



PROGRESS ON DRINKING WATER, SANITATION AND HYGIENE IN SCHOOLS 2015-2023

Special focus on menstrual health

WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY, SANITATION AND HYGIENE



Progress on drinking water, sanitation and hygiene in schools 2015–2023: special focus on menstrual health

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HIGHLIGHTS

WASH IN SCHOOLS IN 2023

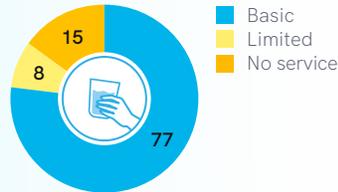
■ Drinking water ■ Sanitation ■ Hygiene ■ Menstrual health
■ Limited service ■ No service

DRINKING WATER

138 countries had national estimates

77% of schools

had a basic drinking water service



Secondary **81%**
 Primary **75%**

2x increase acceleration needed for universal access by 2030

Coverage of basic services

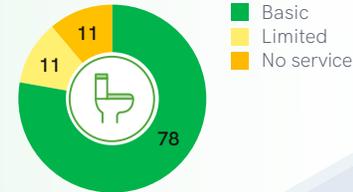
Low income countries **49%**
 High income countries **>99%**

SANITATION

144 countries had national estimates

78% of schools

had a basic sanitation service



Secondary **83%**
 Primary **75%**

2x increase acceleration needed for universal access by 2030

Coverage of basic services

Low income countries **49%**
 High income countries **>99%**

BASIC SERVICES

LIMITED/NO SERVICE

447 million children

lacked a basic drinking water service at their school



293 million

unimproved or no water source

153 million

improved source but no water available

427 million children

lacked a basic sanitation service at their school



222 million

unimproved or no sanitation facility

205 million

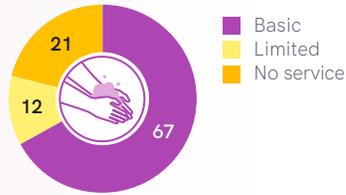
improved facilities, but not single-sex or not usable

HYGIENE

134 countries had national estimates

67% of schools

had a basic hygiene service



Secondary 67%

Primary 65%

4x increase acceleration needed for universal access by 2030



Coverage of basic services



646 million children



lacked a basic hygiene service at their school



406 million

no handwashing facility or no water

240 million

handwashing facilities with water but no soap

MENSTRUAL HEALTH

30 countries had national data*

Preliminary estimates based on emerging national data**

Globally

Around 2 out of 5 schools provide menstrual health education



Around 1 in 3 schools have bins for menstrual waste in girls' toilets



Central and Southern Asia

Around 2 out of 5 schools provide menstrual education



1 in 3 primary

4 in 5 secondary

Sub-Saharan Africa

Around 1 in 8 schools have menstrual materials available for free or purchase



Schools with bins available for menstrual waste in girls' toilets



Central and Southern Asia 35%

Sub-Saharan Africa 11%

Least Developed Countries 17%

Most commonly available national menstrual health data:



Facilities

(22 of 30 countries)



Knowledge

(19 of 30 countries)



Materials

(15 of 30 countries)

*Nationally representative data for at least one of the internationally recommended Priority List of Indicators for Girl's Menstrual Health and Hygiene (2022) (<https://www.publichealth.columbia.edu/research/programs/gate/monitor-mhh/monitoring-resources>)

**Nationally representative data for menstrual health indicators remain limited and indicator definitions vary making cross-country comparison difficult. Preliminary regional and global aggregates should therefore be treated with caution.



SECTION 1

INTRODUCTION

Global progress on WASH in schools

The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) produces internationally comparable estimates of progress on drinking water, sanitation and hygiene (WASH) and is responsible for global monitoring of the Sustainable Development Goal (SDG) targets related to WASH. The JMP releases updated estimates for WASH in households in odd years and updated estimates for WASH in schools and health care facilities in even years. This report presents updated country¹, regional and global estimates for WASH in schools up to the year 2023 and includes additional analysis of subnational inequalities and emerging data on menstrual health among adolescent schoolgirls. It supersedes previous progress updates.

The 2030 Agenda for Sustainable Development includes global goals for water and sanitation and for education. Goal 4 aims to ensure 'inclusive and quality education for all and promote lifelong learning' and includes targets to build and upgrade education facilities that are child, disability and gender-sensitive and provide safe and effective learning environments for all (4.a). This includes providing all schools with access to electricity, computers, the internet, adapted infrastructure and materials for students with disabilities, and basic WASH services (4.a.1). Goal 6 aims to 'ensure availability and sustainable management of water and sanitation for all' and includes targets for universal access to safe drinking water (6.1), sanitation and hygiene (6.2) for all.

¹ The JMP tracks progress in 234 countries, areas and territories, including all United Nations Member States. Statistics in this report refer to countries, areas and territories. For further details see (<https://washdata.org>).



The JMP uses service ladders to benchmark and compare progress on WASH in schools across countries (Figure 1). These service ladders for schools are designed to track progress towards a basic level of service, which is the indicator used for global monitoring of SDG targets for WASH in schools. While the basic service indicators are universally relevant, they do not capture all aspects of WASH services that are important for a safe and inclusive learning environment. The JMP aims to highlight examples of other relevant indicators from national monitoring systems and will consider reporting on additional service levels in future. This report has a special focus on menstrual health and examines the availability of national data corresponding to internationally recommended priority indicators for girls' menstrual health and hygiene ².

For the purposes of SDG monitoring, a basic drinking water service means schools have access to an improved water source³ from which water is available, a basic sanitation service means schools have improved sanitation facilities⁴ that are

2 Global MHH Monitoring Group, Priority List of Indicators for Girls' Menstrual Health and Hygiene: Technical guidance for national monitoring. New York: Columbia University. 2022 (www.publichealth.columbia.edu/file/8002/download?token=AViwoc5e).

3 Improved sources include piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water. Unimproved sources include unprotected wells, unprotected springs, and surface water.

4 Improved facilities include flush/pour-flush toilets, ventilated improved pit latrines, composting toilets, and pit latrines with a slab or platform. Unimproved facilities include pit latrines without a slab or platform, hanging latrines, and bucket latrines.

Service ladders for WASH in schools

SERVICE LEVEL	DRINKING WATER	SANITATION	HYGIENE
BASIC SERVICE	Drinking water from an improved source and water is available at the school at the time of the survey	Improved sanitation facilities at the school that are single-sex and usable (available, functional and private) at the time of the survey	Handwashing facilities with water and soap available at the school at the time of the survey
LIMITED SERVICE	Drinking water from an improved source but water is unavailable at the school at the time of the survey	Improved sanitation facilities at the school that are either not single-sex or not usable at the time of the survey	Handwashing facilities with water but no soap available at the school at the time of the survey
NO SERVICE	Drinking water from an unimproved source or no water source at the school	Unimproved sanitation facilities or no sanitation facilities at the school	No handwashing facilities or no water available at the school

FIGURE 1 Service ladders for global monitoring of WASH in schools

single-sex and usable⁵, and a basic hygiene service means schools have handwashing facilities with soap and water⁶ available at the time of the survey. The JMP service ladders also distinguish between schools providing a limited service that does not fully meet the criteria for a basic service, and schools that provide no service at all.

5 Pre-primary schools must have improved sanitation facilities that are usable, but they do not need to be single-sex. Facilities are considered usable if they are available to students (doors are unlocked or a key is available at all times), functional (the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pour-flush toilets) and private (there are closable doors that lock from the inside and no large gaps in the structure).

6 Handwashing facilities may be fixed or mobile, and include sinks with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand, or other handwashing agents.

This update assesses progress on WASH in schools between 2015 and 2023, which represents the mid-point of the SDG period. It shows that the world is not on track to achieve universal access (>99%) to basic WASH services in schools by 2030 (Figure 2). Achieving universal coverage will require a twofold increase in the current rate of progress on basic drinking water, a twofold increase in progress on basic sanitation, and a fourfold increase in progress on basic hygiene services. Based on current trajectories, only 86% of schools will have a basic water service, 87% will have a basic sanitation service, and 74% will have a basic hygiene service in 2030.

And while almost all schools will have at least a limited sanitation service, 12% will still have no water service, and 12% will have no hygiene service.

Global availability of data on WASH in schools has increased steadily since the publication of the JMP global baseline report in 2018 (Figure 3). Both the total number of countries, areas and territories with estimates and the proportion of the global population for which estimates are available have increased with each subsequent update. The JMP reports regional and global estimates for WASH in schools when data are available for at least 30% of the regional or global population.

The number of countries with national estimates for basic drinking water in schools has increased by half from 92 to 138, and population coverage has risen from 51% to 65%. There has also been a significant increase in the number of countries with estimates for primary schools (from 79 to 129) and secondary schools (from 71 to 126). The number of countries with estimates for pre-primary has increased fourfold (from 5 to 19) but this still only represents 8% of the relevant school-age population. By 2024, relatively few countries had disaggregated data for urban (21) and rural (24) schools, but population coverage is higher for rural (38%) than for urban (21%).

Data availability for basic sanitation has increased from 101 to 144 countries, rising

Achieving SDG global targets will require significant acceleration in the current rate of progress

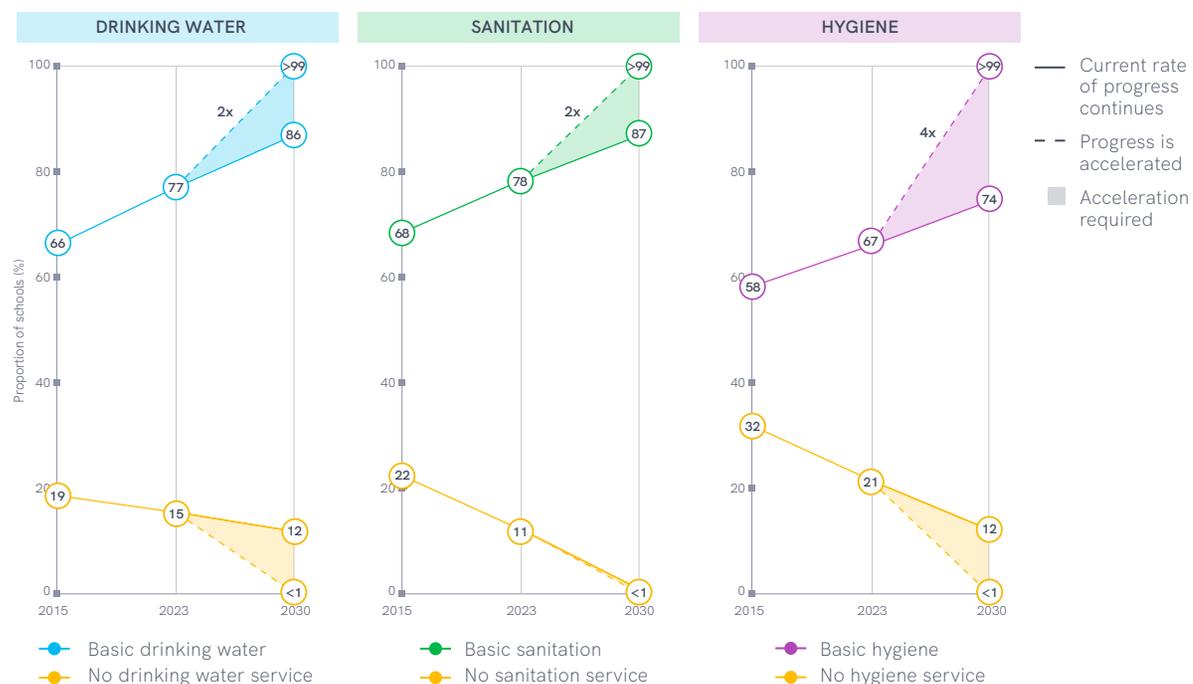


FIGURE 2 Global coverage of WASH in schools 2015–2023 and acceleration required to meet targets by 2030 (%)

from 54% to 68% of the global school-age population. Population coverage is now equally high for primary (65%) and secondary (66%) schools but remains very low for pre-primary (6%). While more countries have data for urban (34) than for rural (25), the former only represent 33% of the school-age population whereas the latter represent 44%.

Between 2018 and 2023, the number of countries with estimates for basic hygiene has increased by two thirds (from 81 to 134),

while population coverage has increased from 50% to 63%. The number of countries with estimates for secondary schools has increased faster (from 67 to 123) than for primary schools (from 71 to 127) and both now represent 61% of the school-age population, compared with just 4% of the population for pre-primary schools. By contrast the number of countries with disaggregated data for hygiene in rural and urban schools has remained largely unchanged.

Global availability of data on basic WASH services in schools in 2023

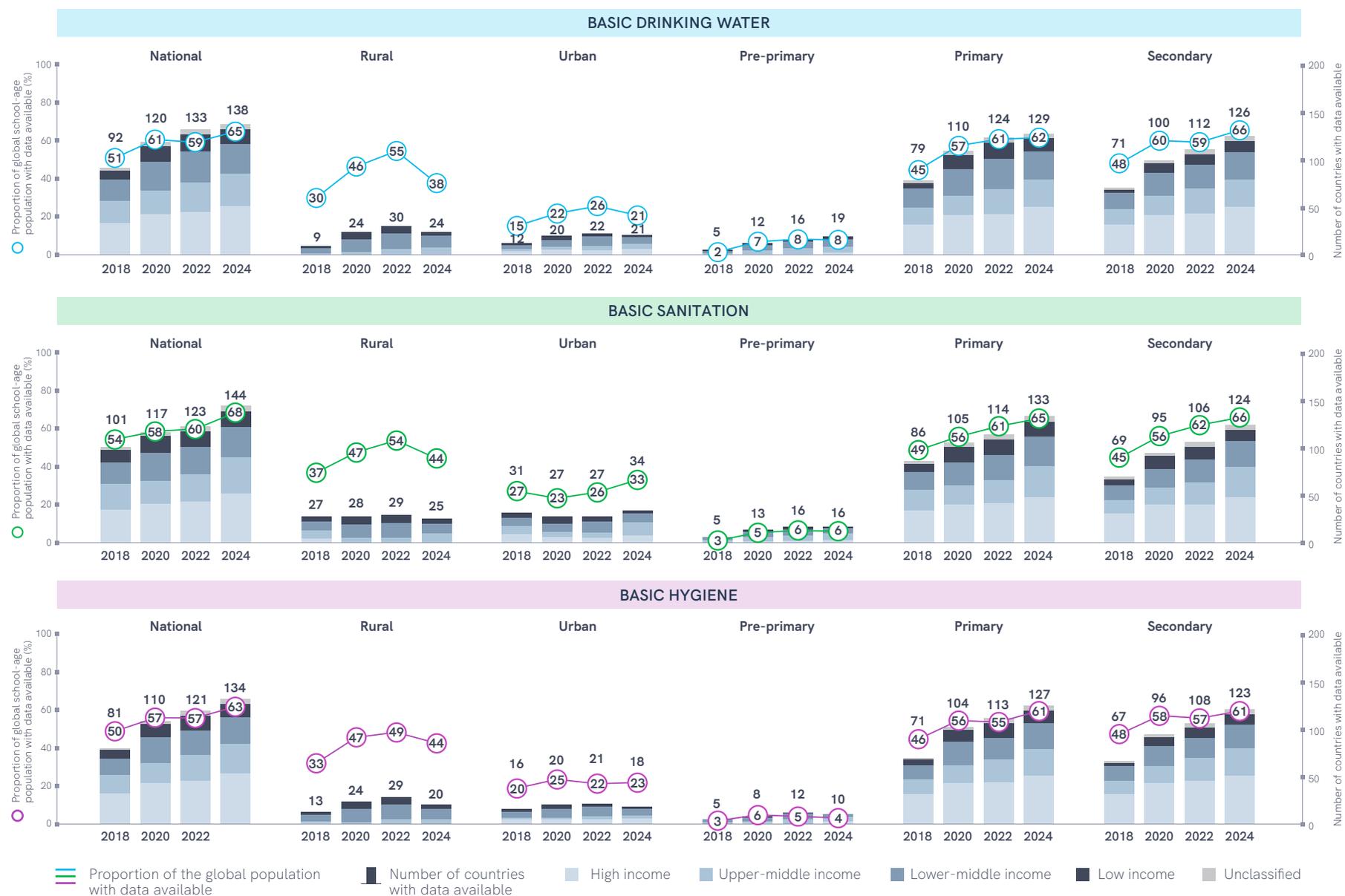


FIGURE 3 Proportion of school-age population and number of countries with estimates available in JMP progress updates 2018-2024

BOX 1

BENCHMARKING RATES OF CHANGE REQUIRED TO ACHIEVE UNIVERSAL ACCESS

At the mid-point of the SDG period, there is growing interest in benchmarking the effort required to meet national and global targets by 2030⁷. Many countries still lack sufficient data for in-depth assessment of trends in basic WASH services in schools, but a subset of countries now have robust data on trends between 2015 and 2023. Analysis shows that

⁷ United Nations Children’s Fund, Progress on Children’s Well-Being: Centring child rights in the 2030 agenda – For every child, a sustainable future, UNICEF, New York, September 2023 (<https://data.unicef.org/resources/sdg-report-2023/>).

for most income groups the average rate of change required to reach >99% coverage by 2030, is significantly higher than the average rate of change since 2015 (Figure 4). Since 2015, high-income countries have progressed more slowly, but there is little difference between current and required rates of change (less than 0.1 % pts/yr). The average gap is greater among upper-middle-income countries (1.2-1.8 % pts/yr) than lower-middle-income countries (3.4-3.8 % pts/yr) and greatest among low-income countries (4.6-8.8 % pts/yr). Since

the start of the SDG period, low-income countries have progressed much faster on basic drinking water (1.7 % pts/yr) than on basic sanitation (0.3 % pts/yr) but the gap between recent and required rates of change is greatest for basic hygiene. This highlights the need for individual countries to establish ambitious but realistic national SDG targets which take into account country context and the historical rates of change achieved by countries in similar economic or geographic groups.



FIGURE 4 Average annual rate of change (ARC) 2015–2023 in basic drinking water, basic sanitation and basic hygiene by income group 2015–2023, and required average annual rate of change for universal access by 2030 (% pts/yr)



SECTION 2

PROGRESS ON DRINKING WATER IN SCHOOLS

In 2023,

- 138 countries and all SDG regions had national estimates for basic drinking water services in schools, representing 65% of the global school-age population.
- 77% of schools had a basic drinking water service (improved source with water available at the time of the survey), 8% had a limited service (improved source with water unavailable), and 15% had no service (unimproved source or no source at all).
- 447 million children lacked a basic drinking water service at their school, including 153 million whose school had an improved source with no water available, and 293 million whose school still had no water service.
- Less than half (49%) of schools in low-income countries had a basic water service, compared with >99% of schools in high-income countries (50% in fragile contexts)⁸.
- Sub-Saharan Africa (45%) was the only SDG region where less than half of schools had a basic drinking water service.
- 3 out of 4 primary schools (75%) and 4 out of 5 secondary schools (81%) had a basic drinking water service. There were insufficient data to generate global estimates for pre-primary schools.
- Over one third of children without a basic drinking water service at their school lived in Least Developed Countries (LDCs), and nearly three quarters lived in fragile contexts.
- Achieving universal access to basic drinking water services in schools by 2030 would require a 2x increase in the current rate of progress. At the current rate of progress, the world will only reach 86% coverage by 2030, leaving approximately 241 million children⁹ without a basic drinking water service at their school.

⁸ See Annex 2 for the regional groupings used in this report.

⁹ United Nations International Children's Fund (UNICEF) projections based on UNESCO Institute of Statistics (UIS) country estimates for the school-age population 2000-2023.



Basic water service

Over the first half of the SDG period (2015–2023), global coverage of basic drinking water in schools increased from 66% to 77%. This represents an average rate of change of 1.32 % pts/yr. The proportion with a limited service decreased from 15% to 8%, but the proportion with no service declined more slowly from 19% to 15%. Trend estimates are now available for all SDG regions. It is estimated that Australia and New Zealand and Europe and Northern America have already reached universal coverage (>99%), although data are not available for all countries in either region. Since 2015, there has been little change in coverage in sub-Saharan Africa (45%) and Oceania (51%), while in Central and Southern Asia, coverage has increased rapidly from 50% to 84%. Latin America and the Caribbean, Northern and Western Africa, and Eastern and South-Eastern Asia all recorded modest increases. In LDCs, coverage increased steadily from 52% to 60%, but in fragile contexts it has stagnated at around 50% (Figure 5).

By 2023, 138 countries, areas and territories, representing 65% of the global school-age population, had national estimates available for basic drinking water services in schools. Among these, coverage was >75% in 99 countries, >90% in 81 countries, and 67 countries had achieved universal coverage (>99%). Around half of the countries with universal access were in two SDG regions: Australia and New Zealand and Europe and Northern America. In

77% of schools had a basic water service but regional coverage varied widely in 2023

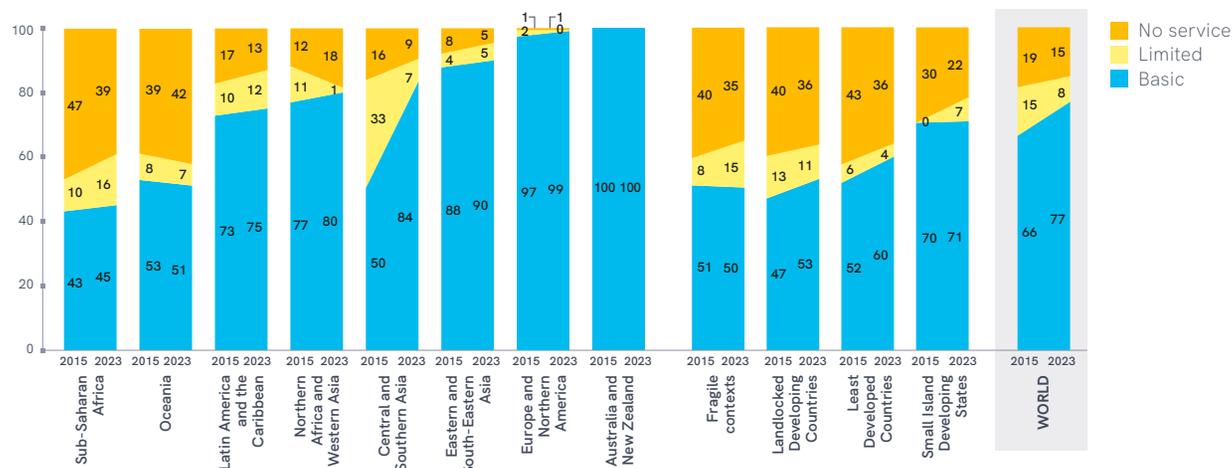


FIGURE 5 Global and regional coverage of drinking water services in schools, 2015–2023 (%)

>75% of schools had a basic drinking water service in 99 out of 138 countries with estimates in 2023

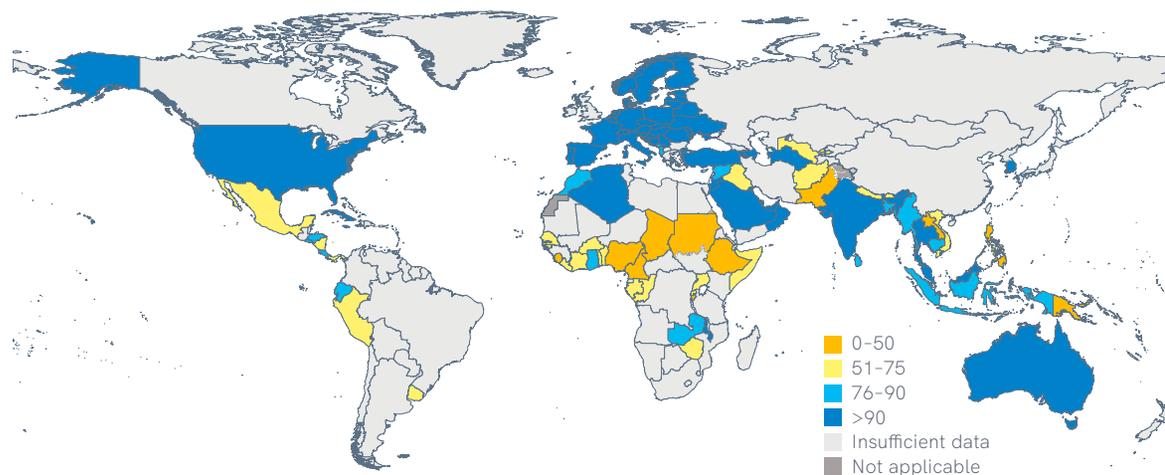


FIGURE 6 Proportion of schools with a basic drinking water service in 2023 (%)

2023, there were still 12 countries with <50% coverage; more than half of these were in sub-Saharan Africa (Figure 6).

Drinking water service levels in schools varied widely between countries in 2023 (Figure 7). Coverage of basic drinking water ranged from >99% in Cameroon. Panama (60%) and Uruguay (67%) were the only high-income countries where coverage did not exceed 75%. Five of the eight SDG regions still contained at least one country where less than half the schools had a basic water service. There were 23 countries with data on the proportion of schools

with no service but insufficient data to determine how many met the criteria for a basic or limited service (shown in grey). In 17 countries, over one third of schools had no drinking water service. These include Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Ethiopia, Mozambique, Niger and Sierra Leone where more than half the schools still had no service. And in 13 countries, at least one in five schools had a limited service, including Pakistan, Philippines, Somalia and Uganda where more than one in three schools had an improved source but no water available at the time of the survey.



Drinking water service levels in schools varied widely between countries in 2023

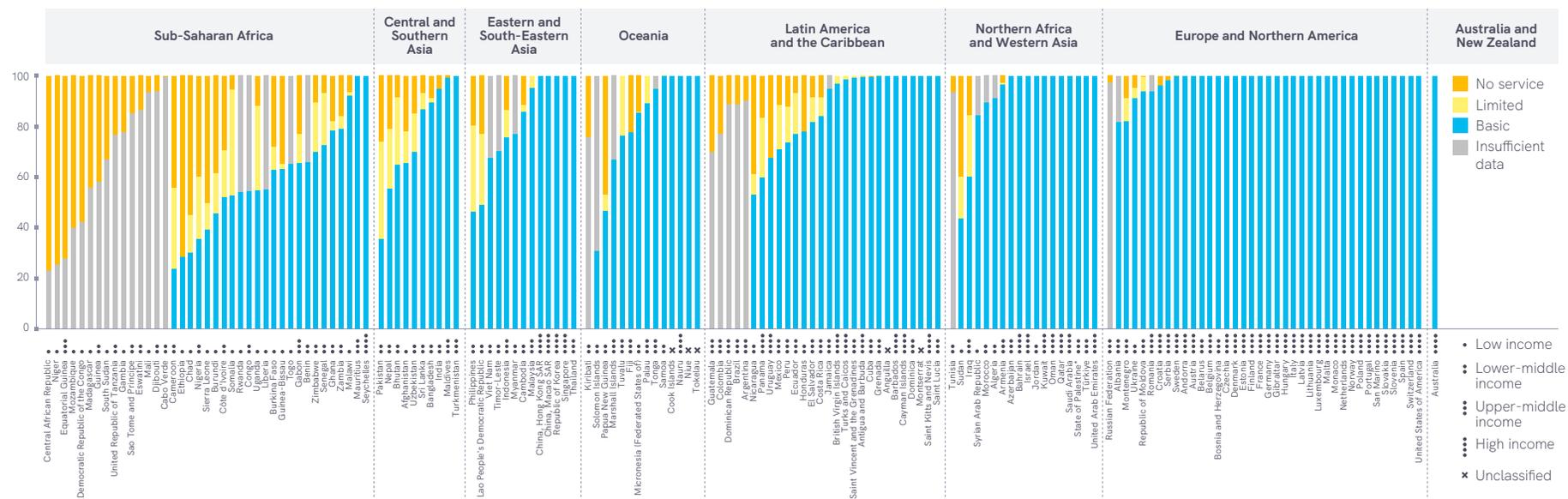


FIGURE 7 Coverage of drinking water services in schools, by country, SDG region and income group in 2023 (%)

* WHO reports refer to 'occupied Palestinian territory' (including east Jerusalem)
 Note: Countries without estimates (100% insufficient data) are not presented in this figure.

A growing number of countries now have sufficient data to estimate trends and rates of change over the first half of the SDG period. Figure 8 shows country coverage of basic drinking water services in 2023 and average annual rates of change between 2015 and 2023. Among the 53 countries with trend data available, 22 have increased coverage by >1 % pt/yr and 8 countries by >3 % pts/yr, but in 14 countries coverage has decreased. Based on current coverage and rates of change, only 19 countries are on track to reach universal coverage (>99%) by 2030 and the majority are progressing too slowly. India, Panama, Serbia, Syria and Togo all increased coverage by >5 % pts/yr demonstrating that rapid progress is possible. But while Panama has increased coverage threefold, from 19% in 2015 to 60% in 2023, this rate of change is still not sufficient. Over the same period, Nepal (2.94 % pts/yr) has increased coverage at a faster rate than Bangladesh (1.91 % pts/yr), but the latter has much higher coverage and is therefore on track to achieve universal coverage by 2030.

All SDG regions now have sufficient data to estimate trends between 2015 and 2023. Figure 9 extrapolates trend estimates to illustrate current regional trajectories and acceleration required to achieve universal coverage by 2030. At the current rate of progress, the world will only reach 86% coverage, leaving approximately 241 million school-age children without basic drinking

water at their school at the end of the SDG period. Australia and New Zealand and Europe and Northern America had already reached >99% coverage by 2023 and are therefore considered on track. Central and Southern Asia has achieved the fastest increase in regional coverage (4.13 % pts/yr) and if this continues it will reach >99% coverage around 2027. But all other regions are progressing at less than 1 % pt/yr and coverage in Oceania has slightly declined.

To reach the target, Eastern and South-Eastern Asia will need to increase coverage at 1.28 % pts/yr, Latin America and the Caribbean at 3.40 % pts/yr, and Northern Africa and Western Asia at 2.70 % pts/yr. But Oceania (6.83 % pts/yr) and sub-Saharan Africa (7.70 % pts/yr) would need a faster rate of progress than any other region has achieved since 2015. At the current rate of progress, more than half the schools in sub-Saharan Africa will still lack a basic water service in 2030.

19 out of 53 countries with trend data are on track to achieve universal coverage (>99%) of basic drinking water in schools by 2030

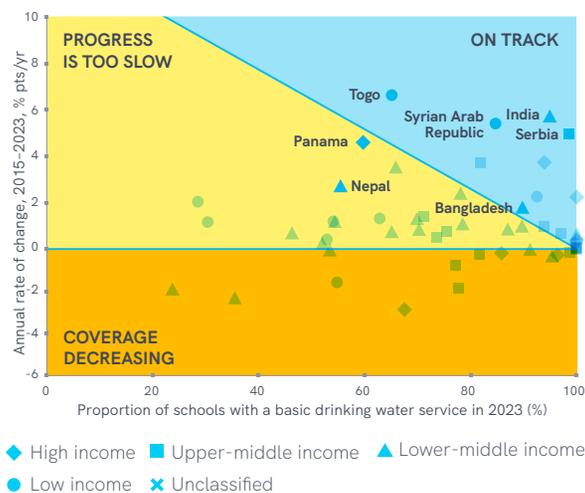


FIGURE 8 Progress on basic drinking water in schools among countries with data on trends, 2015–2023, by income group (%)

Note: Does not include countries (1) with no estimates for rates of change, i.e. missing data for at least one of the years, and (2) with zero (at two decimal digits) annual rate of change or no trend.

