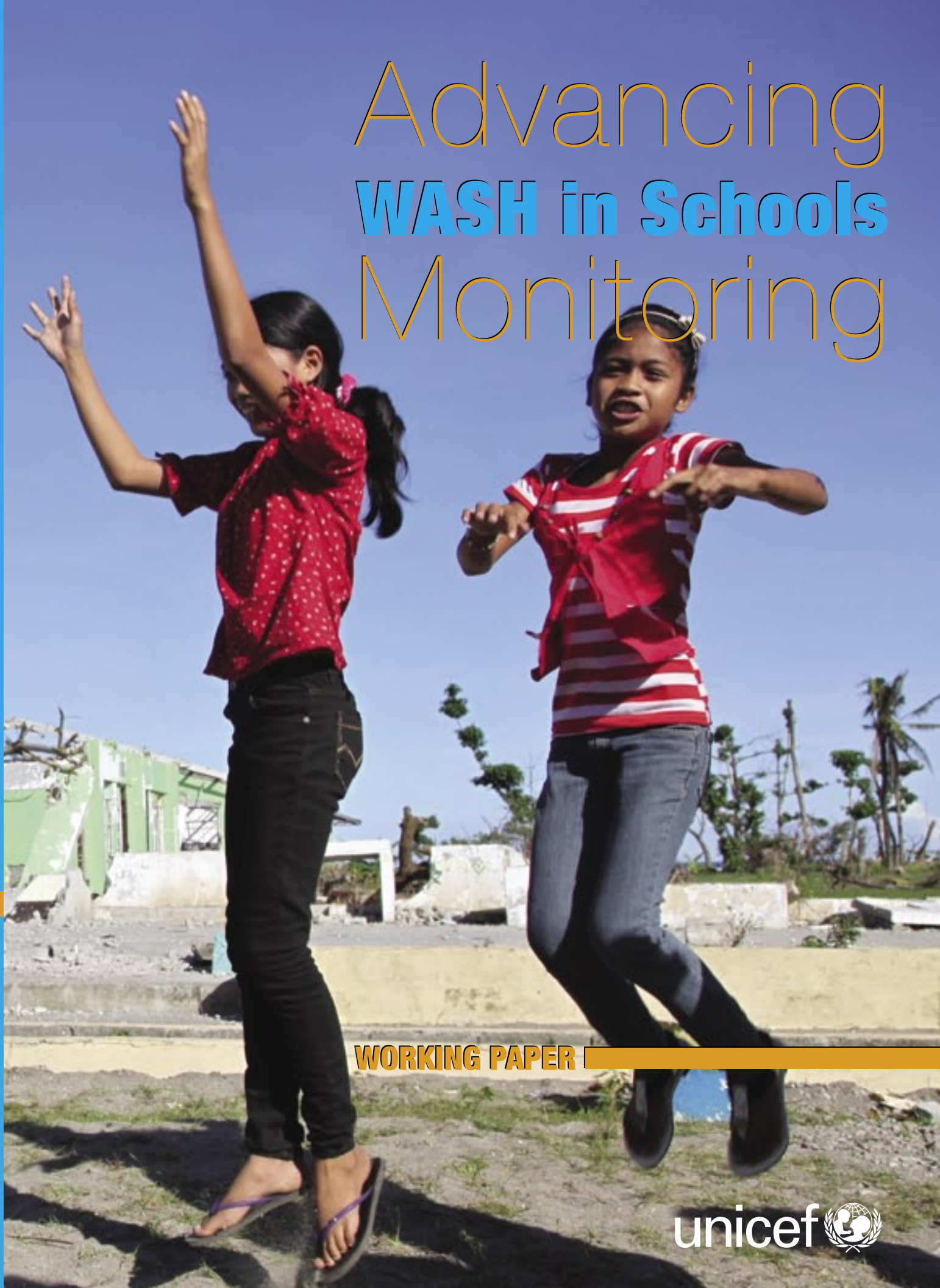


Advancing WASH in Schools Monitoring

WORKING PAPER

unicef

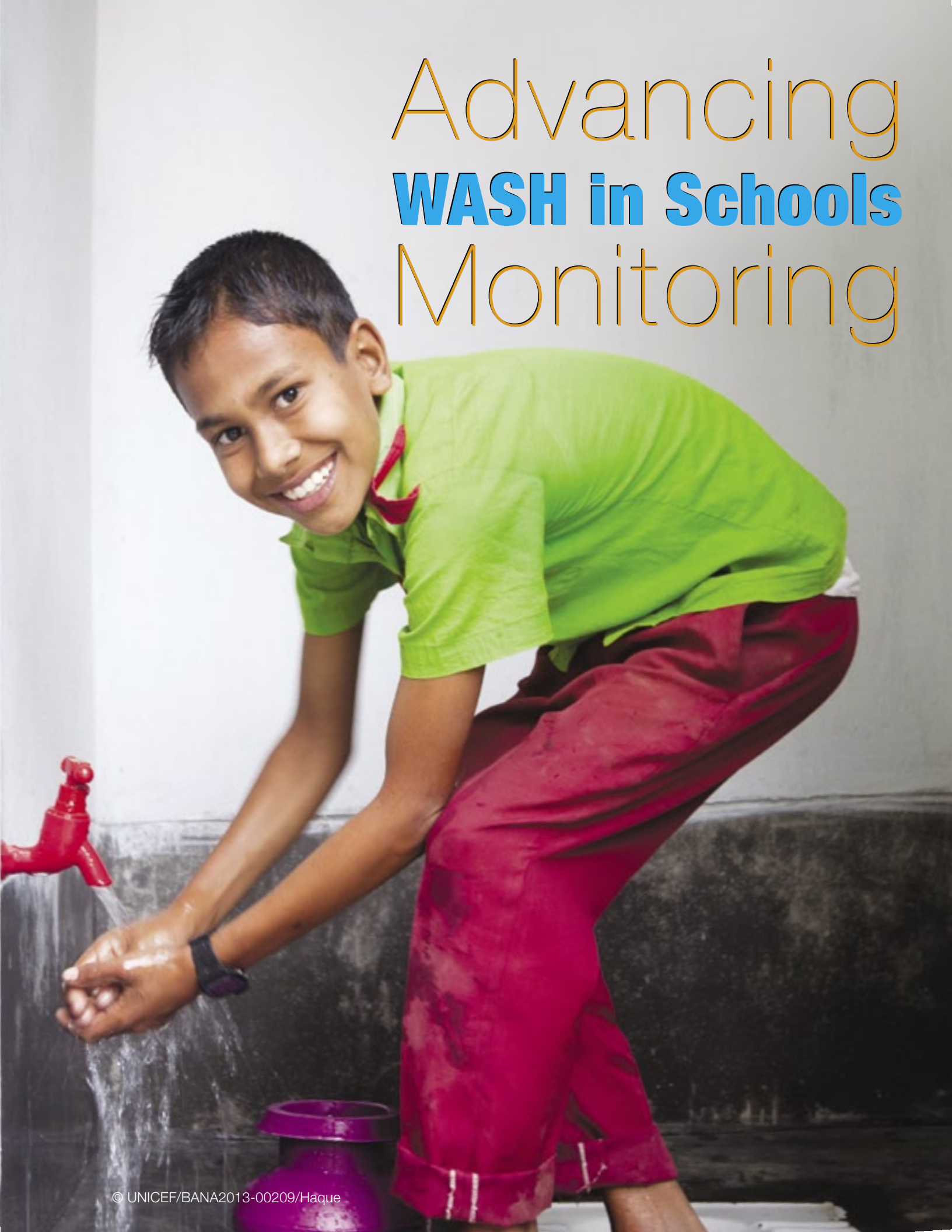
February 2015

UNICEF
Programme Division / WASH
3 United Nations Plaza
New York, NY 10017 USA
www.unicef.org/wash/schools

Advancing WASH in Schools Monitoring, 2015

Cover photo: © UNICEF/NYHQ2014-0125/Pirozzi

Advancing WASH in Schools Monitoring



Acknowledgments

This publication is a compilation of the efforts of many people working to advance WASH in Schools around the globe. Thanks are owed to all the WASH in Schools partners who participated in the development and publication of *Advancing WASH in Schools Monitoring.*

This publication would not have been possible without the following contributors and peer reviewers: Christie Chatterley, Murat Sahin, Greg Keast, Robert Bain, Hiroyuki Hattori, Rolf Luyendijk, Lizette Burgers, Therese Dooley, Mac Glovinsky, Peter Harvey, Mathieu Brossard, Louise Maule and Tom Slaymaker (UNICEF); and Fiona Gore (WHO).

Our gratitude goes out to all the UNICEF country office staff who reviewed the data and supported the analysis for WASH in Schools coverage in their respective countries: Hendrik van Norden (Regional Office for South Asia), Jeremie Toubkiss (Mali), Fiona Ward (Bangladesh), Suranga De Silva (Sri Lanka), Santepheap Heng (Cambodia), Ian David Jones (Guyana and Suriname), Kiran Qazi (Pakistan), Zhenbo Yang (China), Mamita Bora Thakkar (India), Koenraad Vancraeynest (Bolivia), Diego Fernando Lopez (Colombia), Jon Michael Villasenor (Philippines), Nana Pruidze (Georgia), Anu Paudyal Gautam (Nepal), Shahula Ahmed (Maldives), Elnur Aliyev (Azerbaijan), Douglas Abuuru (Zambia), Bishnu Timilsina (Lao PDR), Aidan Cronin (Indonesia), John-Bosco Kimuli-Sempala (Uganda), Agnes Makanyi (Kenya), Kencho Namgyal (Bhutan), Brigitte Matchinda (Cameroon) and David Simon (Mauritania).

We would also like to thank the WHO GLAAS contributors, UNESCO education dataset contributors, UNICEF country offices, many national ministries of education and the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, for providing the data that serve as the basis of the estimates published in this report.

Design and layout: Sarratou Mariko | sarra2mariko.com

Editor: Jeff Sinden

For more information about this publication, please contact Murat Sahin, msahin@unicef.org.

Preface

The UN General Assembly recognizes water and sanitation as a human right, providing political impetus to achieving universal access to water, sanitation and hygiene (WASH) services. Global progress towards realizing these rights at the household level has been tracked and reported by the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation for over 20 years. However, progress for WASH in Schools (WinS) remains largely unmonitored at the global level. As a consequence, the perceived importance of WinS among policymakers may not be as high as it could be.

This publication provides global, regional and national WinS coverage estimates. Similar to the initial phases of the JMP, the available data is largely limited to administrative reporting, not based on independent surveys. Country data may also not reflect national or minimum global standards for WinS. Although, these and other issues pose challenges to data quality and reliability, this document provides the most comprehensive picture of WinS coverage to date.

The document shows that, thanks to those working to advance WinS around the globe, significant progress has been made. Globally, coverage of both water and sanitation in schools increased by six per cent between 2008 and 2013. Coverage is improving more rapidly in least- developed countries (LDCs), with nine per cent increase over the same five-year period.

However, with global school water coverage at 71 per cent and sanitation coverage at 69 per cent, much work remains to be done. School hygiene is a particular challenge: based on the limited data available, only 21 per cent of schools in developing countries have handwashing facilities.

This report addresses the monitoring challenges by providing guidance for improving the quality of national and international monitoring data, including through national Education Management Information Systems (EMIS), many of which are already collecting WinS information.

Both the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda and the JMP have indicated that WinS should be part of the new set of global development goals. This represents a significant opportunity to raise the global profile of WinS and to maintain the momentum towards realizing every child's right to a quality education.

This publication serves as a Call to Action to stimulate debate between donors, partners and governments on how we can further strengthen WinS monitoring in national and international monitoring and government mechanisms including Sustainable Development Goals (SDGs) targets for universal access. We encourage those implementing WinS programmes to further engage in monitoring through EMIS systems and help us further realize a vision where all children go to school with functional and safe WinS facilities.

While we are making progress in this area, much remains to be done. Therefore we are inviting comments and suggestions from anyone with an interest in this area, and would like to hear from data crunchers, researchers, teachers, school administrators or other education and WASH specialists. Please send your suggestions and observations to msahin@unicef.org

Lizette Burgers
Senior Adviser
Head of Sanitation and Hygiene Team
UNICEF

Contents

Acronyms

COAR	Country Office Annual Report
EMIS	Education Management Information System
GLAAS	UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water
JMP	WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation
LDC	Least Developed Country
MHM	Menstrual Hygiene Management
MICS	Multiple Indicator Cluster Survey
OLIC	Other Low-Income Country
SERCE	Second Regional Comparative and Explanatory Study (UNESCO)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WinS	WASH in Schools

Executive summary

Every child has the right to a safe and healthy learning environment, including adequate WASH services. Although this important issue is gaining attention, realizing universal access to WinS remains a challenge. In support of efforts to address this gap, over 70 organizations renewed their commitment to WinS in the 2012 Call to Action, *Raising Even More Clean Hands,* which outlined six points of action for mobilizing partners with the vision of universal access to WinS (see text box below).

Six points of action for WinS

1. **Set minimum standards for WinS**
2. **Monitor WinS coverage through EMIS**
3. **Engage with at scale WinS programmes**
4. **Involve multiple stakeholders to support WinS programmes**
5. **Contribute evidence on the impact of WinS programmes**
6. **Raise the profile of WinS programmes**

Source: *Raising Even More Clean Hands*, 2012.

This publication aims to respond to the Call to Action by:

1) Presenting the best data available for global WinS coverage; and

2) Examining WinS indicators currently used in national EMIS.

As a broader goal, this report aims to encourage global monitoring mechanisms and systems, such as the JMP, to expand its mandate and report on institutional WASH coverage, particularly in schools, as a key component of achieving Sustainable Development Goals.

Global WinS coverage

National WinS coverage data were gathered for primary schools in 149 countries. To present the most reliable estimates available, information was compiled from multiple data sources. Data analysis followed the JMP method to the extent possible, using linear regression to calculate national coverage estimates for 2008 and 2013, providing five-year trends.

The review shows that:

- More countries are reporting WinS data each year – roughly 50 per cent more since 2008;
- Both water and sanitation coverage increased by six percentage points from 2008 to 2013;
- Coverage is improving more rapidly in LDCs, increasing by nine percentage points from 2008 to 2013; and
- Hand-washing facility coverage data are rarely reported.

While the trendline shows progress in WinS programming, there remains concern about the quality of WinS data. Available data are often of questionable accuracy and the definitions used to measure coverage are either unspecified, unclear or vary greatly between countries or within a country over time. This variability limits regional and global aggregation, cross-country comparison and accurate progress tracking, similar to the challenges faced by the JMP at its inception. It was for this reason that the JMP developed standardized indicators for household WASH facilities and services. A similar standardization is needed for WinS monitoring. UNICEF's 2011 *WASH in Schools Monitoring Package* provides guidance to help standardize WinS monitoring through national EMIS.

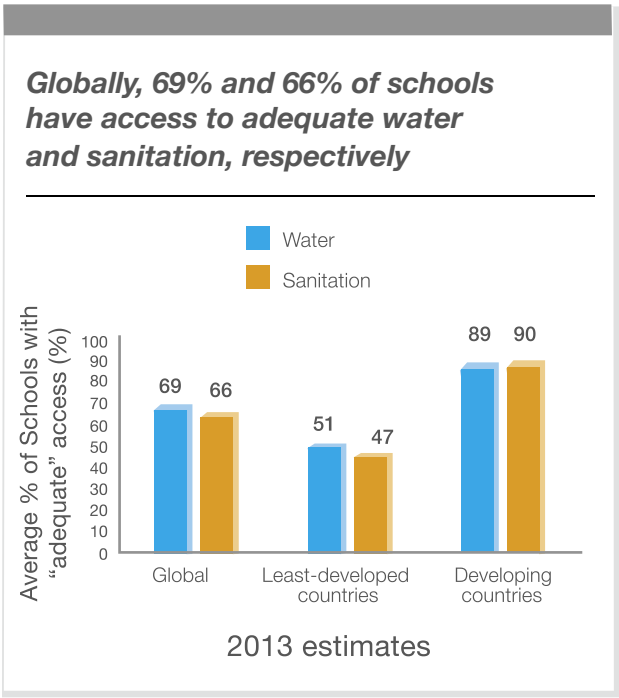


Figure 1. Estimated global and least-developed country water and sanitation coverage in schools

Examining and improving WinS monitoring through EMIS

EMIS questionnaires were gathered from 54 countries and were scored in comparison to the indicators recommended in the *WASH in Schools Monitoring Package,* with one point awarded for each parameter included. The proportion of questionnaires with each parameter was also examined to identify common gaps.

The review shows that WinS is frequently being monitored through national EMIS; of the 54 EMIS questionnaires examined, 48 include water and sanitation questions. However, only 17 monitor hygiene. Of the three components of WinS (water, sanitation and hygiene), sanitation is the most comprehensively monitored in national EMIS questionnaires. Most countries monitor water in schools, though the majority include less than half the recommended parameters. Hygiene is the least monitored; only six per cent of countries solicit information about soap availability in their EMIS.

Table 1. Number of countries collecting information on each WinS recommended parameter

Parameter	Number of countries with parameter in EMIS survey (out of 54)
Sanitation Quantity (number of toilets at the school)	39
Water Quality (access to a 'safe'/'improved' water source)	34
Sanitation Functionality (toilets are functional/used)	32
Sanitation Gender (girls-only toilets are available)	30
Water Proximity (the water source is at or near the school)	22
Water Functionality (the water source is functional)	21
Hand-washing Functionality (hand-washing facilities are functional)	10
Water Quantity (there is sufficient quantity of water to meet needs)	8
Sanitation Accessibility (there is a toilet(s) accessible to students with physical disabilities)	6
Sanitation Quality (access to 'safe'/ 'improved' sanitation)	5
Hygiene Taught (hygiene education is taught to students)	4
Soap (soap or ash is available to students)	3
Water Accessibility (water source is accessible to students with physical disabilities)	2

On average, countries that include WASH in their EMIS are monitoring four of the 13 recommended WinS indicators. Encouragingly, a majority of countries include functionality (a major challenge in the sector) in at least some aspects of their WASH monitoring. Less encouragingly, a review of annual education statistics reports suggests that WinS data collected through EMIS questionnaires are not always analysed or reported.

Recommendations

To support every child's right to a quality education, all schools need to have adequate WASH facilities and services. Donors, governments and development partners should strengthen WinS monitoring systems, which provide the evidence necessary to increase access to WinS. Recommendations for action are provided for both the national and international levels.

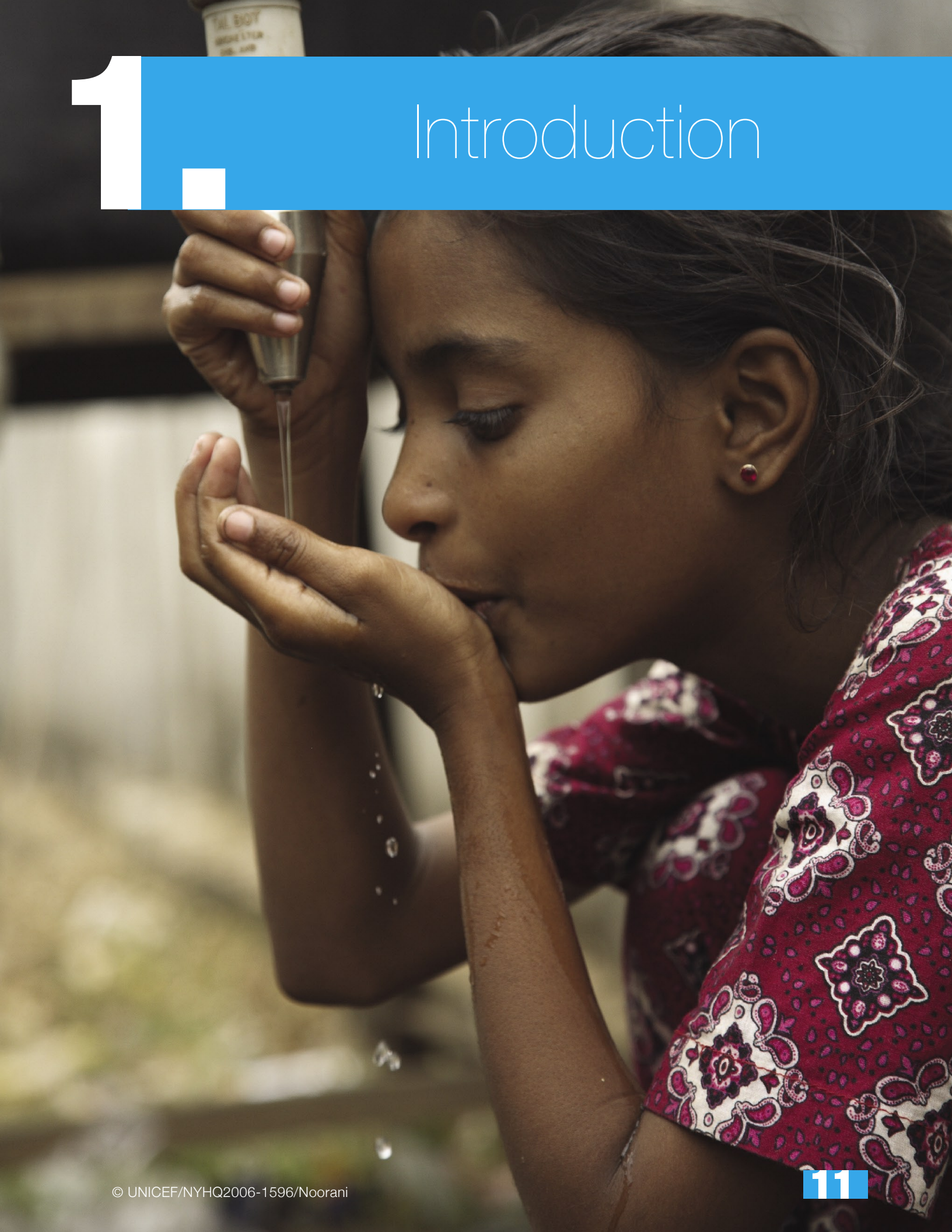
1. National level:

- Agree on clear definitions and standards for WinS.
- Expand or modify WinS indicators to include aspects beyond the existence of WASH facilities, including functionality. The *WASH in Schools Monitoring Package* can be used as a basis for local adaptation. The number of WinS indicators can be simplified or reduced if quantity or complexity is at the cost of quality.
- Build capacity to improve WinS data collection and analysis.

