

# PROGRESS ON DRINKING WATER, SANITATION AND HYGIENE IN SCHOOLS

SPECIAL FOCUS ON COVID-19

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



**Progress on drinking water, sanitation and hygiene in schools**  
**Special focus on COVID-19**

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# PROGRESS ON DRINKING WATER, SANITATION AND HYGIENE IN SCHOOLS

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# HIGHLIGHTS

The World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF), through the WHO/UNICEF Joint Monitoring Programme (JMP), produce internationally comparable estimates of progress on drinking water, sanitation and hygiene (WASH) and are responsible for monitoring the Sustainable Development Goal (SDG) targets related to WASH. Since the establishment of the SDGs, the JMP has published global baseline reports on WASH in households (2017), WASH in schools (2018) and WASH in health care facilities (2019), and a progress update on households (2019). This report presents updated national, regional and global estimates for WASH in schools up to the year 2019, with a special focus on the implications for ensuring the safety of students and school staff during the coronavirus disease 2019 (COVID-19) pandemic.

The JMP uses service ladders to benchmark and compare progress across countries on WASH in schools (Figure 1). These service ladders are designed to track progress towards a basic level of service, which is the indicator used for global monitoring of SDG targets related to WASH in schools. This report also highlights additional indicators that have been used for national monitoring of WASH in schools and identifies those most relevant for monitoring efforts to prevent and control the spread of COVID-19 (Box 1).

## JMP service ladders for WASH in schools

SERVICE LEVEL	DRINKING WATER	SANITATION	HYGIENE
<b>BASIC SERVICE</b>	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
<b>LIMITED SERVICE</b>	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
<b>NO SERVICE</b>	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 JMP service ladders for global monitoring of WASH in schools

### BOX 1 WASH and COVID-19 infection prevention and control in schools

#### The COVID-19 pandemic highlights the need to accelerate progress on WASH in schools

Global school closures in response to the COVID-19 pandemic present an unprecedented risk to children’s education and wellbeing. Prolonged closures will have negative impacts on learning outcomes and disrupt school-based services essential for the nutrition, health, welfare and protection of vulnerable children. WHO and UNICEF guidelines on COVID-19 infection prevention and control in schools identify a range of measures that need to be in place for schools to reopen and operate safely. They emphasize the importance of hygiene for reducing transmission and recommend all schools enforce regular handwashing, ensure daily disinfection and cleaning of surfaces, provide basic water, sanitation and waste management facilities, and follow appropriate environmental cleaning and decontamination procedures. However, in the 60 countries identified as having the highest risk<sup>1</sup> of health and humanitarian crisis due to COVID-19, one in two schools lacked basic water and sanitation services and three in four lacked basic handwashing services at the start of the pandemic. Accelerating progress in countries with the lowest coverage of WASH in schools will therefore be critical to improve school safety during the COVID-19 pandemic and beyond.

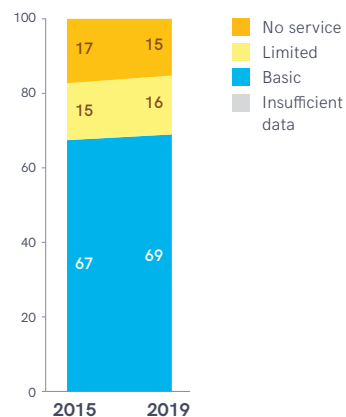
<sup>1</sup> INFORM COVID-19 Risk Index countries classified as ‘high’ or ‘very high’ risk of health and humanitarian impacts overwhelming national response capacity and requiring humanitarian assistance <<https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Covid-19>>.