Only three SDG regions are on track to achieve universal coverage of basic drinking water in schools by 2030

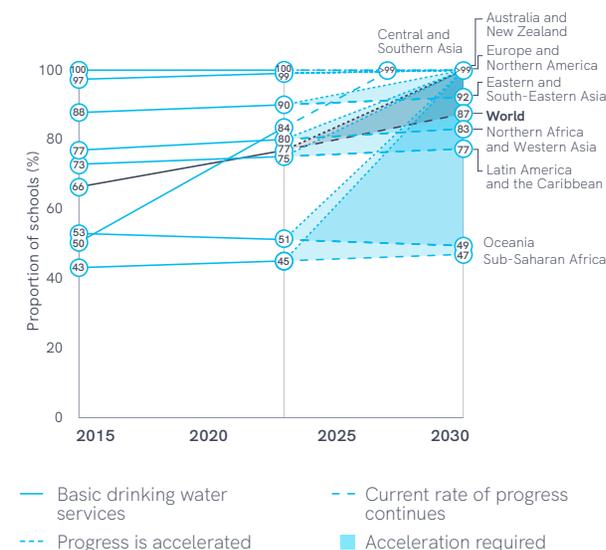


FIGURE 9 Progress on basic drinking water in schools by SDG region, 2015–2023, and acceleration required to reach universal coverage by 2030

In a growing number of countries, estimates can be disaggregated by rural and urban and by school level, enabling analysis of subnational inequalities in coverage of basic drinking water in schools (Figure 10). Among the 58 countries with data disaggregated by school level, there were often significant gaps in coverage between pre-primary, primary and secondary schools in 2023. While coverage was generally higher in secondary than in primary schools, pre-primary coverage varied widely. In 19 countries, secondary coverage was at least 10 % pts higher than primary coverage and in 7 countries it was at least 20 % pts higher. In Côte d'Ivoire, there was a gap of 44 % pts between primary (48%) and secondary (92%). In 19 countries, coverage was higher in primary than secondary, but Burkina Faso, Costa Rica, Pakistan and Viet Nam were the only countries where the gap exceeded 10 % pts. In Cambodia, Papua New Guinea, Solomon Islands and Uzbekistan, pre-primary coverage was over 10 % pts lower than primary or secondary, while in Chad and Nepal, pre-primary coverage was over 10 % pts higher than primary or secondary. By contrast, in Armenia, Gabon and Ghana, there was little difference in coverage between the three school levels.

Inequalities in drinking water coverage persist between rural and urban and between school levels

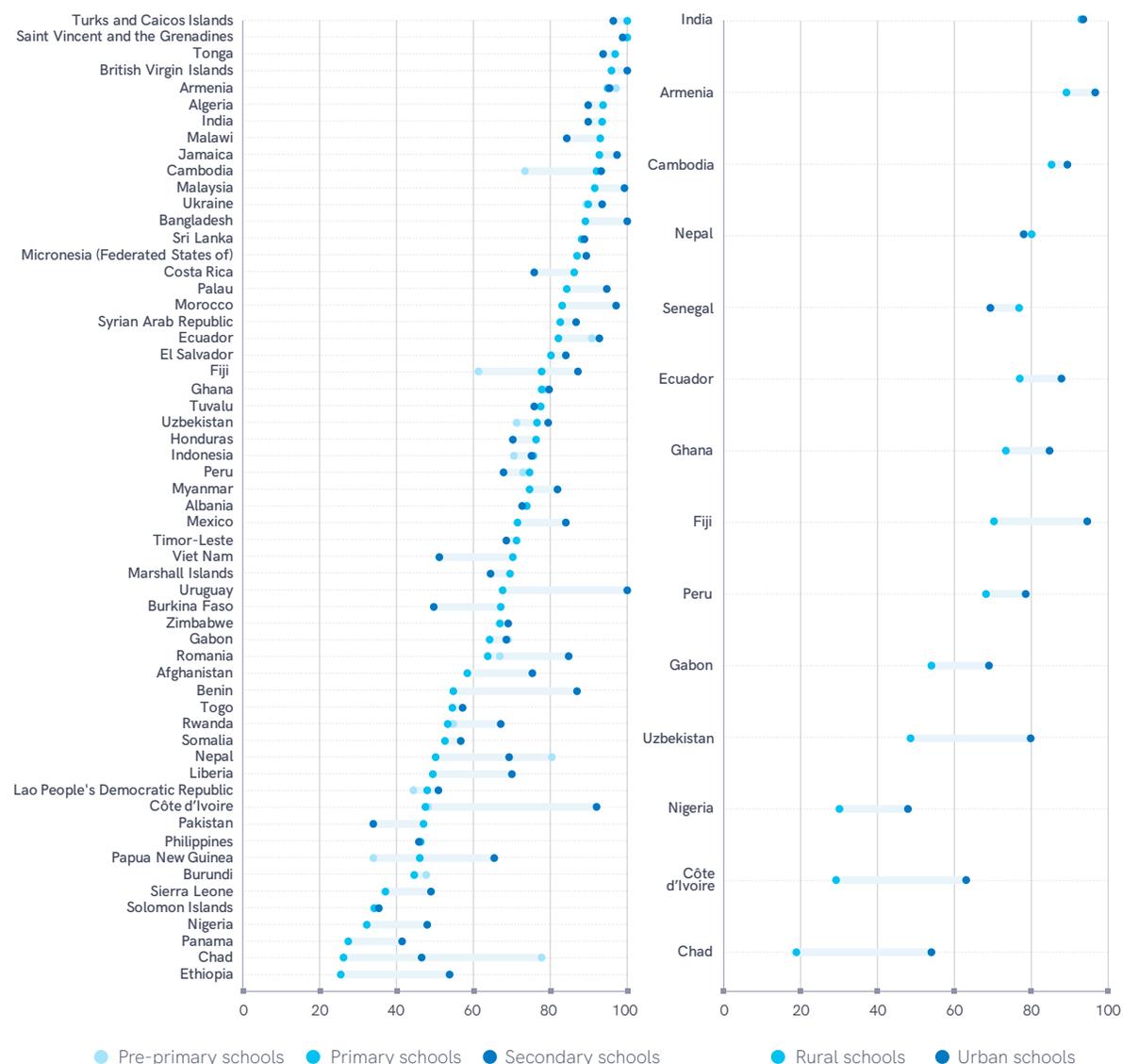


FIGURE 10 Proportion of pre-primary, primary and secondary schools, and rural and urban schools, with a basic water service, by country in 2023 (%)

In 2023, 15 countries had estimates for basic water coverage that could be disaggregated by both school level and by rural and urban. Urban coverage exceeded rural coverage in all countries, except for Nepal and Senegal. In 10 countries, coverage in urban schools was at least 10 % pts higher, and in Chad, Côte d'Ivoire, Fiji, Sudan and Uzbekistan, it was at least 20 % pts higher than in rural schools. In Chad, fewer than one in five rural schools (19%) had basic drinking water, compared with over half of urban schools (54%). In India, rural (93%) and urban (94%) coverage was equally high and there was little difference between pre-primary (93%), primary (90%) and secondary (92%). By contrast, Armenia had similarly high coverage in pre-primary (97%), primary (95%), and secondary (95%) schools, but lower coverage in rural (89%) than in urban (96%).

Limited or no water service

During the first half of the SDG period (2015-2023), the global population of school-age children increased by 100 million, from 1.84 billion to 1.94 billion, but the number of children lacking a basic drinking water service at their school decreased from 620 million to 447 million (Figure 11). This includes 153 million whose school had a limited service, and 293 million whose school still had no water service at all. By 2023, over one in three children without a basic water service lived in LDCs, and nearly three

quarters lived in fragile contexts. Since 2015, all SDG regions have reduced the number of children without a basic service, except for Oceania where it has remained unchanged (2 million) and sub-Saharan Africa where it has increased by 31 million. Central and Southern Asia recorded the biggest reduction, from 279 million in 2015 to 92 million in 2023. Sub-Saharan Africa now accounts for over half of the global school-age population without a basic water service at school (240 million).

By 2023, almost all countries in the JMP global database had national data sources with information on the proportion of schools with any drinking water source. However, many Education Management Information Systems (EMIS) and school surveys still do not include sufficient information on the type of source (improved or unimproved) and the availability of drinking water to determine whether they meet the SDG criteria for a basic water service. Figure 12 shows that in many of the countries where this information was available, a significant proportion of schools had water sources that fell below the SDG standard. For example, in Ethiopia, 37% of schools had a water source but only 29% had an improved source with water available. In Pakistan, schools were nearly twice as likely to have any water source (74%) than to have a basic service (35%). By contrast, in Ghana, most of the schools that had a water source (82%) met the standard for a basic water service (78%).

Since 2015, the number of children lacking a basic drinking water service at their school has decreased by nearly one third

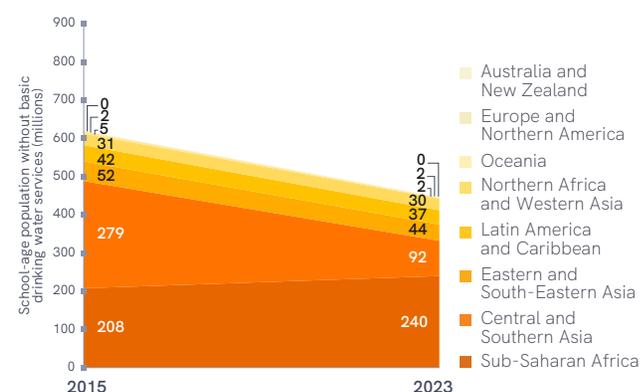


FIGURE 11 School-age population lacking a basic water service at school, 2015-2023, by SDG region (millions)

Many schools have a water source that is not improved or water is not available

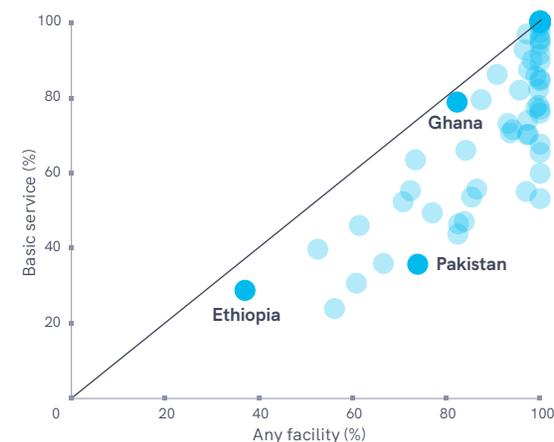


FIGURE 12 Proportion of schools with any drinking water source and a basic water service, by country in 2023 (%)



Since 2015, many countries have reduced the proportion of schools with no water service at all

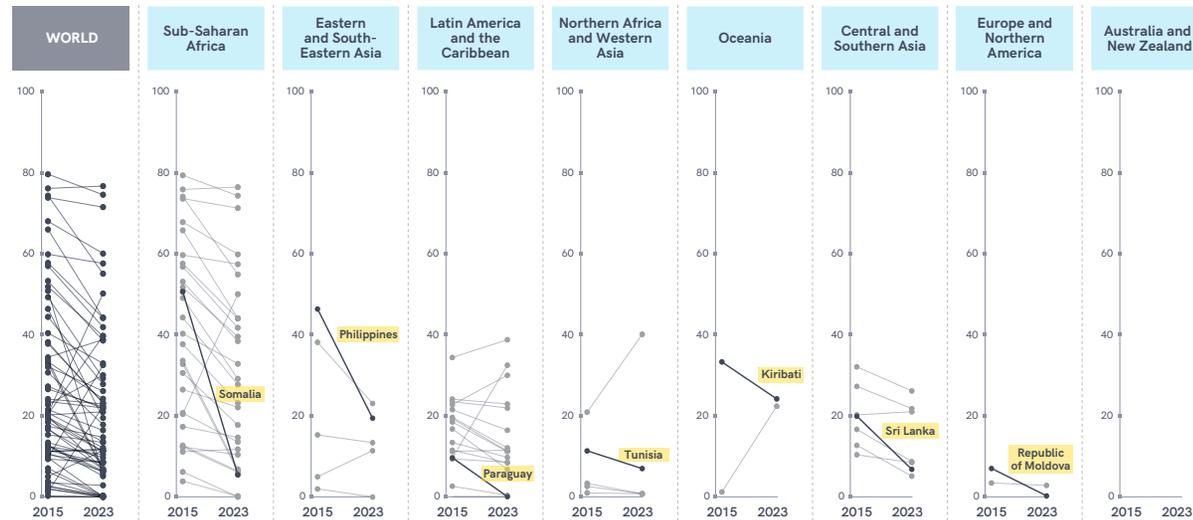


FIGURE 13 Proportion of schools with no water service, by country and SDG region, 2015–2023 (%)

In 2023, 15% of schools still had no drinking water service at all. During the first half of the SDG period, many countries had successfully reduced the proportion of schools with no service, but rates of progress were mixed, and in some countries, the share of schools with no service increased (Figure 13). Since 2015, 17 countries have achieved a reduction of >10 % pts, Côte d'Ivoire, Madagascar, Mali, Philippines and Senegal achieved a reduction of >20 % pts, and Somalia achieved a nearly tenfold reduction, from 51% in 2015 to 6% in 2023. Seven countries (Botswana, Cabo Verde, China, Cuba, Oman, Paraguay, State of Palestine¹⁰) eliminated (<1%) schools

¹⁰ WHO reports refer to 'occupied Palestinian territory, including east Jerusalem'.

with no water service between 2015 and 2023. But despite progress, there are still six countries in sub-Saharan Africa where more than half the schools have no service.

By 2023, the 293 million children who still had no drinking water service at their school were concentrated in a small number of countries (Figure 14). Nearly one third lived in just three countries in sub-Saharan Africa: Ethiopia (33 million), Nigeria (29 million) and the Democratic Republic of Congo (23 million). One in seven lived two countries in Central and Southern Asia: Pakistan (21 million) and India (19 million).

293 million children still had no drinking water service at their school in 2023

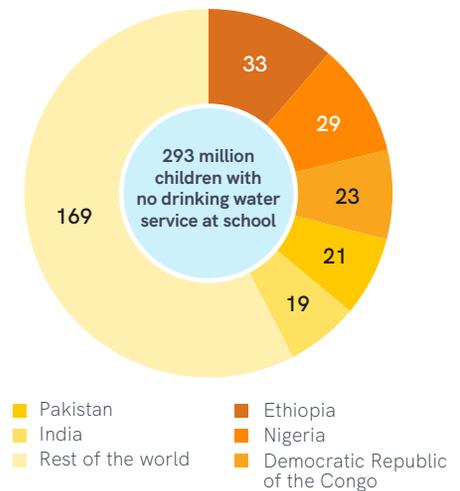
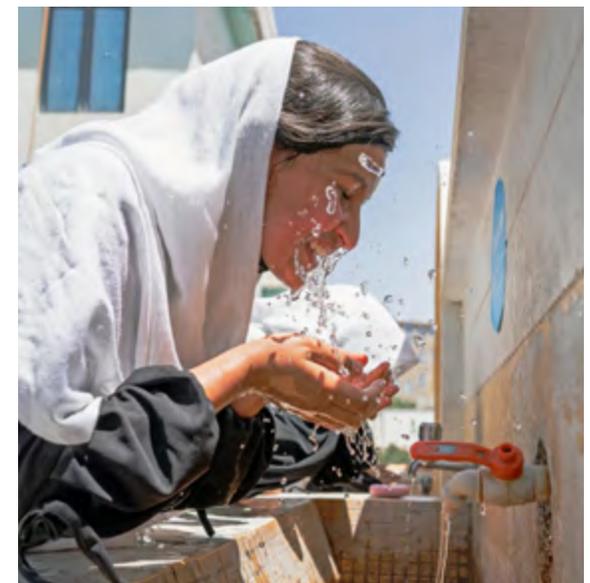


FIGURE 14 School-age population with no water service by country, 2023 (%)



SECTION 3

PROGRESS ON SANITATION IN SCHOOLS

In 2023,

- 144 countries and all SDG regions had national estimates for basic sanitation services in schools, representing 68% of the global school-age population.
- 78% of schools had a basic sanitation service (improved single-sex facilities that were usable at the time of the survey), 11% had a limited service (improved facilities that were not single-sex or not usable), and 11% had no service (unimproved facility or none at all).
- 427 million children lacked a basic sanitation service at their school, including 205 million whose school had improved facilities that were not single-sex or not usable, and 222 million whose school still had no sanitation service.
- Coverage of basic sanitation services ranged from 49% in low-income countries to >99% in high-income countries (52% in fragile contexts).
- Sub-Saharan Africa (50%) and Oceania (51%) were the only SDG regions where less than three quarters of schools had a basic sanitation service.
- Coverage of basic sanitation services was higher in secondary schools (83%) than in primary schools (75%), but there were insufficient data to generate global estimates for pre-primary schools.
- 2 out of 5 children without a basic sanitation service at their school lived in Least Developed Countries (LDCs), and 3 out of 4 lived in fragile contexts.
- Achieving universal access to basic sanitation services in schools by 2030 would require a 2x increase in the current rate of progress. At the current rate of progress, the world will only reach 87% coverage by 2030, leaving approximately 235 million children without a basic sanitation service at their school.



Basic sanitation service

Between 2015 and 2023, global coverage of basic sanitation services increased from 68% to 78%, an increase of 1.22 % pts/yr. The school-age population with a basic service increased from 1.26 billion to 1.51 billion. Progress was most rapid in Eastern and South-Eastern Asia (2.44 % pts/yr) and Central and Southern Asia (2.12 % pts/yr), and the SDG region of Australia and New Zealand is estimated to have already reach universal coverage (>99%), though data are not available for New Zealand. Progress was steady in LDCs at 0.88 % pts/yr, but increased by less than 1 % pt in Small Island Developing States (SIDS) as well as in Landlocked Developing Countries (LDCs). The proportion of the global population with no sanitation service was cut in half, from 22% to 11%, with major reductions in Central and Southern Asia (from 25% to 13%) and in Northern Africa and Western Asia (from 9% to 2%) (Figure 15).

In 2023, estimates for basic sanitation services in schools were available for 144 countries, areas and territories, representing two thirds (68%) of the global school-age population. In 106 countries, coverage was >75%, and in 83 countries it was >90% (Figure 16). 66 countries had already attained universal coverage (>99%), compared with 64 countries in 2015. At least 1 country in each SDG

78% of schools had a basic sanitation service but regional coverage varied widely in 2023

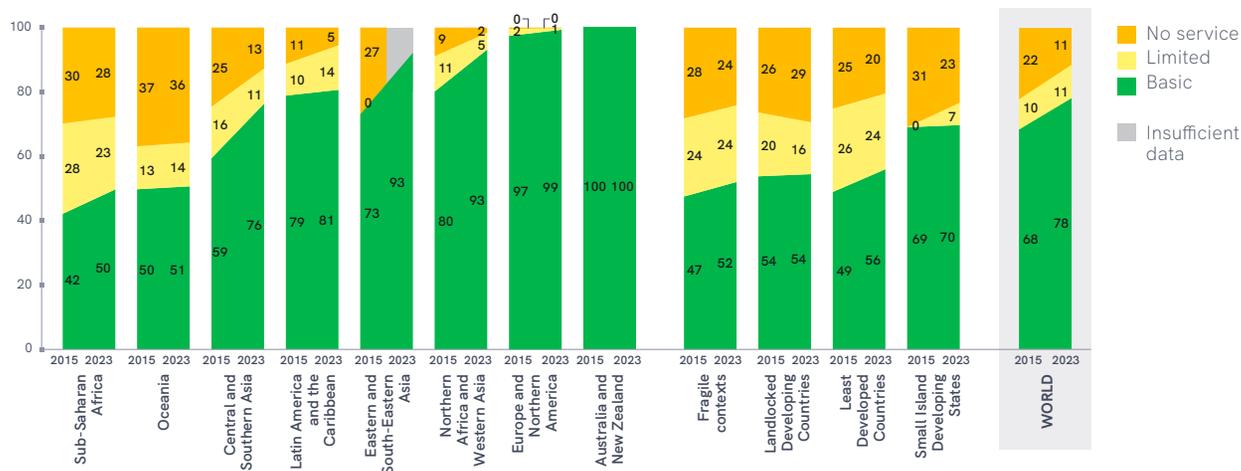


FIGURE 15 Global and regional coverage of sanitation services in schools, 2015–2023 (%)

>75% of schools had a basic sanitation service in 106 out of 144 countries with estimates in 2023

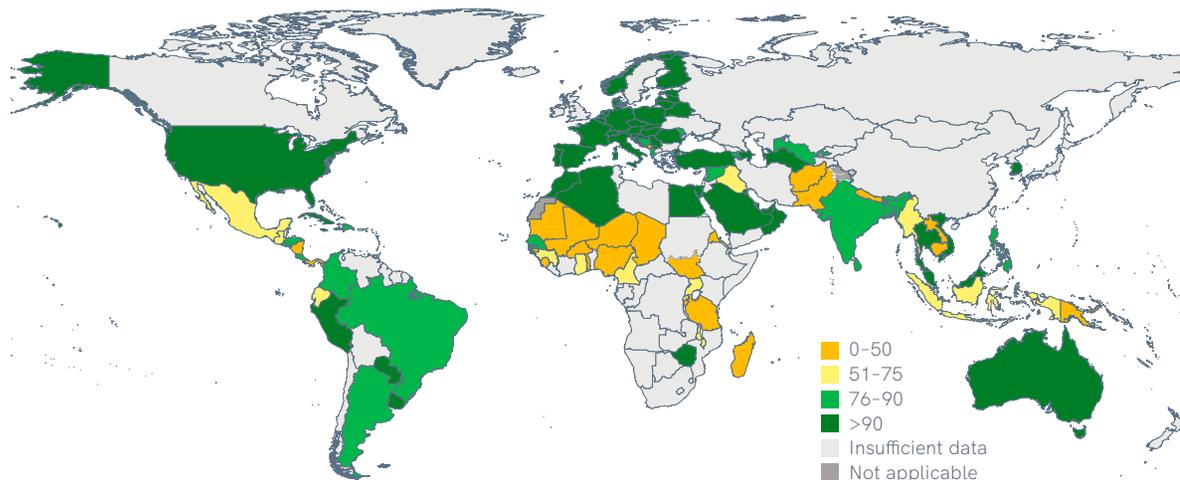


FIGURE 16 Proportion of schools with a basic sanitation service in 2023 (%)

region had reached universal coverage by 2023, including Turkmenistan in Central and Southern Asia, Mauritius and Seychelles in sub-Saharan Africa. In addition, 3 lower-middle-income countries (Algeria, Egypt and Samoa) had achieved universal coverage. However, in 24 countries, less than half of schools had basic sanitation, while in 5 countries (Chad, Montenegro, Panama, Solomon Islands and Togo) coverage was below 25%. More than half of schools had no sanitation service in Togo (51%), Ethiopia (52%) and Niger (57%). Some countries had

partially insufficient data (shown in grey): 29 countries had estimates for basic sanitation but couldn't distinguish between limited sanitation and no service, while 14 countries had data on no service, but not on basic or limited sanitation (Figure 17).

By 2023, 51 countries had sufficient data to estimate trends and rates of change over the 2015–2023 period. Figure 18 shows that only 24 of these countries are on track to reach universal coverage (>99%) by 2030, including one low-income

country (Syrian Arab Republic) and nine lower-middle-income countries (Algeria, Bangladesh, Bhutan, Honduras, India, Morocco, Philippines, Samoa and Senegal). Five countries had achieved progress rates of over 5 % pts/yr: Croatia, Indonesia, Philippines, Syrian Arab Republic and Senegal at nearly 10 % pts/yr. However, in 14 countries, progress was too slow to reach universal coverage by 2030, and in 13 countries, coverage has decreased since 2015.

Sanitation service levels in schools varied widely between countries in 2023

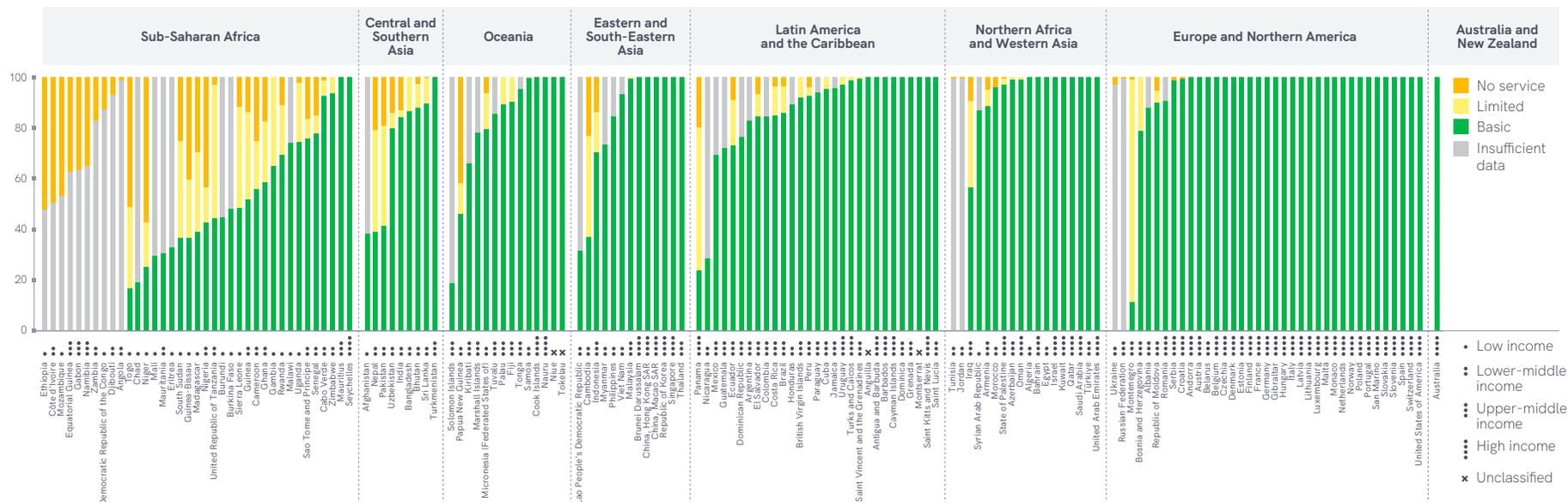


FIGURE 17 Coverage of sanitation services in schools, by country, SDG region and income group in 2023 (%)

If the current rate of progress continues, by 2030 the world will only reach 87% coverage with basic sanitation services, leaving 235 million children without a basic sanitation service at their school. Rates of progress are positive in all SDG regions, ranging from 0.11 % pts/yr in Oceania to 2.44 % pts/yr in Eastern and South-Eastern Asia. Four SDG regions (Australia and New Zealand, Eastern and South-Eastern Asia, Europe and Northern America, and Northern Africa and Western Asia) are on track to reach universal coverage (>99%) by 2030. To reach universal coverage by 2030, Central and Southern Asia would need to increase progress from 2.12 % pts/yr to 3.23 % pts/yr, and Latin American and the Caribbean would need to increase progress from <1 % pt/yr to 2.62 % pts/yr. Oceania and sub-Saharan Africa have coverage levels of around 50%, and would need an unrealistic rate of around 7 % pts/yr (Figure 19).

24 out of 51 countries with trend data are on track to achieve universal coverage (>99%) of basic sanitation in schools by 2030

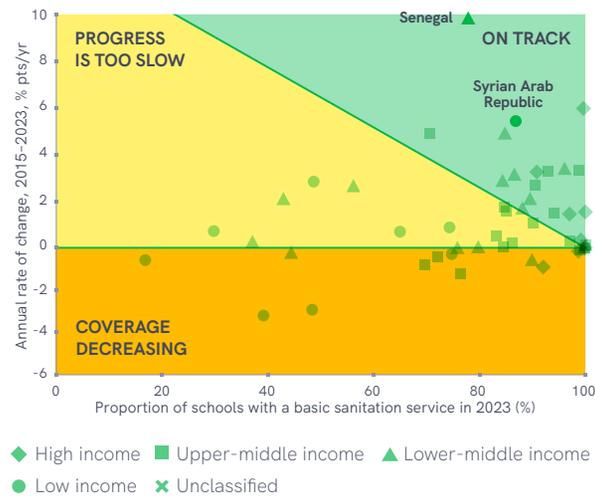


FIGURE 18 Progress on basic sanitation in schools among countries with data on trends, 2015-2023, by income group (%)

Four SDG regions are on track to achieve universal coverage of basic sanitation in schools by 2030

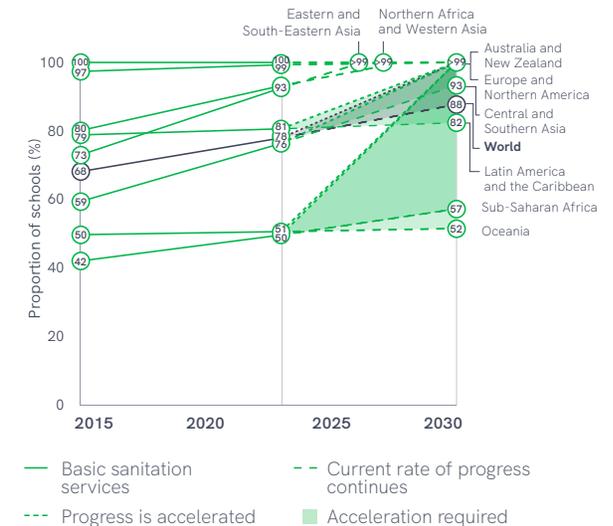
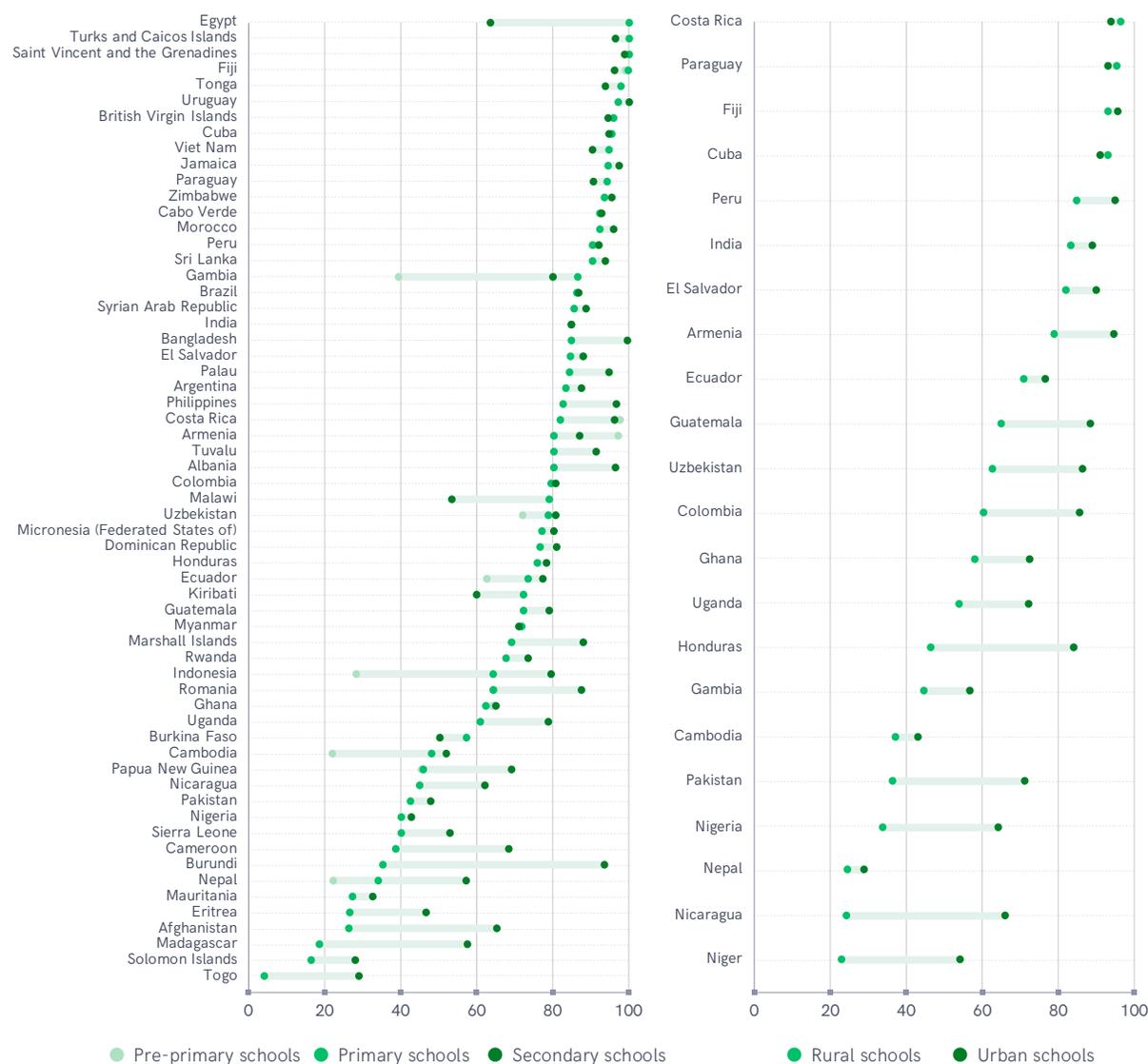


FIGURE 19 Progress on basic sanitation in schools by SDG region, 2015-2023, and acceleration required to reach universal coverage by 2030



Large gaps in sanitation coverage remain between rural and urban and between school levels



Many countries were able to disaggregate basic sanitation services between different types of schools, highlighting significant inequalities: Figure 20 shows that in 2023 coverage was higher in secondary schools compared with primary schools, in 45 of the 61 countries with comparable data. In nearly half of these countries (21), coverage in secondary schools was at least 10 % pts higher than in primary schools. This gap was greater than 25 % pts in Togo, 30 % pts in Cameroon, and nearly 40 % pts in Afghanistan and Madagascar. In Burundi, coverage was 58 % pts higher in secondary schools than in primary schools. In contrast, coverage was 26 % pts higher in primary schools in Malawi than in secondary schools, and Egypt had universal coverage in primary schools but less than two thirds (63%) of secondary schools had basic sanitation. In Brazil, Cabo Verde, Cuba, India and Myanmar, the gaps were less than 1 % pt.