2. International level:

- Monitor and report on global and regional WinS coverage trends on a regular basis.
- Ensure that WinS monitoring data is used effectively to promote universal access to WinS.

1. Introduction



© UNICEF/NYHQ2006-1596/Noorani

1.1. Purpose

This publication aims to respond to the Call to Action and to promote and support improved monitoring of WinS by:

1) Presenting the best data available for WinS coverage, including:

a. Global, regional and national WinS coverage estimates based on data from multiple sources;

b. Analysis of WinS coverage trends, and identification of geographic and gender disparities; and

c. Review of indicator definitions commonly reported and data quality.

2) Comparing current national WinS monitoring indicators against global guidelines in order to:

a. Understand what WinS indicators are included in national EMIS;

b. Highlight strengths and identify gaps of current WinS monitoring through EMIS; and

c. Provide general recommendations for improvement based on common gaps.

As a broader goal, this report aims to encourage global monitoring mechanisms and systems, such as the JMP, to expand its mandate and report on institutional WASH coverage, particularly in schools, as a key component of achieving sustainable development goals.

1.2. Rationale

Every child has the right to a safe and healthy learning environment, including WASH services. Although this important issue is gaining attention, fulfilling every child's right to WinS remains a challenge. In support of efforts to address this gap, over 70 organizations renewed their commitment to WinS in the 2012 Call to Action, *Raising Even More Clean Hands*, which outlined six points of action for mobilizing partners with the vision of universal access to WinS (see text box below).

Six points of action for WinS

1. **Set minimum standards for WinS**
2. **Monitor WinS coverage through EMIS**
3. **Engage with at scale WinS programmes**
4. **Involve multiple stakeholders to support WinS programmes**
5. **Contribute evidence on the impact of WinS programmes**
6. **Raise the profile of WinS programmes**

Source: *Raising Even More Clean Hands*, 2012.

Table 2. Role of Global and National Monitoring

WHO/UNICEF rationale for monitoring water supply and sanitation	
The role of global monitoring is to: • Measure global trends and identify major challenges; • Inform global processes for the allocation of aid flows; • Support awareness-raising and advocacy; • Help to identify countries without monitoring frameworks; and • Provide a framework to determine how national monitoring can be supported.	The role of national monitoring is to: • Provide a central building block for policy, planning and implementation; • Guide the efficient use of resources and the alignment of donors to inform national policies; • Provide the information needed by the relevant institutions (ministries, utilities, regulators, etc.) to fulfil their responsibility to ensure sustainable access; and • Improve transparency and accountability to service users, taxpayers and the public at large.

Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation

2. Global WinS coverage

© UNICEF/Carlos Vasquez

2.1. Background

2.1.1. Previous global WinS coverage estimates

Currently, there are two multi-regional WinS coverage data sets available:

- UNICEF country office annual reports (COARs) for 2008 through 2013; and
- UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) data for 2009 and 2011.

Global averages from these data are presented in Table **3.**

These datasets have contributed valuable information to approximate global WinS coverage. However, there are several limitations to consider. National definitions of adequate access are not often defined. Further, data are often not verified and not used to examine geographic and/or gender disparities.

Table 3. Previous school water and sanitation coverage estimates

Data set	School water coverage (%)						School sanitation coverage (%)					
	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
GLAAS	-	-	-	68	-	-	-	61	-	64	-	-
UNICEF annual reports (all countries)	63	65	70	71	71	69	59	64	67	68	68	67
UNICEF annual reports (least developed countries and other low-income countries)	45	47	52	51	53	47	35	41	44	45	50	46

2.2. Methods

2.2.1. Data sources

This analysis includes WinS coverage data from 138 developing countries and 11 developed countries across nine regions (see Annex A for a complete list). These countries represent 83 per cent of the global population and 96 per cent of the population of developing countries.

Coverage data were compiled from the following sources:

- UNICEF: COARs[1] and regional snapshots;[2]
- UNESCO: Education dataset (Africa only)[3] and Second Regional Comparative and Explanatory study (SERCE) data (Latin America only);[4]
- WHO: GLAAS dataset;[5] and
- Other sources (including data from national EMIS, the WinS mapping website and other surveys that were not captured in other data sources. Discussions were also held with UNICEF WASH Programme Officers).

2.2.2. Data analysis

Data were reviewed and estimates considered highly inaccurate were removed from the analysis.[6] The review included consideration of the geographic scope of the data, school type, indicators used to measure coverage and

comparison between multiple data sources. Large decreases in coverage over time are often a reflection of improved monitoring rather than decreased coverage. In these cases, when sufficient information was available, earlier data were removed to more accurately reflect coverage trends. For secondary data sources, estimates were verified against primary data sources (e.g. EMIS) where possible.

The analysis followed the JMP method to the extent possible.[7] For each country, coverage estimates were plotted against a timescale corresponding to the year of the data source, separately for water and sanitation. A linear regression line, based on the least-squares method, was fit to the data points and used to calculate coverage estimates for 2008 and 2013, providing five-year trends. When insufficient data were available for regression, the same value was reported for 2008 and 2013, either representing the single data point available or an average of the two (this was the case for 30 and 35 countries for water and sanitation data, respectively).

Since current definitions of 'adequate' coverage and the indicators used in data collection differ greatly between countries, establishing an international standard by which to analyse national data would result in missing data for many countries. Therefore, where compiled estimates include multiple indicators to measure coverage, regression was conducted separately for each indicator and the most stringent indicator with sufficient data was used in the global and regional estimates and presented in the final coverage table, noting the indicator (or indicators) used.[8,9] Table **4** includes the water, sanitation and hygiene indicators used in order from most to least stringent. For sanitation data reported for both boys and girls, the lower of the two values was used in the estimates.

Table 4. Main indicator categories used in the analysis (in order from most to least stringent)

Water	Sanitation	Hand washing
• Functional source • Improved*/potable source • Existence of water source	• Quantity meets national standards • Functional toilets • Single-sex toilets • Improved* toilets • Existence of toilets	• Existence of hand-washing facilities and soap • Existence of hand-washing facilities

*The definition of 'improved' used is that suggested by JMP.


© UNICEF/NYHQ2011-0795/Dormino

The analysed data were shared with UNICEF country offices for confirmation of the coverage estimates and definitions used in the regression. A period of one month was given to review the data with non-response considered as agreement with the analysis. Additional information or confirmation was sent by 24 country offices. Due to the method of data analysis used, the resulting estimates presented in this document may be different from national coverage figures.

2.3. Findings: WinS coverage trends

2.3.1. Increased WinS monitoring

As the importance of WinS is gaining recognition on the global agenda, more countries are reporting WinS data each year. From 2008 to 2013 the proportion of UNICEF COARs that include WinS coverage estimates climbed from 57 per cent to 85 per cent for water and from 49 per cent to 80 per cent for sanitation (see Figure **2**).

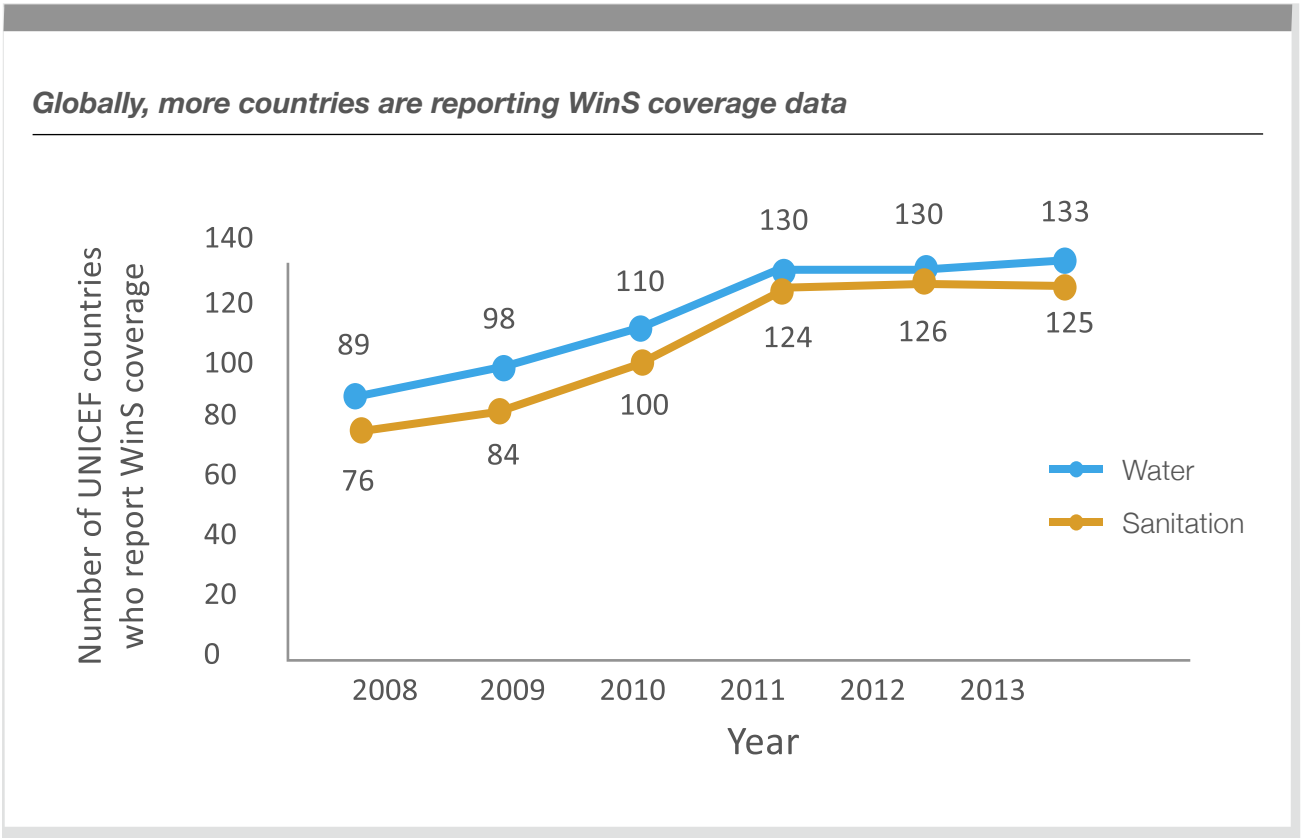


Figure 2. Number of UNICEF country offices reporting on school water and sanitation coverage

2.3.2. Global trends in school drinking-water access

Based on 149 countries, the global average for reported water coverage in schools was 71 per cent in 2013; a 6 per cent increase from 2008 (the global and regional estimates are not weighted by population or number of schools in each country). Not surprisingly, coverage is lower in LDCs: 43 per cent in 2008, increasing to 52 per cent in 2013. Regionally, Western Asia has the highest school water coverage, while sub-Saharan Africa has the lowest (see Figure **4**). Based on the available data, the greatest regional progress appears to be in Eastern Asia, South-Eastern Asia and Northern Africa, each of which achieved a 15-percentage point increase over five years. However, data quality issues associated with these estimates may limit cross-regional comparison, particularly in regions represented by very few countries.

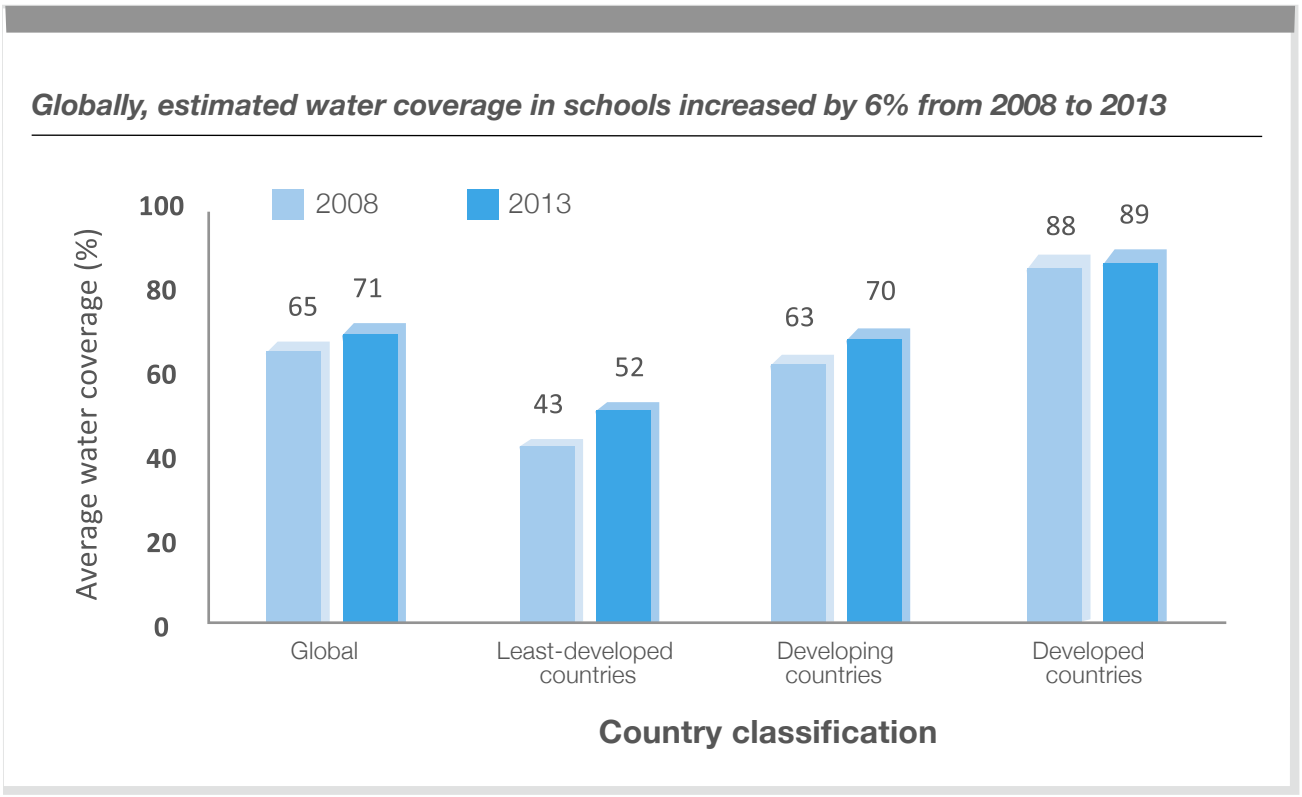


Figure 3. Estimated global proportion of schools with an adequate water supply

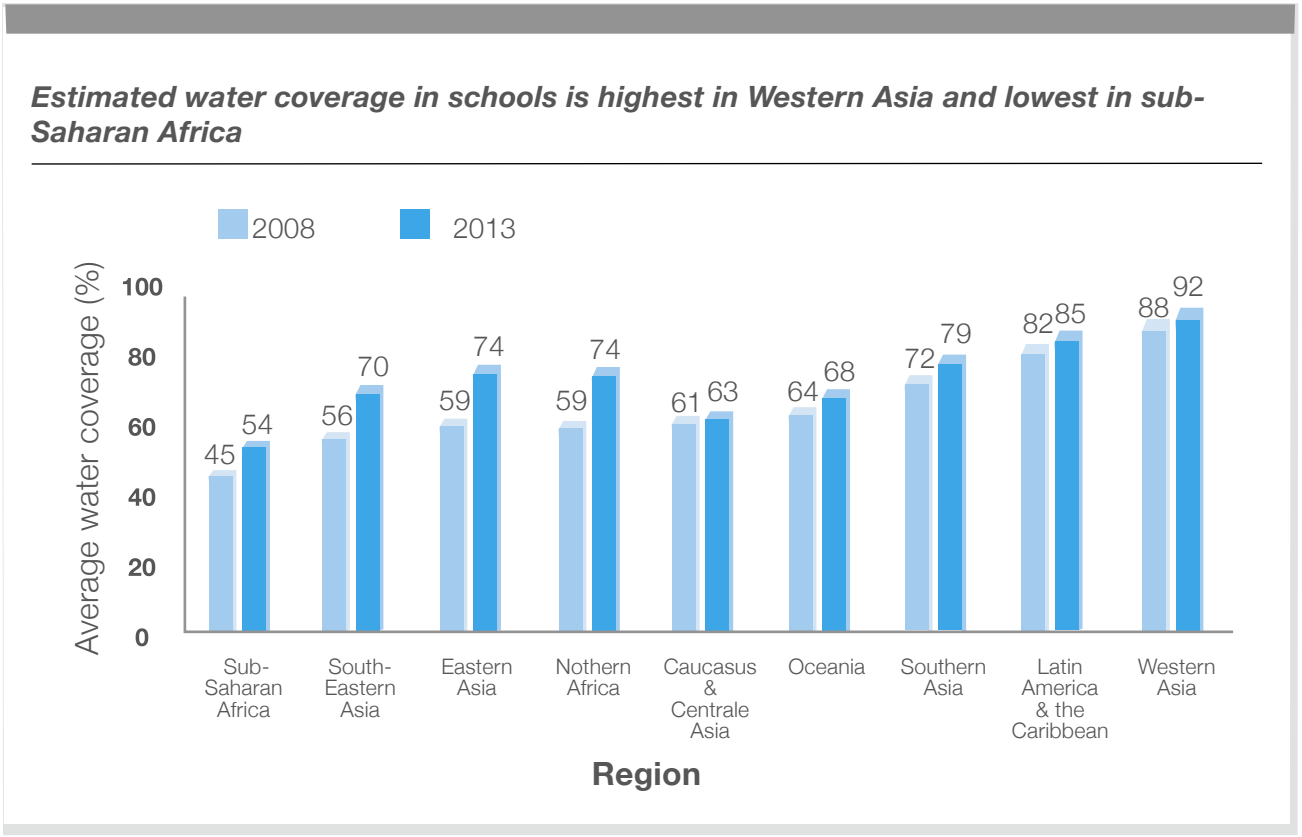


Figure 4. Estimated regional proportion of schools with adequate water supplies

Based on 2013 estimates, there are 29 countries where less than 50 per cent of schools report having an adequate water supply, and 51 countries where reported coverage is greater than 90 per cent (see Figure **5**). More detailed national coverage estimates for 2008 and 2013 are presented in Annex C. Some of the variation between countries is due to variation in the definitions used. For example, coverage estimates in Kiribati (3 per cent) are based on a minimum quantity of water from an improved source per student; Sierra Leone (23 per cent) reports coverage based on the proportion of schools with an improved water source in "good working condition"; and in Namibia (81 per cent), coverage includes all schools where any water source exists.

Reported water coverage in schools is less than 50% in 29 countries and over 90% in 51 countries (of 149 countries)

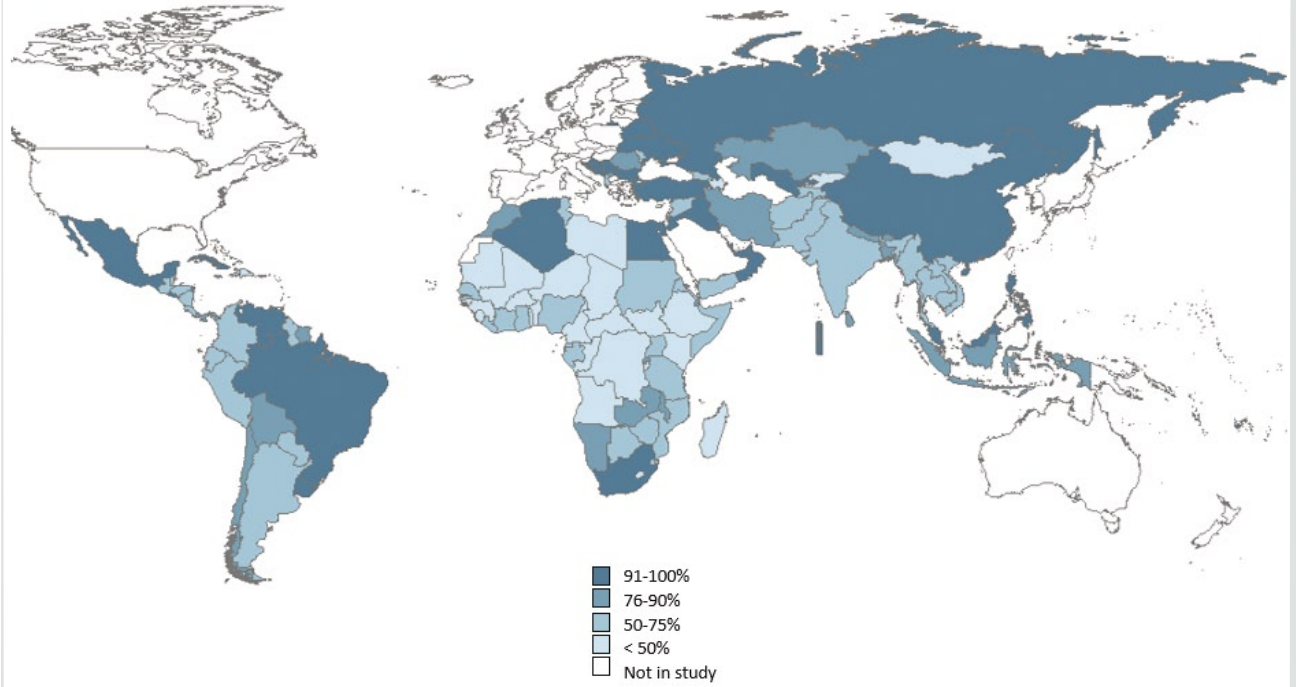


Figure 5. National school water coverage estimates

Indicators used to measure water coverage: Definitions used to measure water coverage vary between countries and data sources. The majority of data available are reported without reference to the definition used; of the 780 school water data points included in this study, the definition is unknown for 59 per cent, followed by 28 per cent that refer to 'improved' or 'potable' water supply, 9 per cent that denote the existence of a water supply and only 4 per cent that measure water source functionality (see Figure **6**). An additional 1 per cent use a definition not included in the categories used for this study, (e.g. that the water source is within the school compound and the school is connected to the water network). Where multiple indicators are used, the data are categorized here by the most stringent (see Table **3**). For example, if an estimate is based on access to functional improved water sources, it is categorized under 'functional' in Figure **6**.