# DRINKING WATER IN SCHOOLS

## In 2019,

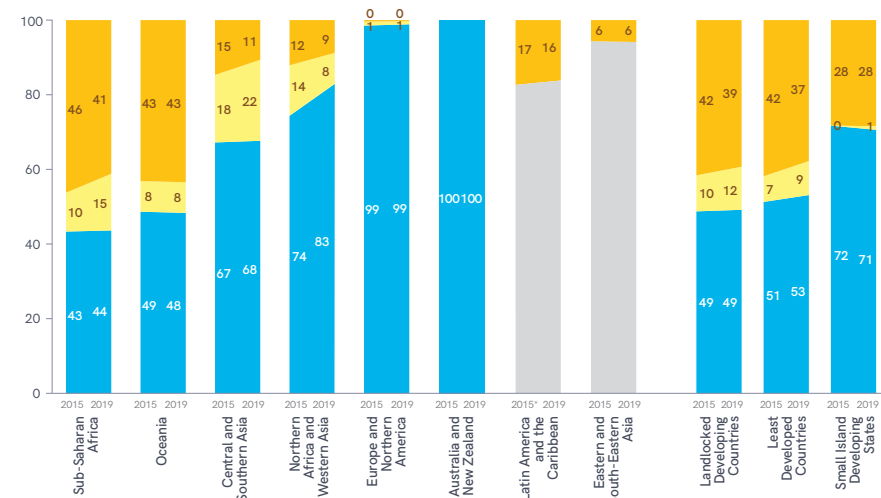
- 120 countries and 6 out of 8 SDG regions had estimates for basic drinking water services in schools, representing 60% of the global school-age population.
- 69% of schools had a basic drinking water service (improved source with water available at the time of the survey); 16% had a limited service (improved source with water unavailable); and 15% had no drinking water service (unimproved source or no source at all).
- 584 million children lacked a basic drinking water service at their school, including 297 million whose schools had an improved source with no water available, and 287 million whose schools still had no water service.
- Global coverage of basic drinking water services in schools had increased by 0.4 percentage points per year since 2015. Achieving universal access by 2030 would require a seven-fold increase in the current rate of progress.
- Coverage of basic water services in schools ranged from 44% in sub-Saharan Africa to 100% in Australia and New Zealand.
- 3 out of 4 secondary schools (74%) and 2 out of 3 primary schools (66%) had a basic water service. There were insufficient data to calculate global estimates for pre-primary schools.
- 61% of rural schools had a basic water service and 17% had no service. 6% of urban schools had no water service but there were insufficient data to estimate coverage of basic services.
- Nearly half (48%) of all children with no water service at their school lived in Least Developed Countries.
- In the 60 countries at highest risk of health and humanitarian crisis due to COVID-19<sup>1</sup>, half of children (50%) lacked a basic water service at their school at the start of the pandemic.

**Globally, 69% of schools had a basic drinking water service in 2019**



**FIGURE 2** Global coverage of drinking water in schools, 2019 (%)

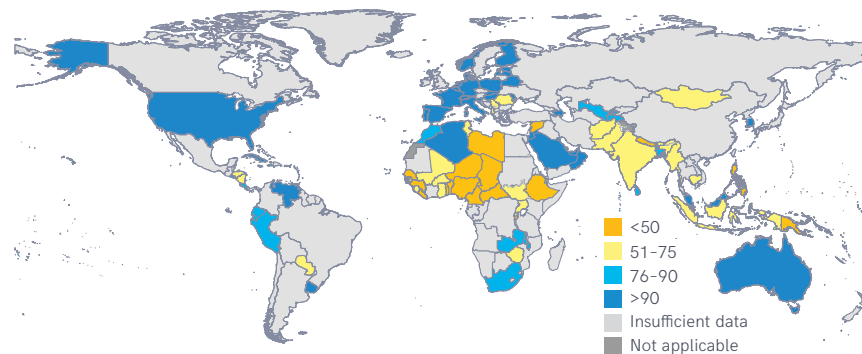
**6 out of 8 SDG regions had estimates for basic drinking water services in 2019**



**FIGURE 3** Regional coverage of drinking water in schools, 2019 (%)

\*The values for Latin America and the Caribbean in 2015 were 69% for basic services and 14% for limited services.

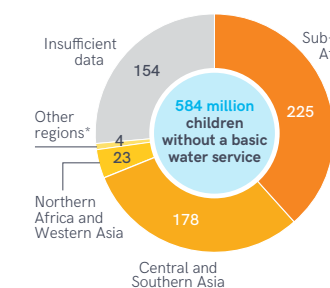
**76 out of 120 countries<sup>2</sup> had >75% coverage of basic drinking water services in schools in 2019**



**FIGURE 4** Proportion of schools with a basic drinking water service, 2019 (%)

<sup>2</sup> The JMP tracks progress for 234 countries, areas and territories, including all United Nations Member States. Statistics in this report refer to countries, areas or territories. For further details see <<https://washdata.org>>.