Fewer countries (14) had data on sanitation in pre-primary schools, and while in most cases coverage in pre-primary schools was comparable with that of primary and secondary schools, it was notably lower in Cambodia, Gambia, Indonesia and Nepal. In contrast, basic sanitation in Armenia was higher in pre-primary schools (97%) than in primary and secondary schools (80% and 87%, respectively).

Only 23 countries could disaggregate basic sanitation between urban and rural areas, and in 20 of these, coverage was higher in urban schools. In Honduras, Nicaragua,

FIGURE 20 Proportion of pre-primary, primary and secondary schools, and rural and urban schools, with a basic sanitation service, by country in 2023 (%)

Niger, Nigeria and Pakistan, the urban-rural gap was greater than 30 % pts. There were exceptions to this trend: in Costa Rica, Cuba and Paraguay, coverage was about 2 % pts higher in rural than in urban schools.

Limited or no sanitation service

In 2023, 22% of schools lacked a basic sanitation service, with schools evenly split between having a limited service or no sanitation service, at 11% each. Rural schools were much more likely to lack basic services (40%) than urban schools (17%), and four out of five (80%) of the 265 million children whose school had no sanitation service lived in rural areas.

Globally, the number of children lacking basic sanitation at their school reduced by 160 million during the first half of the SDG period: from 586 million in 2015 to 427 million in 2023, of whom three quarters (312 million) lived in fragile contexts. Half of the children lacking basic sanitation at their school (51%) lived in Sub-Saharan Africa, while a third (31%) lived in Central and Southern Asia. Between 2015 and 2023, these two regions each saw a decline in the proportion of schools lacking basic sanitation (from 58% to 50% in sub-Saharan Africa and from 41% to 24% in Central and Southern Asia, Figure 15), but due to population growth the absolute number of children in sub-Saharan Africa lacking basic sanitation at their school increased (Figure 21). In

all other regions, the number of students without basic sanitation at school declined, with Eastern and South-Eastern Asia seeing a reduction of 70%, from 115 to 33 million.

While most countries now have national data on the proportion of schools with some kind of sanitation facility, some data sources don't include enough information to determine if these facilities meet the requirements for a basic sanitation service (toilets should be improved, but also single-sex and usable). Figure 22 shows that among the 117 countries that had data in 2023 on both 'any sanitation facility' and basic sanitation services, there were sometimes large gaps between the two measures. In more than half (65) of these countries, universal basic sanitation (>99%) had already been achieved. But of the remaining 52 countries, 36 had a gap of at least 10 % pts and 21 had a gap of at least 25 % pts. In 7 countries, the gap was at least 50 % pts, including Montenegro, where all schools had some sanitation facility but only 11% met the basic service requirement. This reflects a particularly detailed 2022 assessment by the Institute for Public Health of Montenegro which found that toilet stalls in the majority of schools (86%) could not be locked from the inside, and therefore weren't considered to provide privacy and meet the SDG standard. In Niger, even though only 43% of schools had any toilet facility, 25% of schools had toilets which were considered to be improved, single-sex and usable.

Since 2015, the number of children lacking basic sanitation at their school has decreased by a quarter

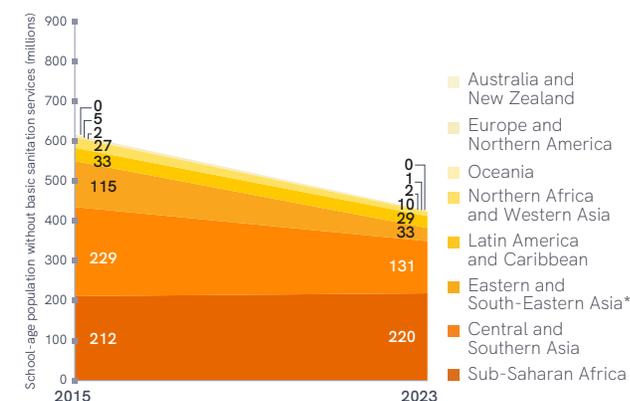


FIGURE 21 School-age population lacking basic sanitation service at school, 2015–2023, by SDG region (millions)

*Data coverage for limited and no service was less than 30%.

Many schools have toilets that are not improved, not single-sex or not usable

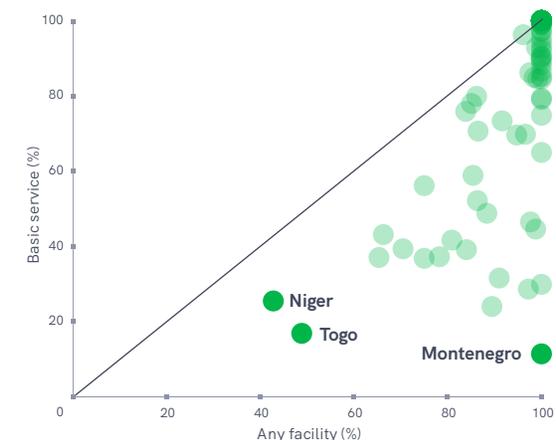


FIGURE 22 Proportion of schools with any sanitation facility and a basic sanitation service, by country in 2023 (%)



Since 2015, progress in reducing the proportion of schools with no sanitation service has been mixed

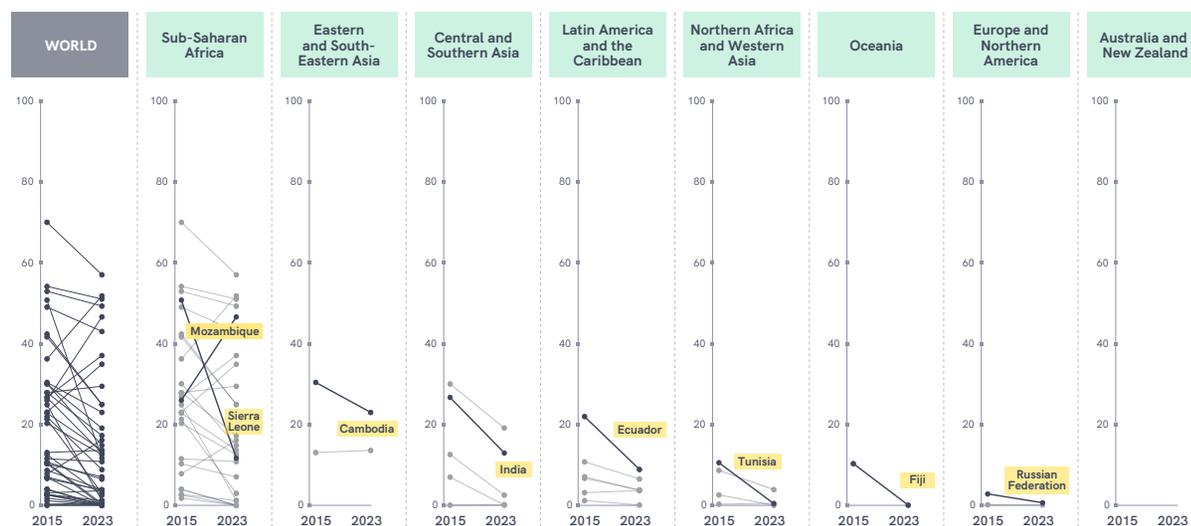


FIGURE 23 Proportion of schools with no sanitation service, by country and SDG region, 2015–2023 (%)

222 million children still had no sanitation service at their school in 2023

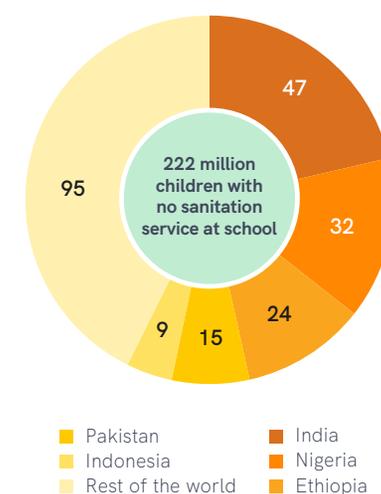


FIGURE 24 School-age population with no sanitation service by country, 2023 (%)

Between 2015 and 2023, the global proportion of schools with no sanitation service was cut in half, from 22% to 11%. However, rates of progress have been mixed (Figure 23). Sub-Saharan Africa continues to have the highest proportion of schools with no service, including three countries (Ethiopia, Niger and Togo) where more than half of schools have no service. Still, this region has also seen the most dramatic improvements, with the proportion of schools with no service in Sierra Leone dropping from 51% in 2015

to 12% in 2023. In Central and Southern Asia, India reduced by more than half the proportion of schools with no service (from 27% to 13%), while in Latin America and the Caribbean, Ecuador saw a reduction from 22% to 9%. Ten countries with at least 1% of schools having no service in 2015 reached universal coverage (>99%) of at least limited services by 2023; most dramatically, Fiji and Tunisia saw the proportion of schools with no service drop from over 10% to <1%. However, in six countries, the share of schools with no

service increased by at least 1 % pt, and in Mozambique the proportion of schools with no service nearly doubled, from 26% to 47%.

In 2023, 222 million children still had no sanitation service at their school, and over half of them lived in India (47 million), Nigeria (32 million), Ethiopia (24 million) or Pakistan (15 million) (Figure 24).

SECTION 4

PROGRESS ON HYGIENE IN SCHOOLS

In 2023,

- 134 countries and all SDG regions had national estimates for basic hygiene services in schools, representing 63% of the global school-age population.
- 67% of schools had a basic hygiene service (handwashing facilities with soap and water available at the time of the survey), 12% had a limited service (handwashing facilities with water but no soap available), and 21% had no service (no facilities or no water at the school).
- 646 million children lacked a basic hygiene service at their school, including 240 million whose school had facilities with water but no soap, and 406 million whose school had no hygiene service.
- Only 28% of schools in low-income countries had a basic hygiene service, compared with >99% of schools in high-income countries (42% in fragile contexts).
- Only 1 in 5 schools in Oceania (19%) and 2 in 5 schools in sub-Saharan Africa (37%) had a basic hygiene service.
- Coverage of basic hygiene services was similar in primary schools (65%) and secondary schools (67%) but there were insufficient data to generate global estimates for pre-primary schools.
- Over one third of children without a basic hygiene service at their school lived in Least Developed Countries (LDCs), and more than half lived in fragile contexts.
- Achieving universal access to basic hygiene services in schools by 2030 would require a 4x increase in the current rate of progress. At the current rate of progress, the world will only reach 74% coverage by 2030, leaving approximately 452 million children without a basic hygiene service at their school.



Basic hygiene service

Global coverage of basic hygiene in schools has risen from 58% in 2015 to 67% in 2023. This represents an annual rate of change of 1.05 % pts/yr over the first half of the SDG period. The proportion with a limited service increased slightly from 10% to 12%, but the proportion with no service has been cut by one third from 32% to 21%. All SDG regions have trend estimates for basic hygiene, but these vary widely. Australia and New Zealand had already reached universal coverage (>99%) at the start of the SDG period, and Europe and Northern America is getting closer, rising from 97% in 2015 to 98% in 2023. Sub-Saharan Africa recorded the biggest increase in coverage of 14 % pts (1.73 % pts/yr). Eastern and South-Eastern Asia and Central and Southern Asia also increased coverage by over 1 % pt/yr, while Northern Africa and Western Asia and Latin America and the Caribbean progressed more slowly. Oceania is the only SDG region that has not made progress during the SDG period, dropping from 21% to 19%. LDCs and fragile contexts recorded similarly large increases of 20 % pts and 17 % pts respectively (Figure 25).

By 2023, 134 countries, areas and territories had national estimates available for basic hygiene services in schools. Over half of these (67 countries) had already achieved universal coverage (>99%), 80 had reached >90% coverage, and in 98 countries, over three quarters of schools had a basic hygiene service.

67% of schools had a basic hygiene service but regional coverage varied widely in 2023

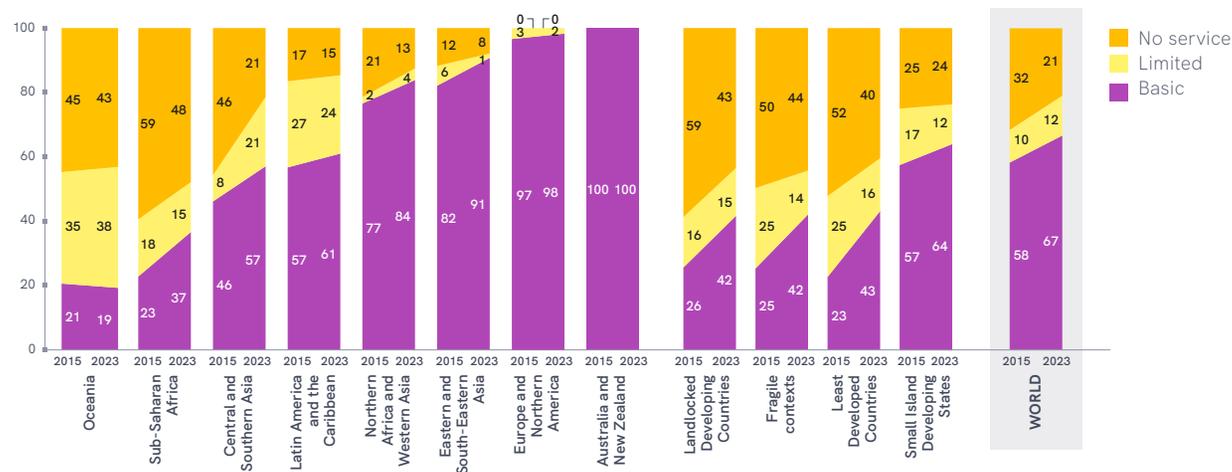


FIGURE 25 Global and regional coverage of hygiene services in schools, 2015–2023 (%)

>75% of schools had a basic hygiene service in 98 out of 134 countries with estimates in 2023

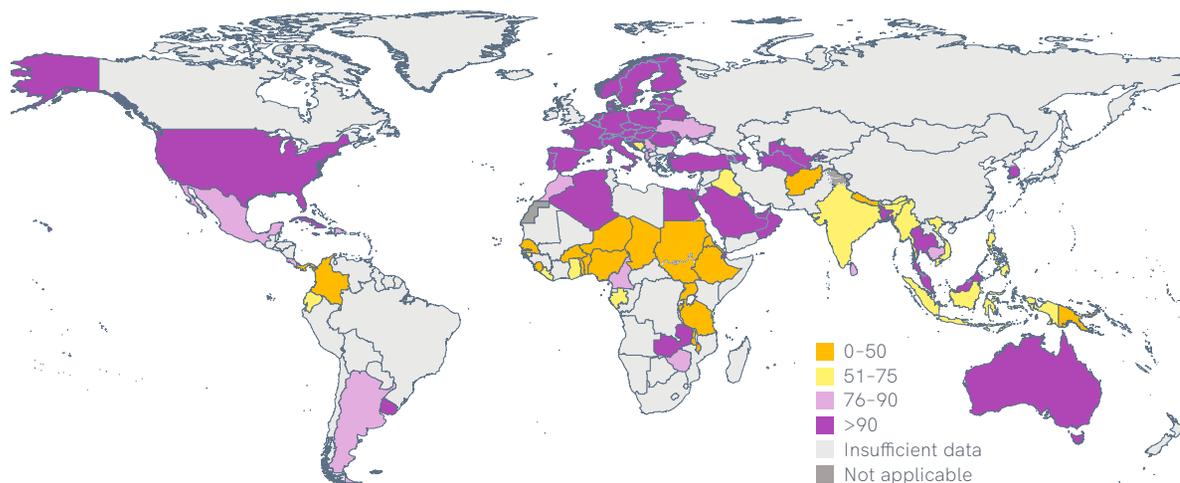


FIGURE 26 Proportion of schools with a basic hygiene service in 2023 (%)

Halfway through the SDG period there were still 22 countries that had not exceeded 50% coverage, of which more than two thirds (15) were in sub-Saharan Africa (Figure 26).

Hygiene service levels in schools varied widely between countries, ranging from >99% to just 5% in Eritrea (Figure 27). Among the low-income countries, Liberia (68%) and Guinea-Bissau (75%) were the only countries where more than two thirds of schools had a basic hygiene service. Five SDG regions still contained at least one country where less than half the schools had a basic hygiene service. 11 countries had estimates for the proportion

of schools with no service but insufficient data to determine how many met the criteria for a basic or limited service (shown in grey). There were 19 countries where at least a third of schools had no hygiene service and 9 countries where more than half the schools had no service. These include Sudan (75%) and Togo (83%), where more than three quarters of schools still had no service. There were six countries where more than a quarter of schools had a limited hygiene service, including Panama (34%), Papua New Guinea (43%) and Chad (47%), where more than a third had handwashing facilities with water but no soap at the time of the survey.



Hygiene service levels in schools varied widely between countries in 2023

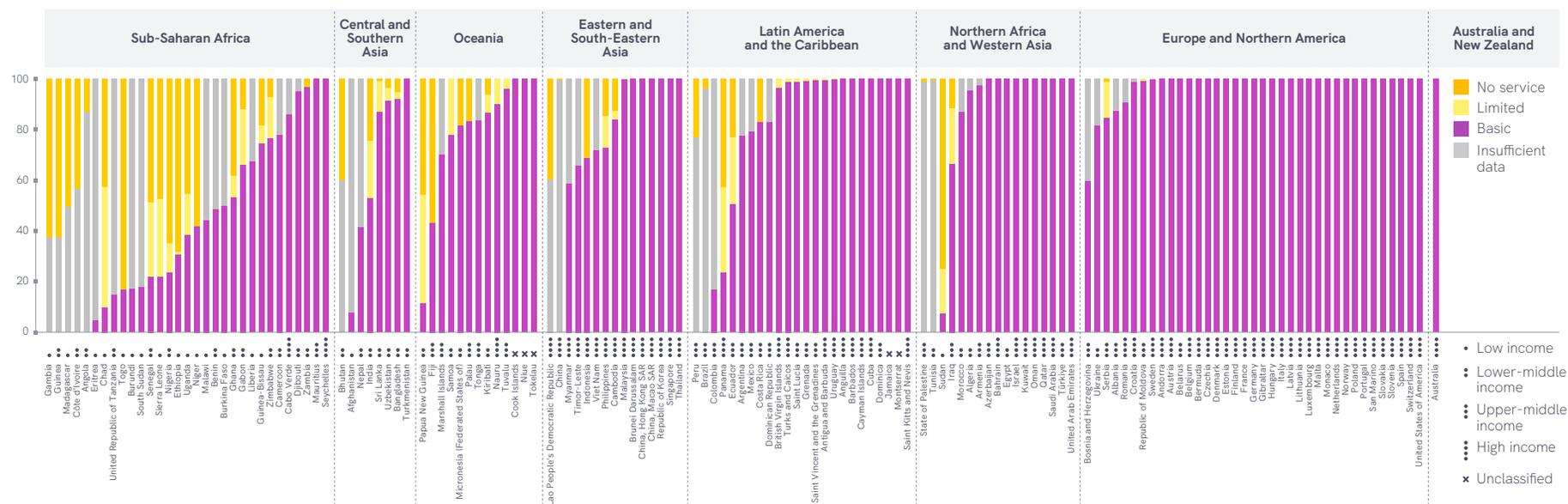


FIGURE 27 Coverage of hygiene services in schools, by country, SDG region and income group in 2023 (%)

Data availability has improved since the start of the SDG period and 38 countries now have sufficient data to estimate trends and rates of change in basic hygiene services. Figure 28 shows that 19 of these countries have increased coverage by >1 % pt/yr and 10 countries by >3 % pts/yr, while in 11 countries, coverage has decreased. Assuming current rates of change continue, only 13 countries are on track to reach universal coverage (>99%) by 2030 and most are progressing too slowly.

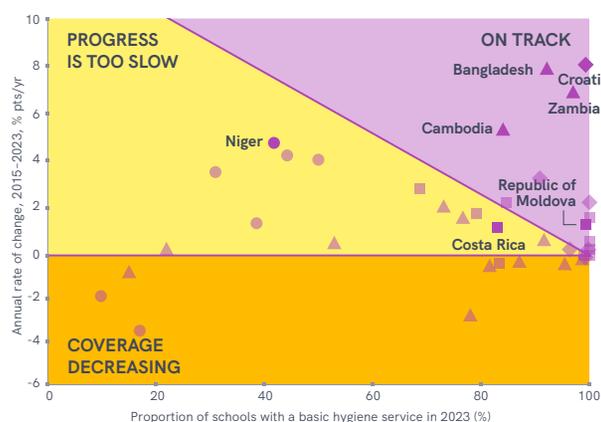
Bangladesh, Cambodia, Niger and Zambia all achieved increases of >5 % pts/yr. Niger (5.22 % pts/yr) and Cambodia (5.84 % pts/yr) recorded similarly fast progress, but by 2023, Niger (low income) had only reached 42% coverage compared with 84% coverage in Cambodia (lower-middle income). Bangladesh achieved the fastest rate among the lower-middle-income countries (7.71 % pts/yr) and Croatia (high income) is the only country that progressed faster (8.01%). Over the same period, Costa Rica (1.31 % pts/yr) and Republic of Moldova (1.42 % pts/yr) increased coverage at similar rates, but the latter has already achieved >99% coverage and is therefore on track to achieve universal coverage by 2030.

Figure 29 extrapolates trend estimates to illustrate current regional trajectories

and the acceleration required to achieve universal coverage in each SDG region by 2030. At the current rate of progress, the world will only reach 74% coverage, leaving around 435 million school-age children without a basic hygiene service at their school at the end of the SDG period. Australia and New Zealand and Europe and Northern America are the only regions currently on track to reach >99% coverage, but Eastern and South-Eastern Asia will

be close behind (98%). Unless progress is accelerated in other regions, only 9 out of 10 schools in Northern Africa and Western Asia, two thirds of schools in Central and Southern Asia and Latin America and the Caribbean, and around half of schools in sub-Saharan Africa will have a basic service. At the current rate of progress, just one in five schools in Oceania will have basic hygiene by 2030.

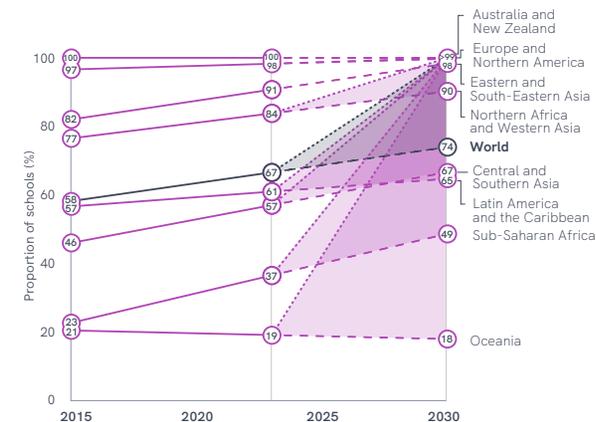
13 out of 38 countries with trend data are on track to achieve universal coverage of basic hygiene in schools by 2030



◆ High income ■ Upper-middle income ▲ Lower-middle income
● Low income × Unclassified

FIGURE 28 Progress on basic hygiene in schools among countries with data on trends, 2015-2023, by income group (%)

Only 2 SDG regions are on track to achieve universal coverage of basic hygiene in schools by 2030



— Basic hygiene services - - Current rate of progress continues
- - Progress is accelerated ■ Acceleration required

FIGURE 29 Progress on basic hygiene in schools by SDG region, 2015-2023, and acceleration required to reach universal coverage by 2030

In countries where it is possible to disaggregate estimates by rural and urban and by school level, it is possible to examine subnational inequalities in basic hygiene services. Figure 30 shows that in some of the 61 countries with data disaggregated by school level, there were very large gaps in coverage between pre-primary, primary and secondary schools in 2023. In the majority of countries (36), secondary coverage was higher than primary coverage, but in 23 countries, it was lower. Only 9 countries had estimates for all three school levels and there was no clear pattern in relative levels of coverage in pre-primary schools. The largest gaps in coverage between secondary and primary schools were observed in Fiji (77 % pts higher in secondary) and in Egypt (37 % pts higher in primary). Pre-primary coverage was lower than primary and secondary in Cambodia, Hungary and Indonesia but higher than primary and secondary in Gabon. In Papua New Guinea, coverage was equally low in pre-primary (12%), primary (11%) and secondary (16%).

In 2023, 12 countries had estimates for basic hygiene coverage that could be disaggregated by both school level and by rural and urban. Coverage was higher in urban schools than in rural schools in all countries except Ecuador and United Republic of Tanzania. Urban coverage exceeded rural coverage by 54 % pts in Pakistan and by 20 % pts in Ghana and Nigeria, even though the coverage gap between primary and secondary schools was

Hygiene coverage gaps between rural and urban and school levels vary widely between countries

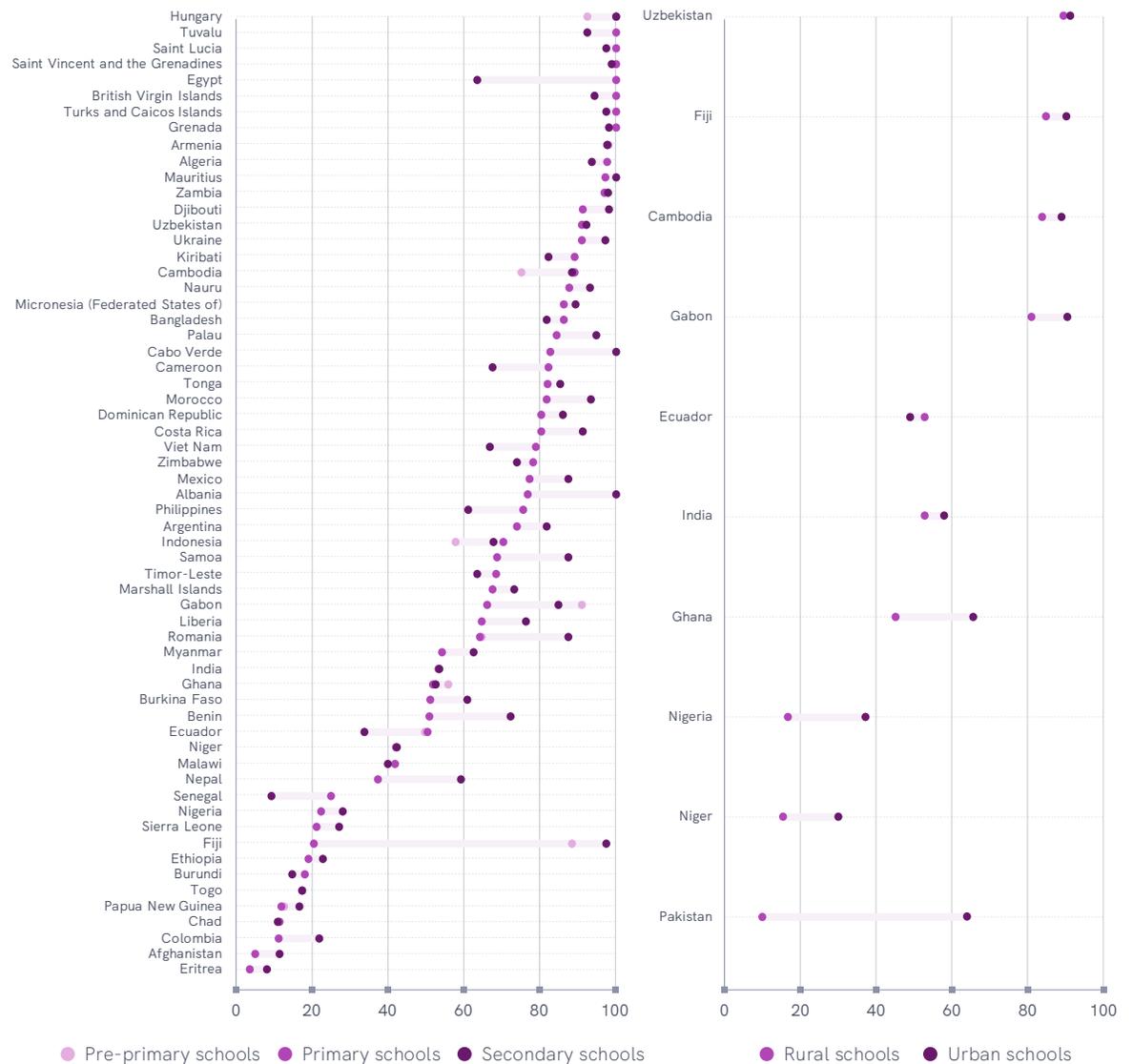


FIGURE 30 Proportion of pre-primary, primary and secondary schools, and rural and urban schools, with a basic hygiene service, by country in 2023 (%)

comparatively small in Nigeria (6 % pts) and Ghana (<1 % pt). In Uzbekistan, there was almost no difference in coverage between primary (91%) and secondary (92%), and urban (91%) and rural (89%) schools.

Limited or no hygiene service

During the first half of the SDG period (2015–2023), the number of children lacking basic hygiene at their school decreased from 770 million to 646 million (Figure 31). This includes 240 million whose school had a limited service, and 406 million whose school still had no hygiene service at all. In 2023, over one third of children without a basic hygiene service at their school lived in LDCs, and more than half lived in fragile contexts. All SDG regions have reduced the number of children without basic services since 2015, except for Oceania where it has remained largely unchanged. Sub-Saharan Africa (276 million) and Central and Southern Asia (238 million) now account for four out of five children without a basic hygiene service at their school. The former has recorded a reduction of just 7 million, compared with a 66 million reduction in the latter.

The majority of countries in the JMP global database have national data sources with information on the proportion of schools with any kind of handwashing facility, but these frequently lack information on the availability of water and soap. In

many of the countries where both types of information are available, coverage of handwashing facilities is much higher than coverage of basic hygiene services (Figure 32). For example, in Fiji, almost all schools (98%) have some kind of handwashing facility but only 43% meet the SDG standard for a basic hygiene service. In Chad, 73% of schools have facilities but just 10% have water and soap available. By comparison, in Indonesia, there is no difference between coverage of handwashing facilities (69%) and basic hygiene services (69%), indicating that the availability of water and soap is not a major challenge. Of the 97 countries with data on both measures, basic hygiene services are lower than access to any handwashing facility by at least 10 % pts in 16 countries, including 9 countries in which the difference is >20 % pts. Although basic services are much higher in Fiji (43%) than in Chad (10%), in both countries, the gap between basic services and having access to any handwashing facility is greater than 50 % pts.