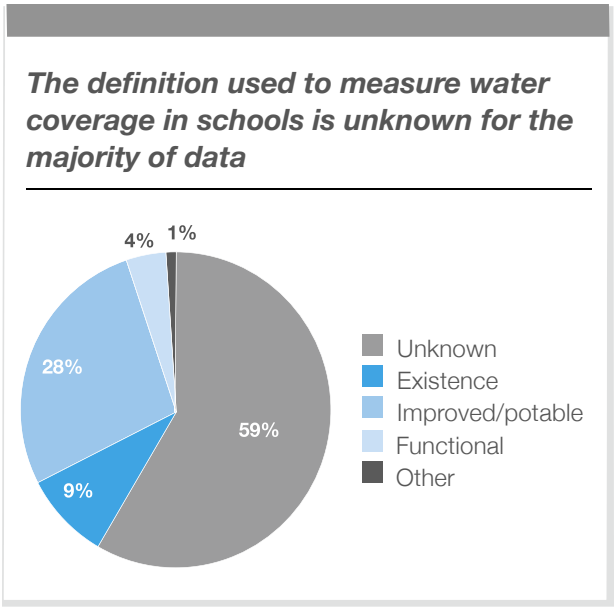


Figure 6. Definitions used to measure school water supply coverage (as a per cent of total data points)

2.3.3. Global trends in school sanitation

The global average for school sanitation coverage is slightly lower than water coverage, at 63 per cent in 2008 and 69 per cent in 2013 (see Figure **7**). For LDCs, the average proportion of schools with adequate sanitation rose nine percentage points over the five-year period: from 42 per cent in 2008 to 51 per cent in 2013. As with school water coverage, school sanitation coverage is highest in Western Asia and lowest in sub-Saharan Africa (see Figure **8**). The largest reported increase in coverage was in South Asia, with an increase of 21 percentage points from 2008 to 2013. Although data quality limits cross-regional comparison, there does appear to have been great improvements in South Asia, based on the fact that all nine countries in the region are represented in the regional average and most countries in the region have a substantial number of data points to support regression analysis.

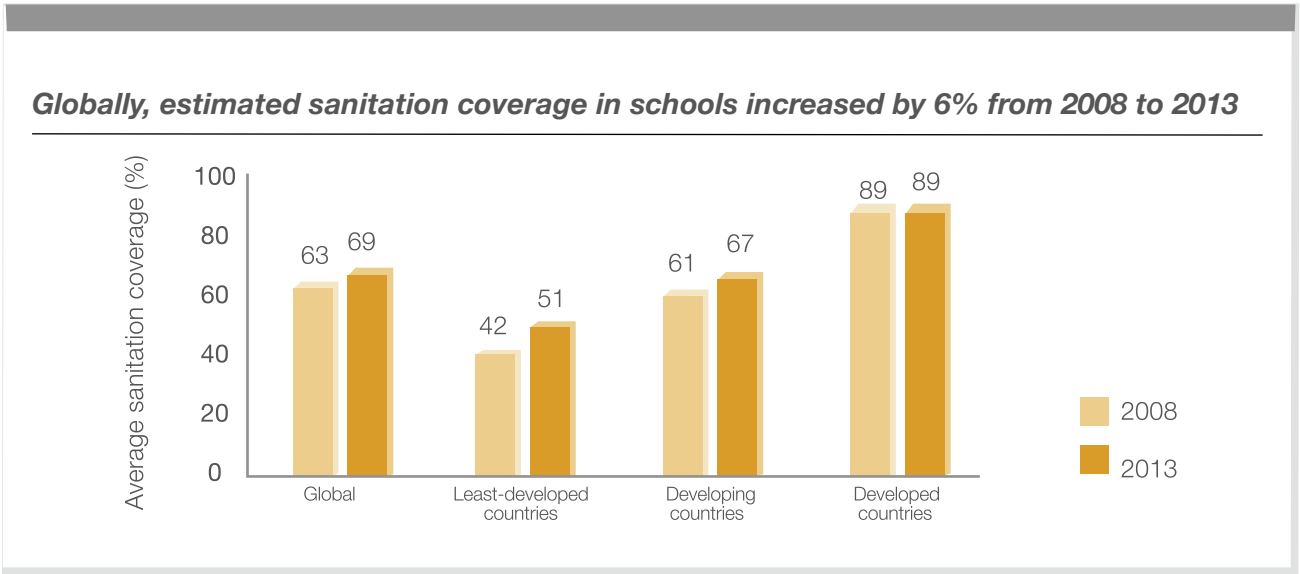


Figure 7. Estimated global proportion of schools with adequate sanitation

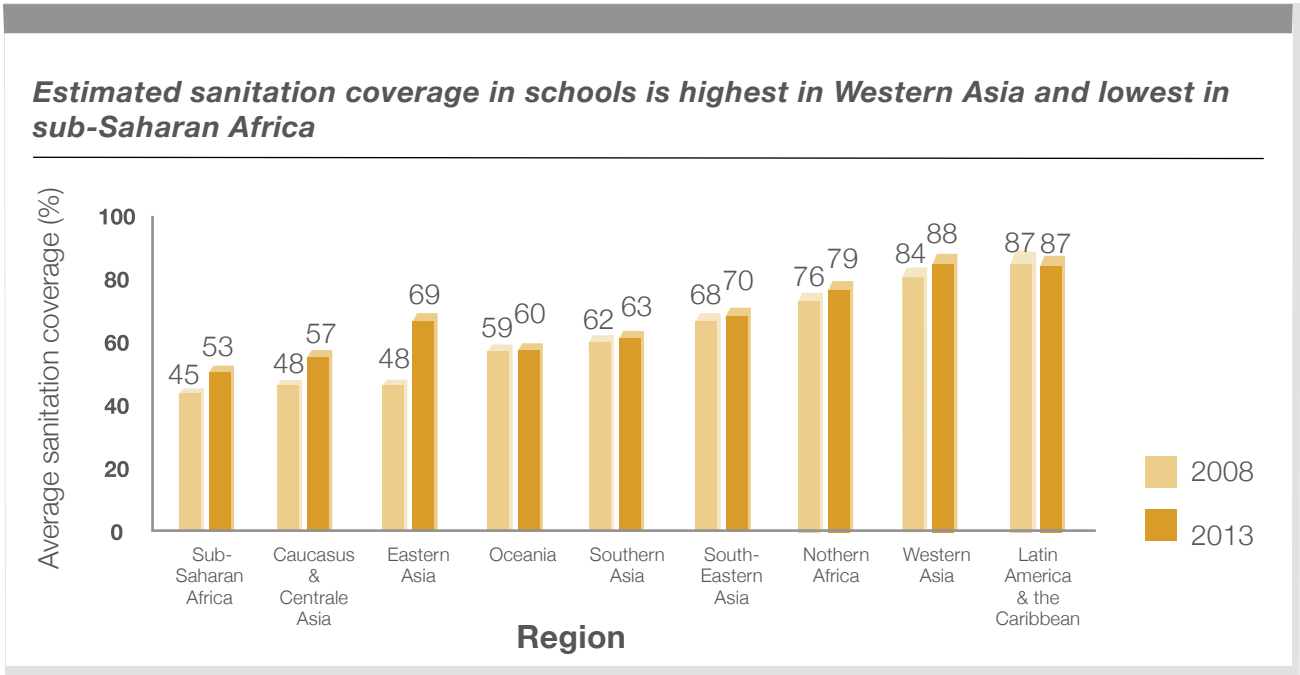


Figure 8. Estimated regional proportions of schools with adequate sanitation

Based on 2013 data, in 36 of the countries included in the study the proportion of schools with adequate sanitation is less than 50 per cent; in 46 countries, school sanitation coverage is over 90 per cent (see Figure **9**). Detailed national coverage figures can be found in Annex C. As with the water coverage estimates, some of the variation is due to the use of different definitions to measure school sanitation coverage at national level. For example, coverage in Belize (21 per cent) is based on the proportion of schools that have improved and gender-segregated facilities with at least one toilet per 25 girls and one toilet and one urinal per 50 boys. In Albania (30 per cent) and Honduras (46 per cent), coverage includes schools with gender-segregated functional toilets. Tanzania's coverage (11 per cent) is based on national minimum standards for the number of toilets (at least one per 20 girls and one per 25 boys). On the other end of the spectrum, estimates are based solely on the existence of toilets at schools in Cambodia (81 per cent), Namibia (80 per cent), Bolivia (74 per cent) and Angola (54 per cent).

Estimated sanitation coverage in schools is less than 50% in 36 countries and over 90% in 46 countries (of 147 countries)

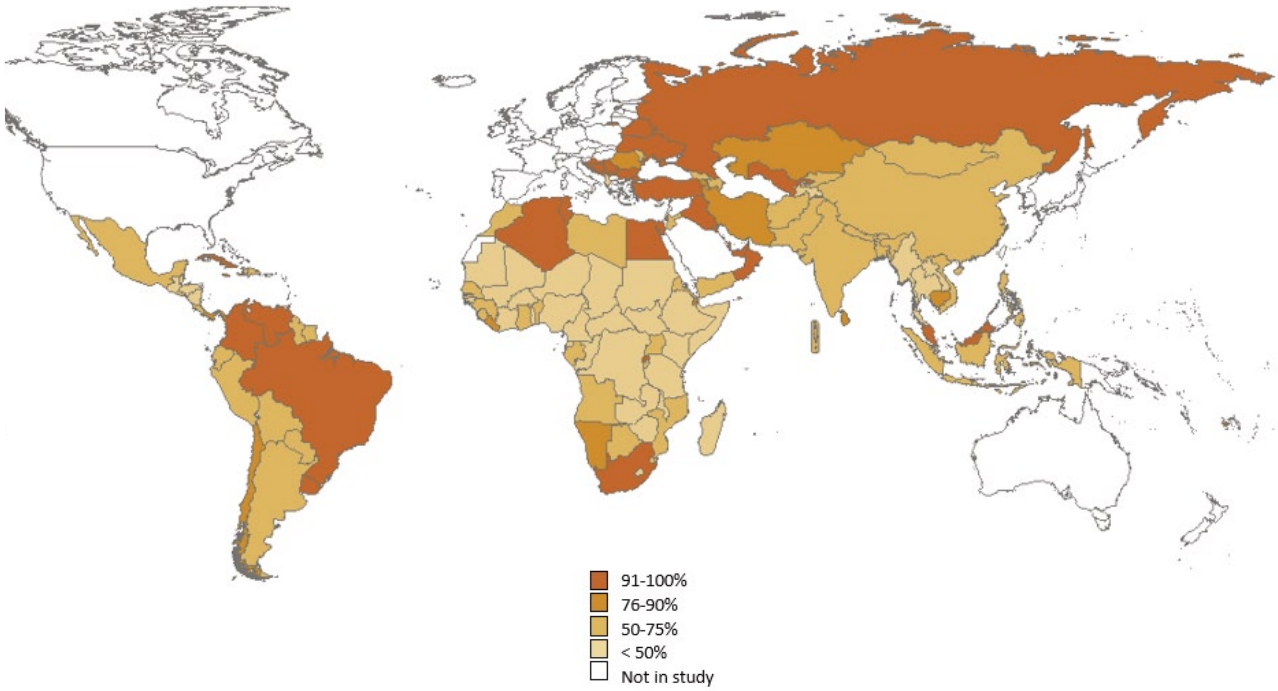


Figure 9. National school sanitation coverage estimates

Indicators used to measure sanitation coverage: Similar to the water data, of the 862 data points included in the sanitation coverage estimates, over half (53 per cent) are not accompanied by a description of the definition used. Twenty per cent of the data points refer merely to the existence of sanitation facilities, 10 per cent to the availability of gender-segregated toilets, 7 per cent to improved sanitation services, 6 per cent to functioning toilets and 3 per cent report coverage based on meeting national standards for the number of students per toilet (see Figure **10**). National toilet quantity standards vary from 25 students per toilet/urinal (as recommended in international WinS standards)[10] to 60 students per toilet. The inclusion of gender considerations in school sanitation monitoring is further discussed in section 2.9.1. Where multiple indicators are used, the data are categorized here by the most stringent (see Table **4**).

The definition used to measure sanitation coverage in schools is unknown for most data

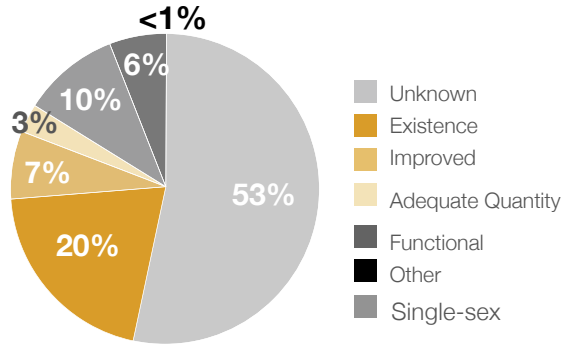


Figure 10. Definitions used to measure school sanitation coverage (as a percentage of total data points)

2.3.4. Global trends in school hygiene

Despite the considerable benefits of hand washing with soap, hand washing and other hygiene-related indicators are rarely tracked at schools.[11] Data regarding school hand-washing facilities were available for only 11 of the 149 countries included in this study. Available data sources are typically small-scale studies (national-level data are available for only four of the 11 countries). Of the 11 countries for which data is available, four report on the availability of hand-washing facilities and soap (Angola, Malawi, Tanzania and Uganda), five provide data on hand-washing facilities only (Afghanistan, Burundi, Costa Rica, India and Rwanda) and two do not provide details on the hand-washing indicator used during data collection (Botswana and Ethiopia).

For the 11 [reporting] countries, the estimated average coverage of hand-washing facilities in schools is 21 per cent. Five-year trends in hand-washing facility coverage were not possible due to data scarcity. Most coverage values are from 2011, while Burundi and Malawi data are from 2008, the India and Rwanda data are from 2013, and the reference years for Afghanistan and Angola are unknown. Coverage of hand-washing facilities in schools is below 50 per cent in almost all of the countries; ranging from 0 to 42 per cent. The only country with coverage above 50 per cent is Costa Rica, where it is estimated that 64 per cent of schools have sinks in good condition. However, this estimate does not consider the presence of soap. National-level estimates for all 11 countries are presented in Annex C.

Hand-washing facilities are only one component of school hygiene, which also includes hygiene education and hand-washing promotion. There are limited data available for these components as well, although GLAAS 2012 data provides some information on hygiene education.[5]

2.3.5. Masked disparities in WinS coverage estimates

Sanitation coverage disparities between girls and boys: Although UNICEF COARs request that sanitation data be disaggregated by gender, in many instances the same value is reported for sanitation facilities for both girls and boys, likely due to a lack of disaggregated national data. This gives a false sense of equality. Based on the most recent data available, including only those countries that report dissimilar gender-disaggregated data (29 countries), the estimated average school sanitation coverage is 5 per cent higher for boys than girls (see Figure **11**). However, this average may mask much larger disparities in some countries.

The largest reported coverage difference between sanitation facilities for girls and boys is in Tunisia, where it is estimated that 99 per cent of schools provide adequate sanitation for boys, while only 20 per cent of schools provide adequate sanitation for girls. However, Tunisia considers 'adequate' sanitation for girls as gender-segregated toilets, while for boys, gender segregation is not factored in. In Tanzania, there is a 20 per cent difference between coverage for girls and boys, with girls' sanitation coverage measured by the proportion of schools that have doors in the toilets and provide facilities for menstrual hygiene management (MHM). In Kiribati, where there is a 6 per cent difference, girls' sanitation is based on meeting the national standard of at least one toilet per 40 students and boys' sanitation is based on a standard of one toilet per 60 students.

Surprisingly, some countries report higher coverage for girls than boys. Comments included in COARs indicate that this may be because priority has been given to girls in construction planning.

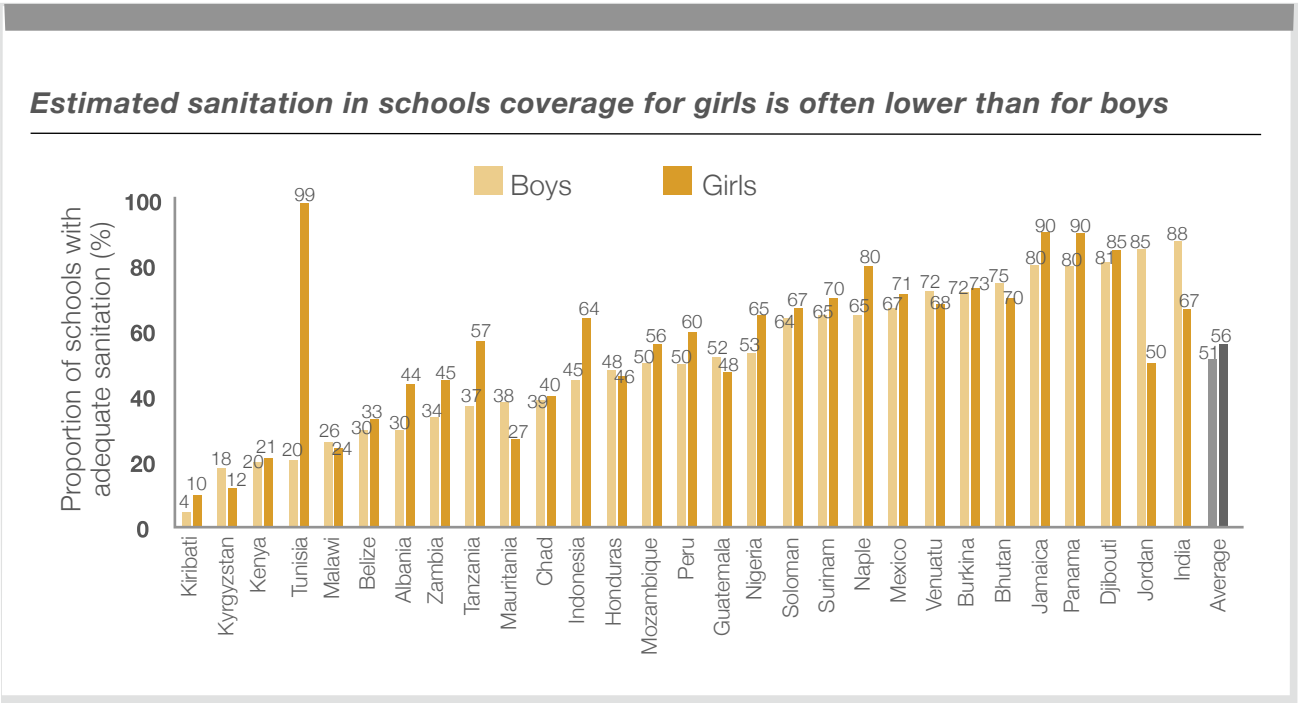


Figure 11. Proportion of schools with adequate sanitation, disaggregated by gender

Urban-rural coverage disparities: National averages often mask disparities between urban and rural coverage. Based on the 16 countries with both urban and rural data available for water in schools, on average, the proportion of schools with adequate water in urban areas is 17 percentage points higher than in rural areas (see Figure **12**). Water coverage for urban schools is higher than rural schools in all but two of the 16 countries, with the largest gap (45 percentage points) occurring in China, where it is estimated that 84 per cent of urban schools and 39 per cent of rural schools have adequate water services.

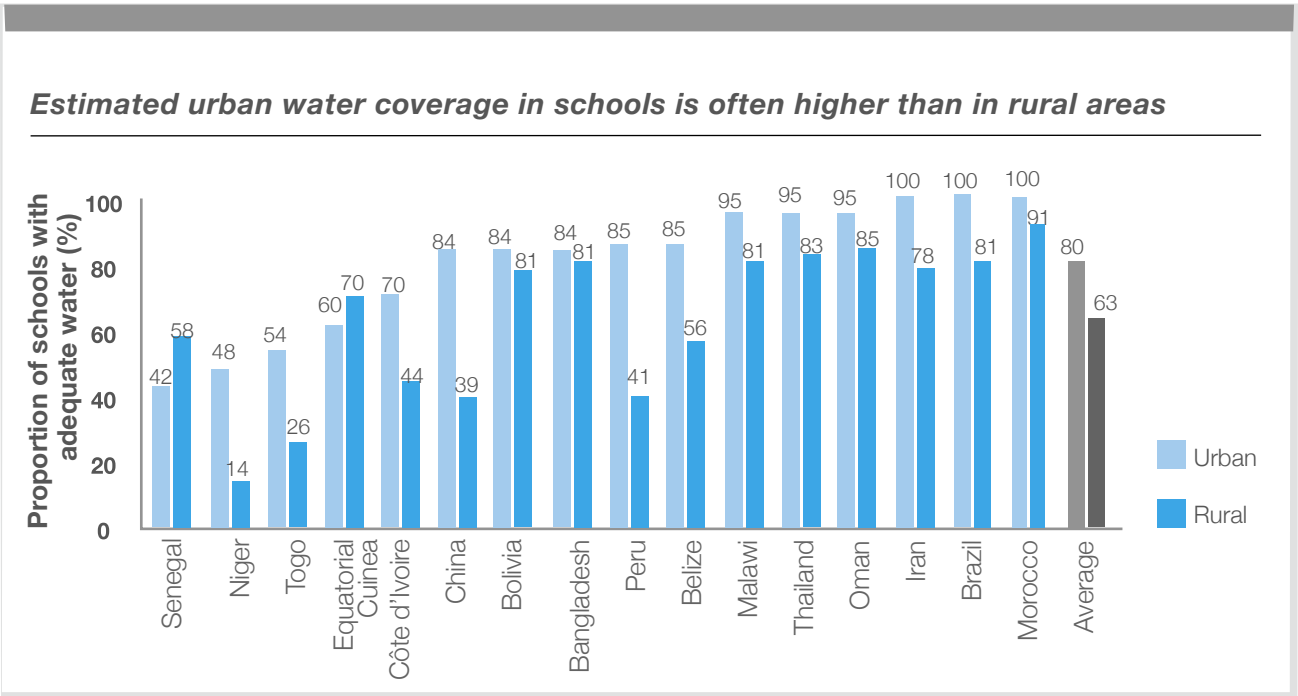


Figure 12. Estimated water in schools coverage, disaggregated by urban/rural

The average urban-rural difference is slightly less (15 per cent) for sanitation, potentially due to the challenges associated with providing sanitation services in crowded peri-urban areas. The largest difference in sanitation coverage also occurs in China, with 84 per cent and 38 per cent coverage for urban and rural schools, respectively (see Figure **13**). Estimated urban school sanitation coverage is higher than rural coverage in 12 of the 16 countries with data available. In Belize, where meeting quantity standards in urban schools with larger student populations and less space is a challenge, coverage is actually lower in urban areas.[12] Belize also uses a much more stringent measurement of coverage, reporting the percentage of schools with improved and gender-segregated toilets with at least one toilet per 25 girls and one toilet and urinal per 50 boys.