**2 out of 5 children without a basic drinking water service at school lived in sub-Saharan Africa in 2019**



**FIGURE 5** Number of school-age children without a basic drinking water service at school, 2019 (millions)

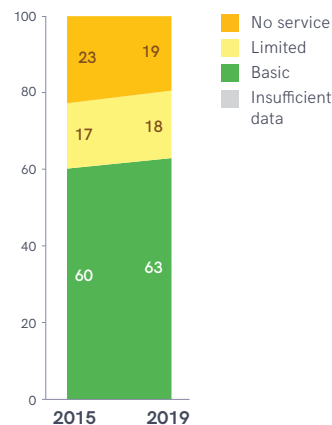
\* Oceania, Europe and Northern America, Australia and New Zealand

# SANITATION IN SCHOOLS

## In 2019,

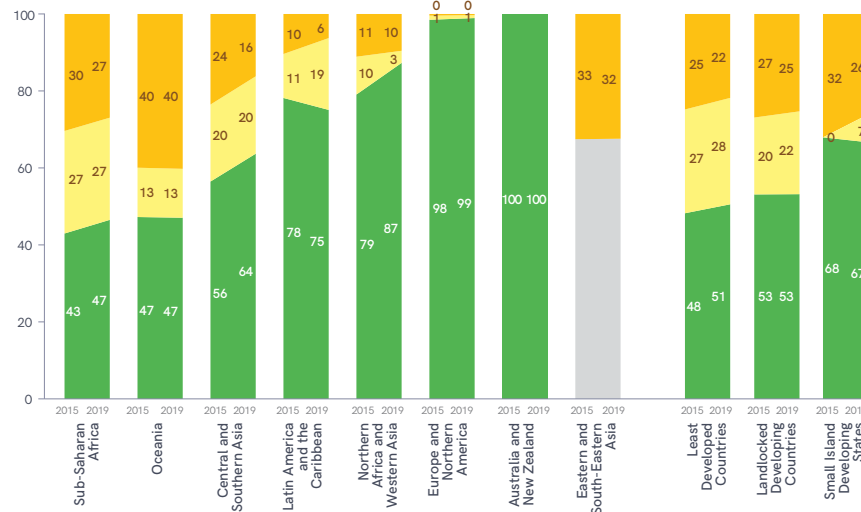
- 117 countries and 7 out of 8 SDG regions had estimates for basic sanitation services in schools, representing 58% of the global school-age population.
- 63% of schools had a basic sanitation service (improved single-sex facilities that were usable at the time of the survey); 18% had a limited service (improved facilities that were not single-sex or not usable); and 19% had no sanitation service (unimproved facilities or none at all).
- 698 million children lacked a basic sanitation service at their school, including 331 million whose schools had improved facilities that were not single-sex or not usable, and 367 million whose schools still had no sanitation service.
- Global coverage of basic sanitation services in schools had increased by 0.7 percentage points per year since 2015. Achieving universal access by 2030 would require a five-fold increase in the current rate of progress.
- Coverage of basic sanitation services in schools ranged from 47% in sub-Saharan Africa to 100% in Australia and New Zealand.
- 71% of secondary schools and 60% of primary schools had a basic sanitation service. There were insufficient data to calculate global estimates for pre-primary schools.
- 44% of rural schools had a basic sanitation service and 22% had no service. 10% of urban schools had no sanitation service but there were insufficient data to estimate coverage of basic services.
- Nearly a quarter of children whose school still had no sanitation service lived in Least Developed Countries.
- In the 60 countries at highest risk of health and humanitarian crisis due to COVID-19<sup>1</sup>, over half of children lacked a basic sanitation service at their school at the start of the pandemic.

## Globally, 63% of schools had a basic sanitation service in 2019



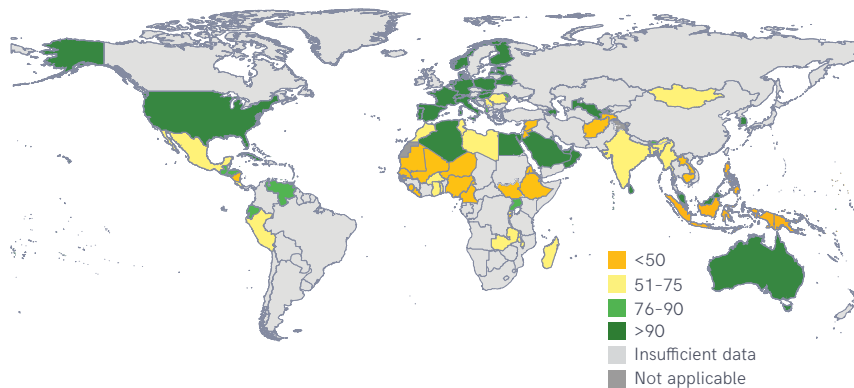
**FIGURE 6** Global coverage of sanitation in schools, 2019 (%)