At the mid-point of the SDG period, 21% of schools still had no hygiene service. Between 2015 and 2023, many countries managed to reduce the proportion of schools with no service, but rates of change varied and some countries regressed (Figure 33). During this period, nine countries achieved a reduction of >10 % pts, six achieved a reduction of >20 % pts, and Cambodia, Côte d’Ivoire, Philippines,

124 million fewer children lacked a basic hygiene service at their school in 2023

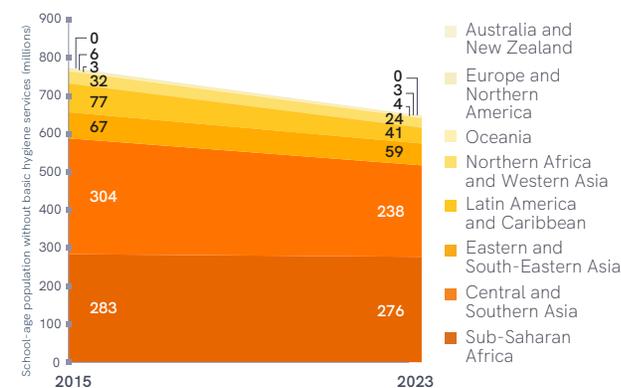


FIGURE 31 School-age population lacking a basic hygiene service at school, 2015–2023, by SDG region (millions)

Many schools have handwashing facilities but no water or no soap

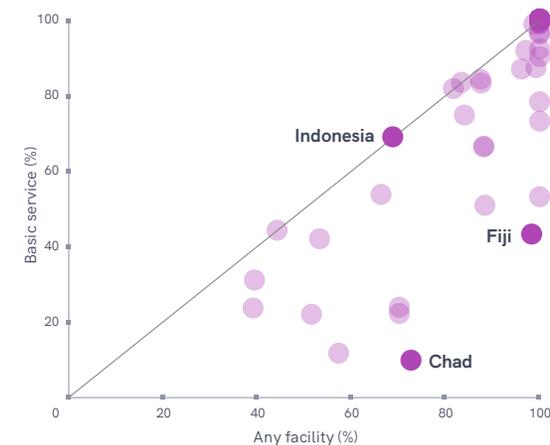


FIGURE 32 Proportion of schools with any handwashing facility and a basic hygiene service, by country in 2023 (%)

Rwanda and Senegal recorded reductions of >30 % pts. This illustrates that rapid progress is possible. Four countries (China, Republic of Moldova, Rwanda and Tunisia) eliminated (<1%) schools with no hygiene service between 2015 and 2023. But despite progress, there are still countries in sub-Saharan Africa and Northern and Western Africa where more than half the schools have no hygiene service.

By 2023, nearly half of the 406 million children who still had no hygiene service

at their school were found in just five countries (Figure 34). Nearly a quarter lived in India (90 million), which accounted for the same number as Nigeria (47 million), Ethiopia (32 million) and Sudan (11 million) combined. Since 2015, the school-age population has grown rapidly in Sub-Saharan Africa (2.39 % pts/yr), while it has declined slightly in Central and Southern Asia by 0.18 % pts/yr, and in many African countries, WASH services in schools are struggling to keep up.



Since 2015, some countries have rapidly reduced the proportion of schools with no hygiene service

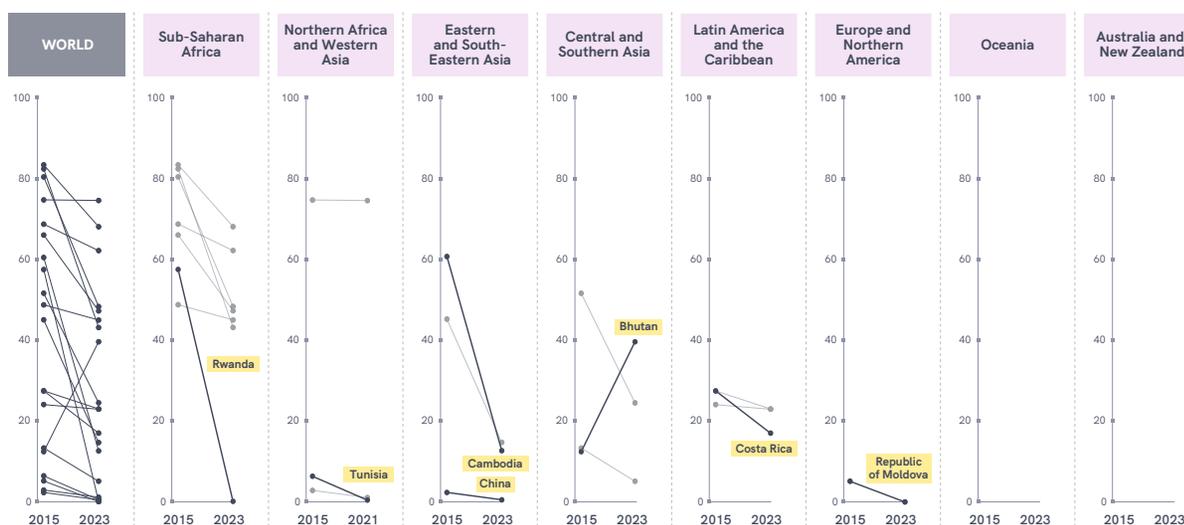


FIGURE 33 Proportion of schools with no hygiene service, by country and SDG region, 2015–2023 (%)

406 million children still had no hygiene service at their school in 2023

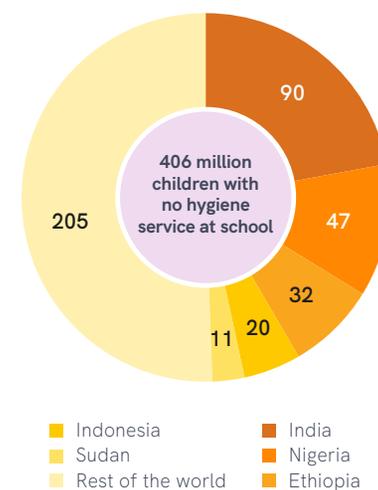


FIGURE 34 School-age population with no hygiene service by country, 2023 (%)

The 2030 Agenda for Sustainable Development includes global targets for universal access to drinking water, sanitation and hygiene services. Progress on WASH in schools is not only essential for providing inclusive and quality education for all (SDG4) but also for realizing gender equality and empowering all women and girls (SDG5). This is reflected in growing attention to the links between WASH and menstrual health. Access to basic drinking water, sanitation and hygiene services in schools is widely recognized to be an essential foundation for menstrual health among adolescent schoolgirls, which is the focus of the next chapter. But while many countries have increased coverage of drinking water or sanitation or hygiene, it has been more challenging to increase coverage of all three elements at once. As a result, coverage of basic WASH services is often lower than for the individual elements. By 2023, only 69 countries had achieved >90% coverage for all three elements of basic WASH (Figure 35).

Only 69 countries had achieved >90% coverage for all three elements of basic WASH by 2023

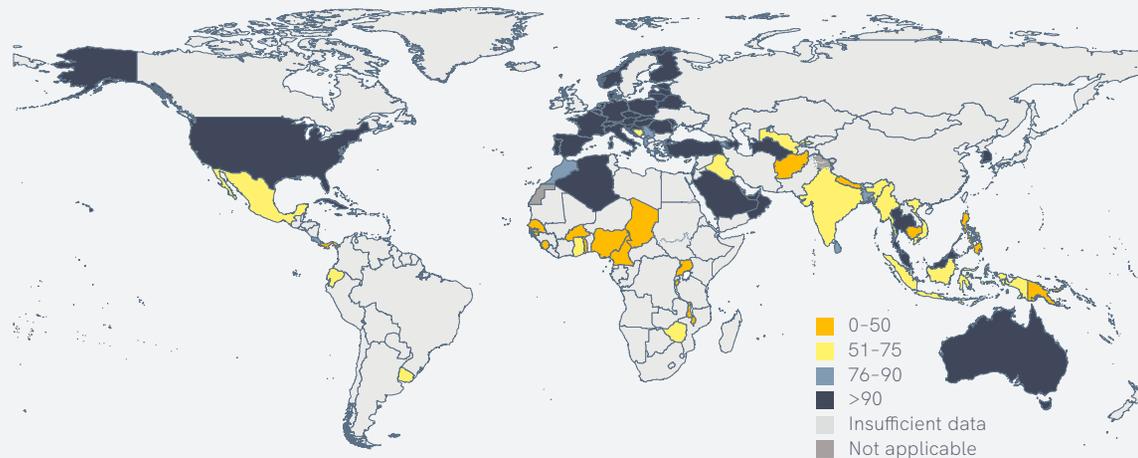


FIGURE 35 Proportion of schools by minimum coverage of basic water, basic sanitation and basic hygiene services in 2023 (%)

Further analysis of available data on sanitation service levels highlights some of the challenges adolescent schoolgirls face when using school toilets (Figure 36). Among countries with disaggregated data available, most schools have improved sanitation facilities but the proportion that are single-sex and the proportion that are usable is often significantly lower. For example, in Montenegro almost all schools had improved facilities (99%) and four out of five were single-sex (82%), but only one in seven (14%)

were usable and just one in ten (11%) met all of the criteria for a basic sanitation service. In Croatia, by contrast, all schools had improved facilities (100%) and almost all of them were also single-sex (96%) and usable (99%). The challenges associated with meeting each criterion vary across countries. Schools in Belize were nearly twice as likely to have improved facilities that were single-sex (93%) than were usable (49%), but the reverse was true in Jordan where school toilets were more than twice as likely to be usable (86%) than single-sex (39%).

Country level coverage figures may also mask subnational inequalities in access to basic WASH services in schools. In 2021, Nigeria and Sierra Leone both conducted WASHNorm surveys which revealed large gaps in coverage between subnational regions (Figure 37). The biggest disparities were observed in basic sanitation which ranged from 90% in Lagos to 9% in Gombe in Nigeria (81% pts), and from

75% in Port Loko to 10% in Karene in Sierra Leone (65% pts). The disparities for basic water and basic hygiene were larger in Nigeria (37 regions), but subnational coverage in Sierra Leone (16 regions) was generally lower. In both countries the proportion of schools with all three elements of basic WASH was significantly lower in all subnational regions. Fewer than half the schools in Abjua (FCT)

in Nigeria (47%) and less than one in five schools in Western Area Rural in Sierra Leone (18%) had access to basic WASH services, and in both countries there were still subnational regions where no school had access to all three elements in 2021. Adolescent schoolgirls are likely to find it especially difficult to manage menstruation in these regions.

Many schools have improved toilets that are either not single-sex or not usable

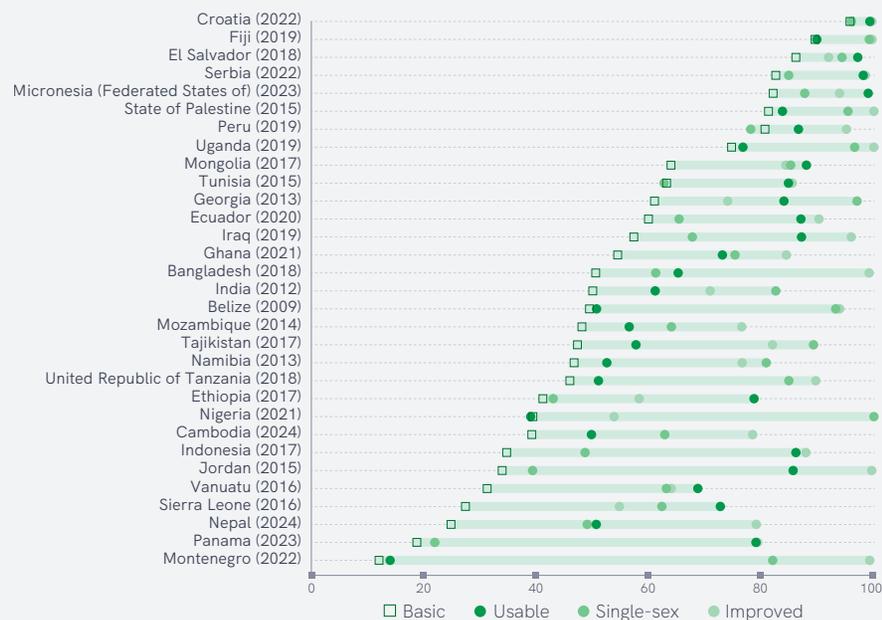
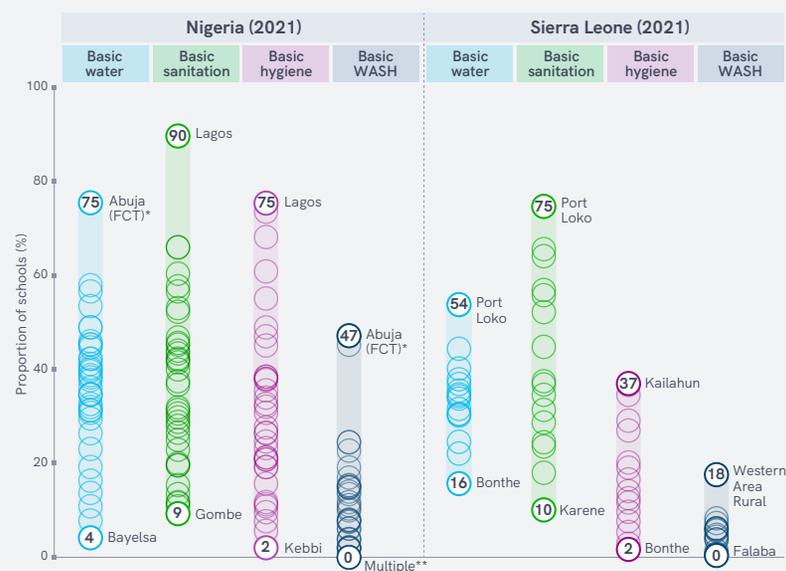


FIGURE 36 Proportion of schools with improved, single-sex and usable sanitation facilities by country, selected recent surveys with all three elements (%)

Coverage of basic WASH in schools varied widely between subnational regions of Nigeria and Sierra Leone in 2021



* Federal Capital Territory (FCT)
** There are multiple regions with <1% basic WASH coverage in Nigeria: Enugu, Gombe and Sokoto

FIGURE 37 Proportion of schools with basic water, basic sanitation, basic hygiene, and basic WASH services by subnational region, selected WASHNORM surveys in Sierra Leone and Nigeria, 2021



SECTION 5

SPECIAL FOCUS ON MENSTRUAL HEALTH IN SCHOOLS

Preliminary estimates based on emerging national data¹¹

- Globally, around 2 out of 5 schools (39%) provide menstrual health education (33% data coverage) and 1 in 3 schools (31%) have bins for menstrual waste in girls' toilets (32% data coverage).
- In Central and Southern Asia, around 2 out of 5 schools (39%) provide menstrual health education - 1 in 3 primary schools (34%) and 4 out of 5 secondary schools (84%) (74% data coverage) - and 1 in 3 schools (35%) have bins for menstrual waste in girls' toilets (74% data coverage).
- In sub-Saharan Africa, around 1 in 8 schools (12%) have menstrual materials available for free or purchase (33% data coverage) and 1 in 10 schools (11%) have bins for menstrual waste in girls' toilets (33% data coverage).
- In Least Developed Countries, around 1 in 5 schools (17%) have bins for menstrual waste in girls' toilets (34% data coverage).
- 30 countries have nationally representative data on at least one of the globally recommended priority indicators¹² for schools or adolescent schoolgirls. Data are available from 7 out of 8 SDG regions and all income groups.
- The most commonly available national menstrual health data for girls are related to facilities (22 out of 30 countries), knowledge (19 out of 30), and materials (15 out of 30).
- Few countries have national data related to MH impacts (9 out of 30), discomfort/disorders (5 out of 30), and a supportive social environment (2 out of 30).
- Definitions vary widely between countries and data sources - indicator harmonization is needed, including adoption of globally recommended priority indicators.

¹¹ Note: Nationally representative data for menstrual health indicators remain limited and definitions vary making cross-country comparison difficult. Preliminary regional and global aggregates should therefore be treated with caution.

¹² Global MHH Monitoring Group, *Priority List of Indicators for Girls' Menstrual Health and Hygiene*: Technical guidance for national monitoring. New York: Columbia University; 2022 (www.publichealth.columbia.edu/file/8002/download?token=AViwoc5e).



Introduction

Universal access to basic water, sanitation and hygiene (WASH) services is not sufficient for creating a supportive environment for students who menstruate, and there are additional elements of menstrual health (MH) that need to be considered and monitored (Box 3). To support standardized monitoring of MH for adolescent girls, the global menstrual health and hygiene monitoring group convened stakeholders and experts to develop a list of recommended priority indicators for girls, covering seven domains (Table 1). This report has a special focus on MH in schools and highlights currently available national data and examples of subnational data related to each of these domains.



BOX 3 DEFINITION OF MENSTRUAL HEALTH

The following definition of menstrual health was published in 2021 based on a multi-stage process led by the Global Menstrual Collective¹³.

Menstrual health is a state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity, in relation to the menstrual cycle. Achieving menstrual health implies that women, girls and all other people who experience a menstrual cycle, throughout their life-course, are able to:

- access accurate, timely, age-appropriate **information** about the menstrual cycle, menstruation and changes experienced throughout the life-course, as well as related self-care and hygiene practices.
- care for their bodies during menstruation, such that their preferences, hygiene, comfort, privacy and safety are supported. This includes accessing and using

effective and affordable menstrual **materials** and having supportive **facilities** and services, including water, sanitation and hygiene services, for washing the body and hands, changing menstrual materials, and cleaning and/or disposing of used materials.

- access timely diagnosis, treatment and care for menstrual cycle-related **discomforts and disorders**, including access to appropriate health services and resources, pain relief, and strategies for self-care.
- experience a **positive and respectful environment** in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support they need to confidently care for their bodies and make informed decisions about self-care throughout their menstrual cycle.
- decide whether and how to **participate** in all spheres of life, including civil, cultural, economic, social and political, during all phases of the menstrual cycle, free from menstrual-related exclusion, restriction, discrimination, coercion and/or violence.

¹³ The Global Menstrual Collective brings together multisectoral stakeholders and coalitions working on menstrual health to support coordination and bolster collective, evidence-based advocacy to drive investment. For more information see (www.globalmenstrualcollective.org). Hennegan J, Winkler I, Bobel C, Keiser D, Hampton J, Larsson G et al. Menstrual Health: a definition for policy, practice, and research. *Sex Reprod Health Matters*. 2021;29(1):1911618 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8098749/>)

TABLE 1 Priority list of indicators for monitoring girls' menstrual health and hygiene¹⁴

DOMAIN	DENOMINATOR	INDICATOR	NUMBER OF COUNTRIES IDENTIFIED WITH RELATED NATIONAL DATA
Materials	Individuals	1. % of girls who reported having enough menstrual materials during their last menstrual period	4
	Schools	2. % of schools with menstrual materials available to girls in case of an emergency	13
Facilities	Individuals	3. % of girls who reported changing their menstrual materials during their last menstrual period when at school	2
	Individuals	4. % of girls who changed their menstrual materials at school in a space that was clean, private and safe during their last menstrual period	13
	Schools	5. % of schools (primary/secondary) with improved sanitation facilities that are single-sex and usable (available, functional and private) at the time of the survey	165
	Schools	6. % of schools (primary/secondary) with improved sanitation facilities that are single-sex, usable (available, functional and private), have covered disposal bins, and have discreet disposal mechanisms at the time of the survey	17
	Schools	7. % of schools (primary/secondary) that have water and soap available in a private space for girls to manage menstruation	10
Knowledge	Individuals	8. % of students (male/female) who have ever received education about menstruation in primary and secondary school	17*
	Individuals	9. % of females who know about menstruation prior to menarche	4
	Individuals	10. % of females with correct knowledge of the fertile period during the ovulatory cycle	1
	Schools	11. % of schools where education about menstruation is provided for students from age 9	17*
	Schools	12. % of schools with pre-service or in-service teacher training about menstruation at the primary or secondary level	0
	Schools	13. % of schools that have at least one teacher trained to educate primary/secondary students about menstruation	0
	Country	14. % of countries where national policy mandates education about menstruation at primary and secondary level	**
Discomfort/ Disorders	Individuals	15. % of girls who report that they were able to reduce their menstrual (abdominal/back/cramping) pain when they needed to during their last menstrual period	4
	Individuals	16. % of girls who would feel comfortable seeking help for menstrual problems from a health care provider	1
Supportive social environment	Individuals	17. % of girls who have someone they feel comfortable asking for support (advice, resources, emotional support) regarding menstruation	2
Menstrual health impacts	Individuals	18. % of girls who report that a menstrual period does not impact their day	3
	Individuals	19. % of girls whose class participation was not impacted by their last menstrual period	9
Policy	Country	20. % of countries with policies or plans that include menstrual health and hygiene	**
	Country	21. % of countries where national budget is allocated to menstrual health and hygiene; funds are dispersed to the schools in a timely and efficient manner	**

*All countries with data related to indicators 8 and 11 are included here.

**National data on policy were not compiled for this report.

14 Global MHH Monitoring Group, Priority List of Indicators for Girls' Menstrual Health and Hygiene: Technical guidance for national monitoring. New York: Columbia University; 2022 (www.publichealth.columbia.edu/file/8002/download?token=AViwoc5e).

Only a small number of countries routinely collect data on MH in schools, and indicator definitions vary widely which makes cross-country comparison difficult. A growing number of countries have data that are nationally representative but very few have data that can be disaggregated. Even fewer countries have sufficient data to assess trends in MH.

This chapter includes data that have been collected from different population groups, including schoolgirls, adolescent girls (in or out of school), female and gender-diverse students, and college/university women. The

terms 'adolescent schoolgirls' or 'schoolgirls' are used throughout this report since these are the most commonly used denominators in existing datasets. This is not intended to be restrictive, and it is recognized that other students or adolescents may also experience menstruation but are not reflected in the available data.

All data refer to those who have already experienced menstruation, unless otherwise noted. Some indicators refer to the proportion of individuals while others refer to the proportion of schools. Both types of indicators are used throughout and those that

correspond most closely to the list of priority indicators are noted with a 'P'. Some figures include data from subnational surveys, which should not be taken to represent the situation in the country as a whole. Subnational data are included as examples related to the priority indicators for girls since few countries currently have national data. While Table 1 includes the number of countries with nationally representative data related to each global priority indicator, a total of 43 countries are represented in this chapter when the example subnational studies are also considered. References for all data sources are provided in the References section.



Data availability

This section provides an overview of the availability of nationally representative data related to each of the domains in Table 1. Policy indicators that refer to the proportion of countries (indicators 14, 20 and 21) are excluded, as this type of information is not available from the national data sources regularly compiled by the JMP, although some examples of emerging policy indicators are included at the end of the chapter (Box 4). Access to basic sanitation services (priority indicator #5) is also excluded as this has already been discussed in Chapter 3. Data availability for this SDG global indicator and its sub-elements is much higher than for other indicators related to menstrual health; 165 countries have at least one data point on basic sanitation since 2000, 183 countries have data on improved sanitation, and 80 and 65 countries have separately reported details on the proportion of schools with single-sex and usable sanitation, respectively.

By 2024, the JMP had identified 30 countries with national data related to at least one of the emerging priority indicators for schools or schoolgirls (Figure 38). One third (10) are from sub-Saharan Africa, but seven out of eight SDG regions have data for at least one country and available data span low-income to high-income countries. Among these 30 countries, 7 have included MH indicators in routine national school monitoring systems.

National data for emerging menstrual health indicators are available for 7 out of 8 SDG regions

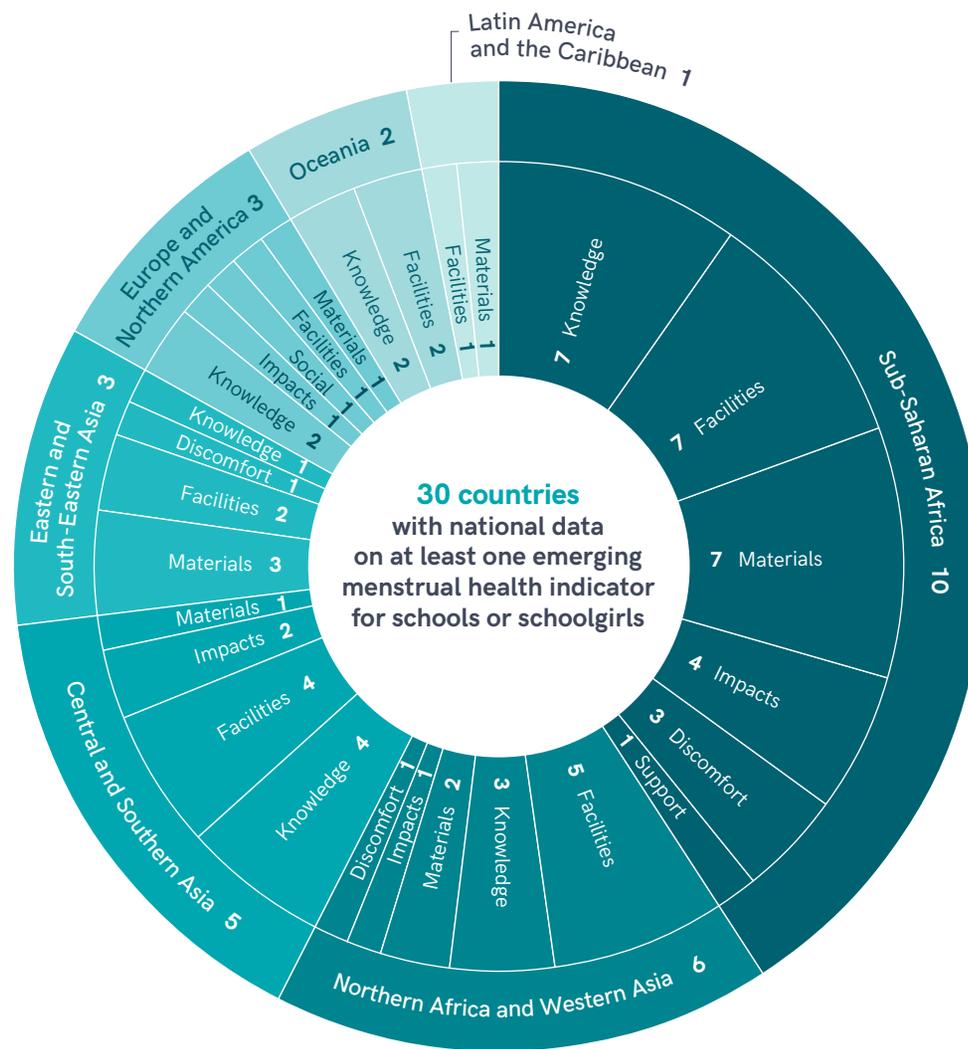


FIGURE 38 Number of countries with national data on emerging menstrual health indicators for schools or schoolgirls, by SDG region

Ethiopia, Fiji, Sierra Leone and Zambia have all included at least one question on MH in their national Education Management Information Systems (EMIS). India, Philippines and Cambodia have included menstrual health indicators in their regular Three Star Approach (TSA)¹⁵ or similar national monitoring system.

Most of these countries (22 out of 30) had national data related to facilities for managing menstruation at school, while 19 countries had national data related to knowledge, and 15 had data related to menstrual materials. Fewer countries had data related to the other domains of menstrual health impacts (9) and menstrual discomfort/disorders (5). Only two countries had national data on a supportive social environment for MH at school.

Materials

Having enough menstrual materials

Nationally representative data on the proportion of students who reported having enough menstrual materials during their last period (priority indicator #1) were not available from any countries. However, in two subnational surveys, in Soroti (Uganda) in 2019 and Khulna (Bangladesh) in 2022¹⁶,

15 UNICEF, Field Guide: The Three Star Approach for WASH in Schools, 2013 (www.unicef.org/kyrgyzstan/reports/field-guide-three-star-approach-wash-schools).

16 Sources of emerging data on menstrual health in schools are listed in the References section

36% and 60% of menstruating girls in primary school, respectively, reported that they always had enough menstrual materials to change them as often as they wanted during their last period.

There are also examples of related indicators used in recent surveys (Figure 39). In a subnational study in Scotland (United Kingdom), 64% of students surveyed had accessed free menstrual materials from their school, and 85% of those reported that they had enough materials to meet their needs. Having enough materials may also be related to affordability. In Japan, 7% of adolescent schoolgirls reported that

they replaced materials less frequently due to economic reasons. Coverage varies across countries and surveys, and depends on the indicator definition and criteria used to assess sufficiency and satisfaction with materials. For example, in Lao People's Democratic Republic, 81% reported that sanitary pads are easy to find and affordable, while 60% said they are satisfied with their frequency of changing pads. Disaggregation of data can highlight important inequalities. In Ethiopia, the proportion who reported that they can afford sanitary pads varied widely between urban areas (87%), rural non-pastoralist areas (60%), and rural pastoralist areas (13%).

Many adolescent schoolgirls do not have enough menstrual materials and some struggle to afford them



FIGURE 39 Proportion of adolescent schoolgirls with enough menstrual materials (or related indicator) (%)

Menstrual materials available at school

The provision of menstrual materials at school can have a big impact on girls' ability to feel comfortable. In 2021, almost half (44%) of adolescent girls in Japan reported that the main inconvenience in their daily life caused by menstruation is the lack of sufficient sanitary products at school or in public places. In a 2020 survey in the Loreto, Ucayali, Huancavelica, and Lima (Carabayllo) regions of Peru, 73% of students who menstruate wished that their school had free supplies such as sanitary napkins, toilet paper, soap, or pills for menstrual cramps.

Nationally representative data on school provision of menstrual materials were available for 13 countries (Figure 40). In ten countries, more than half the schools did not have materials available, and in seven countries, more than four out of five schools lacked materials. Based on an average of seven countries with data available (weighted by school-age population and representing 33% of school-age children in the region), it is estimated that around 12% of schools in sub-Saharan Africa have menstrual materials available.

Of the 13 countries with national data related to priority indicator #2, 5 are closely aligned with the priority indicator definition; in Lebanon, 55% of schools provided menstrual

Several countries have data on the availability of menstrual materials at school

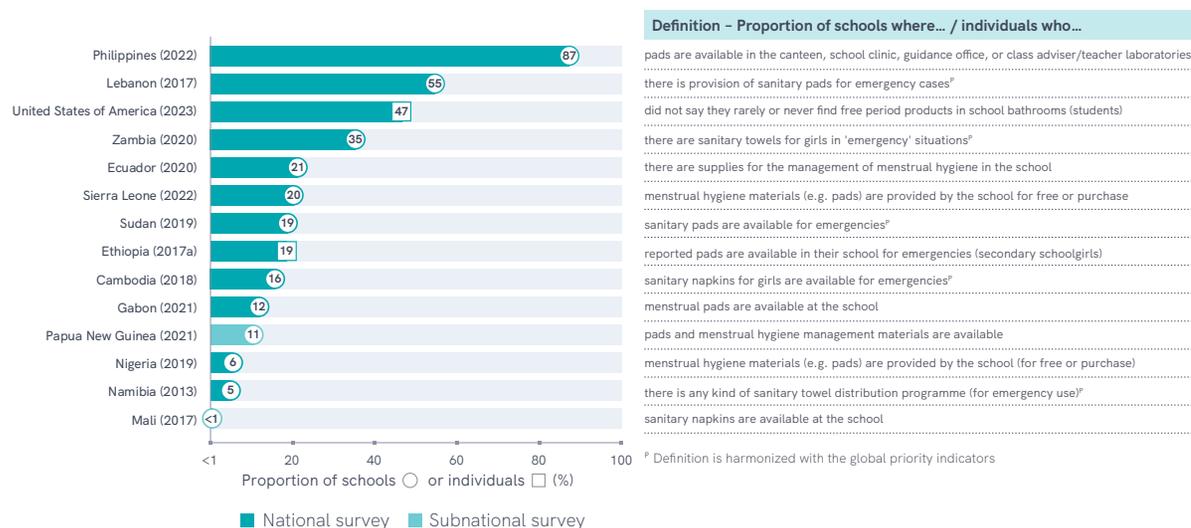


FIGURE 40 Proportion of schools with menstrual materials available (%)

materials for emergency situations, compared with 35% in Zambia, 19% in Sudan, 16% in Cambodia, and 5% in Namibia.

Data sources rarely specify if menstrual materials are provided for free or for purchase or if girls' preferred products are available. However, Nigeria and Sierra Leone collected separate data on whether materials are available for free or for purchase. In Nigeria, 3.8% of schools provided materials for free and 1.8% provided them for purchase. In Sierra Leone, 19.6% of schools provided materials for free and 0.7% for purchase.



Menstrual materials available at school may not consider girls' preferences, which can vary by individual. For example, most schoolgirls in Ethiopia (2017) preferred to use disposable sanitary pads, except in rural-pastoralist areas where reusable cloth was more often preferred. On average, more girls reported preferring to use disposable sanitary pads than actually used them, but the differences between the type of material preferred and used was small for all material types (Figure 41).

This may be due to a lack of awareness of alternatives. For example, a 2018 survey of schoolgirls in Indonesia found that while all respondents had heard of disposable sanitary pads, only 15% had heard of reusable pads or cloths and 2% and 0.1% had heard of tampons and menstrual cups, respectively.

