

Guidance note to facilitate country consultation on JMP estimates
for drinking water, sanitation and hygiene in Schools



Joint Monitoring Programme for Water Supply, Sanitation and Hygiene



GUIDANCE NOTE TO FACILITATE COUNTRY CONSULTATION ON JMP ESTIMATES FOR DRINKING WATER, SANITATION AND HYGIENE IN SCHOOLS

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1. BACKGROUND

The importance of drinking water, sanitation and hygiene (WASH) in the school setting is acknowledged globally by its inclusion in the [2030 Sustainable Development Agenda](#) that has been agreed upon by UN member states. WASH in schools is explicitly included in Sustainable Development Goal (SDG) target 4.a and implicitly in targets 6.1 and 6.2 as part of ‘universal’ WASH access ‘for all’.

Target 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
4.a.1 Proportion of schools with access to: ... (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)

Target 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
6.1.1 Proportion of population using safely managed drinking water services

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
6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water

The indicator for target 4.a requires that coverage estimates are reported ‘[per the WASH indicator definitions](#)’, which have been developed by a global task team convened by the [WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation \(JMP\)](#). The JMP was established in 1990 and has been instrumental in developing global norms and standards to enable benchmarking of progress on WASH at the household level. For SDG monitoring, the JMP has expanded its global databases to include WASH in institutions and committed to supporting countries to track progress on WASH in schools in relation to global SDG targets (4.a, 6.1, 6.2)¹.

The JMP aims to publish comparable estimates of progress at country, regional and global levels based on official national data. Since 2016, the JMP has worked intensively through UNICEF and WHO regional and country offices to compile existing national data for the new SDG indicators, and published its first [global baseline report](#) on WASH in schools in August 2018, followed by a [progress report](#) in 2020.

The WHO/UNICEF JMP is committed to consulting national authorities on the estimates generated from national data sources. The country consultation process is facilitated by WHO and UNICEF country offices and aims to engage national statistical offices and other relevant national stakeholders to review the draft estimates and provide technical feedback to the JMP team which will finalize the estimates and publish them in a data update in Q2 2022, which will supersede previous reports.

This guidance document is designed to support the 2021 country consultation on estimates produced by the JMP on drinking water, sanitation, and hygiene in schools.

2. JMP ESTIMATES FOR BASIC DRINKING WATER, SANITATION AND HYGIENE SERVICES IN SCHOOLS

JMP estimates for WASH in schools are based on a simple classification of drinking water sources and sanitation facilities into improved and unimproved types. This information is often available from national surveys or censuses. For SDG reporting the JMP will classify improved facilities into two categories: ‘limited’ or ‘basic’ services as shown in the JMP service ladder on the following page (Figure 1). JMP estimates of the proportion of schools with ‘basic’ services are used for global tracking of progress towards SDG targets. The other levels in the JMP service ladder enable tracking of progress toward the basic service levels.

¹ The [Inter-Agency & Expert Group on SDG Indicators](#) identified WHO/UNICEF JMP as the custodian agencies responsible for compilation and reporting on the [official global indicators](#) for targets 6.1 and 6.2, and UNESCO as the custodian agency for target 4.a. The JMP will therefore compile WASH in schools data to include in their reporting on targets 6.1 and 6.2, in addition to supporting UNESCO to report on the WASH components of target 4.a.

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	Drinking Water	Sanitation	Hygiene
Improved	Basic (SDG) Drinking water from an improved source and water is available at the school at the time of the survey	Basic (SDG) Improved sanitation facilities at the school that are single-sex and usable (available, functional and private) at the time of the survey	Basic (SDG) Handwashing facilities with water and soap available at the school at the time of the survey
	Limited Drinking water from an improved source but water is unavailable at the school at the time of the survey	Limited Improved sanitation facilities at the school that are either not single-sex or not usable at the time of the survey	Limited Handwashing facilities with water but no soap available at the school at the time of the survey
Unimproved	No service Drinking water from an unimproved source or no water source at the school	No service Unimproved sanitation facilities or no sanitation facilities at the school	No service No handwashing facilities available or no water available at the school

Figure 1. JMP service ladders for monitoring WASH in schools

2.1 DRINKING WATER

Schools with an improved drinking water source with water available at the time of the questionnaire or survey will be classified as having ‘basic’ service. Schools without water available, but with an improved source are classified as having ‘limited’ service, and those with unimproved or no water source will be classified as ‘no service’.

2.2 SANITATION

Schools with improved sanitation facilities which are single-sex and usable (defined as functional, private and accessible) are classified as having ‘basic’ service, and those using improved sanitation facilities which are either not single-sex or not usable are classified as having ‘limited’ service. Pre-primary schools with improved sanitation facilities which are usable but not single-sex are classified as having ‘basic’ sanitation service. Schools with unimproved or no toilets are classified as having ‘no service’.