## 7 out of 8 SDG regions had estimates for basic sanitation services in 2019



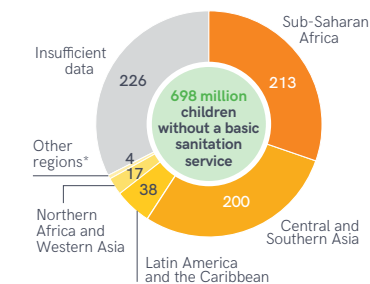
**FIGURE 7** Regional coverage of sanitation in schools, 2019 (%)

## 71 out of 117 countries had >75% coverage of basic sanitation services in schools in 2019



**FIGURE 8** Proportion of schools with a basic sanitation service, 2019 (%)

## Over half of children without a basic sanitation service at school lived in 2 SDG regions in 2019



**FIGURE 9** Number of school-age children without a basic sanitation service at school, 2019 (millions)

\* Oceania, Europe and Northern America, Australia and New Zealand

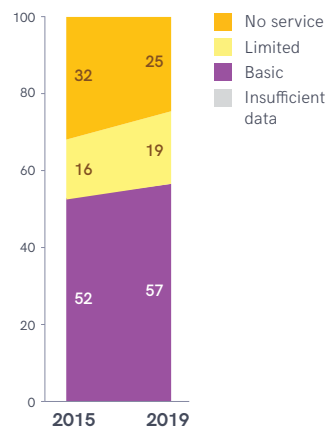


# HYGIENE IN SCHOOLS

## In 2019,

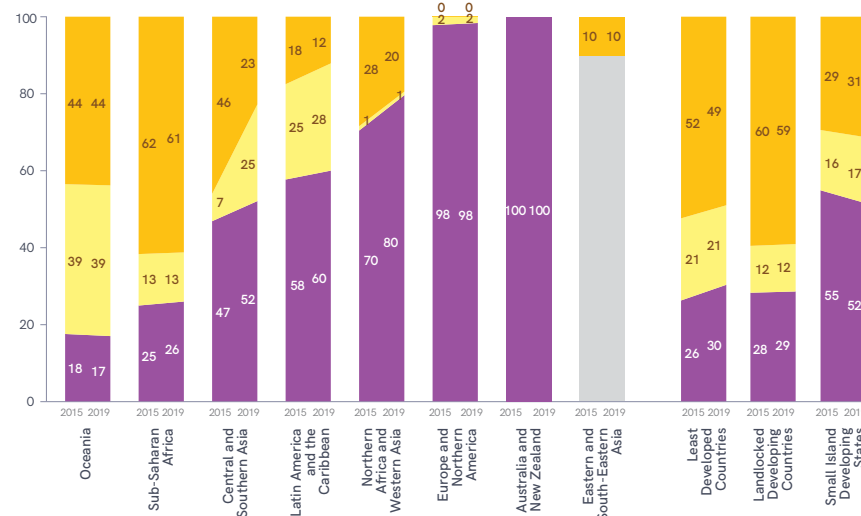
- 110 countries and 7 out of 8 SDG regions had estimates for basic hygiene services in schools, representing 57% of the global school-age population.
- 57% of schools had a basic hygiene service (handwashing facilities and soap and water available at the time of the survey); 19% had a limited service (handwashing facilities with water but no soap available); and 25% had no service (no facilities or no water at all).
- 818 million children lacked a basic hygiene service at their school, including 355 million whose schools had facilities with water but no soap, and 462 million whose schools still had no hygiene service.
- Global coverage of basic hygiene services in schools had increased by 1 percentage point per year since 2015. Achieving universal access by 2030 would require a four-fold increase in the current rate of progress.
- Coverage of basic hygiene services in schools ranged from 17% in Oceania to 100% in Australia and New Zealand.
- 58% of secondary schools and 56% of primary schools had a basic hygiene service. There were insufficient data to calculate global estimates for pre-primary schools.
- 34% of rural schools had a basic hygiene service and 41% had no hygiene service. There were insufficient data to calculate global estimates for urban schools.
- 40% of children whose schools still had no hygiene service lived in Least Developed Countries.
- In the 60 countries at highest risk of health and humanitarian crisis due to COVID-19<sup>1</sup>, 3 out of 4 children lacked a basic hygiene service at their school at the start of the pandemic.