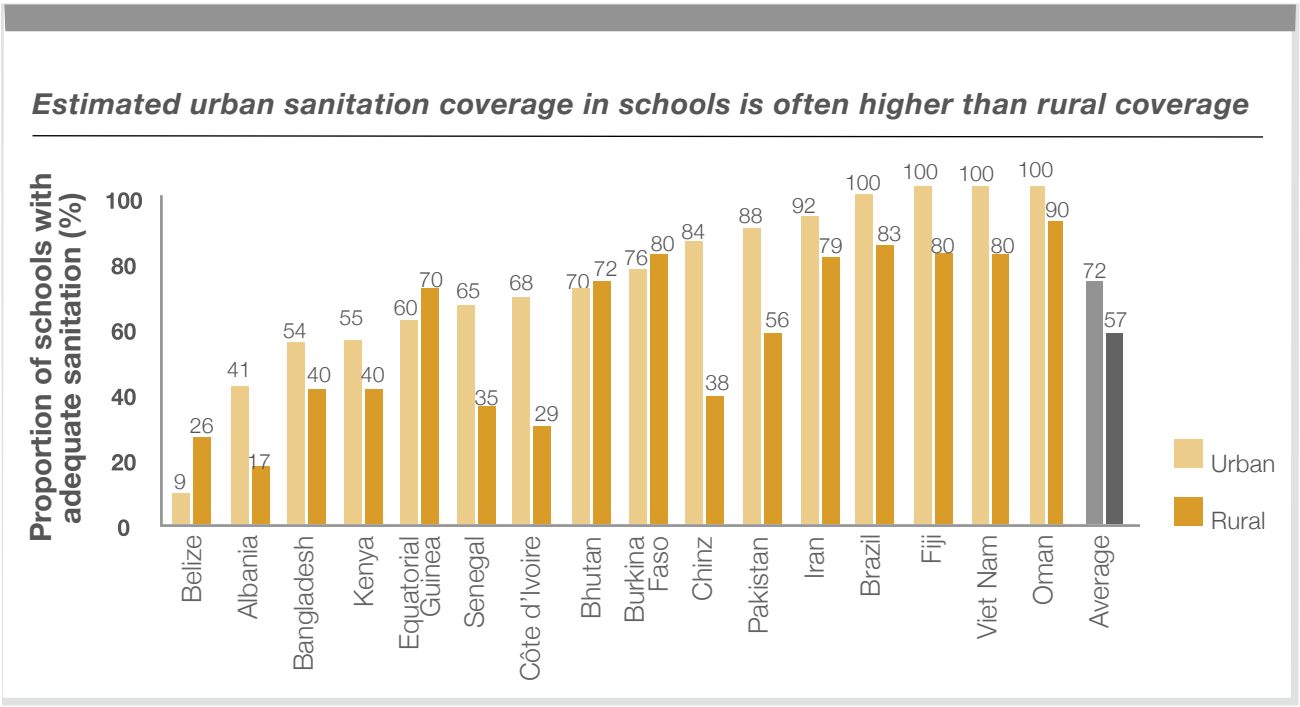


Figure 13. Estimated sanitation in schools coverage, disaggregated by urban/rural

2.3.6. Comparison between school and household coverage

Comparing results from this study with the JMP 2013 update for household water and sanitation coverage, on average, reported school water coverage is lower than household water coverage, while reported school sanitation coverage is higher than household coverage (see Table **5**). However, these figures provide only a rough estimate for comparison as school-level indicators have not been standardized to the extent of the JMP indicators.

Table 5. Comparison of estimated school and household water and sanitation coverage

Region	Water		Sanitation	
	School coverage (%)	Household coverage (%)	School coversage (%)	Household coverage (%)
World	69	89	66	64
Least-developed countries	51	65	47	36
Developing countries	68	87	64	57
Developed countries	89	99	90	96

2.4. Discussion

2.4.1. Data quality concerns

A large number of data sources were included in the analysis in an attempt to address the paucity of comparable information and support more representative regional and global aggregation. However, while data from different sources are comparable for many countries, there are substantial unexplainable differences between sources for others. As an example, Figure **14** provides the coverage figures reported by each data source for all countries with 2011 national primary school water data from UNICEF COAR, UNESCO and WHO GLAAS (eight countries in total). Five of the eight countries have comparable data between sources, while there are large discrepancies in the reported data for three countries.

The definition used in the UNICEF COARs is access to "adequate" water supply, which can have a broad meaning and may account for some discrepancy. However, variability is even greater between the UNESCO and WHO GLAAS data despite the similar definitions used: "access to potable water" and "access to an improved water source", respectively. Based on communication with UNICEF country offices, UNICEF Mali felt the estimate of 85 per cent coverage was "very unrealistic" and it was removed from the analysis, while for other countries with high data variability there were no clear outliers (when data from all years were considered) or clear reasons for the variability. In Ghana for example, the COAR value is based on the EMIS 2011 estimate. However, the 2012 EMIS estimate is closer to the WHO GLAAS value reported for 2011. The factors that result in large differences between data sources is a topic that deserves further investigation.

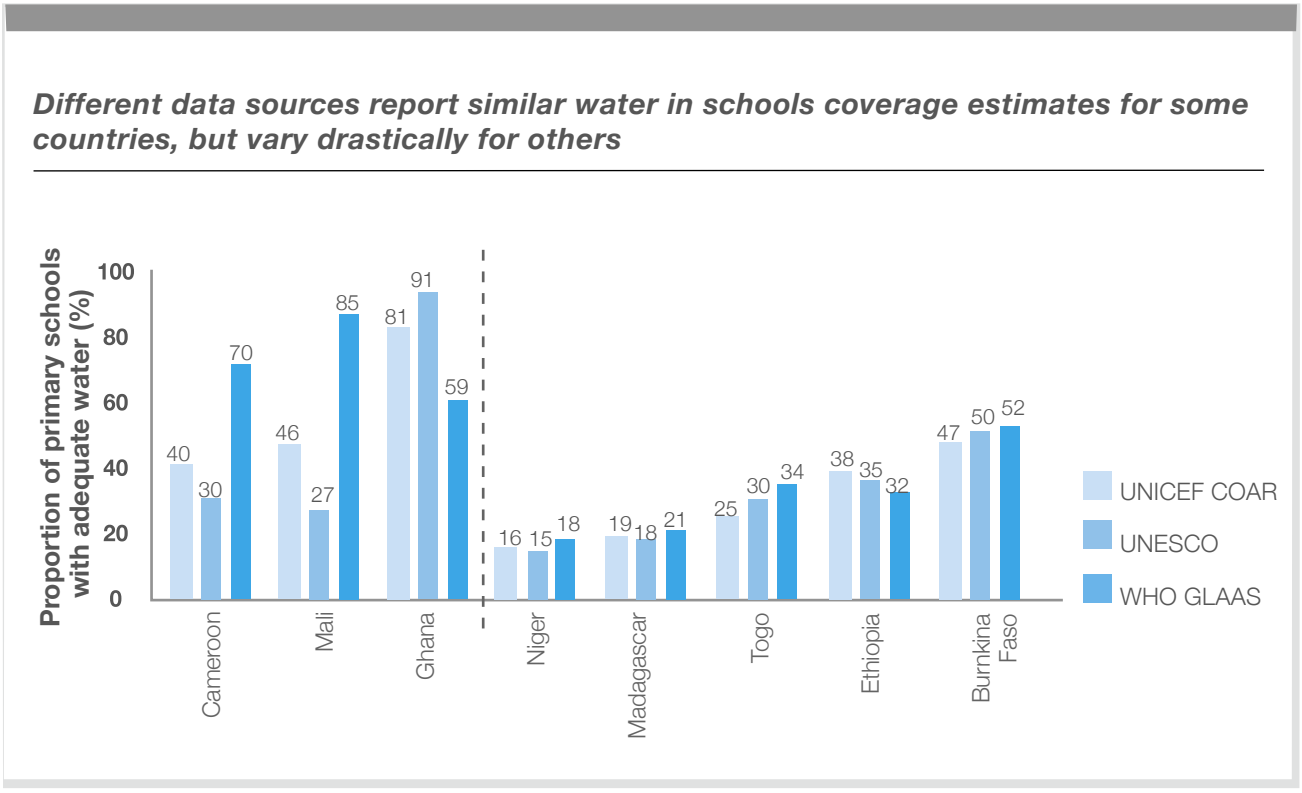


Figure 14 Variability between data sources for the proportion of primary schools with adequate water

In addition to variations between data sources that use a similar definition to measure coverage, other challenges in aggregating WinS coverage globally include:

- The variability in definitions used to measure coverage (e.g. one country may report the proportion of schools with a functional improved water source, while another may report the proportion of schools with access to any water source);
- Even when seemingly comparable, many secondary sources do not provide the primary source or indicator used for coverage;
- Some reported data are often the same for multiple years, suggesting that no new data had become available since the previous year, potentially limiting the accuracy of trends over time; and
- Improvements in monitoring may result in coverage data that falsely appear to trend downward (as discussed further below).

Concerted efforts to monitor WinS are relatively recent and as monitoring improves, there is the risk that decreased coverage over time is actually a reflection of better monitoring, not lower coverage. This was flagged by some data sources included in the study. For example, in Kiribati the 2012 COAR reports that 50 per cent of schools have "adequate" water supply, while the 2013 figure drops to 3 per cent, with a comment that the 2013 value should supersede previous estimates since it is based on a nationally representative Ministry of Education survey measuring schools' adherence to national standards. A decrease in school water coverage was also noted in Chad (from 17 per cent in 2012 to 15 per cent in 2013), and a comment explains the cause as construction of new schools without water supply. However, explanations do not accompany many of the data and the cause of decreased coverage is unknown for some countries with a downward trend. In Kyrgyzstan, a substantial decrease in school water coverage (from 72 per cent in 2010 to 30 per cent in 2011), was reported with no comment on whether the drop was due to improved monitoring or an actual decrease in coverage.

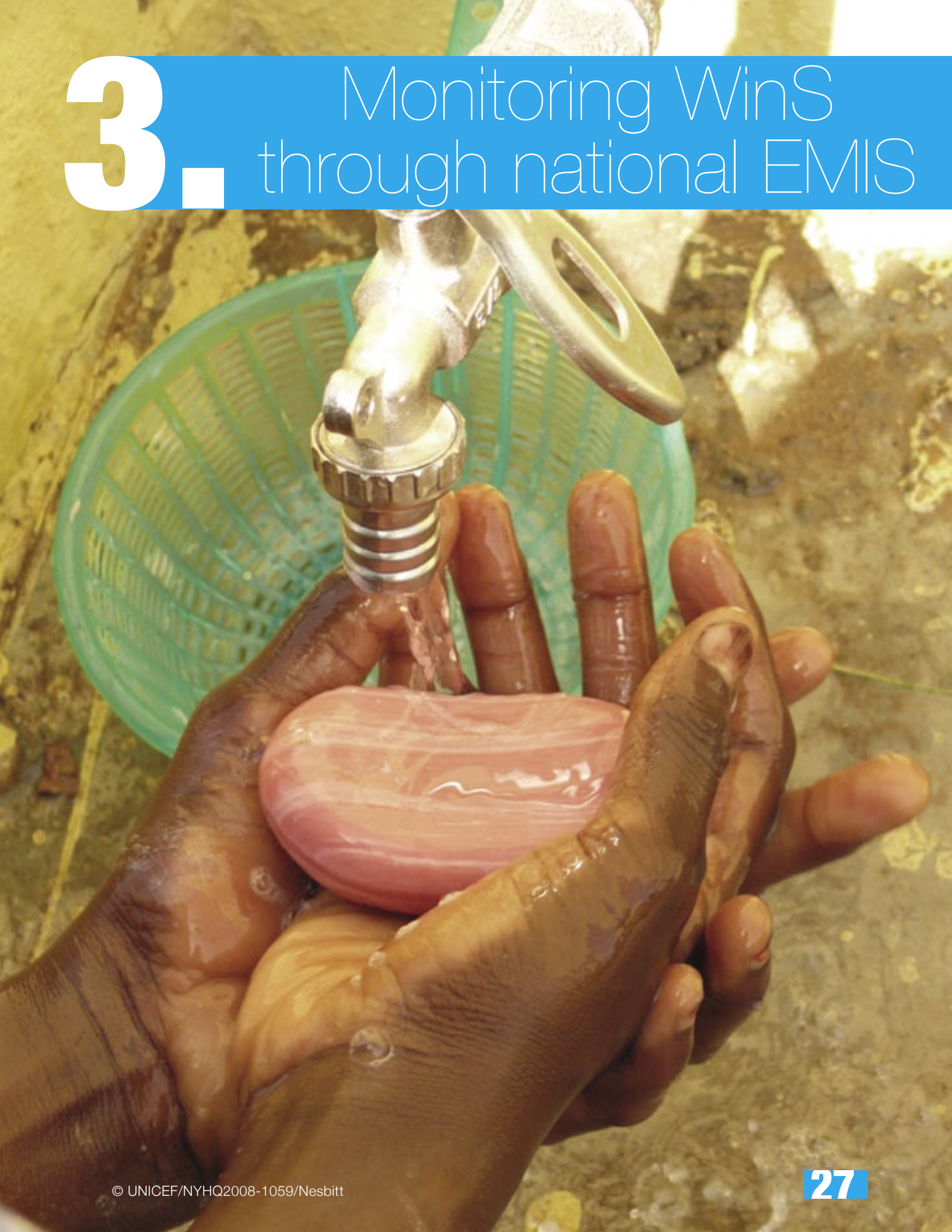
These caveats and inaccuracies should be taken into consideration when reporting the coverage data in this publication and in future efforts to improve global WinS monitoring. It should also be noted that this publication discusses output indicators: coverage of water and sanitation services in schools. A complimentary review of *input* indicators for WinS can be found in the GLAAS 2014 report (see text box below).

Political commitment to WinS: status of policy implementation

Based on the 2014 results of the GLAAS initiative in 90 countries,[13] there is clear political recognition of the importance of WinS and commitment to increasing coverage:

- Over two-thirds of countries have nationally approved policies for WinS, of which one-fifth are fully implemented, funded and reviewed (21 per cent);
- Over one-third of countries include concrete targets for reaching universal access for water and sanitation by 2015 or 2030, while one-quarter of countries aspire to universal coverage for hygiene promotion; and
- The Ministry of Education plays a key role in sanitation and drinking water in schools in more than half of countries.

3. Monitoring WinS through national EMIS



3.1. Introduction

The indicators currently used to measure WinS coverage vary substantially between countries. More clearly defined and standardized indicators are needed to inform national programmes and to support global advocacy.

3.1.1. Global guidelines for WinS Monitoring

In 2011 UNICEF published the *WASH in Schools Monitoring Package* to strengthen national monitoring systems and to improve the quality of monitoring at the project level. The package is comprised of three sections: (1) EMIS module with suggested WinS questions for national education census questionnaires; (2) survey module which provides tools for national, sub-national and project baseline surveys; and (3) children's monitoring module with teacher's guide and tools for WinS monitoring by children. The *WASH in Schools Monitoring Package* EMIS module provides suggested indicators for each component of WinS: water, sanitation and hygiene (see Table **6**).

Table 6. Indicator parameters recommended in the *WASH in Schools Monitoring Package*[8]

Component	Indicator	Parameters
Water	A functional water point is available **at or near** the school that provides a **sufficient quantity** of water for the needs of [the] school, is **safe** for drinking and is **accessible to children with disabilities**	1. Functionality (functional) 2. Proximity (at or near) 3. Quantity (sufficient quantity) 4. Quality (safe) 5. Accessibility (children with disabilities)
Sanitation	The **number** of **functional** toilets and urinals for **girls, boys** and teachers meet **national standards** and are **accessible to children with disabilities**	1. Quantity (number/national standards) 2. Functionality (functional) 3. Gender (girls, boys) 4. Quality (national standards) 5. Accessibility (children with disabilities)
Hygiene	**Functional** hand-washing facilities and **soap (or ash) are available** for girls and boys in the school and **hygiene is taught**	1. Functionality (functional) 2. Soap (soap (or ash) available) 3. Hygiene education (hygiene is taught)

3.2. Methods

3.2.1. Information gathering

National EMIS questionnaires were gathered from as many countries as possible. In total, 54 countries were included in the review. All WASH-related questions were extracted from the primary school level questionnaires for analysis.

3.2.2. Analysis

The questions/indicators included in each country's EMIS were compared with those recommended in the *WASH in Schools Monitoring Package*. All countries were given a score for each of the three components, with one point for each parameter included in the EMIS (up to five points for water, five points for sanitation and three points for hygiene). Countries where the EMIS does not include questions on the component were not given a score (marked 'N/A' in Annex E). A score of 0 signifies that the component is monitored to some extent, but does not include any of the recommended parameters from the *WASH in Schools Monitoring Package*. The frequencies of each parameter were also examined to identify the most and least common parameters captured. Additional information on the scoring process is presented in Annex D.

3.3. Findings: Current EMIS monitoring of WinS

3.3.1. General findings

Many countries are capturing WinS in their EMIS; of the 54 countries included in the study, 48 request WASH information in their EMIS questionnaire. All 48 include water- and sanitation-related questions, while only 17 request hygiene information from schools (see Figure **15**). All 17 countries with hygiene questions in their EMIS also include water and sanitation, suggesting that countries tend to prioritize monitoring of water and sanitation in schools.

The average score by WinS component for countries that include the component in their EMIS is presented in Figure **16** (out of five possible points for water and sanitation and three for hygiene). Results show that sanitation is covered in most detail, followed by water and hygiene, respectively. Additional details are presented in Annex E.

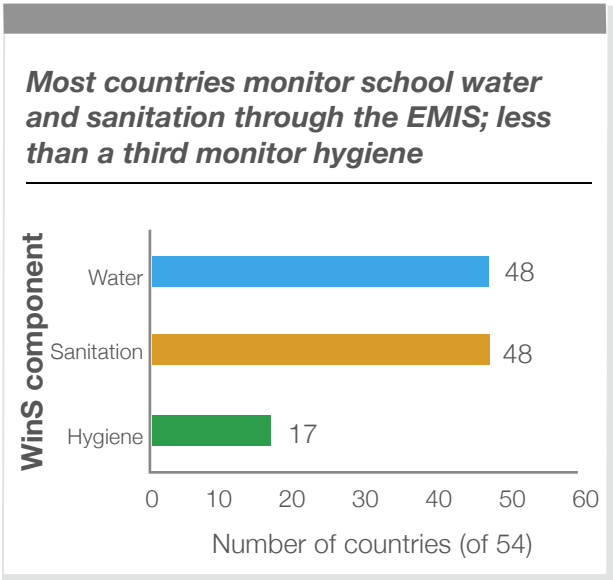


Figure 15. Number of countries that include each WinS component in their EMIS

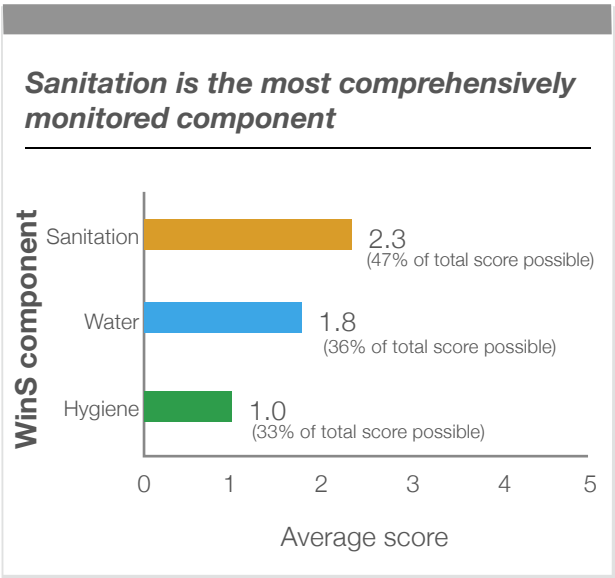


Figure 16. Average score by WinS component for countries that include the component in their EMIS

3.3.2. Water

Most countries include less than half of the water parameters recommended in the *WASH in Schools Monitoring Package* (with an average score of 1.8 out of 5 across the 48 countries). Myanmar is the only country that captures all five parameters. Belize and Yemen include four of the five parameters; accessibility to students with physical disabilities is not asked in Belize and quality is not captured in Yemen. Over a third of the countries received a score of 1 or lower, five of which simply ask if the school has access to water (and were given a score of 0).

Quality is the most common water parameter captured in EMIS questionnaires, followed by proximity and functionality (see Figure **18**). The quality parameter is mainly addressed via questions about the school's "improved" or "potable" water supply; information regarding actual water treatment or testing are rarely included, likely due to the difficulties in assessing treatment and the costs associated with water testing. Accessibility for children with physical disabilities is the most infrequent water parameter collected in EMIS, with only two countries including this question: Myanmar and Yemen.

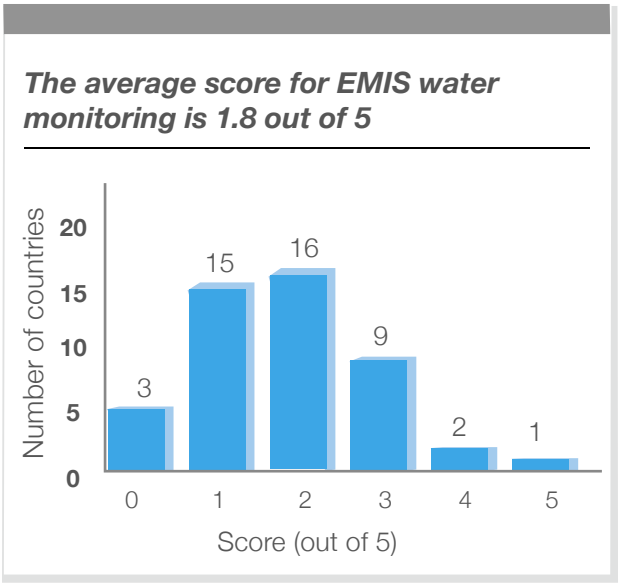


Figure 17. Histogram of countries' scores in comparison to the recommended EMIS water indicator

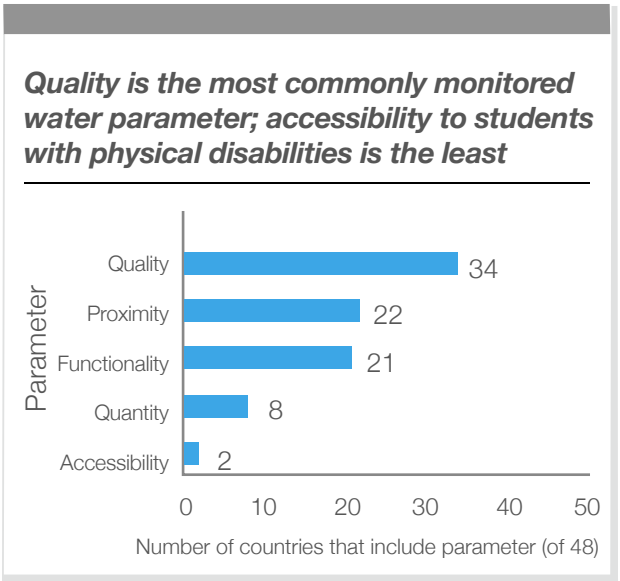


Figure 18. Number of countries that include each parameter of the recommended water indicator

Quality: Only four countries collect data on water treatment or include a direct measurement of quality: Bangladesh, Belize, Iraq and Zimbabwe. Bangladesh asks if the water source is free of arsenic; Belize asks if the water has been treated; Iraq collects information on classroom water filters; and Zimbabwe includes a question on the type of water treatment used. Of the remaining 30 countries that collect information on water quality, 24 ask the type of water source and six ask if the school has an "improved" (based on JMP definitions) or "potable" water source. This highlights the potential variability of results. If only those four countries that collect information on water treatment or direct measurement of quality are included, quality becomes the second least collected water parameter. Due to the challenges in testing water sources at the national level, and the precedent set by JMP and other monitoring bodies to use source type as a proxy of water quality, questionnaires collecting information on "improved" or "potable" water sources were considered to capture the quality parameter in this study.