Preferences for menstrual materials can be impacted by a number of factors. In a 2016 subnational survey in Entebbe (Uganda),

64% of schoolgirls who menstruate had experienced a menstrual accident with blood leaking onto their clothes, and 19% had had blood leak onto their clothes during their last menstrual period. Most schoolgirls (89%) preferred using disposable sanitary pads because they were more comfortable, didn't need to be washed and dried, were less prone to leaks, and were easier to dispose of (Figure 42).

Most schoolgirls in Ethiopia used their preferred menstrual material but urban and rural practices varied

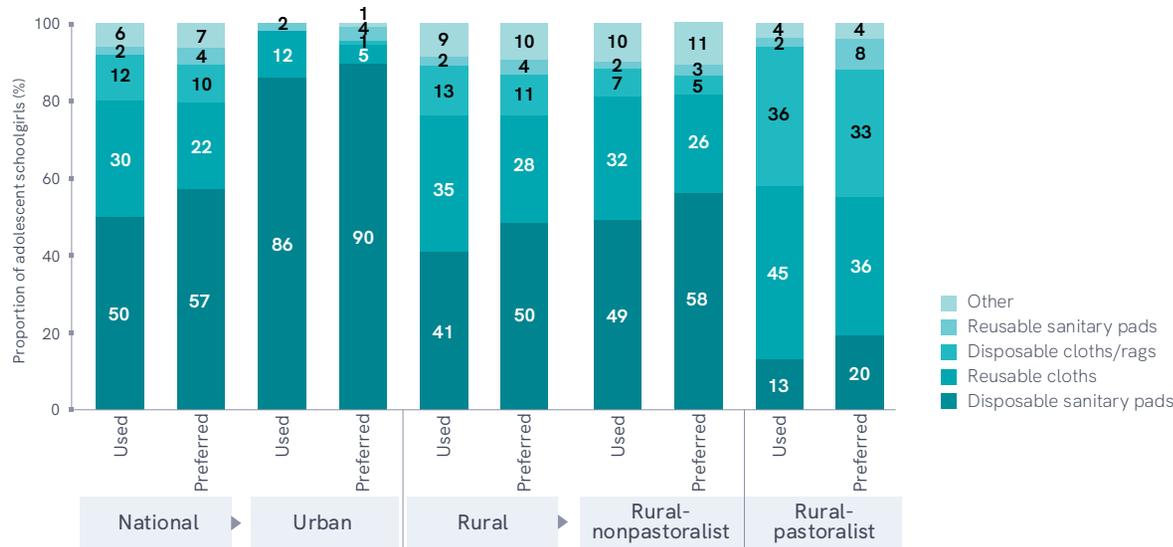


FIGURE 41 Proportion of adolescent schoolgirls in Ethiopia who menstruate by type of menstrual material used, 2017a (%)

Schoolgirls in Uganda prefer disposable sanitary pads for multiple reasons

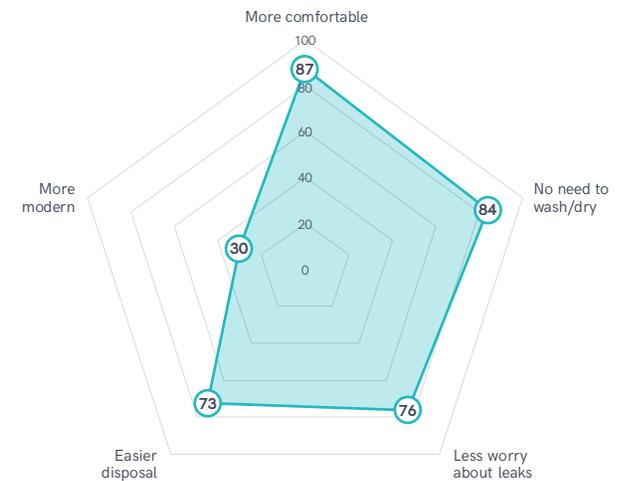


FIGURE 42

Proportion of adolescent schoolgirls in Entebbe (Uganda) by reason for choosing disposable pads among those who ever used them, subnational, 2016 (%)

Facilities

Changing materials at school

Even if materials are available, adolescent schoolgirls may not feel comfortable changing them at school. National data from Bangladesh in 2014 suggested that only 14% of primary and secondary schoolgirls changed menstrual materials at school (Figure 43). In addition to the 2014 national data from Bangladesh, a 2022 subnational survey in Khulna (Bangladesh) found that a similar proportion (15%) of menstruating girls in primary school ‘changed materials at school during their last menstrual period’ (priority indicator #3). In Ethiopia, 34% of schoolgirls in primary and secondary school reported waiting until they got home to change their materials. Of the 66% who changed their menstrual materials at school, most changed in the girls’ latrine (Figure 44).



Some students change menstrual materials at school while others wait until they get home

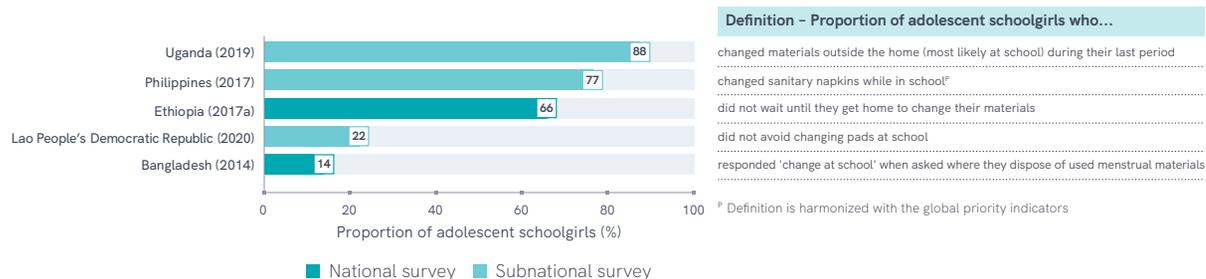


FIGURE 43 Proportion of adolescent schoolgirls who changed menstrual materials at school (%)

In Ethiopia, 1 in 3 students who menstruate wait until they get home to change materials

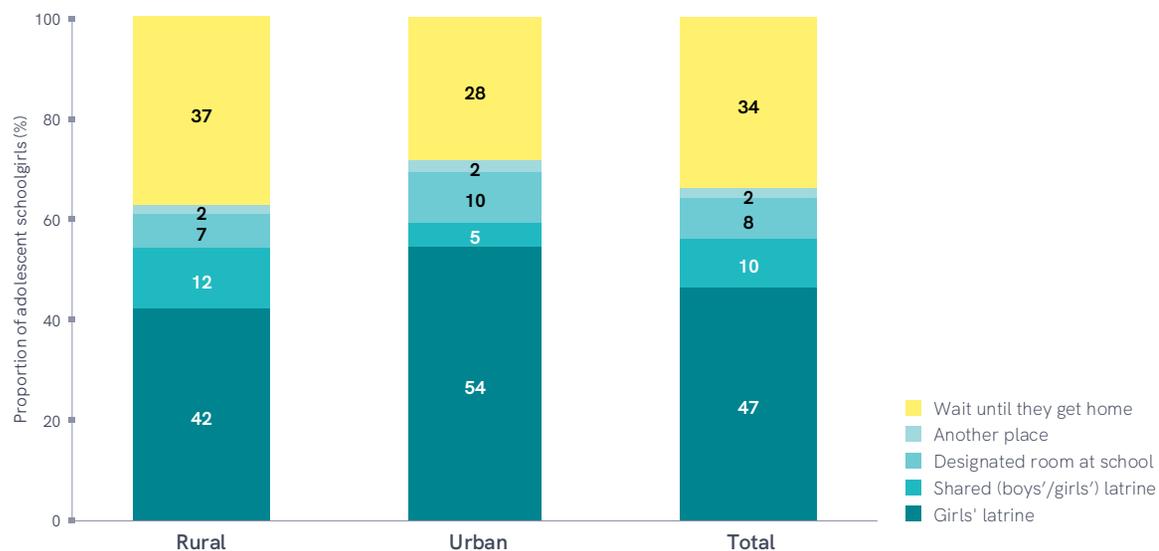


FIGURE 44 Proportion of schoolgirls (primary and secondary) in Ethiopia who menstruate by place they change menstrual materials at school, 2017a (%)

While changing frequency depends on blood flow, materials used, and personal preference, it is generally advised to change materials at least three to four times per day¹⁷. However, many girls change menstrual materials less frequently. In a subnational survey in Entebbe (Uganda), 62% of secondary schoolgirls changed at least three times per day (Figure 45). Surveys in Giza (Egypt) and West Gonja (Ghana) also found that only 57% and 34% of schoolgirls changed materials three or more times per day, respectively. However, changing frequency is impacted by many factors beyond facilities, including knowledge, attitudes and material availability.

Clean, private and safe space to change materials

Some countries have data on the presence of a space for girls to change menstrual materials at school. For example, the 2017 EMIS reports that 8% of schools in Ethiopia had a menstruation sanitation room. And, in a survey of Ethiopian schoolgirls in the same year, 21% reported availability of a separate room for changing menstrual materials at school. Nearly half (49%) of schools had a least one girls' changing room in Fiji (47% of primary schools and 59% of

17 House S, Mahon T, Cavill S. Menstrual Hygiene Matters: A resource for improving menstrual hygiene around the world, WaterAid. 2012. (<https://washmatters.wateraid.org/publications/menstrual-hygiene-matters>).
UNICEF, Guide to Menstrual Hygiene Materials. 2019. (www.unicef.org/media/91346/file/UNICEF-Guide-menstrual-hygiene-materials-2019.pdf).

Many adolescent schoolgirls change menstrual materials less frequently than recommended

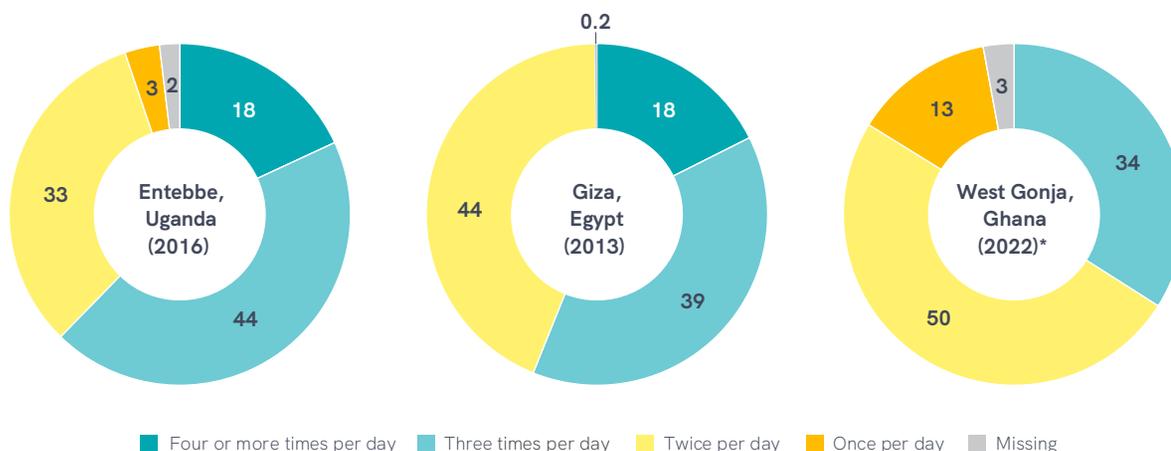


FIGURE 45 Proportion of adolescent schoolgirls by frequency of changing menstrual materials in subnational surveys in Ghana, Egypt and Uganda (%)

*Note: More than three times per day was not a response option in Ghana. Some of the respondents who reported changing three times per day may change more frequently.

secondary) according to the 2018 EMIS. In the United Republic of Tanzania, 14% of primary schools had a changing room for girls in 2023, and in Mali, 1% of schools had a shower cabin or area (separate from latrines) available for girls' menstruation management in 2017. However, a separate changing room may not be appropriate in many contexts and could reinforce stigma around menstruation.

The presence of a separate space is not necessary to achieve priority indicator #4,

which is the proportion of schoolgirls who changed materials at school in a place that was clean, private and safe during their last menstrual period. While examples of national data on the presence of a space for girls to change menstrual materials at school were identified, no national data were available on girls' perspectives of the cleanliness, privacy and safety of those spaces. However, some data were found that address different aspects of cleanliness, safety and privacy.

Most data available on a **clean** space to change materials at school refer to toilets and are not always disaggregated by sex (Figure 46). Subnational data from Khulna (Bangladesh) provide an example of monitoring girls' experiences; when asked directly, only 18% and 23% of schoolgirls reported that they had a clean space to change menstrual materials at school all or most of the time, respectively.

Similarly, few countries collect data on girls' perspectives on a **private** place to change materials at school (Figure 47). Most data are based on school administrator responses and may vary based on the definition. For example, a 2022 national survey in Sierra Leone found that 42% of schools had 'full privacy in the girls' toilet/latrine', while a previous (2020) national survey found that 7% of schools had a 'private cubicle for girls on their menstrual period'. A 2022 survey in Berlin (Germany) provides a rare example of monitoring experiences of female and gender-diverse students who menstruate. It found that only 28% reported having 'enough privacy in the school toilets to change their tampons/pads undisturbed', and when asked if they had enough privacy to change their menstrual materials at school, 8% responded that they sometimes can't lock the toilet door.

Many schools do not have a clean toilet or space for girls to change materials



FIGURE 46 Proportion of schools or individuals with a clean space to change menstrual materials (%)

Many schools do not have private latrines or spaces for girls to change materials

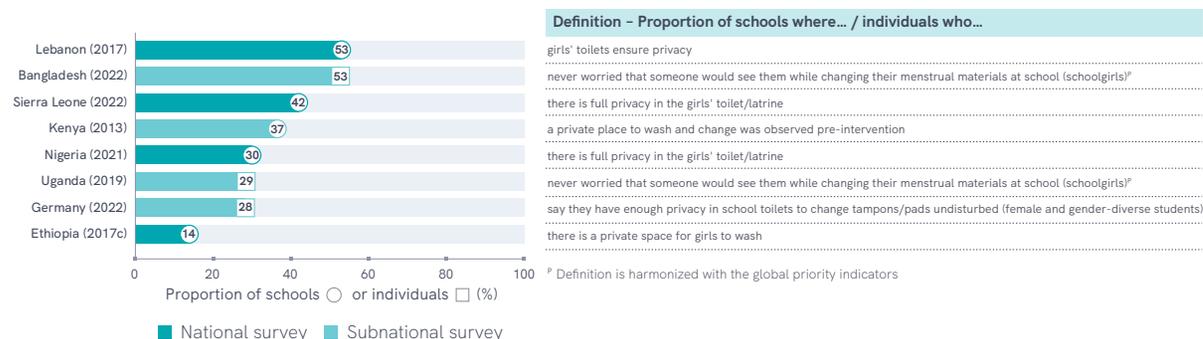


FIGURE 47 Proportion of schools or individuals with a private space to change menstrual materials (%)

Very few national data sources were identified with specific information on a safe space at school to change materials (Figure 48). In the Solomon Islands (2018), just 7% of schools reported that they had a changing area where girls can change and wash safely (4% of primary schools and 14% of secondary schools), but the criteria used to define 'safely' are not clear from the data collection protocols. The Philippines monitors if girls' toilets are within view of buildings/people and has recorded an increase from 46% of schools in 2018 to 60% in 2022. No national data on girls' perceptions of safety were available, but a subnational survey in Khulna (Bangladesh) found that 31% of schoolgirls worried at least some of the time that someone would harm them while changing their menstrual materials at school; 10% worried all or most of the time that someone would harm them.

Sanitation facilities with bin, and disposal mechanisms

In addition to the elements of a basic sanitation service, including that toilets are improved, single-sex and usable (available, functional, private), school toilets used by adolescent girls should have a covered bin (or similar private mechanism) inside the stall for disposal of menstrual waste, and the school should have mechanisms for management and disposal of collected menstrual waste. Disposal mechanisms can include incineration or another safe method

Very few surveys capture girls' perspectives of safety while changing menstrual materials at school

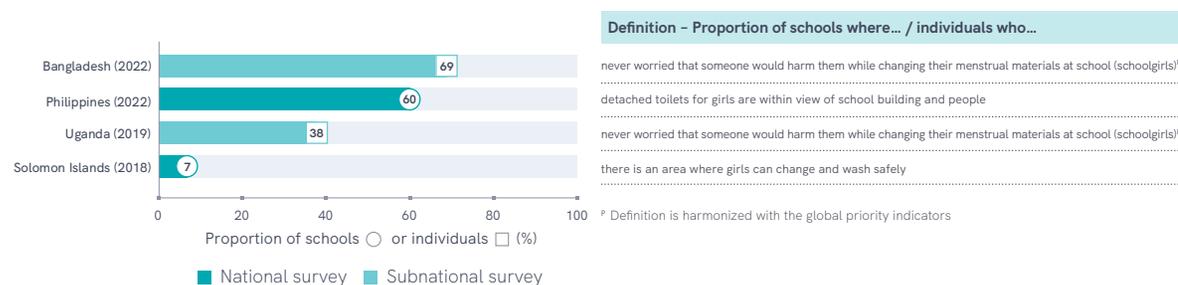


FIGURE 48 Proportion of schools or individuals that report having a safe space to change menstrual materials (%)

In India, coverage decreases when additional elements of MH are considered beyond basic sanitation

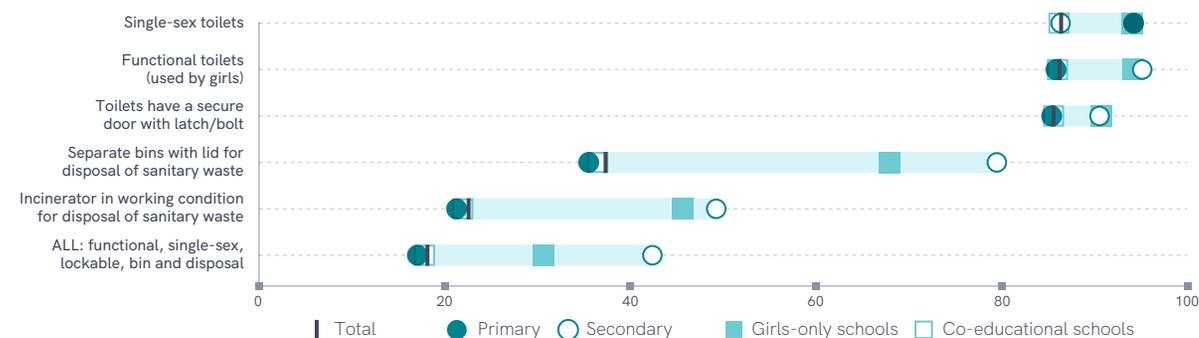


FIGURE 49 Proportion of schools in India with female students that have single-sex, functional and lockable toilets with a covered bin and functional incinerator for menstrual waste, 2018 (%)

on-site, or safe storage and collection via a municipal waste system, as appropriate¹⁸.

The only national data available on the proportion of schools meeting these criteria

¹⁸ UNICEF and WHO, Core Questions and Indicators for Monitoring WASH in Schools in the Sustainable Development Goals. Geneva: World Health Organization. 2018. (<https://washdata.org/reports/jmp-2018-core-questions-and-indicators-wash-in-schools>).

for priority indicator #6 are from India's Swachh Vidyalaya Puraskar monitoring programme (Figure 49). While most schools with female students had toilets that were single-sex, functional and lockable from the inside (elements of a basic sanitation service), far fewer had bins with a lid or an incinerator for disposal of menstrual waste.

Availability of bins for menstrual waste in girls' toilets varies widely by country and specific indicator used

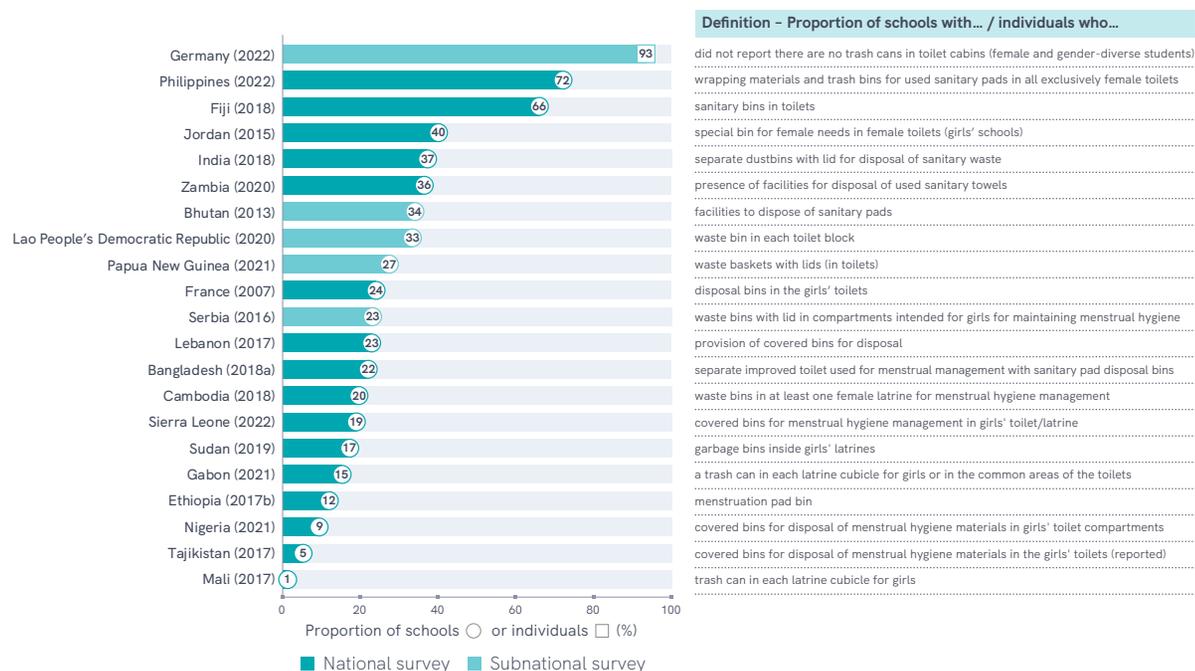


FIGURE 50 Proportion of schools or individuals reporting bins in girls' toilets for menstrual waste (%)



When all elements are considered, 18% of schools in India had a basic sanitation service plus covered bins and functional incinerators for disposal of menstrual waste in 2018. Coverage tended to be higher in girls-only schools (31%) and in secondary schools (42%) and lowest in co-educational (18%) and primary schools (17%).

Coverage and indicator definitions for the presence of bins for menstrual waste in toilets vary widely between countries (Figure 50). Some definitions are ambiguous, and it is unclear if bins are located in individual stalls/cubicles/compartments or in girls' toilet blocks, if they are covered, and if they are meant for menstrual waste or general rubbish. Data from five countries specifically refer to bins inside the toilet cabin or compartment, and seven countries specifically refer to bins having covers. A 2017 survey in Tajikistan found that while bins were reported to be in girls' toilets in 5% of schools, they were only observed in 1% of schools.

Based on the 16 countries with nationally representative data, representing 32% of the global school-age population, it is estimated that around one in three (31%) schools globally have bins for menstrual waste in girls' toilets. In sub-Saharan Africa and Central and Southern Asia, around 11% and 35% of schools have bins in girls' toilets, respectively (33% and 74% data coverage). Fewer than 1 in 5 schools (17%) in Least Developed Countries (LDCs) have bins in girls' toilets (34% data coverage).

When menstrual waste bins are not available in girls' toilets, girls may dispose of used menstrual materials in the open, bring soiled materials home, or put them in the toilet or latrine causing blockages or pits to fill quickly. National and subnational data from four countries highlight the variety of places girls dispose of used materials when they change at school (Figure 51). For example, in Papua, East Java, South Sulawesi, and Nusa Tenggara Timur provinces of Indonesia, over half (54%) of schoolgirls put their used materials in a bin (for the landfill), while 23% buried their materials, 12% and 4% put them in a flush toilet or latrine, respectively, and 6% burned them or used other means of disposal. In Luang Prabang Province (Lao People's Democratic Republic), one in four schoolgirls reported bringing used materials home. Over half (55%) of schoolgirls in Bhutan used dedicated bins for menstrual waste, compared with just 3% in Ethiopia where three quarters of girls (72%) report putting used materials in the latrine, toilet or drain.

Few countries have data on how menstrual waste is managed after being collected from bins in girls' toilets (Figure 52). Indicator definitions are often unclear and may refer to disposal mechanisms inside girls' toilet compartments or at the school in general. While some countries monitor the presence of incinerators for menstrual waste disposal, incineration is not always feasible, can be challenging to operate, and may be

restricted due to environmental concerns. In some cases, burial in a protected pit or safe storage and collection via a municipal waste system may be more appropriate. Data from Sierra Leone and Nigeria provide

examples of monitoring menstrual waste disposal more broadly, aligned with priority indicator #6, where 14% and 9% of schools, respectively, had disposal mechanisms for menstrual hygiene waste at the school.

Schoolgirls dispose of menstrual materials in a variety of locations

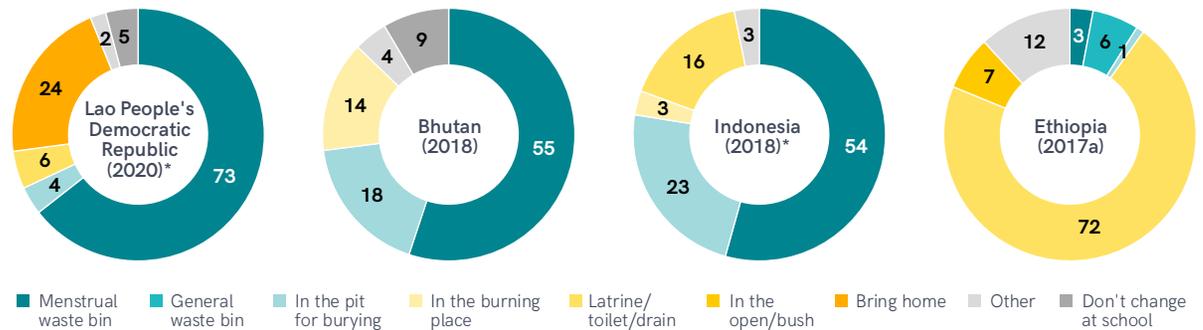


FIGURE 51 The proportion of adolescent schoolgirls who dispose of used menstrual materials by location, select surveys (%)

*Subnational surveys: Papua, East Java, South Sulawesi, and Nusa Tenggara Timur provinces (Indonesia), Luang Prabang Province (Lao People's Democratic Republic).
Note: Zero values indicate response option was not included in the survey. Lao People's Democratic Republic survey allowed for multiple responses. Responses therefore sum to more than 100.

Very few schools report having disposal mechanisms for menstrual waste collected from bins

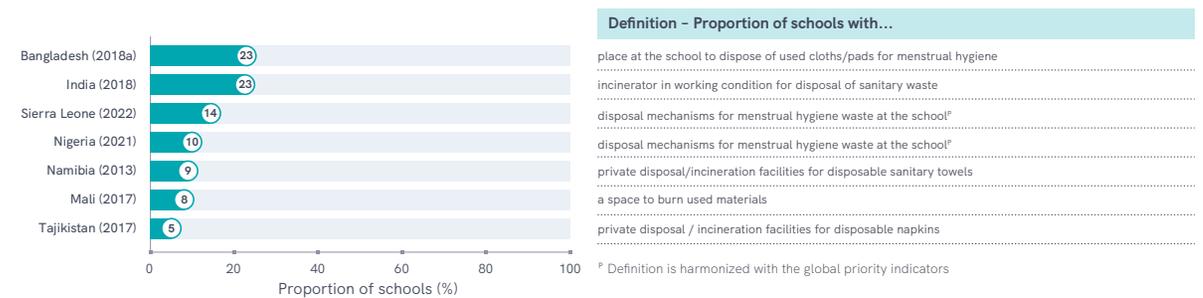


FIGURE 52 Proportion of schools with menstrual waste disposal mechanisms (%)

Definition - Proportion of schools with...

- place at the school to dispose of used cloths/pads for menstrual hygiene
- incinerator in working condition for disposal of sanitary waste
- disposal mechanisms for menstrual hygiene waste at the school^a
- disposal mechanisms for menstrual hygiene waste at the school^a
- private disposal/incineration facilities for disposable sanitary towels
- a space to burn used materials
- private disposal / incineration facilities for disposable napkins

^a Definition is harmonized with the global priority indicators



In Addis Ababa (Ethiopia), 81% of schools disposed of menstrual waste with general waste, while 15% used incinerators (Figure 53). The frequency of menstrual waste disposal was also reported and varies from multiple times per day to less than one time per week, with over half of schools emptying menstrual waste once per day.

In Addis Ababa, Ethiopia, most schools dispose of menstrual waste once per day and in the school general waste bin

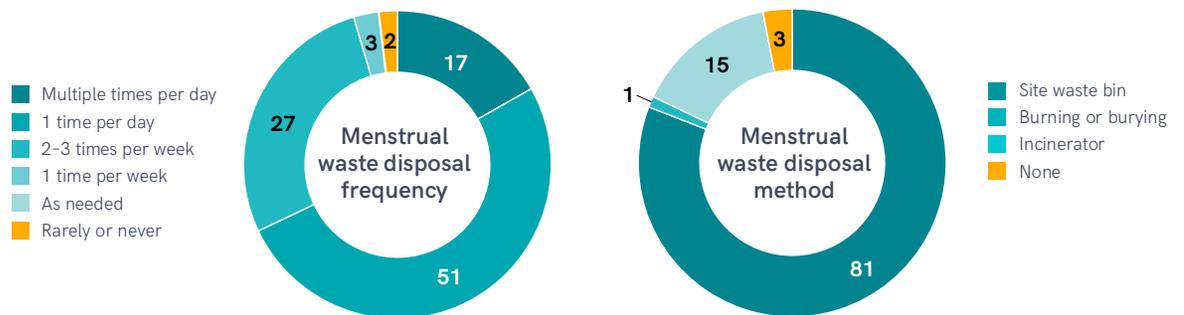
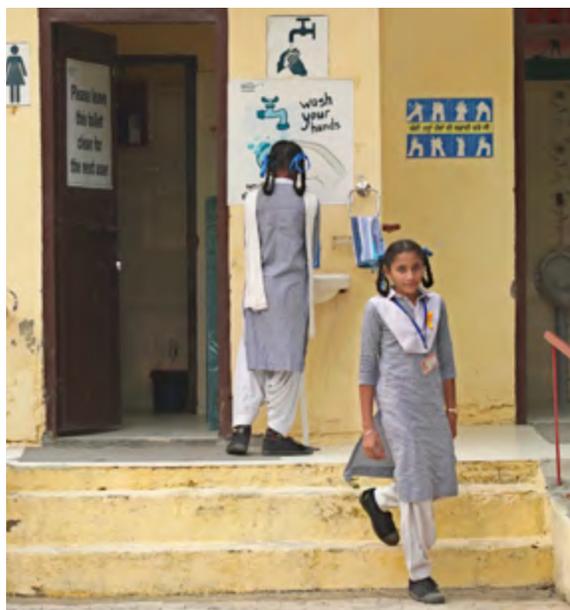


FIGURE 53 Proportion of schools by method and frequency of menstrual waste disposal in Addis Ababa, Ethiopia, 2019-2022 (%)

Water and soap in a private space

National data were available from ten countries on the proportion of schools that have water and soap available in a private space for girls to manage their menstruation (priority indicator #7, Figure 54). However, definitions vary slightly between data sources and only four countries have data that specifically refer to both water and soap inside a private space for girls, such as inside toilet cabins or compartments. Disaggregated data from Gabon and Sudan highlight inequalities in the availability of water and soap in a private space, with significantly lower coverage for public, rural, and co-educational (combined girls and boys) schools (Figure 55).