2.3 HYGIENE

Schools with handwashing facilities with water and soap available at the time of the questionnaire or survey are considered to have ‘basic’ service. Those with handwashing facilities that have water available at the time of the questionnaire or survey, but no soap, are considered to have ‘limited’ service, while schools with no facilities or no water available for handwashing are classified as having ‘no service’.

3. JMP ESTIMATION METHODS

The JMP generates national estimates for each country by drawing a line of best fit between all available national data points. Estimates are also generated for urban and rural settings, and for pre-primary schools, primary schools and secondary schools. Simple linear regression using least squares method of minimizing the variability of the data points is used to estimate the proportion of schools using each of the following facility types for any given year between 2000 and 2021:

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Drinking water	Sanitation	Hygiene
<ul style="list-style-type: none"> • Improved water source with water available (basic) • Improved water source • Unimproved water source • No water source 	<ul style="list-style-type: none"> • Improved, single-sex and usable facilities (basic) • Improved facilities • Unimproved facilities • No facility 	<ul style="list-style-type: none"> • Handwashing facilities with soap and water available (basic) • Handwashing facilities with water available • No handwashing facilities

The data required to estimate coverage of basic drinking water, sanitation and hygiene in schools are not readily available for all countries. In some countries, a proxy may be used until additional data are available. For example, a ‘functional’ water source could be used as a proxy for water availability. The JMP country files record how information extracted from each national data source have been classified, and in some cases adjusted in order to harmonise estimates between countries. The JMP will only make an estimate if data are available for at least 50% of schools.

The 2022 country files include updated estimates for the period 2000-2021 which supersede all previous JMP estimates for WASH in schools. Country estimates may have changed from those reported in previous publications for one or more of the following reasons:

- A newly identified national data source provides additional information on the status of WASH in schools during the reference period.
- A newly identified source provides data that are better aligned with the SDG definitions and previous data that relied on a proxy are no longer used to produce estimates; and
- A primary data source was identified and secondary sources (e.g. UIS) are no longer used to produce estimates.

For a detailed explanation of the methods used to produce the estimates, see the attached draft Methodological Note.

4. COUNTRY CONSULTATION

According to the instructions from the IAEG-SDGs, international agencies responsible for producing country estimates on SDG indicators are expected to consult with countries on the interpretation and use of country data in global estimates and reports. The JMP country consultation on WASH in schools is a process whereby UNICEF and WHO seek feedback from national authorities on the JMP country files and estimates of progress on drinking water, sanitation and hygiene in schools. It is therefore important that relevant country authorities are familiar with the essential elements of the JMP country file and estimation methods to effectively provide feedback through this consultation. This guidance note serves to provide necessary background information.

It has been agreed that UNICEF Country Offices will lead the country consultation on WASH in schools and coordinate with counterparts at WHO and UNESCO. Country Offices are not expected to undertake complex analysis, or to review the estimation methodology, but should support national authorities to identify any missing data sets and to provide feedback on the interpretation and classification of existing data. Country Offices are best placed to know which sectoral ministries should be consulted (education, health, water, sanitation, environment) but in all cases we encourage engagement with the National Statistics Office which is the national counterpart of IAEG-SDGs and therefore primarily responsible for SDG reporting at the national level.

JMP global and regional estimates are derived by aggregating country trends so establishing comparable estimates of progress across countries is paramount. Because the JMP applies a common methodology across all countries its estimates often differ from government estimates which use different definitions and/or methods. The purpose of the consultation is not to compare JMP and national estimates of WASH coverage but rather to review the completeness or correctness of the datasets in the JMP country file, to provide additional data if available, and to verify the interpretation of national data in the JMP estimates.

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5. STRUCTURE OF THE JMP COUNTRY FILES

JMP country files have been created in Excel for drinking water, sanitation and hygiene in schools based on the scope and ambition of the SDG targets. The Excel spreadsheet has a series of tabs but for ease of reference the front page includes links to the key tabs as described below:

5.1 'LADDERS' FOR THE MOST RECENT ESTIMATES

This tab displays drinking water, sanitation and hygiene 'ladders' used by the JMP for global monitoring purposes. The ladders show the latest national, urban, rural, pre-primary, primary and secondary school estimates for the year 2021. Summary estimates are tabulated below as they will appear in the statistical tables at the back of the planned JMP 2022 data update on WASH in schools.

5.2 'CHARTS'

This tab includes charts showing estimated coverage trends for 'basic' drinking water, 'basic' sanitation, and 'basic' hygiene services since the year 2000. These charts illustrate the JMP method of using a linear regression of available data points to generate estimates for any given reference year between 2000 and 2021 and highlight differences between estimates of 'improved,' which has been a common indicator used in the past, and estimates of 'basic' services.

5.3 'ESTIMATES'

This tab provides estimated values for limited and basic services. Estimates are provided for national, urban, rural, pre-primary, primary and secondary schools, alongside population estimates from the UN Population Division and the UNESCO Institute for Statistics. Estimates are generated for all years possible from 2000 through 2021.