**Globally, 57% of schools had a basic hygiene service in 2019**



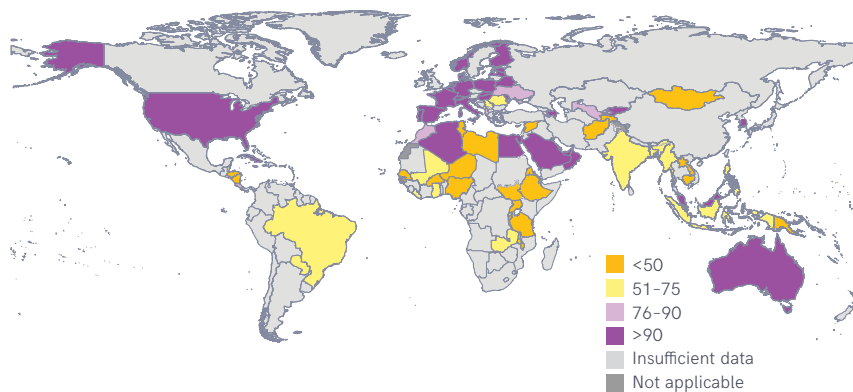
**FIGURE 10** Global coverage of hygiene in schools, 2019 (%)

**7 out of 8 SDG regions had estimates for basic hygiene services in 2019**



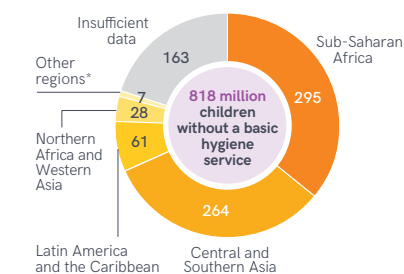
**FIGURE 11** Regional coverage of hygiene in schools, 2019 (%)

**67 out of 110 countries had >75% coverage of basic hygiene services in schools in 2019**



**FIGURE 12** Proportion of schools with a basic hygiene service, 2019 (%)

**2 out of 3 children without a basic hygiene service at school lived in 2 SDG regions in 2019**



**FIGURE 13** Number of school-age children without a basic hygiene service at school, 2019 (millions)

\* Oceania, Europe and Northern America, Australia and New Zealand

# INTRODUCTION



## 2030 vision for WASH in schools

The 2030 Agenda for Sustainable Development<sup>3</sup> is described as a plan of action for people, planet and prosperity. This ambitious universal agenda commits all United Nations (UN) Member States to take bold and transformative steps to 'shift the world onto a sustainable and resilient path' and 'leave no one behind'. The Sustainable Development Goals (SDGs)

<sup>3</sup> Transforming Our World: The 2030 Agenda for Sustainable Development, United Nations General Assembly Resolution, A/RES/70/1, 21 October 2015 <<https://sustainabledevelopment.un.org/post2015/transformingourworld>>.

seek to balance social, economic and environmental dimensions of development and include several global targets and indicators related to drinking water, sanitation and hygiene (WASH) in schools (Table 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.

	SDG global targets	SDG global indicators
	<b>6.1</b> By 2030, achieve universal and equitable access to safe and affordable drinking water for all	<b>6.1.1</b> Proportion of population using <b>safely managed drinking water services</b>
	<b>6.2</b> By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	<b>6.2.1</b> Proportion of population using a) <b>safely managed sanitation services</b> and b) <b>a handwashing facility with soap and water</b>
	<b>4.a</b> Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	<b>4.a.1</b> Proportion of schools with access to... (e) <b>basic drinking water</b> , (f) <b>single-sex basic sanitation facilities</b> , and (g) <b>basic handwashing facilities</b>

**TABLE 1** Global goals and targets related to WASH in schools



'Universal access' implies all settings (including households, schools, health care facilities, workplaces and public places), and 'for all' implies services that are suitable for people of all genders and all ages, including people living with disabilities and those in vulnerable situations.

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).