Proximity: Only two countries, Zimbabwe and Uganda, collect information on the distance to the main water source, while 20 countries ask about water sources "at" or "near" the school.

Functionality: Water source functionality questions ask if the school has a continuous supply of water, if the water source is "usable", in "good condition", "functional" or "broken". Some countries ask about functionality throughout the year, while others collect data based on current status.

Quantity: Information collected on water quantity include whether the water supply provides "sufficient", "adequate", or "satisfactory" quantity. Questionnaires that collect data on the number of water points but not the actual amount of total water available to the school were not considered to capture the quantity parameter in this study as the number of water points does not necessarily indicate if the amount of water is sufficient to meet school needs.

Accessibility: The accessibility of the water source by students with physical disabilities was included in only two countries: Myanmar and Yemen.

The recommended question(s) from the *WASH in Schools Monitoring Package* associated with each parameter are presented in Table **7** along with examples of how the parameter has been included in national EMIS. Detailed water questions from each country's EMIS are included in Annex E.

Table 7. Recommended questions for each water parameter and examples of national EMIS questions

Water parameter	Associated question(s) in the *WASH in Schools Monitoring Package*	Examples of national EMIS questions
Quality	What is the school's main water source? (distinguishes improved vs. unimproved) Do you treat water from the source you use at school in any way to make it safer to drink?	**Bangladesh:** Potable water supply (select): public supply or tap/ tube well/ pond/ river; Is the water free from arsenic? **Burundi:** Access to potable water: yes/no **Zimbabwe:** Water source, type of water treatment, type of water system/device
Proximity	What is the school's main water source? (option to check "no water available in or near school")	**Uganda:** Distance to nearest main water source (select one): <1km/ 1-2km/ 2.1-3km/ 3.1-4km/ 4.1-5km/ >5km) **Niger:** Does the school have a water point on premises?
Functionality	How often is the water source functional?	**Lao PDR:** Is the water supply functional throughout the year? **Guinea:** Water source: number in good condition (in use__, not__); number in poor condition (in use__, not__) **Côte d'Ivoire:** Does the school have a water point on premises? (select): running water tap/ well/ functional borehole/ no water
Quantity	When the water source is functional, does it provide enough water for the needs of the school, including water for drinking, hand washing, food preparation?	**Bhutan:** Sufficient water supply all year (yes/no); reason for insufficient water supply:____ **Belize:** When the water source is functional, does it provide enough water for the needs of the school, including drinking, hand washing and food preparation? (yes/no/not functional)
Accessibility	Are drinking water facilities accessible to children with physical disabilities?	**Myanmar:** Is there a functional water point accessible to children with disabilities? **Yemen:** Number of water tanks for people with special needs?

3.3.3. Sanitation

Of the three components, sanitation is covered most comprehensively, with three out of five total possible points as the most common score and an average score of 2.3 (see Figure **19**). Two countries include all five recommended parameters for school sanitation in their EMIS (Belize and Iraq). The lowest score (zero) refers to questionnaires that ask if the school has access to sanitation without further details requested; this was the case in three countries (Angola, Kenya and South Sudan).

The most common parameter in EMIS sanitation questions is the number of sanitation facilities available, followed by functionality of the facilities, gender aspects (including if single-sex toilets are available), accessibility for students with physical disabilities, and lastly, sanitation quality based on the type of services (improved or not) (see Figure **20**).

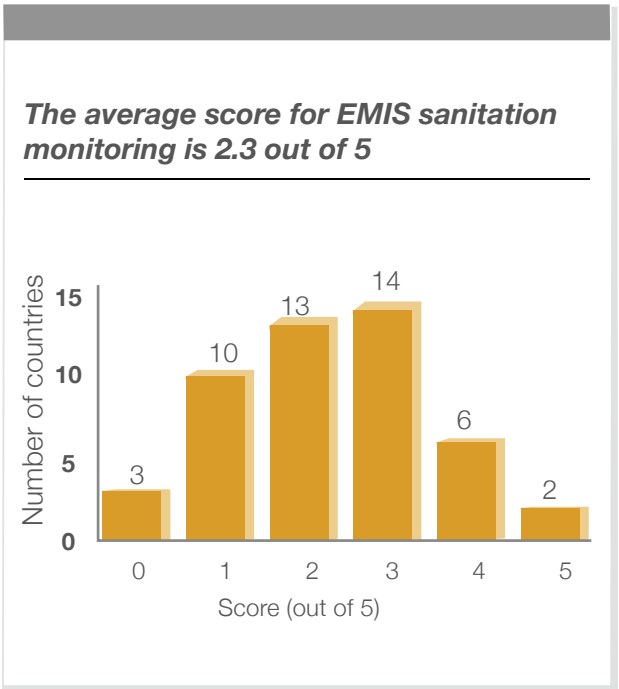


Figure 19. Histogram of countries' scores in comparison to the recommended EMIS sanitation indicator

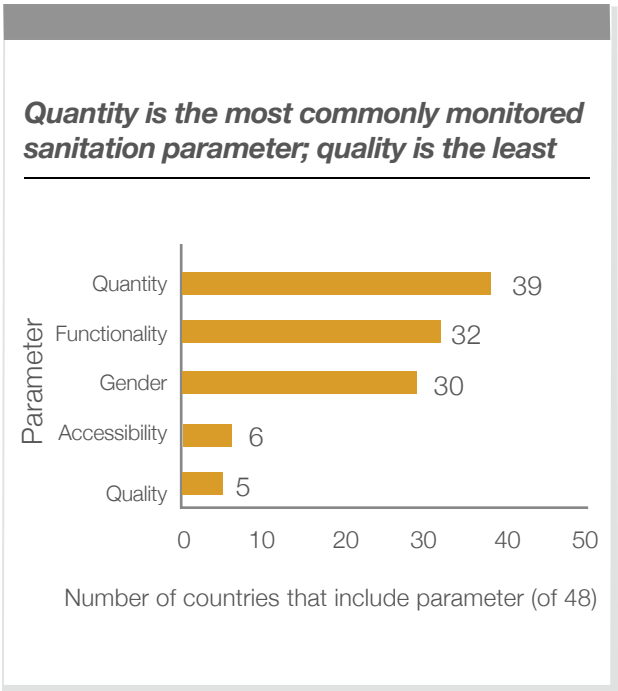


Figure 20. Number of countries that include each parameter of the recommended sanitation indicator

Quantity: The number of toilets in schools is fairly straightforward information to collect. Many countries collect toilet quantity data, separated by those for students, teachers, boys and girls.

Functionality: Toilet functionality is captured as part of questions regarding the number of toilets in schools in 24 countries, while the remaining eight countries that monitor functionality ask about toilet functionality or conditions in general. Monitoring functionality, as opposed to merely the existence of sanitation facilities, can provide a much more accurate picture, as exemplified in Bhutan where 97 per cent of schools report having access to sanitation, while only 51 per cent have functional toilets/latrines, arguably a more reliable estimate of children's actual access to sanitation services at school.

Gender: Twenty-four countries capture the number of girls-only toilets or latrine holes, while six ask if gender-segregated or girls-only toilets are available. Afghanistan additionally collects data on the number of functional washrooms for girls' "special needs" and Gambia asks the distance between girls' and boys' toilets. EMIS

questionnaires that ask for the number of boys' toilets and the number of girls' toilets separately without an option to report the number of total or unisex toilets, or without instructions on how to report unisex toilets, were not awarded a point for the gender parameter. Analysis of these data may not actually reveal the number of girls-only toilets and may even distort results if some schools double-count unisex toilets.

Accessibility: Afghanistan and Bangladesh collect the number of toilets accessible to students with physical disabilities and the remaining four countries ask if there is any toilet accessible to students with physical disabilities at the school.

Quality: While the quality parameter could have many meanings, including cleanliness, this study focused on the type of sanitation facilities (improved or unimproved) as an indication of quality based on the questions recommended in the *WASH in Schools Monitoring Package*. Some countries collect information on the type of sanitation facilities, but do not distinguish between improved and unimproved pit latrines. These data were not considered to capture information on the quality parameter for this study. Surprisingly, considering how often household sanitation monitoring is based on whether facilities are 'improved' according to JMP definitions, very few countries capture this in the national EMIS.

Sanitation questions recommended in the *WASH in Schools Monitoring Package* for each parameter are presented in Table **8** with examples of EMIS questions that monitor each parameter. Sanitation questions from each country's EMIS are presented in Annex E.


© UNICEF Philippines/2014/ Joey Reyna

Table 8 Recommended questions for each sanitation parameter and examples of national EMIS questions

Sanitation parameter	Associated question(s) in the *WASH in Schools Monitoring Package*	Examples of national EMIS questions
Quantity	How many toilet compartments are there in the school for children? Does the school also have urinals?	**Côte d'Ivoire:** Number of holes: boys__, girls__, mixed__ **Malawi:** Number of flush toilets in use, number of pit latrine drop holes in use (improved__, basic__), number of urinal blocks
Functionality	The request for number of toilets is separated by functional / not functional	**India:** Number of functional toilet seats (minimal odour, unbroken seat, regularly cleaned, working drainage system, accessible to users, closable door): boys only__, girls only__ **Burundi:** State of latrines (functional/non-functional)
Gender	The request for number of toilets is separated by exclusively for girls / exclusively for boys / communal	**Burkina Faso:** Are the girls' latrines separated from boys? **Chad:** Number of latrines/WCs: boys__, girls__, mixed__, all__ **Gambia:** Number of girls' toilets: __; distance (m) between boys' and girls' toilets
Accessibility	Are toilets accessible to children with physical disabilities?	**Iraq:** Seats and facilities for pupils with special needs are available **Bangladesh:** Number of usable latrines for disabled students
Quality	Does the school have any toilet facilities? (the only options provided to check yes are "improved" facilities)	**Malawi:** Number of pit latrine drop holes in use: improved__, basic__ **Lao PDR:** What type of toilets are at the school?

3.3.4. Hygiene

Of the 17 countries that assess hygiene in their EMIS, most only include one hygiene-related question (see Figure **21**). Only two countries include all three parameters of the recommended hygiene indicator, but five do not include any and ask simply if the school has hand-washing facilities.

The functionality of school hand-washing facilities is the most common hygiene question captured in national surveys, followed by whether or not hygiene is taught to students, and finally, if soap is available (see Figure **22**).

The average score for EMIS hygiene monitoring is 1.0 out of 3

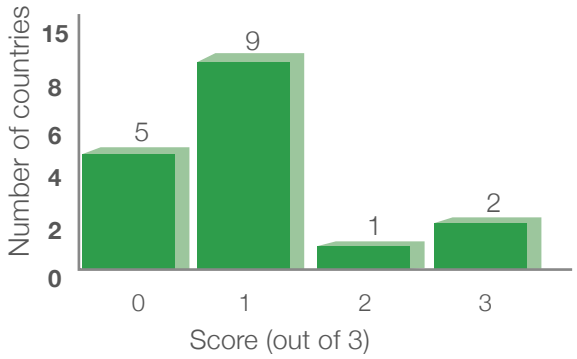


Figure 21. Histogram of countries' scores in comparison to the recommended EMIS hygiene indicator

Hand-washing facility functionality is the most commonly monitored hygiene parameter; soap provision is the least

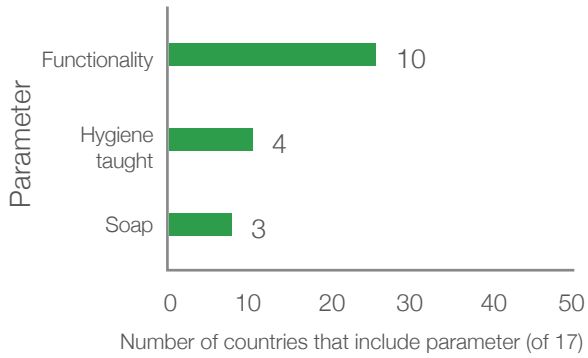


Figure 22. Number of countries that include each parameter of the recommended hygiene indicator

Functionality: Of the 10 countries that monitor the functionality of hand-washing facilities, five collect data on the number of functional hand-washing taps and five ask if there are functional hand-washing facilities at the school.

Hygiene taught: Hygiene education information is collected through questions ranging from if hygiene is taught as a separate subject to if the school arranges periodic awareness sessions about general and personal hygiene practices.

Soap: Three countries (Belize, Bhutan and Myanmar) collection information on soap availability, with Belize and Myanmar also including ash as an alternative.

In addition to the parameters recommended in the *WASH in Schools Monitoring Package*, Burkina Faso and Togo also ask if the school has a student health club. The EMIS in India collects data on the proximity of hand-washing facilities to toilets and includes a specific question regarding the availability of functional facilities for hand washing before and after the mid-day meal.

The recommended questions and examples from national EMIS are presented in Table **9** for each hygiene parameter. Each country's EMIS hygiene questions can be found in Annex E.

Table 9. Recommended questions for each hygiene parameter and examples of national EMIS questions

Hygiene parameter	Associated question(s) in the *WASH in Schools Monitoring Package*	Examples of national EMIS questions
Functionality	The request for number of hand-washing stations is separated by functional / not functional)	**Timor-Leste:** Number and condition of hand-washing facilities: good__, bad__, urgent__ **Togo:** Does the school have functional hand-washing stations?
Hygiene taught	Is hygiene taught in the school?	**Swaziland:** Are you teaching health and hygiene as (select): a separate subject/ part of another subject/ no **Iraq:** Does the school arrange periodic awareness symposia about general and personal hygiene practices?
Soap	Is sufficient soap (or ash) available?	**Myanmar:** Is there soap (or ash) available for students in the school? **Belize:** Is sufficient soap available? (always/ sometimes/ never)

3.3.5. Overall

Combining each country's score across all three components (water, sanitation and hygiene), there are 13 possible points if the indicators recommended in the *WASH in Schools Monitoring Package* are fully incorporated in the national EMIS system. As shown in Figure **23**, two countries ranked highly with 12 points: Belize and Myanmar. Iraq also scored highly with 10 points.

These three countries are outliers from the rest of the national EMIS evaluated. The average overall score was four points out of 13 and over half the countries included in the study are below this average. Nine countries monitor WASH in their EMIS, but do not include any of the recommended indicators from the *WASH in Schools Monitoring Package* (and received a total score of zero).

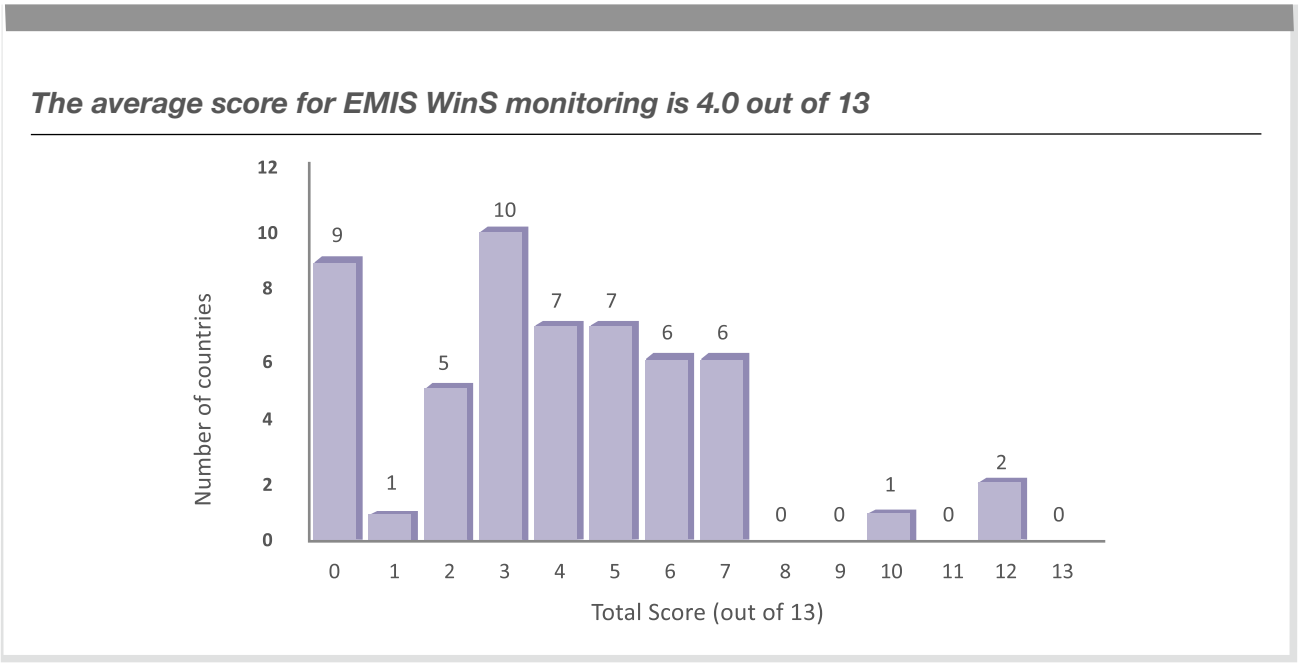


Figure 23. Histogram of countries' scores in comparison to recommended WinS EMIS indicators

3.3.6. WinS in annual education statistics reports

Inclusion of WinS in EMIS questionnaires does not necessarily result in data analysis, reporting and dissemination. To understand the extent to which the WinS-related data collected in EMIS are reported and disseminated, three education annual reports were reviewed: Ethiopia's 2012/13 *Education Statistics Annual Abstract;*[15] Uganda's 2011 *Education Statistical Abstract;*[16] and Bhutan's 2013 *Annual Education Statistics.*[17]

Most of the WinS data collected in Ethiopia's EMIS are reported in the country's 2012/13 *Education Statistics Annual Abstract*. However, while the proportion of schools with a water tap or well are reported, it is difficult to evaluate the proportion of schools with access to an improved water source since "other" improved sources are not reported. The report also includes the proportion of schools with latrines, and the number of boys', girls' and mixed toilets in each region, but does not analyse sanitation access at the school level in order to report the proportion of schools with girls-only toilets or the proportion of schools that meet national standards for the number of students per toilet. This limits the ability to identify schools in need of improvement, although it does allow for identification of regional-level needs.

In Uganda, the EMIS includes a number of questions about water and sanitation, but much of these data are not reported in the annual abstract. For instance, the proportion of schools with access to a safe water source and the percentage of each type of water source are reported, but it is unclear if the proportion of schools with safe water considers those schools with no water or "other" sources. The distance to the main water source is also not reported for primary schools. Similar to Ethiopia, sanitation data in Uganda are not disaggregated at the school level and the proportion of schools that meet national standards for the number of students per toilet is unknown. Additionally, data collected on gender-segregated toilets and toilets with or without doors/shutters are not reported.

Bhutan's annual education statistics report details the number of schools with and without tapstands that have sufficient water supply and insufficient water supply. The number of students per tapstand are reported at the regional level (for those schools with tapstands). However, data are not reported at the school-level to understand the proportion of schools that meet national standards for the number of students per tap. The reasons for insufficient water supply, solicited in the questionnaire, are also not reported. Despite the fact that a number of sanitation questions are included in the EMIS questionnaire, there are no sanitation data reported in the annual report.