5.4 'DATA SUMMARY'

This tab provides a comprehensive list of all national data sources used in the production of JMP country estimates in chronological order. It shows which sources are used to derive each value and whether they are surveys or censuses. Note that values in square brackets are not used in the estimates due to varying reasons. For more detailed information see the 'Water data', 'Sanitation data', and 'Hygiene data' tabs.

5.5 'DATA SHEETS'

The last three worksheets include all of the relevant data that the JMP was able to gather from different national data sources for each of the three service ladders:

- Water Data
- Sanitation Data
- Hygiene Data

Each Data Sheet records information from one or two national data sources in five columns, and information from each data source is divided horizontally into two sections:

- An upper section, where key indicators are summarized for the five groupings of schools: urban, rural, pre-primary, primary, and secondary.
- A lower section, showing the original indicator definitions, and how these correspond with the international standardized classification used by JMP. This section includes a Notes field where specific information about the data source is recorded. In addition, it is recorded whether or not each indicator in the upper section is used for estimation. This section also records the number of schools in each group assessed and, if available, the total number of schools in the country.

Data may be included in the Country File but not used for estimates for a number of reasons:

- The data may not be representative of the group of schools (e.g. a survey focused only in a few districts of a country). The JMP will use data if they are representative of at least 80% of a group.

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- The data set may be too small. The JMP will use data if they are drawn from at least 50 facilities in a group, or at least 30% of all the facilities in that group.
- The data may have been collected with questions that don't match well to the global indicators.
- The data may be inconsistent with other data sources from the same country which are considered to be more reliable or more representative.

6. ACTIONS TO TAKE DURING THE CONSULTATION

The country consultation should focus on the Data Summary tab which lists those sources of data on drinking water, sanitation, and hygiene which have been collected to date (see below for further details). The consultation should focus on three main questions:

- a. *Is the country file missing any relevant national sources of data on drinking water, sanitation and hygiene in schools that would allow for a better estimate?*** (see the Annex below for guidance)

If the country file is missing any relevant sources of data, the JMP team will be grateful to receive these data and include them to update the estimates. For example, if data on usable (or functional) toilets are missing from the country file but available from national partners, these could potentially be used to calculate and report on the indicator for basic sanitation services. See the Annex below for data submission guidance.

- b. *Are the data sources listed considered reliable and suitable for use as official national statistics?***

If any of the data sources listed in the Data Summary tab are not considered to be reliable and suitable for use in calculating the SDG indicators, please inform the JMP team. Data points can be excluded for global estimates if they are unsuitable, unreliable or simply incorrect.

- c. *Is the JMP interpretation and classification of the data extracted from national sources accurate and appropriate?***

Finally, if the data extracted from the listed sources (shown in detail on the 'Water Data', 'Sanitation data', and 'Hygiene data' tabs) has not been accurately extracted or interpreted, please inform the JMP team. In some cases, data extracted might have been misinterpreted or misclassified by the JMP team, and therefore will require correction.

Due to the statistical modelling approach used, we kindly ask you to **not work directly in the Excel worksheets** but rather provide data for consideration including its source in an additional document to the JMP team so they can insert the data and run the models accordingly. Results of the consultation should be shared with UNICEF country and regional offices, and copied to info@washdata.org.

Please note that the final deadline for feedback from JMP country consultations is 31 January 2022.

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ANNEX: DATA SUBMISSION FOR INCLUSION IN SDG ESTIMATES FOR WASH IN SCHOOLS

If additional data are available that are not in the JMP country file, data may be submitted via any of the following methods:

- a. associated microdata can be submitted to the JMP team who will analyse and return results for validation,
- b. associated reports may be submitted to the JMP team who will extract relevant data, or
- c. the following table can be completed and sent to the JMP team.

If data from multiple sources or for multiple years are available, a separate table should be submitted for each. Please indicate the primary data source and where possible provide the original source. If nationally-representative data are not available, please note the representative sample.

If the indicator is different than listed in the second column, please provide the original indicator in the first column (e.g. the original indicator for 'usable improved toilets' may be 'functional toilets of any type'). Note that each indicator is based on a proportion of all schools.

Table: Proportion of schools with water, sanitation and hygiene²

Data source:							
Year:							
Original indicator	Schools	National	Urban	Rural	Pre-primary	Primary	Secondary
	With water source						
	With improved water source						
	With improved source with water available						
	With toilets						
	With improved toilets						
	With sex-separated improved toilets				X		
	With usable improved toilets						
	With sex-separated usable improved toilets						
	With handwashing facilities						
	With handwashing facilities with water available						
	With handwashing facilities with water & soap available						

² For guidance on core questions and indicators for monitoring WASH in schools see <https://www.washdata.org/sites/default/files/documents/reports/2018-08/SDGs-monitoring-wash-in-schools-2018-August-web2.pdf>