The 2030 Agenda states that the global goals and targets are aspirational. Governments are therefore expected to localize them and set their own national targets for WASH in schools. These should be guided by the global level of ambition and by existing international commitments (including the human rights to education and to safe water and sanitation), and take into account national circumstances. To ensure 'no one is left behind', governments are also expected to establish mechanisms to identify the most relevant dimensions of inequality in access to WASH in schools and to monitor progress among disadvantaged groups.

### **Accelerating progress in response to COVID-19**

The coronavirus disease 2019 (COVID-19) pandemic has triggered an unprecedented global health and economic crisis, which has affected all countries.



In the 2020 SDG progress report<sup>4</sup>, the UN Secretary General warns that the pandemic 'imperils progress' towards the SDGs and urges that 'recent gains are protected as much as possible and a truly transformative recovery from COVID-19 is pursued, one that reduces risk to future crises and brings much closer the inclusive and sustainable development required to meet the goals of the 2030 Agenda and the Paris Agreement on Climate Change'.

The global response to COVID-19 has also underlined the importance of WASH, especially hygiene, in households, schools and health care facilities for reducing the transmission of infectious diseases and protecting global health. In June 2020, the World Health Organization (WHO) and the United Nations

<sup>4</sup> Progress towards the Sustainable Development Goals, Report of the Secretary General, High Level Political Forum on Sustainable Development, United Nations Economic and Social Council, July 2020 <[https://sustainabledevelopment.un.org/content/documents/26158Final\\_SG\\_SDG\\_Progress\\_Report\\_14052020.pdf](https://sustainabledevelopment.un.org/content/documents/26158Final_SG_SDG_Progress_Report_14052020.pdf)>.

Children's Fund (UNICEF) launched a new global initiative 'Hand Hygiene for All' that aims to scale up hand hygiene in response to COVID-19 and seize the opportunity to build back better, establishing and sustaining a culture of hygiene across all levels of government and society.

Governments seeking to control the spread of COVID-19 must balance the risks to public health with the social and economic impacts of lockdown measures. Schools around the world have been closed to reduce transmission, but prolonged school closures will have negative impacts on children's safety, wellbeing and learning. Access to WASH services is essential for effective infection prevention and control in schools and a major focus of government strategies for the safe reopening and operation of schools during the ongoing global pandemic (Box 2).

### WASH and infection prevention and control in schools during the COVID-19 pandemic

By June 2020, 191 countries had implemented school closures to control the spread of COVID-19, affecting 90% of students worldwide (1.57 billion)<sup>4</sup>. The United Nations Educational, Scientific and Cultural Organization (UNESCO), UNICEF, the World Bank, the World Food Programme (WFP) and the United Nations High Commissioner for Refugees (UNHCR) have jointly published a *Framework for Reopening Schools* to inform government decision making on when, where and how to safely reopen schools, which covers a range of issues including WASH<sup>5</sup>. This framework includes guidance on developing policies and procedures for safe operations prior to opening (including protocols on hygiene measures, use of personal protective equipment – PPE, and cleaning and disinfection), upgrading school facilities as part of the opening process (including access to safe water, handwashing stations, cleaning supplies,

<sup>5</sup> UNICEF, et al., *Framework for Reopening Schools*, UNESCO, UNICEF, World Bank, WFP, UNHCR, 2020 <[www.unicef.org/sites/default/files/2020-06/Framework-for-reopening-schools-2020.pdf](http://www.unicef.org/sites/default/files/2020-06/Framework-for-reopening-schools-2020.pdf)>.



sex-separated toilets and provisions for menstrual hygiene management – MHM), training teachers and staff to encourage safe practices (including physical distancing, hygiene, cleaning and waste management), and actively monitoring compliance after opening.

Other relevant resources include a set of *Key Messages and Actions for COVID-19 Prevention and Control in Schools*, published by UNICEF, WHO and the International Federation of Red Cross and Red Crescent Societies (IFRC)<sup>6</sup>; the Global Education Cluster *Safe Back to School* guide<sup>7</sup>, which includes detailed checklists for practitioners; and the Global Network for Water, Sanitation and Hygiene in Schools *10 Immediate WASH in Schools (WinS) Actions* for reopening schools<sup>8</sup>.