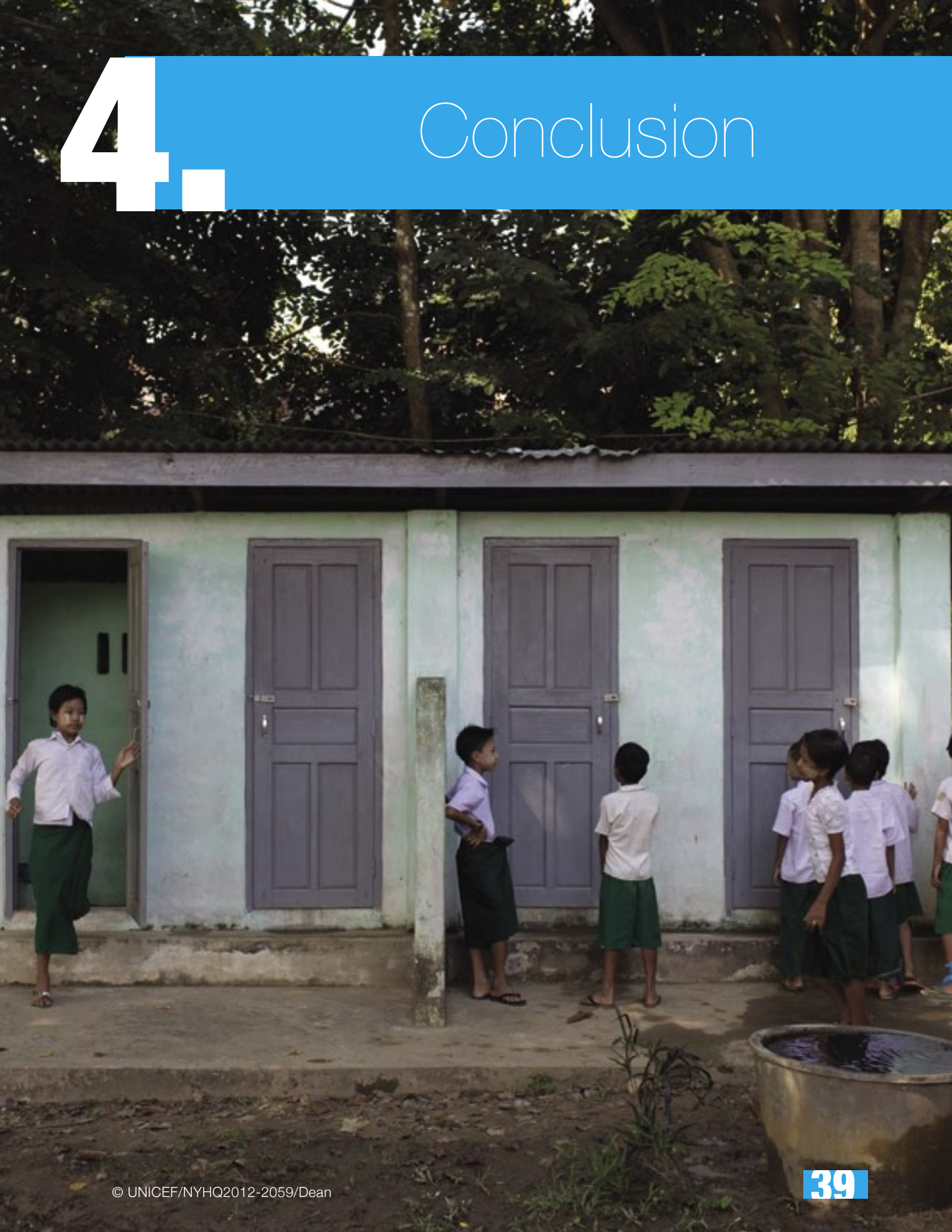
Although many countries collect WinS data through the EMIS, these comparisons exemplify the challenge of data analysis and reporting, post-collection, which often results in unavailable coverage data.


© UNICEF/SUDA2014-XX222/Noorani

Table 10. Comparison of WinS data collected versus data reported

Report	WinS data reported	WinS data collected
Ethiopia *Annual Education Statistical Abstract* 2012/13	• Proportion of schools with access to water • Proportion of schools with a tap connection • Proportion of schools with a well	• Does the school have water supply? (y/n) if yes (select): tap / well, drill / river, spring / other____
	• Number of boys' toilets in each region • Number of girls' toilets in each region • Number of mixed toilets in each region • Proportion of all schools that have latrines	• Total number of toilet/latrine pits:____ of which, number for boy students only___, for girl students only___, for teachers only___, for boys and girls combined___, for teachers and students combined___
Uganda *Education Statistical Abstract* 2011	• Proportion of schools with a safe water source • Proportion of schools with each type of source ("other" category is not included)	• Main water source: piped water / borehole / well, spring / rain water tanks / lake, river / other • Distance to nearest main water source: <1km / 1-2km / 2.1-3km / 3.1-4km / 4.1-5km / >5km
	• National and regional student to toilet ratios	• Number of latrine blocks: In use:__; Not in use: __ • Number of latrine stances (for all blocks in use) with doors: teachers__, girls__, boys__, mixed__, total__; with shutters: teachers_, girls_, boys__, mixed__, total__; without doors/shutters: teachers_, g_, b_, mixed_, total__
Bhutan *Annual Education Statistics* 2013	• Proportion of schools without tapstands with and without sufficient water supply • Proportion of schools with tapstands with and without sufficient water supply • Regional student to tapstand ratios (i.e. number of students divided by number of tapstands in region)	• Sufficient water supply all year (y/n)___ • Tapstands for students (number)___ • Reason for insufficient water supply___
	No sanitation data reported in the annual report.	• Number of permanent and semi-permanent (separately): Flush-toilets (cubicles)___, ___ How many used___ Pit-toilets (holes)___, ___ How many used___ Aqua-privy toilets (cubicles)___, ___ How many used___

4. Conclusion



The importance of WinS is gaining attention and more countries are reporting WinS coverage data each year. Based on UNICEF COARs, the number of countries that report WinS coverage increased by roughly 50 per cent from 2008 to 2013. This is an important first step in tracking progress towards improved WinS coverage.

According to the estimates available, WinS coverage is increasing, albeit slowly. Globally, school water and sanitation coverage both increased by six per cent between 2008 and 2013. Coverage is improving slightly more rapidly in LDCs, with about nine per cent increases in both school water and sanitation coverage estimates over the same five-year period. However, with estimated global coverage at 71 per cent and 69 per cent and estimated coverage in LDCs at 52 per cent and 51 per cent for water and sanitation, respectively, improvements are still greatly needed to realize every child's right to a quality education. School hygiene, in particular, is in need of greater focus: based on the limited data available, an estimated 21 per cent of schools in developing countries have hand-washing facilities, despite the benefits of hand washing with soap.

During the process of analysing data for global estimates, it became clear that available data are often of questionable accuracy (based on the large discrepancies between data sources for some countries) and that the definitions used to measure coverage are either unspecified, unclear or vary greatly between countries and even within a given country over time.

National EMIS provide a medium to encourage more consistency and higher quality WinS monitoring. Encouragingly, 48 of 54 countries for which data was available are monitoring WinS through their EMIS. Of the three components of WinS (water, sanitation and hygiene), sanitation is the most comprehensively monitored in national EMIS (the quantity of toilets is the most frequently monitored parameter). Although most countries monitor water supply in schools to some extent, the majority of countries include less than half the recommended parameters within the water component. Monitoring within the hygiene component lags even further behind. The availability of soap is rarely monitored: only 6 per cent of the countries included in the study solicit information about soap in their EMIS. This is a critical issue as the presence of soap is often used as a proxy indicator for hand-washing behaviours, such as in the Multiple Indicator Cluster Surveys (MICS).[18]

More positively, many countries monitor the functionality of WASH services, which has been noted as a sector challenge.[19] Of the countries that monitor water in schools, 44 per cent include a question on functionality; 67 per cent

Key Messages

- More countries are reporting school water and sanitation coverage data each year.
- Globally, school water and sanitation coverage both increased by six per cent between 2008 and 2013.
- Hand-washing facility coverage is rarely reported.
- The quality of WinS coverage data is questionable, including poorly defined and inconsistent indicators.
- Many countries solicit WinS information through their EMIS questionnaires.
- Sanitation is the most comprehensively monitored WinS component; hygiene is the least.
- WinS data captured in EMIS questionnaires are often underutilized.

of the countries that monitor sanitation consider functionality; and 56 per cent of those that monitor hygiene collect data on the functionality of hand-washing facilities. Another positive element of current EMIS monitoring is the inclusion of gender considerations in sanitation questions: over half the countries included in the study collect data on girls-only toilets. Monitoring the proximity and quality of water sources is also positive as a means to help ensure that students have access to a water source that is potable and within or near the school, saving time in water collection, a task that is often delegated to girls.

On average, countries that include WASH in their EMIS are monitoring four of the 13 recommended WinS indicators. This is encouraging, but continued momentum is needed to reach comprehensive monitoring of WinS through adoption of the *WASH in Schools Monitoring Package* in all national EMIS surveys and/or other national WinS monitoring efforts.

However, data collection does not necessarily lead to analysis, reporting and dissemination. The review of three countries' annual education statistics reports suggests that WinS data collected in EMIS questionnaires are not always analysed and reported, meaning that although WinS data are collected, WinS indicators are not necessarily monitored.

Recommendations

To support every child's right to a quality education, all schools need to have adequate WASH facilities and services. Donors, governments and development partners should strengthen WinS monitoring systems, which provide the evidence necessary to increase access to WinS. Recommendations for action are provided for both the national and international levels.

1. National level:

- Agree on clear definitions and standards for WinS.
- Expand or modify WinS indicators to include aspects beyond the existence of WASH facilities, including functionality. The *WASH in Schools Monitoring Package* can be used as a basis for local adaptation. The number of WinS indicators can be simplified or reduced if quantity or complexity is at the cost of quality.
- Build capacity to improve WinS data collection and analysis.

2. International level:

- Monitor and report on global and regional WinS coverage trends on a regular basis.
- Ensure that WinS monitoring data is used effectively to promote universal access to WinS.

© UNICEF/NYHQ2012-0784/Noorani

Endnotes

1 Compiled datasets provided by Greg Keast (UNICEF), including all available WinS data from 2008 to 2013.

2 United Nations Children's Fund, Snapshot of *WASH in Schools in Eastern & Southern Africa*: *A Review of Data, Evidence, and Inequities in the Region,* (Nairobi: UNICEF, 2013); United Nations Children's Fund, *A Snapshot of Sanitation and Hygiene in East Asia and the Pacific: 2013 Region, Analysis and Update,* (Bangkok: UNICEF, 2013).

3 United Nations Educational, Scientific and Cultural Organization, Online data centre, <http://www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx> (accessed 3 April 2014).

4 United Nations Educational, Scientific and Cultural Organization, *Los aprendizajes de los estudiantes de América Latina y el Caribe: Segundo Estudio Regional Comparativo y Explicativo (SERCE),* (Santiago: UNESCO, 2008), p. 186.

5 World Health Organization, *GLAAS 2012 Report: UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water,* (Geneva: World Health Organization, 2012).

6 For more details on the data review process, see the spreadsheet at http://www.unicef.org/wash/schools/

7 World Health Organization / United Nations Children's Fund, *Progress on Sanitation and Drinking-Water - 2013 Update,* (Geneva: WHO, 2013), p. 12.

8 United Nations Children's Fund, *WASH in Schools Monitoring Package,* (New York: UNICEF, 2011).

9 J. Adams et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings,* (Geneva; WHO, 2009).

10 J. Adams et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings,* (Geneva; WHO, 2009).

11 For more information on the health benefits of hand washing with soap, see: S. Cairncross et al., 'Water, sanitation and hygiene for the prevention of diarrhea', *Int. J. Epidemiol,* 2010:i193-i205; and T. Rabie and V. Curtis 'Handwashing and risk of respiratory infections: a quantitative systematic review', *Trop Med Int Health,* 2006: p.258-67.

12 C. Chatterley, *National Assessment of WASH in Schools in Belize,* (Belize City: Ministry of Education and UNICEF, 2011).

13 F. Gore et al., *Special report for the Sanitation and Water for All (SWA) High-Level Meeting (HLM),* (Geneva: WHO, 2014).

14 WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, Improved and unimproved water and sanitation facilities, <http://www.wssinfo.org/definitions-methods/watsan-categories/> (assessed 30 September 2014).

15 Ministry of Education, Ethiopia, 2012/13 *Education Statistics Annual Abstract* <http://www.moe.gov.et/English/Resources/Documents/eab05.pdf> (accessed 3 April 2014).

16 Ministry of Education and Sports, Republic of Uganda, Data and Statistics, <http://www.education.go.ug/data/dcat/2/Data%20and%20%20Statistics.html> (assessed 30 September 2014).

17 Ministry of Education, Kingdom of Bhutan, Bhutan's *Annual Education Statistics* 2013, <http://www.education.gov.bt/documents/10156/1420104/Annual+Edu+inside.pdf+final.pdf?version=1.0> (accessed 3 April 2014).

18 P. Ram, *Practical guidance for measuring handwashing behavior,* (Washington: World Bank, 2010).

19 For more information, see: K. Mathew et al., 'The sustainability and impact of school sanitation, water and hygiene education in southern India' *Waterlines.* 28 (2009); and C. Chatterley, KG. Linden and A. Javernick-Will, 'Identifying drivers of sustainable school sanitation in Belize', *Journal of Water, Sanitation and Hygiene for Development.* doi:10.2166/washdev.2013.128 (2009).

Annexes

Annex A. Countries included in the study by region and development status

Region	Countries
Sub-Saharan Africa	Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe *(Not included in this study or no WinS data: Mayotte, Reunion)*
Northern Africa	Algeria, Egypt, Libya, Morocco, Tunisia *(Not included in this study or no WinS data: Western Sahara)*
Eastern Asia	China, Mongolia *(Not included in this study or no WinS data: Democratic People's Republic of Korea, Republic of Korea)*
South Asia	Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka
South-Eastern Asia	Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Thailand, Timor-Leste, Viet Nam *(Not included in this study or no WinS data: Brunei Darussalam, Singapore)*
Western Asia	Bahrain, Iraq, Jordan, Kuwait, Oman, Qatar, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen *(Not included in this study or no WinS data: Lebanon, Saudi Arabia)*
Oceania	Fiji, Kiribati, Marshall Islands, Niue, Palau, Samoa, Solomon Islands, Tuvalu, Vanuatu *(Not included in this study or no WinS data: American Samoa, Cook Islands, French Polynesia, Guam, Micronesia (Federated States of), Nauru, New Caledonia, Northern Mariana Islands, Papua New Guinea, Tokelau, Tonga)*
Latin America and the Caribbean	Anguilla, Antigua and Barbuda, Argentina, Barbados, Belize, Bolivia (Plurinational State of), Brazil, British Virgin Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Venezuela (Bolivarian Republic of) *(Not included in this study or no WinS data: Aruba, Bahamas, Cayman Islands, Falkland Islands (Malvinas), French Guiana, Guadeloupe, Puerto Rico, Martinique, Netherlands Antilles, United States Virgin Islands)*
Caucasus and Central Asia	Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan *(Not included in this study or no WinS data: Turkmenistan)*
Other	Kosovo, Palestine (State of Palestine)
Developed countries	Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Republic of Moldova, Romania, Russian Federation, Serbia, Ukraine *(Not included in this study or no WinS data: Andorra, Australia, Austria, Belgium, Bermuda, Canada, Channel Islands, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, United Kingdom of Great Britain and Northern Ireland, United States of America)*
Least-developed countries	Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen, Zambia
Other low-income countries	Kenya, Kyrgyzstan, Tajikistan and Zimbabwe *(Not included in this study or no WinS data: DPR Korea)*

Annex B. Secondary data sources

In total, 780 and 862 data points were included in the estimates for water and sanitation coverage in schools, respectively (see Table **B.1** and **B.2**). These values do not include data that were removed based on accompanying comments that suggested inaccuracy, repeated estimates from another source or review by UNICEF country offices.

Table B.1. Number of national estimates included in this study for school water coverage by year and source

Source	<2008	2008	2009	2010	2011	2012	2013	Total
UNICEF COARs	-	72	81	95	113	116	126	603
UNICEF regional snapshots	-	-	-	-	-	-	4	4
UNESCO education data	-	2	3	19	23	21	4	72
UNESCO SERCE data	-	16	-	-	-	-	-	16
WHO GLAAS	-	-	-	-	35	-	-	35
Other	6	4	5	7	8	7	13	50
Total	**6**	**94**	**89**	**121**	**179**	**144**	**146**	**780**

Table B.2. Number of national estimates included in this study for school sanitation coverage by year and source

Source	<2008	2008	2009	2010	2011	2012	2013	Total
UNICEF COARs	-	63	72	90	111	112	120	568
UNICEF regional snapshots	-	-	-	-	-	6	20	26
UNESCO education data	-	2	5	32	41	40	5	125
UNESCO SERCE data	-	16	-	-	-	-	-	16
WHO GLAAS	-	-	8	-	40	-	-	48
Other	11	4	6	12	15	9	22	79
Total	**11**	**85**	**91**	**134**	**207**	**167**	**167**	**862**

1. UNICEF country office annual reports (COARs)

UNICEF COARs are submitted each year by UNICEF country offices to UNICEF Headquarters in New York. The annual survey includes 240 questions covering all aspects of UNICEF activities, with the following three questions focused on WinS:

- What is the estimated proportion of primary schools with adequate water supply?
- What is the estimated proportion of primary schools with adequate sanitation facilities for girls?
- What is the estimated proportion of primary schools with adequate sanitation facilities for boys?

Some countries provide additional details regarding the coverage values reported, including country-level definitions of "adequate", scope of the data and source, while other COARs report the best data they have to estimate coverage, but do not provide further information. Most of the data come from the national education census (e.g. EMIS), when available. Other data sources include UNICEF and partner-led baseline surveys. For the purposes of this study, when the same value is reported for girls and boys sanitation coverage, it is assumed that disaggregated data were not collected and only data values that are different between girls and boys coverage are considered as gender-segregated data. The most recent COAR data reported were considered most accurate. If the 2013 COAR did not report WinS coverage, data from the most recent COAR with coverage reported was used, back to as early as 2008.

2. UNESCO's education dataset

The UNESCO education dataset provides annual WinS coverage data from 2008 from African countries. The WinS indicators in the UNESCO education dataset include:

- Percentage of primary schools with access to potable water
- Percentage of primary schools with toilets
- Percentage of primary schools with single-sex toilets

3. WHO GLAAS dataset

GLAAS data are compiled by WHO country offices with input from relevant government agencies. The 2011 GLAAS dataset includes the following WinS questions:

- Percentage of primary schools with improved sanitation
- Percentage of primary schools with drinking-water facilities

The 2009 GLAAS questionnaire includes the following question:

- Percentage of primary schools with adequate sanitation facilities, including access to improved water and soap for hand washing


© UNICEF/UGDA201300086/Nakibuuka

Annex C. National WinS coverage estimates

Table **C.1** presents national estimates for water, sanitation and hygiene in primary schools based on available data. The indicator used for each estimate is coded using the key in Box **C.1**.

Where did these coverage estimates come from?

Where possible, the estimates are based on linear regression of WinS coverage figures from multiple sources. For the most stringent indicator with data available (e.g. access to a functional water supply would be more stringent than access to any water supply), coverage figures were plotted on a timescale. A linear trendline was then drawn through the data points and values along the trendline for 2008 and 2013 were used for these national estimates. Since the study used the most stringent indicator with data available and linear regression of data from multiple sources, these values are often different from national data sources. (Note: due to a lack of data, the hand-washing facility coverage estimates are based on the most recent data available, not regression.) There are a few countries where regression was not possible due to a lack of data and the same value is reported for 2008 and 2013 based on the single estimate available or an average of the two. These are marked with an asterisk. Data quality issues are reflected in some estimates, such as school water coverage in Mongolia, which is 0 per cent for 2008 and 45 per cent in 2013. Coverage was likely greater than 0 per cent in 2008, but insufficient information was available to create a more realistic trendline. For more information, see the raw data and regression at: http://www.unicef.org/wash/schools/

Box C.1. Indicator codes

a = Existence of facilities

b = Improved services

c = Functional services

d = National quantity standards met

e = Single-sex toilets

f = Access to soap

g = unknown / other indicator

Why linear regression?

1. A number of countries have missing data for a few years, including 2008 and/or 2013;
2. Many countries have multiple data sources resulting in multiple coverage estimates for certain years; and
3. To be consistent with the current JMP methodology which uses linear regression to address similar challenges.

© UNICEF Pacific/2014/Hing

Table C.1. National WinS coverage estimates (per cent coverage)

Country	2008 Water	2013 Water	Indicator	2008 Sanitation	2013 Sanitation	Indicator	Hygiene	Indicator
Afghanistan	50	53	b	34	58	g	12	a
Albania	51	51	c	30*	30	c, e		
Algeria	95*	95	b	100	100	a		
Angola	7	7	g	52	54	a	0	f
Anguilla	100*	100	g	100*	100	g		
Antigua and Barbuda	100	100	g	100	100	g		
Argentina	64	70	g	68	68	g		
Armenia	84	92	g	85	86	e		
Azerbaijan	5*	5	g	68*	68	b		
Bahrain	100	100	g	100	100	g		
Bangladesh	64	83	b, c	22	60	c, e		
Barbados	100	100	g	100	100	g		
Belarus	100	100	g	100	100	g		
Belize	64*	64	b, c	21*	21	b, d, e		
Benin	33*	33	b	57	74	a		
Bhutan	68	81	b	53	74	g		
Bolivia (Plurinational State of)	57	87	a	74	74	a		
Bosnia & Herzegovina	100	100	a	100	100	g		
Botswana	50*	50	g	50*	50	g	13	g
Brazil	88	93	b	83	98	g		
British Virgin Islands	100	100	g	100	100	g		
Bulgaria	100	100	g	100	100	g		
Burkina Faso	48	48	b	34	39	e		
Burundi	31	36	b	10	53	e	10	a
Cambodia	66	58	a	76	81	a		
Cameroon	30	31	b	44	41	c		
Cabo Verde	75	95	b	79	100	a		
Central African Republic	22	25	b	39	44	e		
Chad	23	15	b	13	36	g		
Chile	91	90	b	90	90	g		
China	87	99	b	44	62	b		
Colombia	73*	73	b	54	100	g		
Comoros	26	42	g	27	50	g		
Congo (Brazzaville)	27	33	g	15*	15	e		
Costa Rica	84	75	b	54	53	c	64	c
Côte d'Ivoire	33	70	g	43	45	e		

*Insufficient data for regression. The same value is reported for both 2008 and 2013.

Country	2008 Water	2013 Water	Indicator	2008 Sanitation	2013 Sanitation	Indicator	Hygiene	Indicator
Croatia	100	100	g	100	100	g		
Cuba	95	100	b	96	100	a		
Democratic Republic of Congo	20*	20	b	29*	29	d, e		
Djibouti	83	86	a	80	85	e		
Dominica	100	100	g	100	100	g		
Dominican Republic	47	47	g	60	60	g		
Ecuador	58*	58	b	54*	54	g		
Egypt	100	100	g	100	100	g		
El Salvador	67	100	b	67*	67	g		
Equatorial Guinea	51	59	b	25	40	a		
Eritrea	40	59	b	66	66	a		
Ethiopia	32	39	a	17	37	e	7	g
Fiji	100*	100	b	95*	95	b		
Gabon	66*	66	g	61*	61	a		
Gambia	71	91	g	61	71	g		
Georgia	75*	75	b, c	70*	70	b		
Ghana	70	59	b	48	62	a		
Grenada	100	100	g	100	100	g		
Guatemala	70	70	g	51	49	g		
Guinea	20	20	c	43	69	a		
Guinea-Bissau	9	25	g	8	28	g		
Guyana	51	68	g	51	68	g		
Haiti	60*	60	g	60*	60	g		
Honduras	66*	66	c	46*	46	c, e		
India	72	75	b, c	25	53	c, e	42	a
Indonesia	50	83	g	58	53	g		
Iran	89*	89	b	86*	86	b		
Iraq	65	97	a	56	100	g		
Jamaica	88	88	a	80	80	g		
Jordan	100	100	g	50*	50	c		
Kazakhstan	85	85	g	85	85	g		
Kenya	21	42	g	19	20	g		
Kiribati	3*	3	b, d	4*	4	d, e		
Kosovo	81	81	g	95	95	g		
Kuwait	100	100	g	100	100	g		
Kyrgyzstan	30	30	g	53*	53	e		
Lao PDR	35	54	g	41	47	g		
Lesotho	30*	30	g	40*	40	b		

*Insufficient data for regression. The same value is reported for both 2008 and 2013.