Adolescent schoolgirls often lack water and soap in a private space to manage menstruation

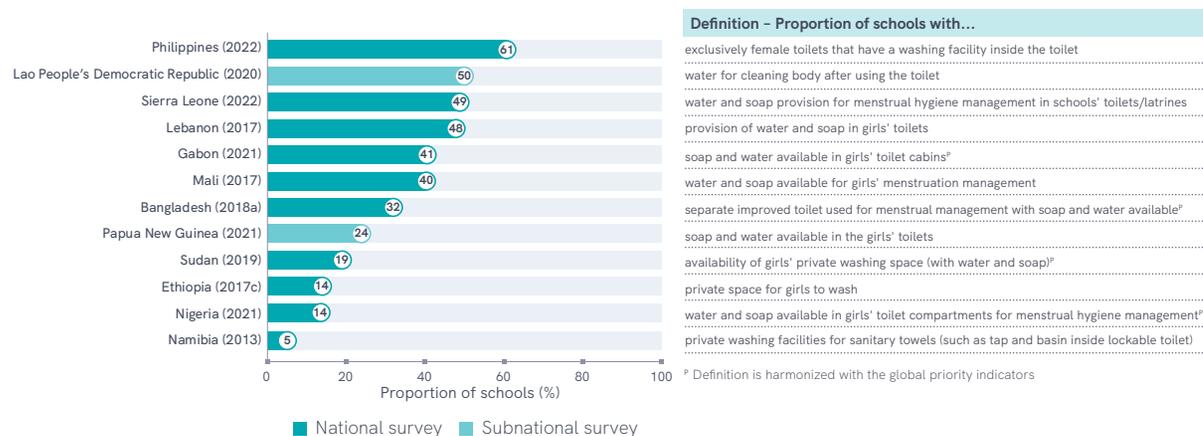


FIGURE 54 Proportion of schools with water and soap available in a private space, most recent year (%)

Access to private places with water and soap to manage menstruation varies widely in Gabon and Sudan



^aRiver Nile, Gedaref, Sennar, West Kordofan, West Darfur, and Central Darfur

FIGURE 55 Inequalities in the proportion of schools with a private space with water and soap for girls to manage menstruation in Gabon and Sudan, 2021 and 2019 (%)

Knowledge

Menstrual health education at school

Students often want more information about menstruation and the different domains of menstrual health. In a 2023 survey in the United States of America, 81% of students who menstruate believed there needs to be more in-depth education about menstrual health, and 78% felt it should be part of the core curriculum. In a 2020 survey in Peru, 31% of schoolgirls who menstruate wished their teachers taught them in greater depth about menstruation and the care they should take.

A growing number of countries have data on the proportion of schools providing education on menstrual health (Figure 56). Based on the most recent information available for the 17 countries with national data, it is estimated that approximately 39% of schools globally provide MH education (33% data coverage). In sub-Saharan Africa and Central and Southern Asia, respectively, around 30% and 39% of schools provide MH education (33% and 74% data coverage). However, there is limited information on the precise topics and quality of MH education provided in each country.

While a number of countries had data on the provision of MH education in schools, few had information on the more detailed criteria included in priority indicators #8-13, such as

The provision of MH education in school varies widely between countries



FIGURE 56 Proportion of schools or individuals with menstrual health education provided, most recent year (%)

the provision of MH education for both boys and girls, or for students from age 9. In Sudan, 61% of schools provided menstrual hygiene sessions for girls only and 52% provided adolescent health education sessions to girls and boys together. A 2021 survey of six provinces in Papua New Guinea found that 53% of schools taught menstrual hygiene management as part of the school curriculum, but only 5% taught menstrual hygiene to both girls and boys. Teachers noted that the topic is sensitive, and many felt uncomfortable discussing it openly.

However, girls often want to include boys in MH education. In Bhutan, 68% of schoolgirls agreed or strongly agreed that it is important to discuss the topic of periods at school with both boys and girls. In Australia (2023), a 15-year-old schoolgirl felt similarly, saying, "Schools divide us when it comes to 'tricky subjects' because we are told boys don't need to know about it. They do need to know." Further, boys may also be interested to learn. A survey in Japan found that 43% and 30% of adolescent girls and boys, respectively, said they would like to know more about menstruation.

While no examples were identified of data on the proportion of schools that provide MH education for students from age 9 (priority indicator #11), some countries have data on the provision of MH education by school level, including primary schools, which are typically for students up to age 11, and secondary schools, which are for older students. In Central and Southern Asia, while 84% of secondary schools provide MH education, only 34% of primary schools do. In most countries with disaggregated data, MH education is much more likely to be provided in secondary schools than in primary schools (Figure 57). Accordingly, girls who menstruate in primary school are less likely to be aware of menstruation prior to menarche.

For many students, teachers are among their main sources of information about menstrual health. For example, in 2018, more than a quarter (27%) of primary and secondary schoolgirls who menstruate in Bhutan learned about menstruation from their teacher (Figure 58). Similarly, in Ethiopia (2017), 30% of primary and secondary schoolgirls who had experienced menstruation accessed MH information from their teacher, while over half said they had no source of MH information.

Secondary schools are much more likely to offer MH education than primary schools

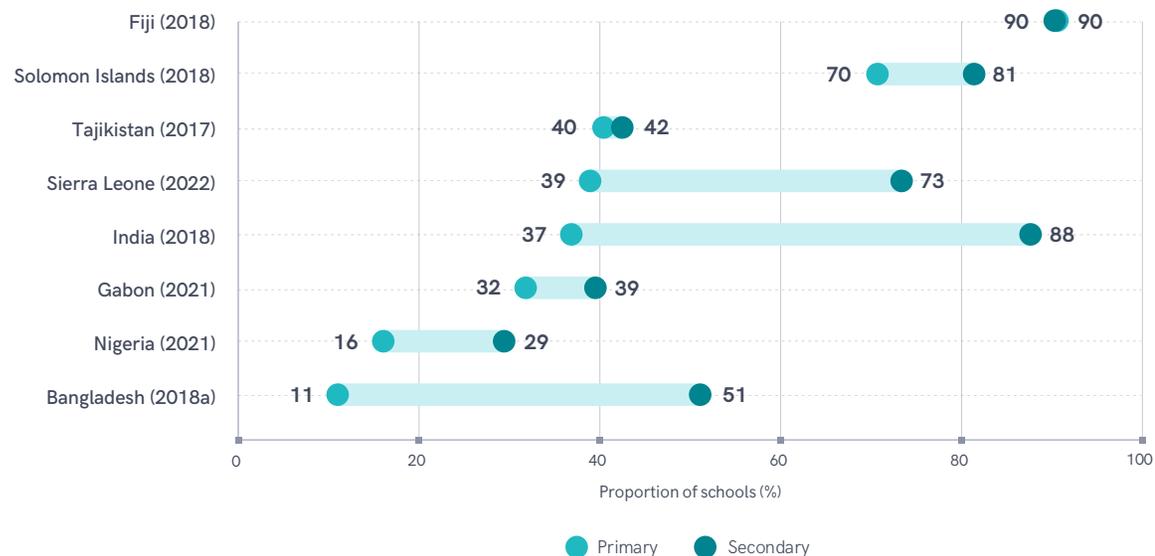


FIGURE 57 Proportion of primary schools and secondary schools that provide MH education, most recent year (%)

Most adolescent schoolgirls in Bhutan learned about menstruation from their mother or teacher

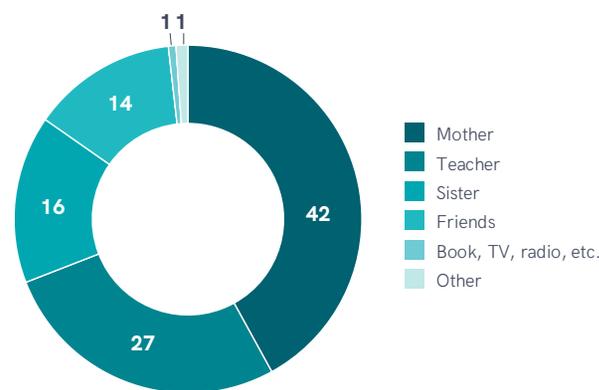


FIGURE 58 Proportion of adolescent schoolgirls in Bhutan by their main source of information regarding menstruation, 2018 (%)

Knowledge of menstruation prior to menarche

Four countries had national data on the proportion of adolescent schoolgirls who knew about menstruation prior to menarche (priority indicator #9): Bangladesh, Bhutan, Ethiopia and the United States of America (Figure 59). 86% of schoolgirls in Bhutan reported knowing about menstruation before their first period, compared with just 39% in Ethiopia. In Bangladesh, 53% of schoolgirls knew about menstruation before menarche in 2018, compared with just 36% in an earlier 2014 survey. Highlighting the importance of early MH education, 45% of girls in secondary school who menstruate in Bangladesh in 2018 knew about menstruation before menarche, compared with 32% of primary school students four years earlier. A 2023 survey in the USA found that 42% of teens felt confused and unprepared when they got their first period.

Knowledge of the fertile period

While the USAID Demographic and Health Survey (DHS) collects data on knowledge of the fertile period for men and women aged 15 to 49, very few countries have data specifically for adolescent schoolgirls. National data on the proportion of students with correct knowledge of the fertile period during the ovulatory cycle (priority indicator #10) were only available for Bhutan (Figure 60). While 86% of girls knew

Not all adolescent schoolgirls were aware of menstruation before menarche

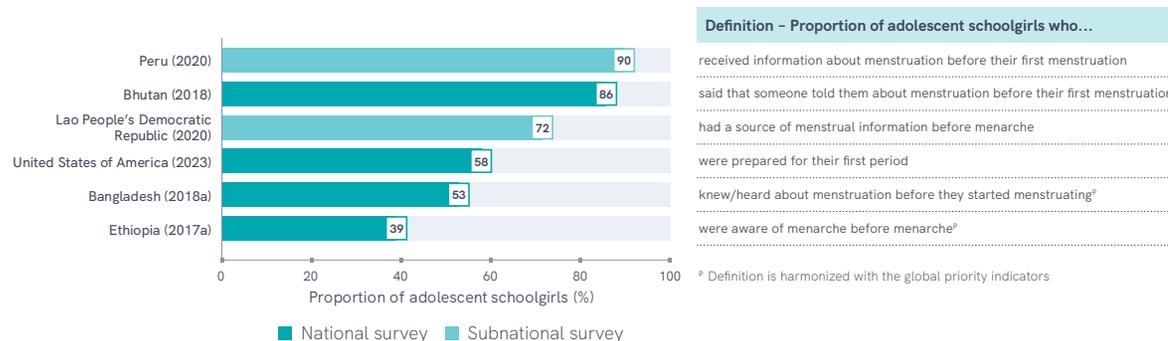


FIGURE 59 Proportion of adolescent schoolgirls who knew about menstruation prior to menarche, most recent year (%)

about menstruation before menarche, only 21% knew the correct fertile period. A subnational study in Luang Prabang Province (Lao People's Democratic Republic) found a similar proportion of schoolgirls who menstruated knew the phase of the menstrual cycle when the chance of pregnancy is highest.

However, both data sources used technical terminology and number of days as response options, so it is possible that girls may have known the fertile period but not the associated terminology. The globally recommended question related to this indicator uses simple language for the four phases: just before her period begins, during her period, right after her period has ended, and halfway between two periods (the correct answer).

Only 1 in 5 schoolgirls who menstruate in Bhutan had correct knowledge of the fertile period

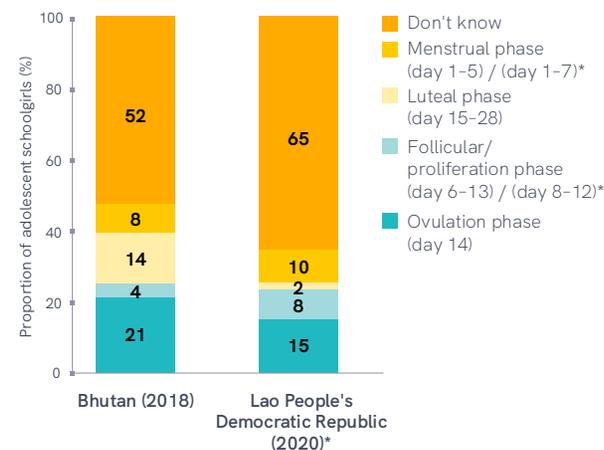


FIGURE 60 Proportion of adolescent schoolgirls in Bhutan and Lao People's Democratic Republic (*Luang Prabang Province) by which menstrual phase they believe the chance of pregnancy is highest, 2018 and 2020 (%)

Teachers trained on menstrual health

National monitoring data on whether teachers have been trained to provide MH education (priority indicators #12 and #13) were not identified. In a survey of primary and secondary schools in six provinces of Papua New Guinea (2021), 45% of schools reported that teachers were trained to teach about MH, while 53% of schools reported teaching MH, thus some teachers were providing MH education without having been trained. Additionally, teachers interviewed noted that many teachers felt uncomfortable discussing it. In a 2023 survey in the United States of America, 35% of students who menstruate said their health teacher appeared to be uncomfortable discussing menstruation.

Few countries collect information on the type of training curriculum provided. However, a national survey of teachers from all stages of school education in the United Kingdom found that lessons on the menstrual cycle were predominantly delivered within personal, social, health and economic (PSHE) or science subjects, with over half of the lessons focusing on the biology (56%) or provision of menstrual products (40%) rather than lived experiences (14%). Overall, 80% of teachers felt receiving training would be beneficial to improve MH education.

Discomfort/disorders

Ability to reduce menstrual pain

Menstrual pain is a common but often overlooked issue. In a subnational survey in urban Dhaka and rural Manikganj district in Bangladesh (2018b), two thirds of girls (66%) reported experiencing menstrual pain during their last period, with 41% of those respondents describing their pain as “severe”.

In a 2022 survey in Egypt, of the 93% of girls who reported pain levels during menstruation, 29% reported no/mild pain (0–3 on rating scale), 49% reported moderate pain (4–7) and 22% reported severe pain (8–10). Overall, menstrual disorders prevented 33% of adolescents from participating in social activities and 8% from attending school. In a 2023 survey in Australia, a key

issue that arose from student interviews was the need for teachers to acknowledge the reality of period pain as being debilitating and a potentially serious medical issue that requires attention.

The associated internationally recommended priority indicator (#15) focuses on girls’ ability to effectively reduce their pain rather than access to pain management tools which may or may not be effective. No national data were identified specifically about girls’ ability to reduce their menstrual pain, but a few countries have national data on the provision of pain remedies in schools (Figure 61). In Lebanon and Mali, 36% and 0.3% of schools, respectively, had pain medicine available. In Philippines, the proportion of schools with a space for girls with menstrual discomfort to rest increased from 35% in 2018 to 69% in 2022.

Remedies to reduce menstrual pain are provided in some schools

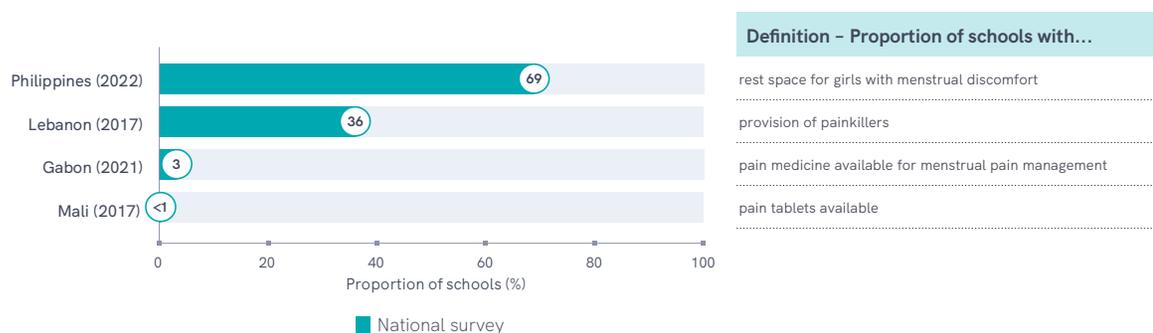


FIGURE 61 Proportion of schools with remedies to reduce menstrual pain available to students, most recent year (%)



While most remedies provided by schools focus on pain medication, examples from Bhutan and Lao People’s Democratic Republic provide information on the wide range of remedies that schoolgirls use to reduce menstrual pain (Figure 62). While 18% of schoolgirls in Luang Prabang Province (Lao People’s Democratic Republic) reported having no or minor menstrual pain, the remaining 82% tried to manage their pain by drinking hot water, laying on their stomach, taking pain medication, or another means. In Bhutan, over half of students reported managing menstrual pain by taking rest.

Comfort seeking help from a health care provider

No national data were identified specifically on the proportion of girls who would feel comfortable seeking help for menstrual problems from a health care provider (priority indicator #16). However, a 2017 survey in Ethiopia found that 11% of adolescent schoolgirls had accessed information from health workers, including health extension workers and community health workers. While information was more commonly accessed from teachers (30%) and mothers (15%), over half (52%) didn’t access MH information from any source (Figure 63).

Remedies to reduce menstrual pain are provided in some schools

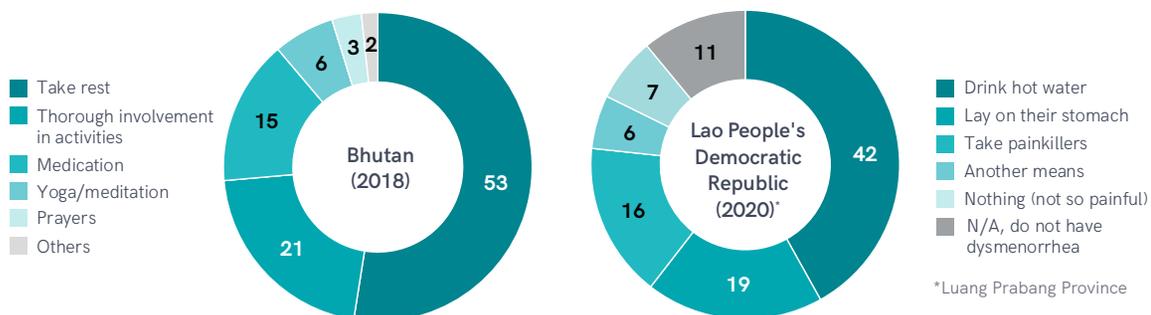


FIGURE 62 Proportion of schools with remedies to reduce menstrual pain available to students, most recent year (%)

1 in 10 schoolgirls who menstruate in Ethiopia had accessed MH information from a health worker

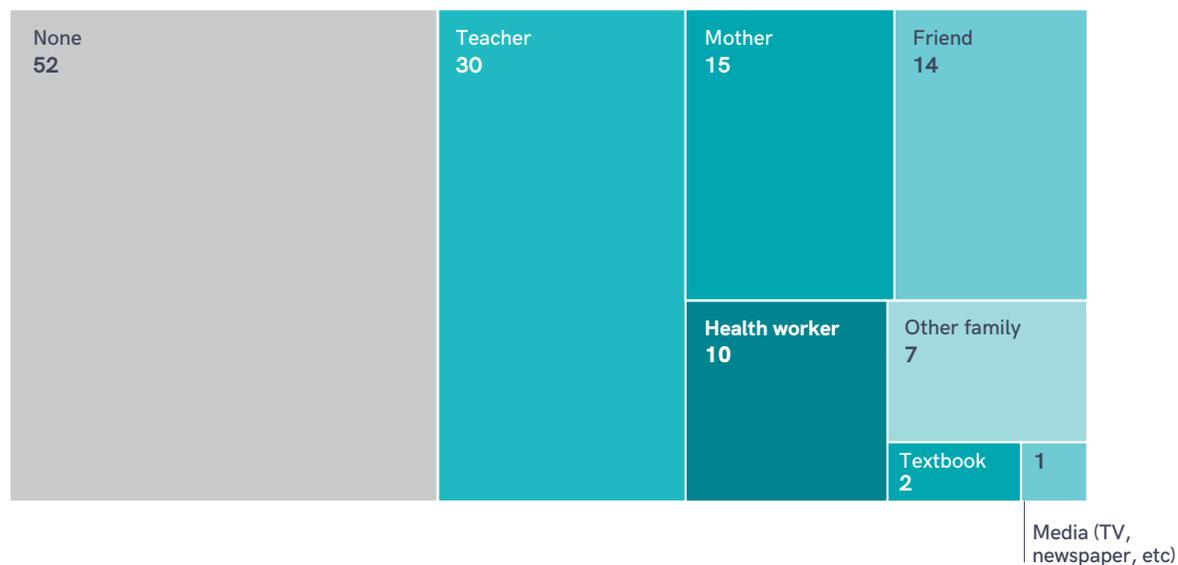


FIGURE 63 Proportion of adolescent schoolgirls in Bhutan and Lao People’s Democratic Republic (Luang Prabang Province) by the main remedy they use to reduce menstrual pain, 2018 and 2020 (%)

Supportive social environment

While national data were not available on the proportion of girls who have someone they feel comfortable asking for support regarding menstruation (priority indicator #17), examples related more broadly to a supportive social environment highlight that girls often don't feel comfortable discussing menstruation (Figure 64). In Ethiopia, while 94% of girls reported that they had never been teased about menstruation, only 37% said that they don't feel ashamed of menstruation and had discussed menstruation with others. In Türkiye, 87% of adolescent schoolgirls (aged 10 to 15) in Sivas province, believed menstruation is a shameful thing. The school setting may provide an entry point to address these taboos but in 2023 in the United States of America, 77% of students said menstruation is openly discussed at home, compared with just 41% who said it is discussed at school.

Menstrual health impacts

MH impact on class participation

Analysis of national EMIS data in Zambia (2018c) showed that the lack of WASH facilities in schools led to high rates of repetition and dropout among girls compared with boys, especially from age 13. There are a few examples of monitoring data specifically related to impacts of menstruation on class participation, but most of these focus on

Adolescent schoolgirls often feel ashamed and do not openly discuss menstruation

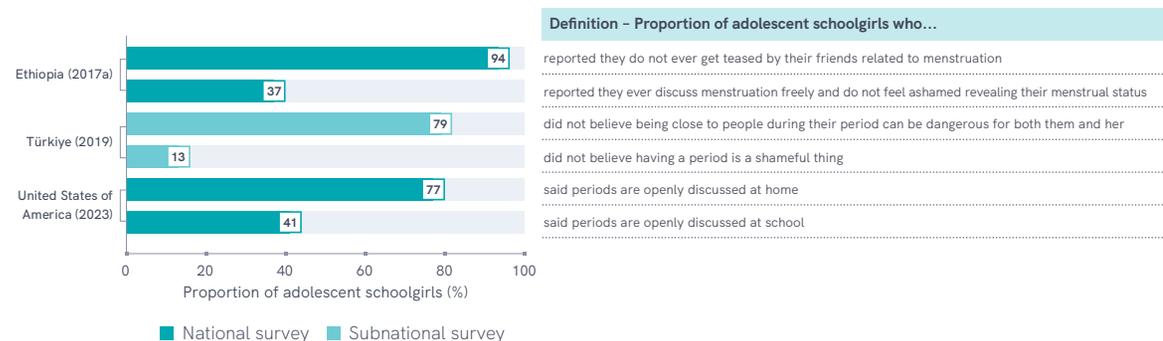


FIGURE 64 Proportion of adolescent schoolgirls who feel comfortable discussing menstruation, various indicators (%)



school attendance (Figure 65). While this can be a powerful indicator, girls may miss school for many reasons and accurately linking absenteeism to menstruation can be challenging. Also, school attendance does not imply that girls are comfortable and able to fully participate. The associated internationally recommended indicator (#19) therefore focuses on girls' ability to participate in class, not only to attend. A national survey (Bangladesh 2018a) found that 30% of girls had missed school during menstruation but a larger proportion (55%) of girls thought menstruation interfered with their performance in school. In a 2021 survey in Japan, 18% of adolescent girls reported that the main inconvenience in daily life caused by menstruation was that they missed or left school classes or extracurricular classes early, and 32% reported that the main inconvenience was 'enduring, despite wanting to miss or leave early' due to menstruation.

In a 2018 survey in Skopje, Veles, and Kumanovo municipalities of North Macedonia, 42% of schoolgirls missed at least two days during their menstruation due to inadequate conditions for managing menstruation at school, 32% due to the high price of menstrual products, and 6% due to abdominal pain (Figure 66).

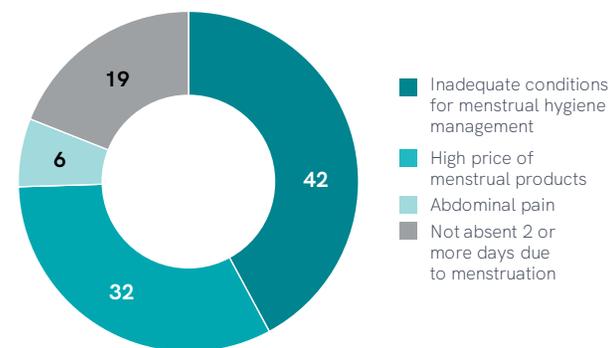
Most data focus on school attendance rather than girls' ability to fully participate in class during menstruation



FIGURE 65 Proportion of adolescent schoolgirls who report that menstruation does not impact their school performance or attendance, most recent year (%)

In parts of North Macedonia, 2 out of 5 schoolgirls were absent during menstruation due to inadequate conditions for managing menstruation at school

FIGURE 66 Proportion of schoolgirls in Skopje, Veles, and Kumanovo municipalities of North Macedonia by school absenteeism during menstruation and reason given, 2018 (%)



MH impact on daily activities

Priority indicator #18 is the proportion of girls who report a menstrual period does not negatively impact on their day. Some countries have data on how menstruation impacts schoolgirls beyond attendance and participation in school, including impacts on physical activities, religious activities, and feelings of self-consciousness, anxiety and stress (Figure 67). A 2021 national survey of teachers in the United Kingdom found that teachers perceived that the menstrual cycle affected pupil confidence (88%), and attitude and behaviour (82%). In 2019, students in Scotland who had accessed free menstrual materials at school reported that they were more able to continue with day-to-day activities (70%) and less worried about having their period (51%); 12% reported that their attendance increased during their period due to the availability of free sanitary pads (Figure 68).



Many adolescent schoolgirls report being stressed about the impact of menstruation on activities beyond school

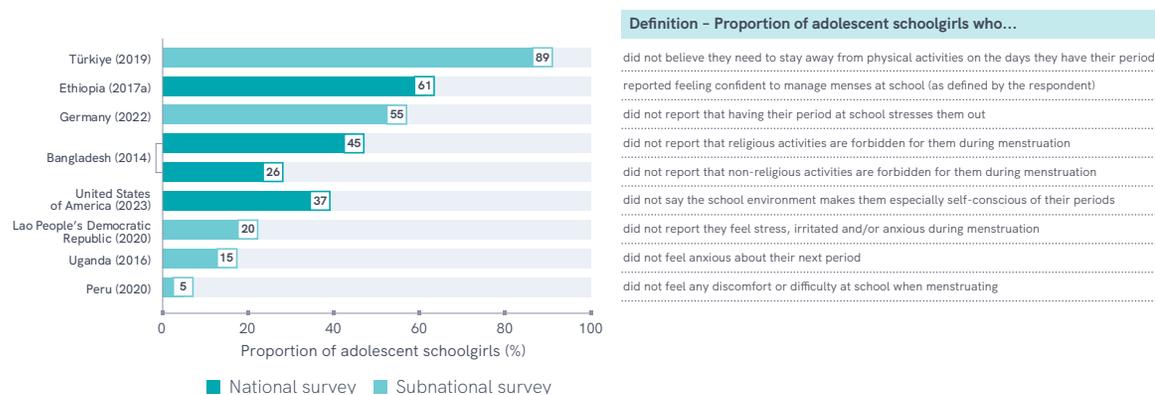


FIGURE 67 Proportion of adolescent schoolgirls whose period does not impact other activities beyond school participation (%)

7 out of 10 students in Scotland reported that availability of free menstrual materials at school helps them continue day-to-day activities during their period

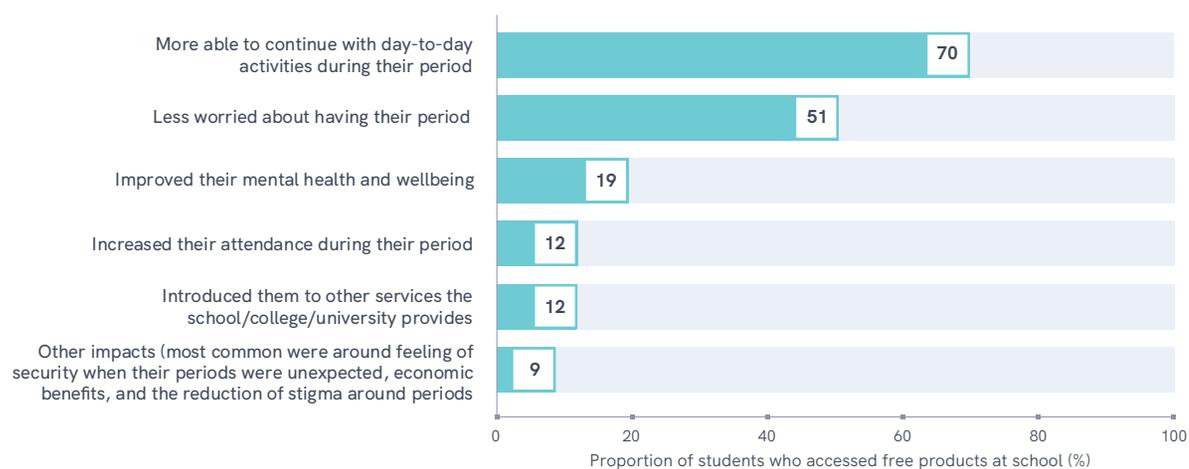


FIGURE 68 Proportion of students in Scotland who had accessed free menstrual products at school by self-reported impact, 2019 (%)

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) is primarily focused on global monitoring of WASH sector outputs and outcomes. This box highlights some examples of data emerging from ongoing efforts to systematically monitor national policies, plans and budgets (inputs) related to menstrual health in schools, as recommended in the international list of priority indicators.

National policies or plans

Priority indicator #20 calls for tracking the proportion of countries with policies or plans that include menstrual health and hygiene. In Zambia, the 2016 National Menstrual Hygiene Management Guidelines advise schools to provide an enabling environment for MH, including having toilets or latrines that provide privacy, soap and water, and providing access to sanitary materials and disposal facilities, as well as accurate information to assist teachers, boys, girls and the community to understand MH issues. Indicators for functionality and usability of school WASH infrastructure and three MH

indicators were first introduced in the 2016 Annual School Census (EMIS) and show steady progress on MH in schools from 2016 to 2020 (Figure 69).

In Philippines, the 2016 policy and guidelines for the Comprehensive Water, Sanitation and Hygiene in Schools (WinS) programme established a Three Star Approach, which includes provision of MH facilities and information at school, and standards for MH were further reinforced in the 2017 Gender-Responsive Basic Education Policy (2017). The 2013 National Policy and Strategic

Framework on Adolescent Health and Development (2013) also sets out a package of adolescent health services, including fertility awareness, MH issues and sexual and reproductive health counselling. Based on annual monitoring data from 2018 to 2022, Philippines has made rapid progress on key performance indicators for MH in schools, demonstrating the potential positive impact of associated policies and plans (Figure 70).

In Timor-Leste, the 2016 national WASH in school guidelines specify that schools should have toilets that are sensitive to the needs

Schools in Zambia increasingly provide MH services to students

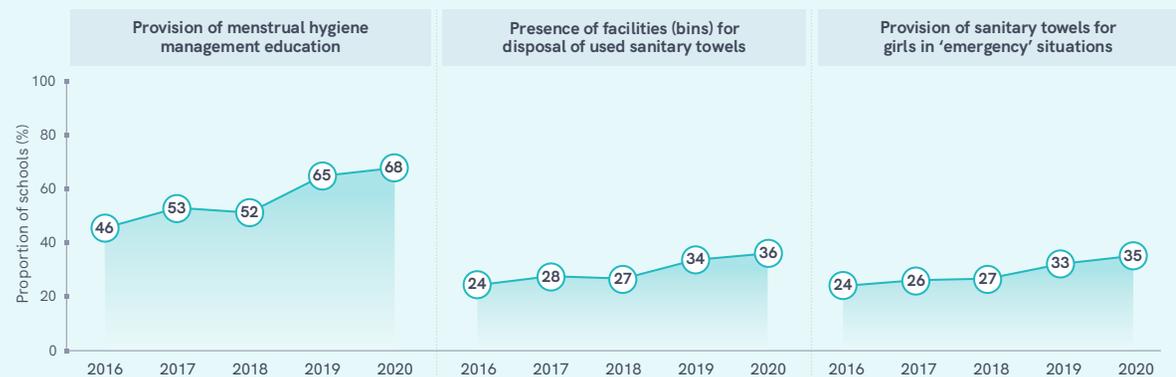


FIGURE 69 Proportion of schools in Zambia with MH education, bins in toilets, and availability of menstrual materials, 2016–2020 (%)

of menstruating girls. This could include a private place to wash and dry cloths, shelves, a rubbish bin for menstrual waste, and water inside toilets stalls, depending on the type of sanitary protection used and the prevailing cultural practices at the school. The guidelines also specify that menstrual waste should be burnt in an incinerator.

