population using different types of basic sanitation facilities with estimates of the proportion of faecal waste which is safely disposed in situ or treated off-site.

The JMP estimates use of basic sanitation facilities for each country, separately in urban and rural areas, by fitting a regression model to a series of data points from household surveys and censuses. This approach was used to report on use of 'improved sanitation' facilities for MDG monitoring. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

The JMP 2017 update and SDG baselines report describes in more detail how estimates of the proportion of household wastewater that is safely disposed of in situ or treated off-site have been combined with data on use of different types of sanitation facilities, as recorded in the JMP global database.

Disaggregation:

Disaggregation by place of residence (urban/rural) and socioeconomic status (wealth, affordability) is possible for all countries. Disaggregation by other stratifies of inequality (subnational, gender, disadvantaged groups, etc.) will be made where data permit. Sanitation services will be disaggregated by service level (including no services, basic, and safely managed services) following the JMP sanitation ladder.

Treatment of missing values:

- At country level
  The JMP method uses a simple regression model to generate time series estimates for all years including for years without data points. The JMP then shares all its estimates using its country consultation mechanism to get consensus from countries before publishing its estimates.

- At regional and global levels
  The JMP does not publish estimates for countries for which national data are not available. Regional and global estimates are made for basic services as long as data are available for 50% of the population with the region, weighting by the latest UNPD population estimates. Regional and global estimates for safely managed services used a lower threshold of 30% for the JMP 2017 update and SDG baselines report.

Regional aggregates:

For more details on JMP rules and methods, please consult the website: www.washdata.org.

Sources of discrepancies:

JMP estimates are based on national sources of data approved as official statistics. Differences between global and national figures arise due to differences in indicator definitions and methods used in calculating national coverage estimates. In some cases national estimates are based on the most recent data point rather than from regression on all data points as done by the JMP. In some cases national estimates draw on administrative sector data rather than the nationally representative surveys and censuses used by the JMP.

Data Sources

Description:

Access to water and sanitation are considered core socio-economic and health indicators, and key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity. Drinking water and sanitation facilities are also used in constructing wealth quintiles used by many integrated household surveys to analyse inequalities between rich and poor. Access to sanitation is therefore a core indicator for most household surveys. Currently the JMP database holds over 1,700 surveys and censuses. In high-income countries where household surveys or censuses do not always collect information on basic access, data are drawn from administrative records.

Estimates of excreta management will be collected from countries and used to adjust the data on use of basic sanitation facilities as needed. Administrative, population and environmental data can also be combined to estimate safe disposal or transport of excreta, when no country data are available. Data on disposal or treatment of excreta are limited but estimates for safe management of faecal wastes can be calculated based on faecal waste flows associated with the use of different types of basic sanitation facility.

Since the handwashing with soap survey questions were standardized in 2009, over 70 DHS and MICS surveys have included the module. JMP published handwashing estimates for 12 countries in its 2014 update, for 54 countries in its 2015 update, and for 70 countries in its 2017 update.

The population data used by JMP, including the proportion of the population living in urban and rural areas, are those established by the UN Population Division.

Collection process:

WHO is required by World Health Assembly resolution to consult on all WHO statistics, and seek feedback from countries on data about countries and territories. Before publishing, all JMP estimates undergo rigorous country consultations facilitated by WHO and UNICEF country offices. Often these consultations give rise to in-country visits, and meetings about data on drinking water, sanitation and hygiene services

and the monitoring systems that collect these data. The JMP has been engaged with more than fifty countries over the last 10 years in explaining JMP estimates, and reasons for discrepancies if any.

Data Availability

Description:

In the JMP 2017 report estimates for basic sanitation services were available for nearly all countries and estimates for safely managed sanitation services were made for 96 countries at national level. Sufficient data were available to estimate safely managed drinking water services at the regional level for the following five SDG regions: Australia and New Zealand, Eastern Asia and South-eastern Asia, Latin America and the Caribbean, Northern America and Europe, Western Asia and Northern Africa

Data on basic handwashing facilities were available for 70 countries and regional estimates were possible for Sub-Saharan Africa and Western Asia and Northern Africa.

Time series:

Time series data are available for the basic sanitation level of service over the period 2000-2015. These serve as the foundation for the safely managed sanitation service indicator. Some elements of safe management (e.g. wastewater treatment) were not collected during the MDG period and trend analysis will only be possible several years into the SDGs. (From 2000 to 2015)

Calendar

Data collection:

The current biennial data collection cycle begins in October during an even year and estimates are published during the following year.

Data release:

The baseline SDG report was published in July 2017 and feed into the SG's 2017 SDG Progress Report. . The estimates will be updated in 2019.

Data providers

National statistics offices, Ministries of water, sanitation, health, environment. Regulators of water and sanitation services.

Data compilers

Name:

WHO/UNICEF

Description:

WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene

References

URL:

www.washdata.org

References:

JMP website: www.washdata.org.

JMP 2017 update and SDG baselines
https://washdata.org/report/jmp-2017-report-final

Ram, P., Practical Guidance for Measuring Handwashing Behaviour: 2013 update, World Bank Water Supply and Sanitation Programme, 2013.

http://www.wsp.org/sites/wsp.org/files/publications/WSP-Practical-Guidance-Measuring-Handwashing-Behavior-2013-Update.pdf"

Related indicators as of February 2020

All targets under Goal 6, as well as targets 1.2, 1.4, 2.2, 3.2, 3.8, 3.9, 4a, 5.4 and 11.1