Country	2008 Water	2013 Water	Indicator	2008 Sanitation	2013 Sanitation	Indicator	Hygiene	Indicator
Liberia	42	57	g	82*	82	b		
Libya	25*	25	b	65*	65	d		
Madagascar	13	25	g	25	29	g		
Malawi	78	88	b	20	25	b, d	4	f
Malaysia	100	100	g	100	100	g		
Maldives	97*	97	b	73*	73	c		
Mali	13	48	b	16	24	b, e		
Marshall Islands	20*	20	g	10*	10	g		
Mauritania	0	18	b	0	27	a		
Mauritius	100	100	b	100	100	e		
Mexico	97	95	g	64	68	g		
Moldova	51	51	g	70	70	g		
Mongolia	30	48	g	52*	52	g		
Montenegro	95	95	g	95	95	g		
Montserrat	100	100	g	100	100	g		
Morocco	10	86	g	72	73	g		
Mozambique	68	68	g	50	50	g		
Myanmar	46	57	g	23	23	g		
Namibia	75	81	a	75	80	a		
Nepal	54	81	b	30	68	e		
Nicaragua	47	50	g	29	26	g		
Niger	19	14	b	12	14	e		
Nigeria	43	67	g	32*	32	b		
Niue	100	100	g	100	100	g		
Oman	96	96	g	94	94	g		
Pakistan	67	63	c	63	63	a		
Palau	100	100	g	100	100	g		
Palestine (State of Palestine)	89	89	g	73	83	g		
Panama	90	90	g	70	84	g		
Paraguay	64*	64	b	60	70	g		
Peru	41	60	g	51*	51	g		
Philippines	35	91	b	57	53	g		
Qatar	100	100	g	100	100	g		
Romania	90*	90	g	90*	90	g		
Russia	100	100	g	100	100	g		
Rwanda	88	89	b	97	95	e	37	a
Samoa	95*	95	b					
Sao Tome and Principe	75	86	g	70	87	g		

*Insufficient data for regression. The same value is reported for both 2008 and 2013.

Country	2008 Water	2013 Water	Indicator	2008 Sanitation	2013 Sanitation	Indicator	Hygiene	Indicator
Senegal	45	55	b	50	66	g		
Serbia	95	95	g	95	95	g		
Seychelles	100*	100	b	100*	100	e		
Sierra Leone	23*	23	b, c	62*	62	e		
Solomon Islands	49	50	g	59	66	a		
Somalia	58*	58	g	45*	45	g		
South Africa	75	94	g	75	100	g		
South Sudan	35	45	g	52	42	g		
Sri Lanka	83	85	b, c	48	82	c, d, e		
Saint Kitts and Nevis	100	100	g	100	100	g		
Saint Lucia	100	100	g	100	100	g		
Saint Vincent and the Grenadines	100	100	g	100	100	g		
Sudan	20	55	b	59	44	g		
Suriname	80*	80	g	65	65	g		
Swaziland	64	65	g	72*	72	e		
Syria	70	70	b					
Tajikistan	51*	51	g	17	29	g		
Tanzania, United Republic of	46	59	b	11*	11	d	1	f
Thailand	60	60	g	45	45	g		
Timor-Leste	41	52	g	60	64	g		
Togo	17	42	b	11	22	g		
Trinidad and Tobago	100	100	g	100	100	g		
Tunisia	66	66	g	99	99	a		
Turkey	99	99	g	99	99	g		
Turks and Caicos	100	100	g	100	100	g		
Tuvalu	35	65	g	60	60	g		
Uganda	75	74	g	75*	75	g	37	f
Ukraine	86	100	g	100	100	g		
United Arab Emirates	100	100	g	100	100	g		
Uruguay	100	100	g	94	100	g		
Uzbekistan	100	100	g	100	100	g		
Vanuatu	72	82	b	69*	69	g		
Venezuela (Bolivarian Republic of)	93	96	g	83	93	g		
Vietnam	72*	72	g	72	72	g		
Yemen	53*	53	g	53*	53	g		
Zambia	67	84	b	20	45	b		
Zimbabwe	52	52	g	53	43	g		

*Insufficient data for regression. The same value is reported for both 2008 and 2013.

Annex D. Scoring criteria for EMIS indicators

Table D.1. Criteria to score water questions in EMIS surveys against guidelines for WinS monitoring

Parameter	1 point given if...	Related *WinS Monitoring Package* EMIS Question
Functionality	Asks whether or not the water source is functional, in good working condition, or frequency it provides water	How often is the water source functional?
Proximity	Specifically mentions "at, in or near school" or within a specific distance	What is the school's main water source? (option to check "no water available in or near school")
Quantity	Sufficiency of the quantity of water is specifically asked, not only the number of water points	When the water source is functional does it provide enough water for the needs of the school, including water for drinking, hand washing, food preparation?
Quality	The type of water source is requested or the word "safe" or "potable" is used; or whether or not the water is treated for drinking or has been tested	Do you treat water from the source you use at school in any way to make it safer to drink? What is the school's main water source? (distinguishes improved vs. unimproved)
Accessibility (disabilities)	Accessibility to children with disabilities is asked	Are drinking water facilities accessible to children with physical disabilities?

Table D.2. Criteria to score sanitation questions in EMIS surveys against guidelines for WinS monitoring

Parameter	1 point given if...	Related *WinS Monitoring Package* EMIS Question
Quantity	The number of toilets/urinals (or students/toilet ratio) is asked	How many toilet compartments are there in the school for children? Does the school also have urinals?
Functionality	Whether or not the toilets are functional is asked	(the request for number of toilets is separated by functional / not functional)
Gender	Specifically asks for boys and girls separately or asks if there are single-sex toilets or mentions MHM facilities	(the request for number of toilets is separated by exclusively for girls / exclusively for boys / communal)
Quality	The type of sanitation facilities or whether or not they are "improved" is asked	Does the school have any toilet facilities? (the only options provided to check yes are "improved" sanitation facilities)
Accessibility (disabilities)	Accessibility to children with disabilities is asked	Are toilets accessible to children with physical disabilities?

Table D.3. Criteria to score hygiene questions in EMIS surveys against guidelines for WinS monitoring

Parameter	1 point given if...	Related *WinS Monitoring Package* EMIS Question
Functionality	If the hand-washing facilities are functional is asked	(the request for number of hand-washing stations is separated by functional / not)
Soap	If soap (or ash) is available is asked	Is sufficient soap (or ash) available?
Hygiene education	If hygiene education is taught is specifically asked	Is hygiene taught in the school?

Annex E. WASH indicators in national EMIS

Water

Country	Water questions/indicators	Score	Parameters included
Afghanistan	1.Information on source of potable water in school - indicate the name of source: a) top, b) well with handpump, c) deep well, d) protected well, e) unprotected well, f) protected spring, g) pond, h) kariz	**2**	Quality (type) Proximity (in school)
Angola	Access to water	**0**	
Bahamas	No WASH questions	**N/A**	
Bangladesh	14.1 Potable water: (public supply, tap / tube well / pond / river) 14.2 Is the tube well working? (y/n) 14.3 Is water free from Arsenic? (y/n/not tested)	**2**	Quality (type/treatment-free from arsenic) Functionality (working)
Barbados	No WASH questions	**N/A**	
Belize	1. Does the school have access to an improved water source (a source that is likely to provide safe water? (check one) • Yes (piped water, protected well, protected spring, rainwater collection) • No (unprotected well, unprotected spring, surface water (river/lake/canal), bottled water (if primary source), tanker truck) 2. As far as you know, is the school's water source treated? Yes/No/Don't know 3. Is water treated before drinking at the school? (treating/purifying water in the school in some way such as boiling, chlorination, bleach, ceramic filters, candle filters or biosand filters): Always/Sometimes/Never 4. How often is the water source functional? Always/Most days/Some days/Rarely or never functional 5. When the water source is functional, does it provide enough water for the needs of the school, including water for drinking, hand washing and food preparation? Yes/No/Water source is not functional 6. How many water access points are at the school, not including hand-washing facilities? (a water access point includes classroom water buckets, drinking water fountains, running water taps not used for hand washing, well pumps, and storage tank taps) (insert number) Functional: _, Not Functional:	**4**	Functionality (functional) Proximity (at the school) Quantity (enough water) Quality (treated
Benin	2.3 School Environment Potable water? (yes/no) Type: running water___, borehole___, well___, tank___, other (specify)_____	**2**	Quality (type) Proximity (school environment)
Bhutan	Form C. Section E. Other Facilities Sufficient water supply all year (y/n)___ Tapstands for students (number)___ Reason for insufficient water supply___	**3**	Quantity (sufficient) Functionality (all year) Proximity (school facilities)
Burkina Faso	2.3 Potable water supply: tap / large diameter well / no drinking water / functional borehole / other 3.2 Does the school have a water point on premises? Running water (or other ONEA) / functional borehole / large diameter well / broken down borehole / no water point 3.2.1 Number of classes with a drinking water station: ___	**3**	Functionality (functional borehole) Proximity (on premises) Quality (type)
Burundi	Access to potable water (yes/no)	**1**	Quality (potable)

Country	Water questions/indicators	Score	Parameters included
Cambodia	5.(C) Condition of buildings, classrooms and facilities Drinking water / Wells: (y/n) General condition: (clean / not clean)	**2**	Proximity (school facilities) Quality (condition: clean/not clean, drinking water/well)
Cameroon	III.3 Information on other equipment and facilities in the school Is there drinking water in the school? (y/n) If yes, what is the source of water? SNEC / well / borehole / pool / spring	**2**	Proximity (in the school) Quality (type)
Cabo Verde	2.2.1.6 Does the school have water collection (possui arrecadacao)? D3. Other spaces (indicate the number of spaces) Armazem/dispensa: Number___, Conservation of spaces: Good___ , Reasonable___, Bad___	**0**	
Central African Republic	2.5 Does the school have a water point? (tap / functional borehole / well (non-tarissable) / no water point)	**3**	Functionality (functional borehole) Proximity (in the school) Quality (type)
Chad	5.4.2 Water point (provide the number of water points for each category): pump___, tap___, traditional well___, non-traditional well___	**1**	Quality (type)
Côte d'Ivoire	III. General information about the school 3.4 Does the school have a water point on the premises? 1) running water tap, 2) well (puits non tarrissable), 3) functional borehole, 4) no water point	**3**	Quality (type) Proximity (on premises) Functionality (functional borehole)
Dem. Rep. of Congo	2,1 Water point? (y/n) If yes, indicate which type: tap / well, borehole / spring / other 3.3 Rainwater is captured by: gutter / drain, stream 3.4 Rainwater is stored in: sump / manifold / gutter / somewhere else	**1**	Quality (type)
Ethiopia	XIII. School general information 13.7 Does the school have water supply? (y/n) if yes: tap / well, drill / river, spring / other____	**1**	Quality (type)
Gambia	II. School General Information 6.2 Water Resources: Number of taps:___, Number of wells:___, Number of pumps:___, River (check	**1**	Quality (type)
Ghana	3.3 Is drinkable water available in your school? (y/n) 3.4 If yes, is the water provided by (tick one): pipe borne water / borehole / well / other 3.5 What is the MAIN water storage facility available in the school? (tick one): tank / buckets, pots / none / other	**2**	Quality (type) Proximity (in your school)
Grenada	12. Conditions of building, toilets, plumbing, electricity and security (enter the amount of each element you think is satisfactory or poor) Water supply: satisfactory___, poor___, repairs to be undertaken:_ _____ Water storage tanks: satisfactory___, poor___, repairs to be undertaken:_____ 12.1 Number and conditions of water tanks: water tank___, satisfactory___, poor___, number___, capacity___	**2**	Functionality (conditions) Quantity (satisfactory supply/number/ capacity)

Country	Water questions/indicators	Score	Parameters included
Guinea	Table 10. State of infrastructure 9. Water source: Number in good condition: in use__, not__; Number in poor condition: in use__, not__; Total__	**1**	Functionality (condition, in use)
Guinea-Bissau	No WASH questions	**N/A**	
Guyana	Buildings, Facilities and Furniture P2. Facilities Water Supply: N=None (no infrastructure - water mains or o/head tank), NW=Not Working (basic infrastructure in place e.g. water mains but fittings need to be installed/replaced), A=Average (water only accessible in school yard), AA=Above Average (water flowing through pipes & into buiding)	**2**	Functionality (working) Proximity (in school yard/into building)
India	B(I). Physical facilities and equipment 6. Main source of drinking water facility? (handpump, well, tap water, others, none) a. Whether drinking water facility is functional (y/n)	**2**	Quality (type) Functionality (functional)
Iraq	1. School is connected with functional public water network 2. Adequate number of safe drinking water taps are available 3. Adequate number of clean water tanks are available 4. Water coolers are available with filters to clean water	**3**	Functionality (functional) Quality (treatment) Proximity (school is connected)
Jamaica	42. Source of water supply (Public Main / Catchment) 43. Is the water supply satisfactory? (y/n) 44. If not satisfactory, what is the most serious problem with the water supply? (insufficient storage capacity / irregular supply / leaking pipes / missing taps / leaking tank / no supply)	**2**	Quantity (satisfactory, storage capacity, irregular supply) Functionality (satisfactory, missing taps, leaking)
Kenya	Availability of water facilities	**0**	
Lao PDR	Water used in school: O None, O Yes (what source?): O Piped water, O Borehole, O Well, O GFS, O Stream, O Pond, O Rainwater collection + Is it functional throughout the year?: O No, O Yes	**2**	Functionality (functional) Quality (type)
Liberia	K. School Infrastructure K2b. Does your school have access to drinking water? (y/n)	**0**	
Malawi	D.4 Main drinking water source: (piped water / borehole / protected hand dug well with pump / protected spring / unprotected hand dug well / unprotected spring / river / lake / rain water tank / no water)	**1**	Quality (type)
Mali	II. General information about the facility 2.4 Potable water (y/n): tap/well/borehole	**1**	Quality (potable, type)
Mauritania	II. Socio-economic environment of the locality (rural areas only) 2.3 Locality is supplied with water by: faucets / closed or ring well / borehole / river, pond, creek / cistern III. General information about the school 3.2 Is the school supplied with water? (y/n): tap / cistern / closed well (puits avec cloture) / ring well (puits avec margelle) 3.3 Number of water stations available (canaris, bidons...)?	**1**	Quality (type)
Mozambique	No WASH questions	**N/A**	

Country	Water questions/indicators	Score	Parameters included
Myanmar	Percentage of schools which have a functional water point at or near the school Percentage of schools which have a functional water point available at or near the school that provides sufficient quantity of water for the needs of school whole year Percentage of schools which have a functional water point available at or near the school that provides safe drinking water for the whole year Percentage of schools which have a functional water point accessible to children with disabilities	**5**	Functionality (functional) Proximity (at or near) Quantity (sufficient) Quality (safe) Accessible to disabilities
Namibia	E. Physical facilities 5. Basic services (check and correct, if necessary, what kind of basic services are at the school and/or surrounding community, suburb or town) Water (piped, borehole, well, etc.): school___, nearby community or town___	**1**	Proximity (at school)
Nepal	Availability of a tap with potable water within school premises	**2**	Quality (potable) Proximity (within)
Niger	2.3 Water supply (choose three dominant modes by giving them a number from 1 to 3 in order of importance by source): tap__, borehole__, well__, river/pond/creek__ 3.2 Does the school have a water point on premises? If yes: tap / functional borehole / well (non tarrissable)	**3**	Quality (type) Functionality (functional borehole) Proximity (premises)
Nigeria	F. Facilities F.1 Source of safe drinking water (is there a source of water in the school that is safe to drink and in sufficient quantity to provide water every day for students? If there is more than one source, select only the primary source): yes, pipe water / yes, borehole / yes, well / yes, other / no	**3**	Quality (type) Quantity (sufficient) Proximity (in the school)
Pakistan	II. Building information, equipment and instructional material 23. Basic physical facilities (1=yes, 2=no, 3=non-functional, 4=insufficient, 5=broken): Drinking water___	**2**	Functionality (functional/broken) Quantity (insufficient)
Senegal	2.1 Water supply (y/n) if yes, specify the type: tap water / borehole / well	**1**	Quality (type)
Sierra Leone	II. General Information 2.3 Main source of drinking water: (pipe-borne / borehole / well / stream / others) 2.3.1 Is this source within the school compound? (y/n)	**2**	Quality (type) Proximity (within compound)
South Sudan	Number and/or percentage of pre-primary/primary/secondary schools with or without access to drinking water	**0**	
Saint Kitts and Nevis	No WASH questions	**N/A**	
Saint Lucia	11. Conditions of buildings, toilets, plumbing, electricity and security Water supply: Satisfactory / Poor / Repairs to be undertaken & additional requirements_____ Water storage tanks: Satisfactory / Poor / Repairs to be undertaken & additional requirements_____	**1**	Functionality (conditions)
Saint Vincent and the Grenadines	No WASH questions	**N/A**	

Country	Water questions/indicators	Score	Parameters included
Swaziland	1. Water supply - tick one box in each row: 1.1 Type of supply: (piped water supplied by water corporation / water from another source / no water supply) 1.2 Quality of supply: is the water safe for drinking? (y/n)	**1**	Quality (safe for drinking)
Tanzania	II. School/institution general information 2.1 Does the school/institution have water supply? (y/n) if yes, source: tap / borehole / protected well / unprotected well	**1**	Quality (type) Proximity (school have)
Timor-Leste	2. School building/furniture/facilities Source of water for general use (tick all applicable): (rain / tanker truck / tap / well / pipe / handpump / other / not available) Source of drinking water (tick all applicable): (rain / tanker truck / tap / well / pipe / handpump / bottle / other / not available) Condition of drinking water: (good / bad)	**2**	Quality (type) Functionality (condition)
Togo	2.3 Potable water supply: tap / large diameter well / no drinking water / functional borehole / other 3.2 Does the school have a water point on premises? Running water (or other TdE) / functional borehole / large diameter well / broken down borehole / no water point 3.2.1 Number of classes with a drinking water station: ___	**3**	Quality (type) Proximity (on premises) Functionality (functional borehole)
Uganda	E.5 Water sources: piped water / borehole / well, spring / rain water tanks / lake, river / other E.6 Distance to nearest main water source: <1km / 1-2km / 2.1-3km / 3.1-4km / 4.1-5km / >5km	**2**	Quality (type) Proximity (distance)
Yemen	Section 2. Building Properties 8. Number of health and other service facilities in the school For each, grand total of building rooms___, of those, rooms used last school year___, of those, rooms added for this school year, of those, rooms that need restoration___, of those, rooms that are not fit for use and subject to collapse___: 13.groundwater tank, 14.rooftop water tanks, 15.water tanks for people with special needs, 16.wells. 10. Is there a continuous supply of water for the school? (y/n) Section 3. School Properties. 11. Sanitary tools and equipment (plumbing): Availability (available/unavailable)___, Grand total___, Of total, number of usable items___, Of total, number of unusable items___, Number of items that need maintenance___, number of ruined items___	**4**	Quantity (continuous supply) Functionality (continuous supply, usable) Accessibility (tanks for people with special needs) Proximity (in the school)
Zambia	School has water source (only improved via wells)	**1**	Quality (improved) Proximity (school has)
Zimbabwe	1. Water source 2. Type of water treatment 3. Type of water system/device 4. Distance to water source 5. Availability (frequency) of water	**3**	Quality (treatment, type) Proximity (distance to wateSanitation questions/indicators

Sanitation

Country	Sanitation questions/indicators	Score	Parameters included
Afghanistan	Number of functional toilets for girls and boys students and teachers: a) single vault, b) double vault (EcoSan), c) flush, d) pit toilet Number of non-functional toilets for girls and boys students and teachers: a) single vault, b) double vault (EcoSan), c) flush, d) pit toilet Number of toilets for disabled students: a) single vault, b) double vault (EcoSan), c) flush, d) pit toilet Number of washrooms for special need of girls: a) functional, b) non-functional	**4**	Functionality (function) Gender (number for girls, girls' needs) Quantity (number) Accessibility (number for disabled students)
Angola	Toilets present	**0**	
Bahamas	No WASH questions	**N/A**	
Bangladesh	13. Latrines: Number of usable latrines: total___, combined___, only for girls___, only for boys___, for disabled___, for teachers___ Non-usable latrines___ 15. (b) latrine for girls: new___, old___, broken/needs to be repaired___, total___ (c) latrine for boys: new___, old___, broken/needs to be repaired___, total___ (d) latrine for teachers: new___, old___, broken/needs to be repaired___, total___	**4**	Functionality (usable/broken) Gender (only for girls) Accessibility (for disabled) Quantity (number usable)
Barbados	No WASH questions	**N/A**	
Belize	7. Does the school have improved toilet facilities (private facilities that separate human excreta from human contact)? • Yes (pit latrine - if stable concrete or wood slab between user and hole, ventilated improved pit (VIP) latrine, flush toilet to sewer or septic tank, pour-flush toilet to sewer or septic tank) • No (flush or pour-flush toilet not piped to sewer, septic tank or enclosed pit, pit latrine without slab (open pit), bucket, no facilities (field/bush)) 8. How many toilets and urinals are there in the school? (insert number) Exclusively for girls: functional___, not functional___; Exclusively for boys: functional___, not functional___; For boys or girls (unisex toilets): functional___, not functional___; Boys urinals (50 cm of urinal wall = 1 urinal): functional___, not functional___. 9. On average, are the toilets in adequate condition and accessible to all students? Adequate lighting: yes/no; Adequate ventilation: yes/no; Adequate privacy: yes/no; Clean: yes/no; Child-friendly: yes/no; Accessible to students with physical disabilities: yes/no; Walkway and area around toilet is clean: yes/no.	**5**	Functionality (functional) Gender (exclusively for girls) Quality (improved) Accessibility (accessible to students with physical disabilities) Quantity (how many)
Benin	2.3 School Environment Latrines? (yes/no) Number of modules___, Number of cubicles___	**1**	Quantity (number of)
Bhutan	Form C. Section A. Buildings (for each list number of permanent construction (cement/stone with > 15 years life expectancy) and semi-permanent construction (mud/wooden, 5-15 yr life expectancy) separately) 2a. Flush-toilets (cubicles)___, ___ How many used___ 2b. Pit-toilets (holes)___, ___ How many used___ 2c. Aqua-privy toilets (blocks)___, ___ 2d. Aqua-privy toilets (all cubicles)___, ___ How many used___	**2**	Quantity (list number) Functionality (how many used)