Scotland passed the Period Products Act in 2021 which requires education providers to ensure period products are available free of charge to students. This policy change was influenced by a survey from 2019 that found that 84% of students who accessed free period products at school in the past academic year felt the availability of free sanitary products had a positive impact on them (Figure 68). A 2020 national review of primary and secondary education standards in the United States of America found that MH is not a required part of the school health education standards in most states. Only three states (California, Michigan and New Jersey) include personal hygiene products related to menstruation, and only Michigan, Oregon and Utah specifically include menstruation management in school health standards.

National MH budget

While information on the timely and effective disbursement of funds may be limited, there are examples of countries with national

The availability of MH services for girls in school has rapidly increased in Philippines

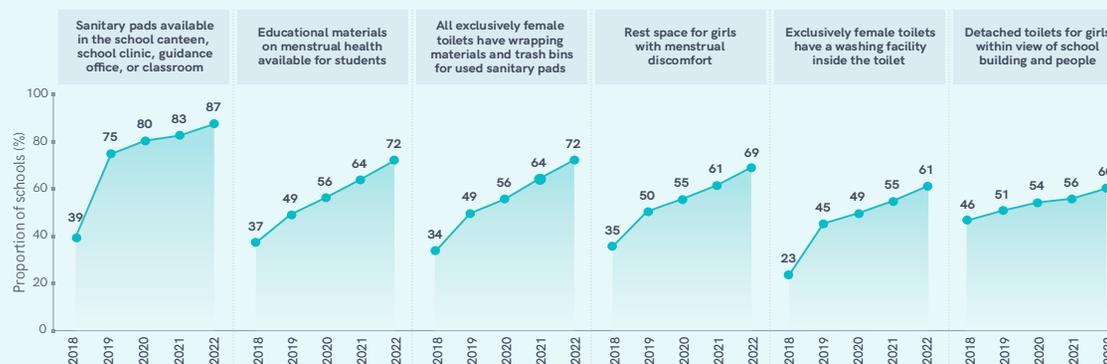


FIGURE 70 Proportion of schools in the Philippines with various menstrual services for girls in school, 2018–2022 (%)

budgets for MH in schools (priority indicator #21). Kenya and Zambia have national budgets with allocations for the provision of sanitary pads in schools. In the 2021/22 Ministry of Education budget in Nepal, more than US\$35 million were allocated for free distribution of menstrual sanitary napkins for female students. In Philippines, menstrual health is part of the WASH in schools budget and included in the School Improvement Plan managed by schools. Indonesia’s national menstrual health budget is allocated within the education and WASH budget portfolios, with a focus on menstrual health-friendly WASH in schools. Fiji’s government announced a budget allocation for a menstrual product provision scheme in schools in 2022.

However, a review of menstrual health in Eastern Asia and the Pacific¹⁹ and in South Asia²⁰ found that even where policies exist, the lack of accountability between ministries and unclear responsibilities between actors at the subnational level were major barriers that prevented budgets from being allocated, capacity from being built up, and monitoring from taking place. Focus will need to shift from having policies to effectively implementing them.

19 Head A et al. Menstrual Health in East Asia and the Pacific: Regional progress review. Bangkok: UNICEF, Burnet Institute and WaterAid. 2023 (www.unicef.org/eap/media/13341/file/MenstrualHealthreport.pdf).

20 Cavill, S., Menstrual Hygiene in South Asia: Synthesis report. UNICEF and WaterAid, 2022 (<https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/menstrual-hygiene-in-south-asia---synthesis-report.pdf>).

Conclusion

This special focus has examined the availability of emerging data on menstrual health in schools which correspond to the domains identified in the internationally agreed list of priority indicators for girls' menstrual health and hygiene. It shows that a growing number of countries are monitoring different aspects of MH in schools

but national definitions and indicators vary widely, making it difficult to compare progress across countries. Further work is therefore required to progressively harmonize the indicators used in national monitoring systems. While the new MH module in the UNICEF Multiple Indicator Cluster Survey (MICS7) will provide

harmonized data for women and adolescent girls aged 15 to 49, upcoming school surveys and annual censuses in primary and secondary schools provide an opportunity to gather harmonized data for younger adolescent girls, a group that is often left behind in MH data collection.



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SECTION 6

ANNEXES

ANNEX 1 METHODS

Since it was established in 1990, the World Health Organization (WHO) and United Nations Children’s Fund (UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has been instrumental in developing norms and standards for global monitoring of drinking water, sanitation and hygiene (WASH) in households. Following agreement of the Sustainable Development Goal (SDG) targets in 2015, the scope of JMP global monitoring was expanded to include WASH in schools and WASH in health care facilities.

In 2016, the JMP convened an expert group to develop core questions and indicators for monitoring WASH in schools and subsequently established a methodology for generating internationally comparable estimates to support global monitoring of related SDG targets 6.1, 6.2 and 4.a. In 2018, the JMP published a global baseline report, containing harmonized national, regional and global estimates, followed by progress update in 2020 and a data update²¹ in 2022. The following is a brief summary of the JMP methodology for monitoring WASH in schools, which builds on established methods for monitoring WASH in households and will continue to be refined over time. Methodological refinements since the 2022 progress update are listed in Box A1. For more detailed information on JMP definitions and methods refer to the resources listed in Table A3 , including the JMP Methodology for WASH in Schools.

²¹ In 2022, the JMP published a progress update (full report) on WASH in health care facilities and a data update (short report) on WASH in schools. It has subsequently alternated between progress updates and data updates for each setting.



REFINEMENTS TO JMP METHODS IN THE 2024 UPDATE

1. Increase in number of datasets used to generate estimates, from 1029 to 1415.
2. Refinement and standardization of method for producing regional aggregates (see **Regional and global estimates for WASH in schools**, page 77).
3. Shift in terminology from 'national' to 'total'. JMP estimates are produced for countries, areas and territories. Estimates representative of entire populations within those areas have been called 'national estimates' in previous reports but are now called 'total estimates' to better reflect that some of these estimates apply to areas and territories rather than to nations.
4. Presentation of additional emerging national statistics for a subset of countries with harmonized data available, especially on menstrual health (see **References**, page 69).

Data collection and validation for WASH in schools

The JMP releases updated estimates every two years. The first step in updating the database is to compile national data sources containing information about drinking water, sanitation and hygiene services in schools. The data search involves systematically visiting the websites of national statistical offices, sector institutions such as ministries of education, health, water and sanitation, and other regional and global databases. UNICEF and WHO regional and country offices also provide support to identify newly available datasets in consultation with national authorities. Data are then extracted, cleaned, analysed and added to JMP country files for WASH in schools.

The second step is to validate national estimates. The JMP country files (Table A3) contain a complete list of national data sources and show how information from each source has been used to generate internationally comparable estimates for each year in the reference period (from 2000 to the year prior to publication). In the last quarter of the year before publication, draft estimates are circulated to WHO and UNICEF country offices for a two-month period of country consultation (Table A3) and technical feedback from national authorities. The primary purpose of global monitoring is to generate internationally comparable

estimates that can be used to benchmark and compare progress across countries. The JMP uses a standard methodology to generate estimates for all countries, and these sometimes differ from national statistics which may use different definitions and/or methods. The purpose of the consultation is not to compare JMP estimates and national statistics but to review the completeness or correctness of the datasets in the JMP country file and to verify the interpretation of national data in the JMP estimates. The JMP also extracts information on other relevant indicators included in national monitoring systems which are not part of the existing JMP service ladders. These data are used for additional analysis on issues of interest, such as menstrual health, disability and pandemic preparedness and response, but are not included in JMP country files due to limited data availability and lack of commonly agreed indicator definitions and methods for producing national, regional and global estimates.

Data disaggregation

JMP estimates are routinely disaggregated by service level based on the SDG service ladders for schools (no service, limited, basic) and by relevant settings (urban, rural, pre-primary, primary, secondary). Where possible, estimates are also disaggregated by other relevant stratifiers of inequality to facilitate further analysis in JMP reports.

Data sources and coverage

The primary sources of national data are routine Education Management Information Systems (EMIS) and periodic (non-EMIS) censuses and school facility surveys. Other sources of national data include regional monitoring initiatives such as the European Protocol on Water and Health, and secondary information compiled by the UNESCO Institute of Statistics (UIS). Where available, the JMP uses primary sources rather than secondary sources and uses original microdata or tabulations provided by national authorities rather than summary reports.

The 2024 JMP update on WASH in schools draws on a total of 1769 data sources (since 2018), 1415 of which were used to produce estimates for 192 countries²². Figure A1 shows that more datasets were used to generate national estimates for drinking water (1256) and sanitation (1123) than for hygiene (758). However, the number of datasets used to generate national hygiene estimates has grown by over 50% since 2022 (497).

National data are only included if they meet minimum standards for data quality and coverage. For example, EMIS or census data are only used if the response rate is at least 33%. Survey data are only used if there are at least 50 schools per domain, with the exception of small countries.

22 For the purposes of this report, 'countries' refers to countries, areas and territories included in the United Nations Population Division World Population Prospects, 2022 revision.

National data sources used in JMP reports on WASH in schools

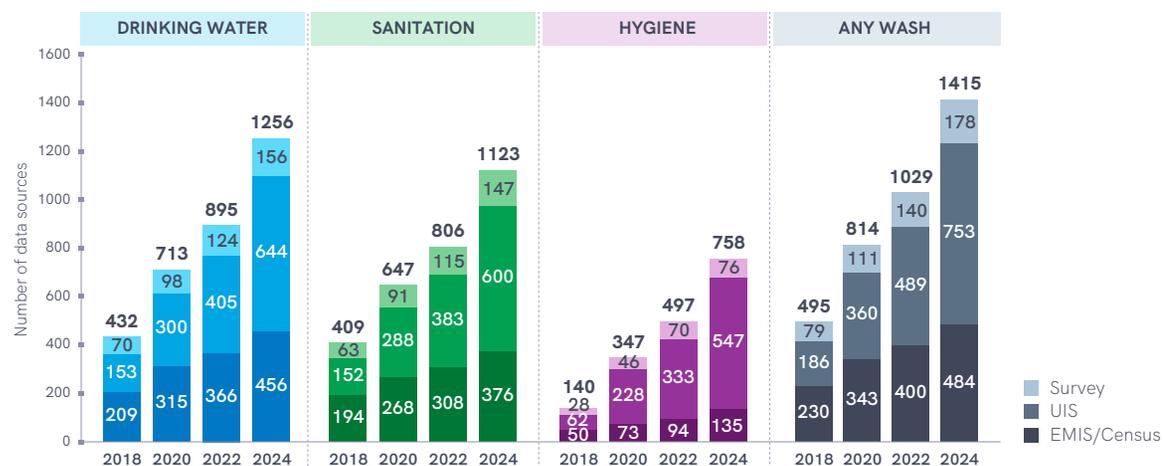


FIGURE A1 Number of national data sources used in the JMP updates in 2018, 2020, 2022 and 2024, by type of data source

Subnational surveys are only used if they are representative of rural or urban schools.

The JMP extracts data that are representative of national, urban and rural schools and pre-primary, primary and secondary schools. The JMP relies on official data published by national authorities but detailed information on the overall distribution by education level and by type of school (e.g. public, private, religious, community, and schools for disadvantaged groups) is not always available.

Unless otherwise categorized by national authorities, all schools with primary-level students are counted as 'primary', all schools with secondary-level students are counted as

'secondary', and all schools with pre-primary-level students are counted as 'pre-primary'²³. This means some schools may be double-counted and the total number of schools does not necessarily equal the sum of the pre-primary, primary and secondary schools.

The JMP uses UIS²⁴ data on pre-primary, primary and secondary school-age populations and imputes values for countries with incomplete time series and for countries with no school-age data. Urban and rural school-age populations are calculated using the percentage of the population residing in urban areas, as reported by the UN Population Division.

23 Where data are available for early childhood development centres, these are counted as 'pre-primary'.

24 Downloaded 4 October 2023. <<http://data.uis.unesco.org>>.

JMP definitions

The JMP classifies drinking water and sanitation technologies into improved and unimproved types. Improved drinking water sources are designed to protect against contamination, while improved sanitation facilities are designed to hygienically separate excreta from human contact (Table A1). A handwashing facility may be fixed or mobile and include sinks with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand, or other handwashing agents.

The first step in the estimation process is to compile information on the types of facilities available in order to estimate the proportion of schools with improved and unimproved water and sanitation facilities and the proportion of schools with and without handwashing facilities.

The second step is to compile information on the level of service provided, specifically the availability of drinking water, availability of single-sex toilets that are usable at the time of the survey, and presence of water and soap for handwashing. Information on facility types and service levels is then combined to estimate the proportion of schools providing a basic, limited or no service.

TABLE A1 JMP classification of improved and unimproved facility types

	DRINKING WATER	SANITATION
Improved facilities	<p>Piped supplies</p> <ul style="list-style-type: none"> • Tap water in the dwelling, yard or plot, including piped to a neighbour • Public taps or standpipes <p>Non-piped supplies</p> <ul style="list-style-type: none"> • Boreholes/tubewells • Protected wells and springs • Rainwater • Packaged water, including bottled water and sachet water • Delivered water, including tanker trucks and small carts/tanks/drums • Water kiosks 	<p>Networked sanitation</p> <ul style="list-style-type: none"> • Flush and pour-flush toilets connected to sewers <p>On-site sanitation</p> <ul style="list-style-type: none"> • Flush and pour-flush toilets or latrines connected to septic tanks or pits • Ventilated improved pit (VIP) latrines • Pit latrines with slabs (constructed from materials that are durable and easy to clean) • Composting toilets, including twin-pit latrines with slabs and container-based systems
Unimproved facilities	<p>Non-piped supplies</p> <ul style="list-style-type: none"> • Unprotected wells and springs 	<p>On-site sanitation</p> <ul style="list-style-type: none"> • Flush and pour-flush toilets or latrines flushed to elsewhere* • Pit latrines without slabs, or slabs constructed from materials that are not durable and easy to clean • Open pits • Hanging toilets/latrines • Bucket latrines, including pans, trays, or other unsealed containers
No facility	<p>Surface water</p> <ul style="list-style-type: none"> • Open water sources located above ground, including rivers, lakes, ponds, streams, canals, reservoirs, and irrigation channels 	<p>Open defecation</p> <ul style="list-style-type: none"> • Defecation in the bush, field or ditch • Defecation into surface water, including beach, river, stream, sea, or drainage channel

* A survey response of 'Flush/pour-flush to elsewhere' suggests that excreta are not being discharged into a sewer, septic tank or pit latrine but into the local environment, and that the facility should therefore be classified as unimproved.

Data analysis and country estimates

The JMP uses a simple linear regression to generate estimates from all the available data points for each of the nine primary indicators (Table A2)²⁵:

TABLE A2 JMP primary indicators for WASH in schools

Proportion of schools with:		
DRINKING WATER	SANITATION	HYGIENE
<ul style="list-style-type: none"> Any water facility An improved water source A basic water service 	<ul style="list-style-type: none"> Any sanitation facility An improved sanitation facility A basic sanitation service 	<ul style="list-style-type: none"> Any handwashing facility A handwashing facility with water A basic hygiene service

These estimates are used to calculate the remaining schools with no facility or unimproved facilities and with a limited service.

Trends are calculated if there are two or more data points available spanning at least four years. If the data points span fewer than four years, an average is used. Separate regressions are made for national, urban and rural, and for pre-primary, primary and secondary schools, where data are available.

²⁵ The 'Charts' tab in country files helps to visualize trends over time by showing both the data points used and the resulting estimates.

A national estimate can also be calculated from urban and rural estimates or pre-primary, primary and secondary estimates. If data are only available for primary schools, a national estimate may also be calculated, since countries typically have many more primary than secondary schools.

Estimates of the number of school-age children whose schools have or lack different levels of WASH services are made by simply multiplying the relevant school-age population by the proportion of schools with that WASH service level.

Regional and global estimates for WASH in schools

Regional and global estimates are made by aggregating country-level estimates of the populations of school-age children with and without WASH services in school. Regional and global estimates are only made if data are available for at least 30% of the school-age population in each domain (total, urban, rural, and pre-primary, primary and secondary schools).

In countries with incomplete trend data for school-age populations, linear regression is used to produce full time series. In countries with no population data, values are imputed based on an average proportion of the population that is school-age within

the relevant M49 sub-region²⁶. The JMP does not use these 'imputed' statistics to produce country-level estimates. Urban and rural school-age populations are calculated based on the proportion of the national population that lives in urban and rural areas.

In previous JMP WASH in schools updates, regional school-age population weighted averages were used to impute missing country values for water, sanitation and hygiene variables in regions, while global estimates used imputed values based on SDG regional groupings (see Annex 2).

²⁶ For more details on M49 regions and sub-regions, see (<https://unstats.un.org/unsd/methodology/m49/overview>).



Global availability of data on basic WASH services in schools

DATA COVERAGE BY REGION	DRINKING WATER						SANITATION						HYGIENE					
	National	Urban	Rural	Pre-primary	Primary	Secondary	National	Urban	Rural	Pre-primary	Primary	Secondary	National	Urban	Rural	Pre-primary	Primary	Secondary
World (234)	65% (138)	21% (21)	38% (24)	8% (19)	62% (129)	66% (126)	68% (144)	33% (34)	44% (25)	6% (16)	65% (133)	66% (124)	63% (134)	23% (18)	44% (20)	4% (10)	61% (127)	61% (123)
SDG REGIONS																		
Australia and New Zealand (2)	83% (1)	0% (0)	0% (0)	0% (0)	85% (1)	80% (1)	83% (1)	0% (0)	0% (0)	0% (0)	85% (1)	80% (1)	83% (1)	0% (0)	0% (0)	0% (0)	85% (1)	80% (1)
Central and Southern Asia (14)	95% (10)	66% (3)	71% (4)	4% (2)	94% (9)	96% (9)	95% (9)	80% (4)	85% (4)	4% (2)	94% (8)	96% (8)	81% (7)	79% (3)	83% (4)	0% (0)	78% (6)	80% (6)
Eastern and South-Eastern Asia (18)	37% (13)	1% (4)	2% (1)	14% (3)	37% (13)	39% (13)	37% (13)	1% (4)	2% (1)	13% (2)	37% (13)	38% (12)	36% (13)	1% (4)	2% (1)	13% (2)	37% (13)	38% (13)
Europe and Northern America (54)	75% (37)	0% (1)	0% (0)	5% (3)	74% (32)	74% (32)	71% (35)	0% (1)	0% (0)	3% (3)	69% (29)	70% (29)	75% (37)	0% (1)	0% (0)	3% (3)	74% (34)	74% (34)
Latin America and the Caribbean (50)	38% (23)	8% (2)	31% (8)	10% (2)	38% (22)	34% (22)	87% (29)	86% (15)	40% (10)	11% (4)	85% (28)	67% (27)	44% (22)	2% (1)	24% (6)	3% (1)	44% (21)	41% (21)
Northern Africa and Western Asia (25)	66% (17)	7% (3)	17% (2)	0% (1)	52% (16)	72% (17)	75% (16)	1% (2)	0% (1)	0% (1)	62% (14)	67% (14)	79% (15)	7% (2)	17% (1)	0% (0)	69% (14)	61% (13)
Oceania (21)	92% (13)	17% (2)	3% (1)	87% (2)	92% (13)	91% (13)	93% (14)	17% (2)	3% (1)	87% (2)	93% (14)	92% (14)	87% (13)	17% (2)	3% (1)	87% (2)	87% (13)	85% (13)
Sub-Saharan Africa (51)	59% (24)	32% (6)	29% (8)	10% (6)	59% (23)	51% (19)	56% (27)	34% (6)	36% (8)	3% (2)	57% (26)	43% (19)	62% (26)	31% (5)	34% (7)	2% (2)	64% (25)	53% (22)
OTHER REGIONAL GROUPINGS																		
Landlocked Developing Countries (32)	77% (18)	14% (4)	28% (8)	19% (7)	78% (16)	68% (14)	64% (20)	25% (6)	30% (7)	9% (3)	64% (18)	48% (13)	81% (17)	11% (2)	22% (5)	0% (0)	83% (17)	70% (15)
Least Developed Countries (46)	61% (26)	10% (5)	19% (7)	8% (6)	58% (24)	53% (20)	57% (30)	14% (6)	25% (8)	3% (3)	55% (28)	45% (20)	67% (27)	12% (4)	24% (6)	1% (1)	67% (26)	55% (22)
Small Island Developing States (52)	50% (30)	8% (3)	7% (2)	27% (2)	46% (29)	44% (30)	64% (32)	46% (5)	6% (2)	27% (2)	60% (31)	57% (30)	65% (31)	8% (3)	7% (2)	27% (2)	60% (30)	59% (30)
Fragile contexts (60)	66% (33)	20% (5)	22% (9)	7% (6)	63% (31)	60% (25)	63% (34)	34% (10)	39% (12)	2% (3)	60% (32)	55% (26)	55% (28)	31% (6)	39% (10)	2% (2)	54% (26)	43% (22)
INCOME GROUPINGS																		
Low income (26)	58% (15)	8% (2)	20% (4)	7% (3)	59% (14)	49% (12)	47% (17)	9% (3)	22% (5)	1% (1)	46% (16)	36% (12)	58% (15)	8% (2)	24% (4)	0% (0)	58% (14)	44% (11)
Lower-middle income (54)	85% (32)	52% (8)	59% (12)	8% (8)	81% (30)	88% (29)	88% (32)	60% (10)	69% (10)	5% (5)	86% (31)	86% (27)	80% (28)	59% (7)	68% (11)	2% (3)	78% (27)	77% (26)
Upper-middle income (53)	32% (34)	3% (5)	3% (7)	12% (6)	29% (29)	30% (29)	45% (38)	26% (14)	6% (10)	12% (7)	41% (33)	39% (32)	34% (32)	1% (3)	2% (5)	10% (4)	31% (29)	32% (29)
High income (81)	80% (52)	1% (6)	1% (1)	2% (2)	78% (51)	80% (51)	79% (52)	2% (7)	0% (0)	3% (3)	75% (48)	77% (48)	80% (54)	1% (6)	0% (0)	3% (3)	77% (52)	80% (52)

■ <30% coverage
■ ■ ■ 30-49% coverage
■ ■ ■ 50-100% coverage

FIGURE A2 Proportion of school-age population (# countries) for which data were available on basic WASH services in schools, by region, school level and rural/urban in 2023

In the 2024 update, an iterative approach using M49 regions was applied to water, sanitation and hygiene variables to impute missing values in order to generate aggregate estimates for geographical regions and the world as a whole:²⁷

1. If any estimates were available within an M49 subregion, the subregion average was used.
2. If estimates were available at the regional but not subregional level, the M49 regional average was used.
3. If no estimates were available for any country or territory in the M49 region, the global average was used.

For nongeographical regions (such as Landlocked Developing Countries – LLDCs, Least Developed Countries – LDCs, Small Island Developing States – SIDS, OECD fragile contexts, and World Bank income groups), a simple weighted average of countries and territories was used, without any imputation. After generating aggregates, estimates for basic, limited and no service are normalized to ensure they add up to 100%.

Figure A2 shows global and regional coverage of data on basic WASH in schools for the school-age population in 2023. Data availability varied widely between regions, areas (rural and urban) and education levels. The biggest data gaps were observed in pre-primary schools, urban and rural areas for each domain.

²⁷ The JMP uses a similar iterative approach for producing regional estimates of WASH services in households. Therefore, this revision ensures harmonization of JMP methods in different settings. The JMP will continue to assess the performance of alternative methods and refine methodology as more data become available.

TABLE A3 Useful resources for detailed information on JMP definitions and methods

GENERAL

JMP website: <https://washdata.org>
 JMP reports: <https://washdata.org/reports>
 JMP data: <https://washdata.org/data>
 JMP country files: <https://washdata.org/data/downloads#>
 JMP regional snapshots: <https://washdata.org/how-we-work/country-and-regional-engagement>
 JMP country consultations: <https://washdata.org/how-we-work/jmp-country-consultation>

MONITORING WASH IN SCHOOLS

JMP WASH in Schools Methodology (November 2021)
<https://washdata.org/reports/jmp-2021-methodology-wash-in-schools>
Core Questions and Indicators for Monitoring WASH in Schools in the Sustainable Development Goals
<https://washdata.org/reports/jmp-2018-core-questions-and-indicators-wash-in-schools>
Questions and Data Tabulation for WASH in Schools (Excel file)
https://washdata.org/reports/jmp-2022-core-questions-and-data-tabulations-wins-v2_0
JMP Expert Group Meeting on WASH in Schools (June 2016)
<https://washdata.org/reports/jmp-expert-group-meeting-wash-schools>
Progress on Drinking Water, Sanitation and Hygiene in Schools: 2000–2021 data update
<https://washdata.org/reports/jmp-2022-wash-in-schools>
Progress on Drinking Water, Sanitation and Hygiene in Schools: Special focus on COVID-19
<https://washdata.org/reports/jmp-2020-wash-in-schools>
Drinking Water, Sanitation and Hygiene in Schools: Global baseline report 2018
<https://washdata.org/reports/jmp-2018-global-report-wash-schools>

MONITORING MENSTRUAL HEALTH

Priority Gender-specific Indicators for WASH Monitoring Under SDG Targets 6.1 and 6.2
<https://washdata.org/reports/emory-2024-priority-gender-specific-indicators-for-wash-monitoring>
UNICEF Guidance on Monitoring MHH: Version 1
<https://washdata.org/reports/unicef-2020-guidance-monitoring-mhh-v1>
Global MHH Monitoring Group, Priority List of Indicators for Girls' Menstrual Health and Hygiene, 2022
 English: <https://www.publichealth.columbia.edu/file/8002/download?token=AViwoc5e>
 French: <https://www.publichealth.columbia.edu/file/8004/download?token=T8BusXsl>

ANNEX 2

REGIONAL GROUPINGS²⁸

SUSTAINABLE DEVELOPMENT GOALS: REGIONAL GROUPINGS

■ AUSTRALIA AND NEW ZEALAND:

Australia, New Zealand.

■ CENTRAL ASIA AND SOUTHERN ASIA:

Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan, Uzbekistan.

■ EASTERN ASIA AND SOUTH-EASTERN ASIA:

Brunei Darussalam, Cambodia, China, China (Hong Kong Special Administrative Region), China (Macao Special Administrative Region), Democratic People's Republic of Korea, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Myanmar, Mongolia, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste, Viet Nam.

■ EUROPE AND NORTHERN AMERICA:

Albania, Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bermuda, Bulgaria, Canada, Channel Islands, Croatia, Czechia, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Greenland, Holy See, Hungary, Ireland, Iceland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands (Kingdom of the), North Macedonia, Norway, Poland, Portugal,

Republic of Moldova, Romania, Russian Federation, San Marino, Saint Pierre and Miquelon, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America.

■ LATIN AMERICA AND THE CARIBBEAN:

Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Bonaire, Sint Eustatius and Saba, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Malvinas), French Guiana, Guadeloupe, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint-Barthélemy, Saint Kitts and Nevis, Saint Lucia, Saint-Martin (French part), Saint Vincent and the Grenadines, Sint Maarten (Dutch part), Suriname, Trinidad and Tobago, Turks and Caicos Islands, United States Virgin Islands, Uruguay, Venezuela (Bolivarian Republic of).

■ NORTHERN AFRICA AND WESTERN ASIA:

Algeria, Armenia, Azerbaijan, Bahrain, Cyprus, Egypt, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi

Arabia, State of Palestine²⁹, Sudan, Syrian Arab Republic, Tunisia, Türkiye, United Arab Emirates, Western Sahara, Yemen.

■ OCEANIA (EXCLUDING AUSTRALIA AND NEW ZEALAND):³⁰

American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna Islands.

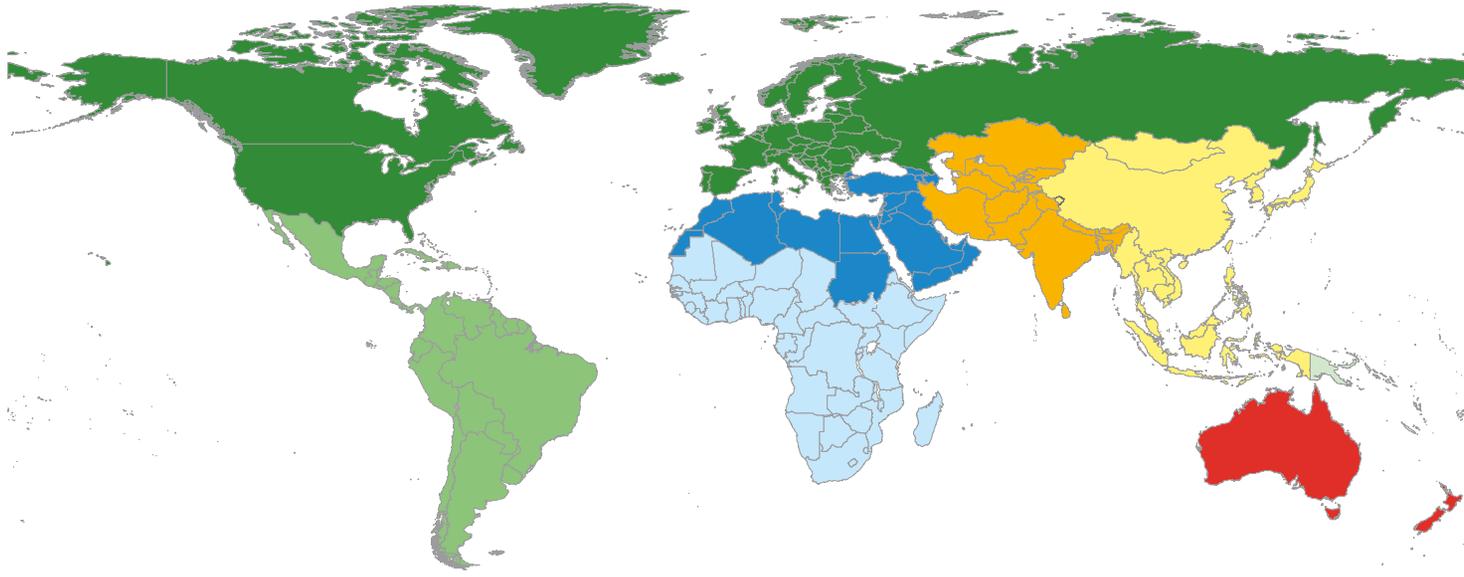
■ SUB-SAHARAN AFRICA:

Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Mozambique, Namibia, Niger, Nigeria, Réunion, Rwanda, Saint Helena, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

28 SDG regional groupings, as well as classifications of landlocked developing countries, least developed countries and small island developing states, come from United Nations Statistics Division. (<https://unstats.un.org/sdgs/indicators/regional-groups/>). Fragile contexts are taken from OECD (2022 grouping as of March 2023): <https://www.oecd.org/dac/states-of-fragility-fa5a6770-en.htm>. This report also uses income categories as classified by the World Bank (fiscal year 2022). (<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bankcountry-and-lending-groups>).

29 WHO reports refer to 'occupied Palestinian territory, including east Jerusalem'.

30 'Oceania (excluding Australia and New Zealand)' is referred as 'Oceania' throughout this report.



OTHER REGIONAL GROUPINGS

LANDLOCKED DEVELOPING COUNTRIES (LLDCS):

Afghanistan, Armenia, Azerbaijan, Bhutan, Bolivia (Plurinational State of), Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Eswatini, Ethiopia, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, Malawi, Mali, Mongolia, Nepal, Niger, North Macedonia, Paraguay, Republic of Moldova, Rwanda, South Sudan, Tajikistan, Turkmenistan, Uganda, Uzbekistan, Zambia, Zimbabwe.

LEAST DEVELOPED COUNTRIES (LDCS):

Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia,

South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Yemen, Zambia.

SMALL ISLAND DEVELOPING STATES (SIDS):

American Samoa, Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, Sint Eustatius and Saba, British Virgin Islands, Cabo Verde, Comoros, Cook Islands, Cuba, Curaçao, Dominica, Dominican Republic, Fiji, French Polynesia, Grenada, Guam, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Micronesia (Federated States of), Montserrat, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Seychelles, Singapore, Sint Maarten (Dutch part), Solomon Islands, Suriname, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu, United States Virgin Islands, Vanuatu.

FRAGILE CONTEXTS (OECD)³¹

Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic People's Republic of Korea, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gambia, Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Iran (Islamic Republic of), Iraq, Kenya, Lao People's Democratic Republic, Lesotho, Liberia, Libya, Madagascar, Mali, Mauritania, Mozambique, Myanmar, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Sierra Leone, Solomon Islands, Somalia, South Sudan, State of Palestine, Sudan, Syrian Arab Republic, Tajikistan, United Republic of Tanzania, Timor-Leste, Togo, Turkmenistan, Uganda, Venezuela (Bolivarian Republic of), Yemen, Zambia, Zimbabwe.

³¹ Fragile contexts are taken from OECD <https://www.oecd.org/dac/states-of-fragility-fa5a6770-en.htm> (2022 grouping as of March 2024).

Annex 3

WASH IN SCHOOLS ESTIMATES

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)
Afghanistan	2023	13 913	27	9	49	43	66	13	22	-	-	-	-	-	-	-	-	58	-	-	75	-	-				
Albania	2023	409	65	17	34	49	82	-	-	-	-	-	-	-	-	-	-	74	-	-	72	-	-				
Algeria	2023	11 195	75	9	43	49	91	-	-	-	-	-	-	-	-	-	-	94	-	-	90	-	-				
Andorra	2023	12	88	17	41	42	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Angola	2023	12 592	69	14	50	36	-	-	-	-	-	5	-	-	32	-	-	-	-	-	-	-	-				
Anguilla	2023	3	100	12	49	39	>99	<1	<1	-	-	-	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1			
Antigua and Barbuda	2023	16	24	12	48	40	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Argentina	2023	10 684	92	19	41	40	-	-	10	-	-	6	-	-	27	-	-	16	-	-	11	-	-	9			
Armenia	2023	463	64	22	31	47	97	<1	3	96	3	<1	89	8	3	97	1	1	95	3	2	95	3	2			
Australia	2023	4 797	87	13	47	40	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Austria	2023	1 290	60	20	27	53	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Azerbaijan	2023	2 039	58	23	28	50	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Bahamas	2023	76	84	12	39	49	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Bahrain	2023	294	90	23	42	36	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Bangladesh	2023	45 221	40	19	32	48	90	2	9	-	-	-	-	-	-	-	-	89	2	9	>99	<1	<1				
Barbados	2023	42	31	14	44	42	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Belarus	2023	1 332	81	26	32	42	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Belgium	2023	1 970	98	20	41	39	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Belize	2023	106	47	14	43	42	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-				
Benin	2023	4 955	50	16	43	41	66	-	-	-	-	-	-	-	-	-	-	55	-	-	87	1	12				
Bermuda	2023	9	100	6	42	52	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-				
Bhutan	2023	184	44	11	46	43	65	26	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Bolivia (Plurinational State of)	2023	3 474	71	15	43	42	-	-	-	-	-	<1	84	-	-	-	-	-	-	-	-	-	-				
Bosnia and Herzegovina	2023	484	50	18	34	47	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Botswana	2023	812	73	22	48	30	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1				

Key: - No estimate NA Not applicable **Note:** For JMP estimation methods see Annex 1. For unrounded estimates see <<http://washdata.org>>.

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)			
Afghanistan	38	-	-	-	-	-	-	-	-	-	-	26	-	-	65	-	-	8	-	-	-	-	-	-	-	-	-	5	-	-	11	-	-			
Albania	88	-	-	-	-	-	-	-	-	-	-	80	-	-	96	-	-	87	-	-	-	-	-	-	-	-	77	-	-	>99	-	-				
Algeria	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	95	-	-	-	-	-	-	-	-	98	-	-	93	-	-				
Andorra	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Angola	-	-	1	-	-	3	-	31	-	-	-	-	-	-	-	-	-	13	-	10	-	-	28	-	-	-	-	-	-	-	-					
Anguilla	>99	<1	<1	-	-	-	NA	NA	NA	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	NA	NA	NA	>99	<1	<1	>99	<1	<1				
Antigua and Barbuda	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Argentina	83	-	-	80	-	-	-	-	-	-	-	83	-	-	87	-	-	78	-	-	-	-	-	-	-	74	-	-	82	-	-					
Armenia	89	6	5	94	-	-	78	-	-	97	-	80	-	-	87	-	-	98	-	-	-	-	-	-	-	98	-	-	97	-	-					
Australia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Austria	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Azerbaijan	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Bahamas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Bahrain	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Bangladesh	87	13	<1	-	-	-	-	-	-	-	-	85	-	-	>99	<1	<1	92	3	5	-	-	-	-	-	86	<1	14	81	15	4					
Barbados	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Belarus	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Belgium	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1					
Belize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Benin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	17	7	49	-	-	-	-	-	-	-	-	51	-	-	72	-	-				
Bermuda	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-	>99	<1	<1	-	-	-	NA	NA	NA	>99	<1	<1	>99	<1	<1				
Bhutan	88	9	3	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	34	-	-	35	-	-	35				
Bolivia (Plurinational State of)	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	-	-	-	-	-	-	-	-				
Bosnia and Herzegovina	79	21	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Botswana	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)
Brazil	2023	41 740	88	14	35	51	-	-	11	-	-	3	-	-	42	-	-	16	-	-	13	-	-	8			
British Virgin Islands	2023	5	50	9	40	51	97	3	<1	-	-	-	-	-	-	-	-	96	4	<1	>99	<1	<1				
Brunei Darussalam	2023	107	79	18	39	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Burkina Faso	2023	9 716	33	23	40	37	63	9	28	-	-	19	-	-	29	-	-	25	67	6	28	50	16	34			
Burundi	2023	4 866	15	21	46	34	46	16	39	-	-	-	-	-	-	48	<1	52	45	10	46	-	-	9			
Cabo Verde	2023	152	68	19	39	42	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	>99	<1	<1			
Cambodia	2023	4 829	26	20	41	39	86	3	11	89	2	8	85	3	12	73	2	25	92	3	5	93	3	4			
Cameroon	2023	10 434	59	16	43	41	24	32	44	-	-	27	-	-	67	-	-	47	24	28	48	-	-	34			
Cayman Islands	2023	11	100	14	48	38	>99	<1	<1	-	-	-	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1			
Central African Republic	2023	2 606	44	22	40	39	-	-	77	-	-	-	-	-	-	-	-	-	-	-	81	-	-	58			
Chad	2023	7 822	24	24	40	36	30	15	55	54	<1	46	19	8	73	78	6	16	26	16	58	46	-	-			
Chile	2023	3 605	88	19	41	40	-	-	-	-	-	<1	52	27	21	-	-	-	-	-	-	-	-	-			
China	2023	258 595	65	19	42	40	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	1			
China, Hong Kong SAR	2023	922	100	22	41	37	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1			
China, Macao SAR	2023	97	100	26	42	32	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1			
Colombia	2023	10 408	82	21	35	43	-	-	23	-	-	8	46	18	36	-	-	-	-	-	23	-	-	22			
Comoros	2023	314	30	21	39	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Congo	2023	2 421	69	23	41	37	54	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	-	-			
Cook Islands	2023	4	76	14	40	46	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Costa Rica	2023	939	83	15	46	40	84	7	9	-	-	13	-	-	4	-	-	2	86	4	10	76	19	5			
Côte d'Ivoire	2023	11 609	53	21	39	40	52	19	29	63	2	35	29	<1	71	48	3	49	48	9	43	92	5	3			
Croatia	2023	603	59	24	25	51	96	<1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Cuba	2023	1 795	78	19	41	40	>99	<1	<1	-	-	5	-	-	8	-	-	-	>99	<1	<1	>99	<1	<1			
Czech Republic	2023	1 781	75	19	31	50	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Democratic Republic of the Congo	2023	39 832	47	25	42	33	-	-	58	-	-	-	-	-	-	-	-	44	-	-	58	-	-	-			
Denmark	2023	1 030	88	18	42	40	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Djibouti	2023	325	79	14	34	51	-	-	6	-	-	4	-	-	17	-	-	-	-	-	8	-	-	3			

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)	Basic water services (improved and available)	Limited water services (improved, not available)	No water service (no facility or unimproved)
Dominica	2023	13	72	14	48	39	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Dominican Republic	2023	2 858	84	20	40	40	-	-	11	-	-	12	69	7	24	-	-	-	-	-	11	-	-	13			
Ecuador	2023	4 666	65	19	40	41	77	16	7	88	4	8	77	13	10	91	3	7	82	9	9	93	<1	6			
Egypt	2023	31 809	43	17	46	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-			
El Salvador	2023	1 740	75	16	37	47	82	10	8	-	-	3	-	-	10	-	-	10	80	11	9	84	8	8			
Equatorial Guinea	2023	551	74	24	45	31	-	-	72	-	-	-	-	-	-	-	75	-	-	74	-	-	49				
Eritrea	2023	1 408	43	15	37	49	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-				
Estonia	2023	233	70	25	37	38	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Eswatini	2023	397	25	22	47	31	-	-	14	-	-	-	-	-	-	-	-	-	-	17	-	-	10				
Ethiopia	2023	46 409	23	22	41	37	29	<1	71	-	-	-	-	-	-	-	-	25	<1	75	54	<1	46				
Fiji	2023	279	59	19	38	42	78	<1	22	94	<1	5	70	<1	29	61	<1	38	78	<1	22	87	<1	13			
Finland	2023	939	86	21	39	40	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
France	2023	12 567	82	19	34	47	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Gabon	2023	793	91	24	35	41	66	11	23	69	20	11	54	<1	46	69	13	18	64	9	27	68	18	14			
Gambia	2023	1 165	64	29	39	32	-	-	22	-	-	39	-	-	61	-	-	39	-	-	8	-	-	9			
Georgia	2023	660	61	25	46	29	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1				
Germany	2023	12 370	78	20	26	55	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Ghana	2023	10 831	59	17	46	38	78	4	18	85	9	7	73	10	17	79	12	9	78	12	11	79	16	4			
Gibraltar	2023	5	100	14	47	39	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1			
Grenada	2023	28	37	14	51	34	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1				
Guatemala	2023	5 798	53	21	40	39	-	-	30	-	-	4	-	-	26	-	-	31	-	-	31	-	-	15			
Guinea	2023	5 537	38	22	39	40	-	-	42	-	-	34	-	-	73	-	-	24	38	<1	62	-	-	12			
Guinea-Bissau	2023	826	45	22	41	36	63	2	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Guyana	2023	214	27	22	43	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Haiti	2023	3 878	60	20	38	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Honduras	2023	2 926	60	22	42	36	78	<1	22	-	-	6	95	<1	5	-	-	-	76	12	12	70	18	12			
Hungary	2023	1 612	73	25	24	52	>99	<1	<1	-	-	-	-	-	-	-	<1	>99	<1	<1	>99	<1	<1				
India	2023	365 256	36	19	33	48	95	<1	5	94	<1	6	93	<1	7	-	-	-	93	<1	7	90	<1	10			
Indonesia	2023	65 324	59	14	44	42	76	11	13	-	-	<1	-	-	<1	70	2	27	75	11	14	75	13	12			

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)				
Dominica	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
Dominican Republic	76	-	-	78	-	-	-	-	19	-	-	76	-	-	81	-	-	83	-	-	-	-	-	54	-	-	-	-	-	80	-	-	86	-	-		
Ecuador	73	18	9	76	15	9	70	11	19	62	27	10	73	12	14	77	15	8	51	26	23	49	35	17	52	18	30	50	36	14	50	26	24	33	56	10	
Egypt	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	63	37	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	63	37	<1			
El Salvador	84	9	6	89	8	3	81	11	8	87	6	7	84	9	7	88	9	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Equatorial Guinea	-	-	37	-	-	-	-	-	-	-	-	25	-	-	37	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eritrea	33	-	-	-	-	-	-	-	-	-	-	-	26	-	-	46	-	-	5	-	-	-	-	-	-	-	-	-	3	-	-	8	-	-			
Estonia	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Eswatini	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ethiopia	-	-	52	-	-	-	-	-	-	-	-	-	-	-	54	-	-	39	31	<1	68	-	-	-	-	-	-	19	14	67	23	<1	77	-	-		
Fiji	91	9	<1	95	5	<1	92	8	<1	99	<1	1	>99	<1	<1	96	4	<1	43	<1	57	90	9	1	85	14	2	88	-	-	20	<1	80	97	-	-	
Finland	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1
France	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1
Gabon	-	-	37	-	-	25	-	-	57	-	-	24	-	-	43	-	-	27	66	22	12	90	<1	10	81	4	16	91	<1	9	66	21	13	85	4	11	
Gambia	65	35	<1	56	-	-	44	-	-	39	-	-	86	14	<1	80	20	<1	-	-	62	-	-	-	-	-	-	-	-	-	36	-	-	32	-	-	
Georgia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Germany	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1
Ghana	59	24	17	72	18	10	57	17	26	64	21	15	62	21	17	65	19	16	54	8	38	65	6	29	45	10	46	56	7	37	52	9	40	52	8	39	
Gibraltar	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1	
Grenada	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	98	2	<1	-	-	
Guatemala	72	-	-	88	10	3	64	-	-	-	-	-	72	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Guinea	52	34	14	-	-	4	-	-	23	-	-	10	52	32	16	-	-	<1	-	-	62	-	-	-	-	-	-	-	6	-	-	62	-	-	2	-	
Guinea-Bissau	37	23	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	7	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Guyana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Haiti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Honduras	89	-	-	83	-	-	46	45	9	-	-	-	76	-	-	78	-	-	-	-	-	-	-	-	-	-	>99	-	-	-	-	-	-	-	-	-	
Hungary	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	92	<1	8	>99	<1	<1	>99	<1	<1	
India	84	3	13	88	<1	12	83	3	14	-	-	-	85	2	13	85	<1	15	53	23	25	58	26	16	52	22	26	-	-	-	53	22	25	53	29	17	
Indonesia	71	16	14	-	-	-	-	-	-	28	53	19	64	23	13	79	<1	21	69	<1	31	-	-	-	-	-	-	57	5	38	70	<1	30	67	<1	33	

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY				
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)					
Iran (Islamic Republic of)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Iraq	57	34	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	22	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Israel	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1		
Italy	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1		
Jamaica	96	-	-	-	-	-	-	-	-	-	-	94	-	-	97	3	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1		
Jordan	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Kenya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Kiribati	66	-	-	-	-	-	-	-	-	-	-	72	-	-	60	-	-	87	7	6	-	-	-	-	-	-	-	89	4	7	82	13	5	-	-			
Kuwait	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1			
Kyrgyzstan	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lao People's Democratic Republic	32	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	50	-	-	33	-	-	50	-	-	50	-	-			
Latvia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1			
Lebanon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Lesotho	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Liberia	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	68	-	-	-	-	-	-	33	64	-	-	76	-	-	76	-	-	-	-	-		
Libya	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lithuania	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1
Luxembourg	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1
Madagascar	39	31	30	-	-	11	-	31	-	-	27	18	51	30	57	31	12	-	-	50	-	-	71	-	-	48	-	-	40	-	-	44	-	-	-	-	-	
Malawi	74	-	-	-	-	-	-	-	-	-	-	79	-	-	53	-	-	44	-	-	-	-	-	-	-	-	-	42	<1	58	40	<1	60	40	<1	60		
Malaysia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1
Maldives	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mali	30	-	-	-	-	42	39	19	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malta	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	
Marshall Islands	78	-	-	-	-	-	-	-	-	-	-	69	-	-	88	-	-	70	-	-	-	-	-	-	-	-	-	67	-	-	73	-	-	73	-	-		
Mauritania	31	-	-	-	-	-	-	-	-	-	-	27	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Mauritius	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	97	-	-	>99	-	-	>99	-	-	>99	-	-
Mexico	70	-	-	70	27	3	-	-	-	-	6	70	-	-	-	-	-	79	-	-	-	-	-	-	-	-	77	-	-	87	-	-	87	-	-	87	-	-

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)			
Micronesia (Federated States of)	79	14	6	-	-	-	-	-	-	-	-	77	-	-	80	-	-	82	<1	18	-	-	-	-	-	-	-	-	86	-	-	89	-	-		
Monaco	>99	<1	<1	-	-	-	NA	NA	NA	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	NA	NA	NA	-	>99	<1	<1	>99	<1	<1			
Mongolia	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Montenegro	11	88	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Montserrat	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Morocco	96	<1	4	-	-	-	-	-	-	-	-	92	<1	8	96	4	<1	87	-	-	-	-	-	-	-	-	-	82	-	-	93	-	-			
Mozambique	-	-	47	-	-	40	26	25	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-				
Myanmar	74	-	-	-	-	-	-	-	-	-	-	72	-	-	71	-	-	59	-	-	-	-	-	-	-	-	-	54	-	-	62	-	-			
Namibia	-	-	35	-	-	-	-	-	-	-	-	-	-	45	-	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Nauru	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	>99	<1	<1	>99	<1	<1	90	10	<1	90	10	<1	NA	NA	NA	-	88	13	<1	93	7	<1			
Nepal	39	40	21	28	45	26	24	62	15	22	68	10	34	41	25	57	6	37	42	-	-	-	-	-	-	-	37	-	-	59	-	-				
Netherlands (Kingdom of the)	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Nicaragua	29	-	-	65	-	-	23	45	31	-	-	-	45	-	-	62	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-				
Niger	25	17	57	53	<1	47	22	20	58	-	-	43	42	<1	58	-	-	34	42	<1	58	30	<1	70	15	31	54	-	-	42	<1	58	42	8	50	
Nigeria	43	14	43	63	11	26	33	14	53	-	-	-	40	12	48	43	21	37	24	12	65	37	15	48	16	10	74	-	-	22	11	67	28	14	58	
Niue	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Norway	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Oman	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Pakistan	42	39	19	70	9	20	36	44	20	-	-	-	42	32	26	48	50	2	-	-	-	65	30	5	10	27	63	-	-	-	-	-	-			
Palau	89	11	<1	-	-	-	-	-	-	-	-	84	-	-	95	-	-	83	<1	17	-	-	-	-	-	-	-	84	-	-	95	-	-			
Panama	24	56	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	34	43	-	-	-	-	-	-	-	-	-	-	-	-	-			
Papua New Guinea	46	12	42	-	-	-	-	-	-	45	13	42	46	12	42	69	10	21	12	43	46	-	-	-	-	12	41	46	11	43	46	16	44	40		
Paraguay	94	-	-	93	-	-	95	-	-	-	-	94	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Peru	93	3	4	94	2	3	84	13	3	91	4	5	90	7	2	92	1	7	-	-	23	-	-	11	-	-	34	-	-	24	-	-	16			
Philippines	85	-	-	-	-	-	-	-	-	-	-	82	-	-	97	-	-	73	12	15	-	-	-	-	-	-	-	75	11	13	61	17	23			
Poland	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Portugal	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Qatar	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
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Republic of Korea	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	
Republic of Moldova	90	5	5	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	
Romania	91	-	-	-	-	-	-	-	64	-	-	64	-	-	87	-	-	91	-	-	-	-	-	-	64	-	-	64	-	-	87	-	-			
Russian Federation	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Rwanda	70	20	11	-	-	5	-	-	5	-	7	67	23	10	73	13	14	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	<1			
Saint Kitts and Nevis	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	
Saint Lucia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	99	1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	97	3	<1		
Saint Vincent and the Grenadines	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	99	1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	99	1	<1		
Samoa	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	78	22	<1	-	-	-	-	-	-	-	-	68	32	<1	87	13	<1		
San Marino	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Sao Tome and Principe	76	8	16	-	-	-	-	-	-	-	-	70	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1			
Saudi Arabia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Senegal	78	7	15	-	-	7	-	-	18	-	42	80	4	16	-	-	8	22	30	49	-	-	43	-	-	56	-	-	25	-	-	9	-	-		
Serbia	99	<1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	14	1	-	-	-	-	-	-	-	-	-	-	-	-	-			
Seychelles	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
Sierra Leone	49	40	12	-	-	-	-	-	-	14	40	49	12	53	47	<1	22	30	47	-	-	-	-	-	-	8	21	25	54	27	27	46				
Singapore	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	NA	NA	NA	-	-	>99	<1	<1	>99	<1	<1		
Slovakia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Slovenia	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Solomon Islands	19	-	-	-	-	-	-	-	-	-	-	16	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Somalia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
South Africa	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
South Sudan	37	38	25	-	-	-	-	-	-	17	37	35	29	-	-	7	18	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-			
Spain	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Sri Lanka	90	10	<1	-	-	-	-	-	-	-	-	90	-	-	94	6	<1	87	12	<1	-	-	-	-	-	-	-	-	-	-	-	-	-			
State of Palestine*	97	2	<1	-	-	<1	-	-	<1	-	<1	>99	<1	<1	>99	<1	<1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	<1			
Sudan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	18	75	15	23	62	5	16	79	-	-	8	18	75	-	-	-		
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			

COUNTRY, AREA OR TERRITORY	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY				
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)					
Switzerland	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Syrian Arab Republic	87	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-	-	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Tajikistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Thailand	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
Timor-Leste	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Togo	17	32	51	-	-	-	-	-	-	-	85	4	49	47	29	37	34	17	<1	83	-	-	-	-	-	-	93	17	<1	83	17	<1	83					
Tokelau	>99	<1	<1	NA	NA	NA	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	NA	NA	NA	-	-	-	>99	<1	<1	>99	<1	<1
Tonga	96	-	-	-	-	-	-	-	-	-	-	98	-	-	94	-	-	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Tunisia	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	-	<1	-	-	<1	-	-	<1	-	-	<1	-	-	8	-	-	1			
Turkmenistan	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	
Turks and Caicos Islands	99	1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	96	4	<1	99	1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	97	3	<1	
Tuvalu	86	-	-	-	-	-	-	-	-	-	-	80	-	-	91	9	<1	96	4	<1	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	92	8	<1		
Türkiye	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
Uganda	75	23	2	71	22	7	53	29	18	-	-	61	29	10	79	15	7	39	16	45	-	-	-	12	5	83	-	-	-	35	22	43	-	-	24			
Ukraine	-	-	3	-	-	1	-	-	4	-	-	-	-	3	-	-	3	82	-	-	-	-	-	-	-	-	-	-	-	91	-	-	97	-	-			
United Arab Emirates	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
United Republic of Tanzania	44	53	3	59	41	<1	40	56	4	-	-	31	62	7	-	-	15	-	-	9	-	-	17	-	-	-	-	-	-	15	-	-	-	-	-			
United States of America	>99	<1	<1	-	-	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
Uruguay	97	3	<1	83	-	-	-	-	-	-	-	97	3	<1	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1			
Uzbekistan	80	6	14	86	4	10	62	31	7	72	24	5	79	-	-	80	-	-	92	5	4	91	5	4	89	5	6	-	-	5	91	-	-	92	-	-		
Vanuatu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Venezuela (Bolivarian Republic of)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Viet Nam	93	-	-	-	-	-	-	-	-	-	-	95	-	-	90	-	-	72	-	-	-	-	-	-	-	-	-	-	-	79	-	-	67	-	-			
Yemen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Zambia	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	<1	3	-	-	-	-	-	-	-	-	-	97	<1	3	98	<1	2			
Zimbabwe	94	6	<1	-	-	-	-	-	-	<1	93	7	<1	95	5	<1	77	16	7	-	-	-	-	-	-	-	-	-	-	78	15	7	74	18	8			

REGION	TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			TOTAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation services (improved, usable and single-sex)	Limited sanitation services (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene services (facility with water and soap)	Limited hygiene services (facility with water, but no soap)	No hygiene service (no facility or no water)						
SDG REGIONS																																				
Australia and New Zealand	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	
Central and Southern Asia	76	11	13	85	2	13	73	12	15	-	-	75	10	15	80	9	12	57	21	21	60	26	14	46	23	31	-	-	-	55	22	23	56	28	15	
Eastern and South-Eastern Asia	93	-	-	-	-	-	-	-	-	-	-	91	5	4	94	<1	6	91	1	8	-	-	-	-	-	-	-	-	-	91	2	7	89	1	10	
Europe and Northern America	>99	<1	<1	-	-	-	-	-	-	-	-	98	2	<1	>99	<1	<1	98	2	<1	-	-	-	-	-	-	-	-	-	98	2	<1	>99	<1	<1	
Latin America and the Caribbean	81	14	5	82	15	3	69	15	16	-	-	80	16	4	84	12	4	61	24	15	-	-	-	-	-	-	-	-	60	28	12	63	33	5		
Northern Africa and Western Asia	93	5	2	-	-	-	-	-	-	-	-	98	1	<1	89	11	<1	84	4	13	-	-	-	-	-	-	-	-	87	<1	12	89	11	<1		
Oceania	51	14	36	-	-	-	-	-	-	48	13	39	51	13	36	70	13	18	19	38	43	-	-	-	-	-	16	37	46	18	38	45	29	35	36	
Sub-Saharan Africa	50	23	28	64	20	16	39	30	31	-	-	22	44	24	33	61	17	22	37	15	48	41	14	45	25	12	64	-	-	-	34	13	52	37	15	48
OTHER REGIONAL GROUPINGS																																				
Landlocked Developing Countries	54	16	29	-	-	-	42	35	23	-	-	-	51	15	34	72	4	24	42	15	43	-	-	-	-	-	-	-	36	17	48	42	9	48		
Least Developed Countries	56	24	20	-	-	12	-	-	24	-	-	24	50	20	30	75	9	16	43	16	40	-	-	-	-	-	-	-	37	17	46	49	16	35		
Small Island Developing States	70	7	23	85	-	-	-	-	-	-	-	73	6	21	82	9	10	64	12	24	-	-	-	-	-	-	-	-	63	12	25	69	13	18		
Fragile contexts	52	24	24	66	14	19	37	32	31	-	-	-	47	19	34	63	22	16	42	14	44	43	24	33	15	20	65	-	-	-	35	13	52	45	15	39
INCOME GROUPINGS																																				
Low income	49	20	31	-	-	-	-	-	-	-	22	45	18	37	66	12	22	28	14	58	-	-	-	-	-	-	-	-	23	19	58	27	17	56		
Lower-middle income	74	11	15	79	6	15	67	13	20	-	-	-	71	10	19	77	10	13	58	16	26	54	25	21	42	22	36	-	-	-	56	15	29	57	23	20
Upper-middle income	80	14	6	-	-	-	-	-	-	-	9	78	19	3	87	8	5	76	18	6	-	-	-	-	-	-	-	-	75	19	6	78	16	6		
High income	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1	>99	<1	<1	-	-	-	-	-	-	-	-	>99	<1	<1	>99	<1	<1		
WORLD	78	11	11	83	8	8	60	21	20	-	-	-	75	11	13	83	8	10	67	12	21	-	-	-	42	18	40	-	-	-	65	12	23	67	16	17





UN-Water Reports UN-Water coordinates the efforts of United Nations entities and international organizations working on water and sanitation issues. UN-Water publications draw on the experience and expertise of UN-Water's Members and Partners.

PERIODIC REPORTS

United Nations system-wide strategy for water and sanitation

The United Nations system-wide strategy for water provides a system-wide approach for the United Nations to work collaboratively on water and sanitation. In September 2023, Member States adopted General Assembly resolution 77/334, which requested the Secretary-General to present a United Nations system-wide water and sanitation strategy in consultation with Member States before the end of the seventy-eighth session. The strategy has been developed by UN-Water under the leadership of the UN-Water Chair, as requested by the Secretary-General, and will be launched in July 2024.

Blueprint for Acceleration: Sustainable Development Goal 6 synthesis report on water and sanitation 2023

The report, written by the UN-Water family of Members and Partners, is a concise guide to delivering concrete results – offering actionable policy recommendations directed towards senior decision-makers in Member States, other stakeholders, and the United Nations System to get the world on track to achieve SDG 6 by 2030. It was released ahead of the discussions of Member States and relevant stakeholders at the 2023 High-level Political Forum on Sustainable Development (HLPF), which includes a Special Event focused on SDG 6 and the Water Action Agenda.

United Nations World Water Development Report

The United Nations World Water Development Report is UN-Water's flagship report on water and sanitation issues, focusing on a different theme each year. The report is published by UNESCO on behalf of UN-Water, and its production is coordinated by the UNESCO World Water Assessment Programme.

Policy and Analytical Briefs

UN-Water's Policy Briefs provide short and informative policy guidance on the most pressing freshwater-related issues that draw upon the combined expertise of the United Nations system. Analytical Briefs provide an analysis of emerging issues and may serve as the basis for further research, discussion and future policy guidance.

SDG 6 Progress Update – 8 reports, by SDG 6 global indicator

This series of reports provides an in-depth update and analysis of progress towards the different SDG 6 targets and identifies priority areas for acceleration. *Progress on household drinking water, sanitation and hygiene; Progress on wastewater treatment; Progress on ambient water quality; Progress on water-use efficiency; Progress on level of water stress; Progress on integrated water resources management; Progress on transboundary water cooperation; Progress on water-related ecosystems; and Progress on international cooperation and local participation.* The reports, produced by the responsible custodian agencies, present the latest available country, region and global data on the SDG 6 global indicators, and are published every two to three years. The next updates will be published in July/August 2024.

Progress reports of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)

The JMP is affiliated with UN-Water and is responsible for global monitoring of progress towards SDG 6 targets for universal access to safe and affordable drinking-water and adequate and equitable sanitation and hygiene services. Every two years, the JMP releases updated estimates and progress reports for WASH in households (as part of the progress reporting on SDG 6, see above), schools and health care facilities.

UN-Water Country Acceleration Case Studies

To accelerate the achievement of SDG 6 targets as part of the SDG 6 Global Acceleration Framework, UN-Water releases SDG 6 Country Acceleration Case Studies to explore countries' pathways to achieving accelerated progress on SDG 6 at the national level. Since 2022, six case studies have been released from Costa Rica, Pakistan, Senegal, Brazil, Ghana and Singapore. Three new case studies are planned to be released in July 2024 from Cambodia, Czechia and Jordan.

UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS)

The GLAAS report is produced by WHO on behalf of UN-Water. It provides a global update on the policy frameworks, institutional arrangements, human resource base, and international and national finance streams in support of water and sanitation. It is a substantive input into the activities of Sanitation and Water for All, as well as the progress reporting on SDG 6. The next report will be published in 2025.

UN-WATER PLANNED PUBLICATIONS

- **UN-Water Policy Brief on Transboundary Waters Cooperation – update**

More information: www.unwater.org/publications

KEY MESSAGES



DRINKING WATER IN SCHOOLS IN 2023

- 138 countries and all 8 SDG regions had national estimates for basic drinking water services in schools.
- 77% of schools had a basic drinking water service, 8% had a limited service, and 15% had no service.
- 447 million children lacked a basic drinking water service at their school, including 293 million whose school still had no water service.
- Achieving universal access (>99%) to basic drinking water services in schools by 2030 would require a 2x increase in the current rate of progress.

HYGIENE IN SCHOOLS IN 2023

- 134 countries and all SDG regions had national estimates for basic hygiene services in schools.
- 67% of schools had a basic hygiene service, 12% had a limited service, and 21% had no service.
- 646 million children lacked a basic hygiene service at their school, including 406 million whose school still had no hygiene service.
- Achieving universal access to basic hygiene services in schools by 2030 would require a 4x increase in the current rate of progress.

SANITATION IN SCHOOLS IN 2023

- 144 countries and all SDG regions had national estimates for basic sanitation services in schools.
- 78% of schools had a basic sanitation service, 11% had a limited service, and 11% had no service.
- 427 million children lacked a basic sanitation service at their school, including 222 million whose school still had no sanitation service.
- Achieving universal access to basic sanitation services in schools by 2030 would require a 2x increase in the current rate of progress.

MENSTRUAL HEALTH IN SCHOOLS IN 2023

- 30 countries and 7 out of 8 regions have national data related to the emerging menstrual health indicators. Based on emerging national data, around 2 out of 5 schools (39%) provide menstrual health education and 1 in 3 (31%) have bins for menstrual waste in girls' toilets.
- The most common data relate to facilities, knowledge, and materials, but very few countries have data on impacts, discomfort/disorders, or a supportive social environment.
- Definitions vary widely between countries and data sources and indicator harmonization is needed.