Country	Sanitation questions/indicators	Score	Parameters included
Burkina Faso	3.10 Does the school have functional latrines? (y/n) if yes, number of cabins___ If yes, are the girls' latrines separated from boys'? If yes, are the students' latrines separated from the teachers'? 4.1 characteristics of facilities: latrines (followed by a number of questions about the condition of walls, etc)	**3**	Functionality (functional) Quantity (number of cabins) Gender (girls' latrines separated)
Burundi	State of latrines (functional/non-functional)	**1**	Functionality (functional)
Cambodia	5.(C) Condition of buildings, classrooms and facilities Sanitation of toilets: (y/n) General condition: (adequate / inadequate)	**1**	Functionality (condition)
Cameroon	III.1 Information on the quantity and quality of school buildings Toilets or latrines: Permanent: Good state__, Acceptable__, Bad state__; Semi-permanent: Good state__, Acceptable__, Bad state__; Temporary: Good state__, Acceptable__, Bad state__; Total__. III.3 Information on other equipment and facilities in the school Are there toilets in the school? If yes, number of cabins? If yes, are the girls' latrines separate from the boys'? (y/n) If yes, are the student latrines separate from the teachers? (y/n)	**3**	Quantity (quantity) Functionality (quality, state) Gender (separate)
Cabo Verde	2.2.1.4 Does the school have a toilet (WC)? If yes, indicate how many___ D3. Other spaces (indicate the number of spaces) Toilets (sanitarios): Number___, Conservation of spaces: Good___, Reasonable___, Bad___	**2**	Quantity (how many) Functionality (good, bad)
Central African Republic	2.4 Does the school have functional latrines? (y/n) 2.4.1 if yes, how many___ 2.4.2 Are the latrines separate for girls / boys? (y/n) 2.4.3 If there are separate latrines, how many are for girls?___	**3**	Functionality (functional) Quantity (how many) Gender (separate)
Chad	5.1 Property equipment Number of sanitation facilities: good condition___, bad___ 5.4.1 Latrine/WC (list the number of latrine/WC): boys___, girls___, mixed___; All___	**3**	Functionality (good condition) Quantity (number of) Gender (girls)
Côte d'Ivoire	III. General information about the school 3.12.1 Does the school have a latrine? (y/n) 3.12.2 Are the latrines functional? (y/n) 3.12.3 If so, what kind are they? 1) dry latrine, 2) toilets with water 3.12.4 Number of holes: boys___, girls___, mixed___	**3**	Functionality (functional) Quantity (number of holes) Gender (boys/girls)
Dem. Rep. of Congo	2.3 Latrines (WC)? (y/n) If yes, indicate the number of compartments___, of which, how many are for girls___	**2**	Quantity (number of) Gender (for girls)
Ethiopia	XIII. School general information 13.8 Total number of pits___ of which number... for boys students only___, for girls students only___, for teachers only___, for boys and girls combined___, for teachers and students combined___	**2**	Quantity (number of) Gender (girls only)
Gambia	II. School General Information Does this school have UNICEF Girl Friendly School? 6.1 Sanitation: Number of teachers toilet:___, Number of boys toilet:___, Number of girls toilet:___ Distance (m) between boys & girls toilets:___	**2**	Quantity (number of) Gender (girls' toilets, distance b/w)

Country	Sanitation questions/indicators	Score	Parameters included
Ghana	3.10 How MANY individual toilet seats are available? boys___, girls___ 3.11 How MANY individual toilet seats are functional? boys___, girls___ 3.12 Are urinals available and functional? (y/n) 3.13 Which of these problems are experienced in your school? (tick if yes): drainage blockages / soil erosion / waste water and sewage / garbage disposal	**3**	Quantity (how many) Gender (boys, girls) Functionality (functional)
Grenada	7. Number and conditions of facilities (indicate the number of each type of equipment/furniture where necessary and those that are satisfactory or poor.) Students' toilets: total number___, satisfactory___, poor___, repairs to be undertaken:_____ Teachers' toilets: total number___, satisfactory___, poor___, repairs to be undertaken:_____ 12. Conditions of building, toilets, plumbing, electricity and security (enter the amount of each element you think is satisfactory or poor) Student toilets: satisfactory___, poor___, repairs to be undertaken:_____ Staff toilets: satisfactory___, poor___, repairs to be undertaken:_____ Urinals: satisfactory___, poor___, repairs to be undertaken:_____	**2**	Quantity (number) Functionality (conditions)
Guinea	Table 9. Nature of local 3. WC or latrine: Number of: Permanent: in use__, not__; Semi-permanent: in use__, not__; adobe: in use__, not__; shed: in use__, not__; Total___. Table 10. State of infrastructure 3. WC or latrine: Number in good condition: in use__, not__; Number in poor condition: in use__, not__; Total__	**2**	Quantity (number) Functionality (in use, condition)
Guinea-Bissau	No WASH questions	**N/A**	
Guyana	Buildings, Facilities and Furniture P2. Facilities Toilets: N=None (no facilities in place), NW=Not Working (basic facilities in place but not working because of major defects), A=Average (facilities need minor repairs), AA=Above Average (all aspects operational. Good physical condition.)	**1**	Functionality (operational)
India	B(I). Physical facilities and equipment 5. Toilets and urinals details Number of toilet seats constructed/available: boys only___, girls only___ Number of toilet seats functional (functional toilet: minimal odour, unbroken seat, regularly cleaned dry, working drainage system, accessible to users, closable door): boys only___, girls only___ How many of above toilets have water available in the toilet for flushing and cleaning? boys only___, girls only___ Total urinals available: boys only___, girls only___ b. Is there any toilet that is friendly to Children with Special Needs (CWSN)? (y/n)	**4**	Quantity (number of) Gender (girls only) Functionality (functional) Accessibility (special needs)
Iraq	1. Adequate number of hygienic latrines with separated entrance 2. Seats and facilities for pupils with special needs are available 3. Separated latrines for girls/boys are available 4. Child friendly sanitation units are available 5. Functional ventilation system is available 6. Latrines are connected with public sewerage network and/or functional septic tanks 7. Functional latrines flushing system is available	**5**	Functionality (functional) Gender (separated latrines) Quality (ventilation, connected) Accessibility (pupils with special needs) Quantity (adequate number)

Country	Sanitation questions/indicators	Score	Parameters included
Jamaica	45. Are the toilets in satisfactory condition? Boys (y/n), Girls (y/n), Staff (y/n), Principal (y/n) 46. What type of toilets are available? (flush / pit / water closet)	**1**	Functionality (condition)
Kenya	Availability of sanitation facilities	**0**	
Lao PDR	Toilets at the schools: O None, O Yes (what type?): Toilet reserved for teachers: how many functional compartments? O how many are not functioning? O Toilet reserved for female students: how many functional compartments? O how many are not functioning? O Toilet reserved for male students: how many functional compartments? O how many are not functioning? O Toilet for use by everyone: how many functional compartments? O how many are not functioning? O	**4**	Functionality (functional) Gender (female, male) Quality (type) Quantity (how many)
Liberia	K. School Infrastructure K2c. Does your school have a latrine facility? (y/n) K2d. Tick the group(s) of people for whom the latrine facility is available? (boys only / girls only / boys and girls combined / male staff only / female staff only / male and female staff combined)	**1**	Gender (girls only)
Malawi	D.1.b Availability and type of sanitary facilities (completed in separate rows for girls, boys, female staff, male staff) Number of flush toilets: (in use___, under construction___); Number of pit latrine drop holes: Improved (in use___, under construction___), Basic (in use___); Number of urinal blocks: Improved (in use___, under construction), Basic (in use___)	**4**	Quality (type, improved) Quantity (number of) Functionality (in use) Gender (girls separate)
Mali	II. General information about the facility 2.6 Functional latrines (y/n): total number___, number for boys___, number for girls___ III. Number and condition of the premises Toilets: Number___, Number rented___; Toilet walls: Number in good/acceptable condition, Number in poor condition___; Toilet Roofs: Number in good/acceptable condition, Number in poor condition___	**3**	Functionality (functional) Quantity (number) Gender (for girls)
Mauritania	III. General information about the school 3.9 Total number of functional latrines? ___ for boys___, for girls___, mixed___	**3**	Functionality (functional) Quantity (number of) Gender (for girls)
	No WASH questions	**N/A**	
Myanmar	Percentage of schools which have sufficient number of functional toilet and urinals Percentage of schools which have functional toilets for girls, boys and teachers meet national standards (1 for 25 students) Percentage of schools which have functional toilets accessible to children with disabilities	**4**	Functionality (functional) Gender (boys and girls) Quantity (national standards) Accessible to disabilities
Namibia	E. Physical facilities 4. Sanitary facilities (check and record the number of INDIVIDUAL lavatory units (seats, urinal spaces, etc) Male learners: flush toilets and urinal spaces___, other latrines (e.g. pit latrines)___, no toilets at all___ Female learners: [same] Staff: [same] TOTAL: [same]	**2**	Quantity (number of) Gender (female learners)

Country	Sanitation questions/indicators	Score	Parameters included
Nepal	Availability of separate toilet for boys and girls One set of toilet for every 50 pupils Separate arrangement of urination and defecation with running water Provision of regular cleaning Toilets with doors and windows that can be bolted from inside	**2**	Gender (girls separate) Quantity (standards - 1 toilet per 50)
Niger	3.9 Number of total latrines __; whose function is for boys___, for girls___, for teachers___	**2**	Quantity (number of) [doesn't specify girls only]
Nigeria	F. Facilities F.2 Toilets: How many toilets does the school have which are in good enough condition to be used? F.3 Toilet type (count the number of toilets of each type. make sure total adds up to question F.2) For each type, count toilets used by students: male only___, female only___, mixed___; used by teachers: male only___, female only___, mixed___; used by students and teachers: male only___, female only___, mixed___: Pit, Bucket system, Water flush	**3**	Quantity (how many) Functionality (condition to be used) Gender (female only)
Pakistan	II. Building information, equipment and instructional material 18. Number of rooms need repairing: 8) number of toilets: major repairing___, minor repairing___, no repair___ 23. Basic physical facilities (1=yes, 2=no, 3=non-functional, 4=insufficient, 5=broken): Latrine for students___, Latrines for teacher___	**2**	Quantity (number of) Functionality (functional/repairs)
Senegal	2.2 Toilets (y/n) if yes, specify how many: total___, for boys___, for girls___	**1**	Quantity (how many) [doesn't specify girls only]
Sierra Leone	II. General Information 2.4 Does this school have toilets? (y/n) 2.4.1 Are the school toilets in good condition? (y/n) 2.5 Number of toilet seats: boys only___, girls only___, shared___	**3**	Functionality (condition) Quantity (number of) Gender (girls only)
South Sudan	Number and/or percentage of pre-primary/primary/secondary schools with or without access to latrine	**0**	
Saint Kitts	No WASH questions	**N/A**	
Saint Lucia	1. Conditions of buildings, toilets, plumbing, electricity and security Staff toilets: Satisfactory / Poor / Repairs to be undertaken & additional requirements_____ Student toilets: Satisfactory / Poor / Repairs to be undertaken & additional requirements_____ Urinals: Satisfactory / Poor / Repairs to be undertaken & additional requirements_____	**1**	Functionality (satisfactory/repairs)
Saint Vincent and the Grenadines	No WASH questions	**N/A**	
Swaziland	5. Toilets - number of seats and urinals Toilets for use by...staff, pupils, used by staff and pupils (each separate): Flush (water): Males (seats__, urinals__), Females (seats__), Males and Females__, Total (flush)__; Pit: Males (seats)__, Females (seats)__, Males and females__, total (pit)__.	**2**	Quantity (number of) Gender (females) [type doesn't specify improved pit]

Country	Sanitation questions/indicators	Score	Parameters included
Tanzania	5. Permanent buildings (iii) Pit latrines: required___, available___, shortage___ II. School/institution general information 2.2 Number of toilet facilities: ___ of which number... for boys pupils only___, for girls pupils only___, for teachers only___, for boys & girls combined___, for teachers and pupils combined___	**2**	Quantity (number of) Gender (for girls only)
Timor-Leste	2. School building/furniture/facilities Numbers with condition (good: no need to be repaired in at least next 2 years, bad: can still use, but needs to be repaired, urgent: cannot be used, must be repaired/expanded) Toilets for students (female): good___, bad___, urgent___ Toilets for students (male): good___, bad___, urgent___ Toilets for students (common): good___, bad___, urgent___ Toilets (teachers): good___, bad___, urgent___ Water in toilets: (y/n)	**3**	Quantity (numbers) Gender (female, common) Functionality (condition
Togo	3.10 Does the school have functional latrines? (y/n) if yes, number of cabins___ If yes, are the girls' latrines separated from boys'? If yes, are the students' latrines separated from the teachers'? 4.1 characteristics of facilities: latrines (followed by a number of questions about the condition of walls, etc)	**3**	Quantity (number of) Functionality (functional) Gender (girls separate)
Uganda	E.1 Buildings (rooms) by condition and type Latrine blocks: In use: Complete structure (permanent___, temporary___), Incomplete structure (permanent___, temporary___), Total___; Not in use: Complete structure (permanent___, temporary___), Incomplete structure (permanent___, temporary___), Total___, Needed (do not include what's under construction):___ E.4 Number of latrine rooms/stances (indicate number of facilities - for all latrine blocks listed as existing/in use in E.1) Toilet/latrine rooms/stances with Doors: exclusively for teachers___, exclusively for girls___, exclusively for boys___, mixed use___, total___ Toilet/latrine rooms/stances with Shutters: exclusively for teachers___, exclusively for girls___, exclusively for boys___, mixed use___, total___ Toilet/latrine rooms/stances without Doors/Shutters: exclusively for teachers___, exclusively for girls___, exclusively for boys___, mixed use___, total___	**3**	Quantity (indicate number) Gender (exclusively for girls, mixed) Functionality (condition)
Yemen	Section 2. Building Properties 8. Number of health and other service facilities in the school For each, grand total of building rooms___, of those, rooms used last school year___, of those, rooms added for this school year, of those, rooms that need restoration___, of those, rooms that are not fit for use and subject to collapse___: 1. school management toilets, 2. female teachers toilets, 3. male teachers toilets, 4. male student toilets, 5. female student toilets, 6. unisex student toilets, 7. toilets used as storage areas 11. Are the sanitary outlets/extensions for the school linked to the sanitation network? (y/n) Section 3. School Properties. 11. Sanitary tools and equipment (plumbing): Availability (available/unavailable)___, Grand total___, Of total, number of usable items___, Of total, number of unusable items___, Number of items that need maintenance___, number of ruined items___	**3**	Quantity (number of) Functionality (used, restoration) Gender (male, female, unisex)
Zambia	Number of permanent and impermanent facilities for girls, boys and teachers	**1**	Quantity (number of) [doesn't specify girls only]
Zimbabwe	Number of completed VIP latrines	**2**	Quality

Hygiene

Country	Hygiene questions/indicators	Score	Parameters included
Afghanistan	Number of hand-washing facilities in school: a) functional, b) non-functional	**1**	Functionality (function)
Angola	No hygiene questions	**N/A**	
Bahamas	No WASH questions	**N/A**	
Bangladesh	No hygiene questions	**N/A**	
Barbados	No WASH questions	**N/A**	
Belize	10. How many hand-washing stations are there in the school (insert number): Running water: functional___, not functional___; Bucket/ scoop-pour water: functional___, not functional___ 11. Is sufficient soap (or ash) available? Always/sometimes/never 12. Where is the soap (or ash) kept for student use? At the hand-washing facilities/in the classroom/other/there is no soap 13. Is HFLE curriculum taught by ALL teachers at the school? yes/no 14. Is solid waste (garbage) collected and disposed daily? yes/no	**3**	Functionality (function) Soap (presence of soap/ash) Hygiene taught (HFLE)
Benin	No hygiene questions	**N/A**	
Bhutan	Coverage Soap availability Hygiene education Trained health coordinator	**2**	Soap (soap availability) Hygiene education
Burkina Faso	3.2.2 Does the school have functional hand-washing stations? 3.27 Does the school have a health club?	**1**	Functionality (functional)
Burundi	No hygiene questions	**N/A**	
Cambodia	No hygiene questions	**N/A**	
Cameroon	IV. Textbooks Number of teacher's guides available for: Health education (for each level)	**0**	
Cabo Verde	No hygiene questions	**N/A**	
Central African Republic	No hygiene questions	**N/A**	
Chad	No hygiene questions	**N/A**	
Côte d'Ivoire	III. General information about the school 3.13.1 Does the school have hand-washing basins? (y/n) 3.13.2 Are they functional? (y/n)	**1**	Functionality (functional)
Dem. Rep. of Congo	No hygiene questions	**N/A**	
Ethiopia	No hygiene questions	**N/A**	
Gambia	No hygiene questions	**N/A**	
Ghana	No hygiene questions	**N/A**	
Grenada	7. Number and conditions of facilities (indicate the number of each type of equipment/furniture where necessary and those that are satisfactory or poor.) Wash basin: total number___, satisfactory___, poor___, repairs to be undertaken:_____	**1**	Functionality (condition)

Country	Hygiene questions/indicators	Score	Parameters included
Guinea	No hygiene questions	**N/A**	
Guinea-Bissau	No WASH questions	**N/A**	
Guyana	No hygiene questions	**N/A**	
India	B(I). Physical facilities and equipment 5. Toilets and urinals details a. Is the hand-washing facility available near the toilet/urinals? (y/n) B(II). Mid-day meal information 8. If mid-day meal is provided a. Does the school have facilities for hand washing before and after meals? (y/n) (i) if 'yes', are these functional? (y/n) (with running water and proper drainage such as soak pits, etc.)	**1**	Functionality (functional)
Iraq	1. Hand-washing fountain is available with adequate quantity of soap 2. Adequate garbage bins are available 3. Necessary tools and detergents for cleaning and sterilization are available 4. The school has a system (and staff) in place to keep its environment clean and protective 5. A hygiene committee composed of teachers and pupils, with responsibilities to follow-up on school cleanliness, orderliness, and its beautification, exists and is functional 6. The school arranges periodically awareness symposia about general and personal hygiene practices 7. Child friendly garden is available	**2**	Soap (adequate quantity) Hygiene taught
Jamaica	No hygiene questions	**N/A**	
Kenya	No hygiene questions	**N/A**	
Lao PDR	No hygiene questions	**N/A**	
Liberia	No hygiene questions	**N/A**	
Malawi	D.1.b Availability and type of sanitary facilities (completed in separate rows for girls, boys, female staff, male staff) Number of hand-washing facilities: Improved (in use___, under construction___), Basic (in use___) E.1 Number of pupil books in good condition by standard (grade): life skills___ E.1 Number of teacher guides available in good condition by standard (grade): life skills___	**1**	Functionality (in use)
Mali	No hygiene questions	**N/A**	
Mauritania	III. General information about the school 3.10 Does the school have hand-washing facilities? (y/n): if so, how many?___	**0**	
Mozambique	No WASH questions	**N/A**	
Myanmar	Percentage of schools which have functional hand-washing facilities and soap (or ash) is available for girls and boys in the school Number of students who are taught hygiene at schools Percentage of schools which solid waste and sludge is properly disposed	**3**	Functionality (functional) Soap Hygiene (taught hygiene)

Country	Hygiene questions/indicators	Score	Parameters included
Namibia	No hygiene questions	**N/A**	
Nepal	Responsibility for sweeping assigned to someone Regular checking to ensure children maintain personal hygiene Provision for collection of dust in a certain place or dust bins	**0**	
Niger	No hygiene questions	**N/A**	
Nigeria	No hygiene questions	**N/A**	
Pakistan	No hygiene questions	**N/A**	
Senegal	No hygiene questions	**N/A**	
Sierra Leone	No hygiene questions	**N/A**	
South Sudan	No hygiene questions	**N/A**	
Saint Kitts and Nevis	No WASH questions	**N/A**	
Saint Lucia	No hygiene questions	**N/A**	
Saint Vincent and the Grenadines	No WASH questions	**N/A**	
Swaziland	12.4 Are you teaching health and hygiene as (separate subject / part of another subject / no) 12.3 Are you teaching life skills as (separate subject / part of another subject / no)	**1**	Hygiene education (teaching as a separate subject)
Tanzania	No hygiene questions	**N/A**	
Timor-Leste	2. School building/furniture/facilities Numbers with condition (good: no need to be repaired in at least next 2 years, bad: can still use, but needs to be repaired, urgent: cannot be used, must be repaired/expanded) Hand-washing facility: good___, bad___, urgent___	**1**	Functionality (condition)
Togo	3.2.2 Does the school have functional hand-washing stations? 3.27 Does the school have a health club?	**1**	Functionality (functional)
Uganda	No hygiene questions	**N/A**	
Yemen	No hygiene questions	**N/A**	
Zambia	Does the school have hand-washing facilities for use after visiting the toilet	**0**	
Zimbabwe	Number of completed hand-washing facilities	**0**	

© UNICEF/NYHQ2011-0762/Asselin

Photo: © UNICEF/HTIA2011-00395/Dormino

unicef

Every child has the right to a safe and healthy learning environment, including adequate water, sanitation and hygiene (WASH) services. Although this important issue is gaining attention, progress towards realizing every child's right to WASH in Schools (WinS) remains largely unmonitored at the global level. This publication provides global, regional and national WinS coverage estimates.

Thanks to those working to advance WinS around the globe, much of the news is good:

- Globally, 71 per cent of schools had access to adequate water in 2013, an increase of six percentage points from 2008.
- Similarly, 69 per cent of schools had access to adequate sanitation in 2013, up from 63 per cent in 2008.
- Coverage is improving more rapidly for both water and sanitation in schools in least-developed countries, increasing by nine percentage points from 2008 to 2013.

However, school hygiene is in need of greater focus: based on the limited data available, only 21 per cent of schools in developing countries have hand-washing facilities.

This publication serves as a Call to Action to donors, partners and governments to help maintain this momentum by incorporating WinS monitoring in national and international monitoring mechanisms, including the post-2015 global development targets.

For more information about this publication, please contact Murat Sahin, msahin@unicef.org.