<sup>6</sup> United Nations Children's Fund, World Health Organization, IRC, *Key Messages and Actions for COVID-19 Prevention and Control in Schools*, UNICEF, WHO, IRC, 2020 <[www.who.int/docs/default-source/coronavirus/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools-march-2020.pdf?fvrsn=ba81d52\\_4](https://www.who.int/docs/default-source/coronavirus/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools-march-2020.pdf?fvrsn=ba81d52_4)>.

<sup>7</sup> Child Protection: Global Protection Cluster, Global Education Cluster, *Safe Back to School: A Practitioner's Guide*, Child Protection: Global Protection Cluster, Global Education Cluster, 2020 <[https://resourcecentre.savethechildren.net/node/17551/pdf/gec\\_checklist\\_8.7.20\\_digital.pdf](https://resourcecentre.savethechildren.net/node/17551/pdf/gec_checklist_8.7.20_digital.pdf)>.

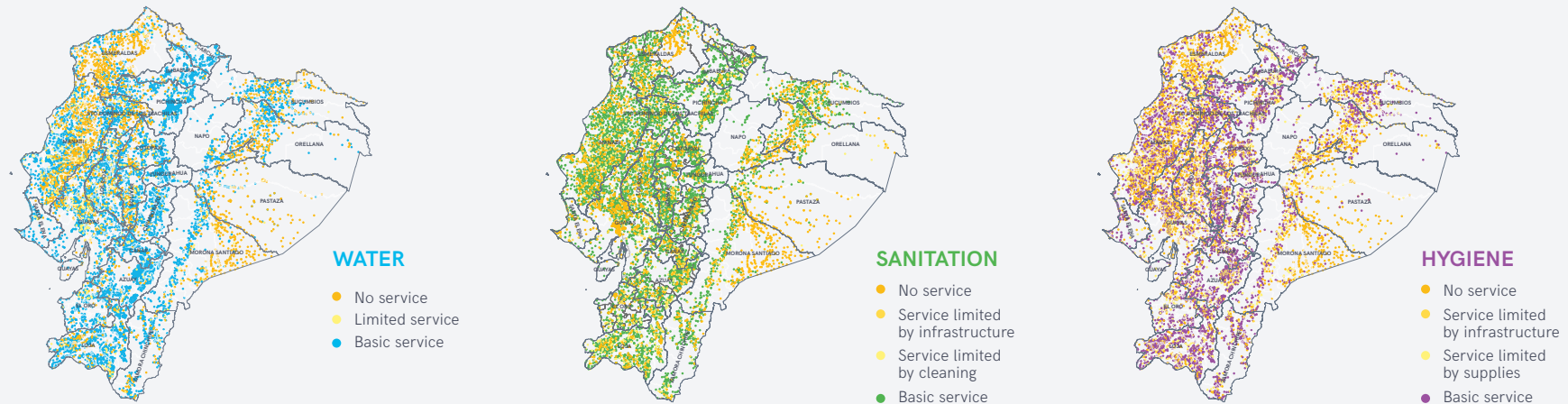
<sup>8</sup> GIZ, United Nations Children's Fund, Save the Children, et al., *10 Immediate WASH in Schools (WinS) Actions: Preparing for Reopening of Schools - Support for School Heads to Manage the Response to COVID-19*, WASH in Schools Network, 2020 <[www.susana.org/en/knowledge-hub/resources-and-publications/library/details/3855](http://www.susana.org/en/knowledge-hub/resources-and-publications/library/details/3855)>.

Several countries have launched rapid assessments of WASH in schools in response to COVID-19. For example, Ecuador conducted a nationwide assessment of the status of WASH services in schools in June 2020. The survey included information on access to water, toilets and handwashing facilities, the availability of water and soap for handwashing, the condition and cleanliness of toilets, and the ratio of students to toilets and handwashing facilities. Provincial maps were produced showing the distribution of schools with WASH services that do not meet national standards and will require additional support to reopen safely (Figure 14).

While many countries routinely collect information on access to WASH, relatively few have national data on cleaning and disinfection or waste management in schools. In a recent environmental health assessment in Tunisia, 18.5% of primary schools reported lacking sufficient equipment, cleaning products, disinfectant or staff for cleaning and disinfection (Figure 15). The Education Management Information System (EMIS) in Ethiopia includes questions on waste management and shows that a third of primary schools nationwide and over half of primary schools in the Afar and Somali regions lack adequate waste disposal (Figure 16). This illustrates the scale of the challenge associated with safely reopening schools in many parts of the world.

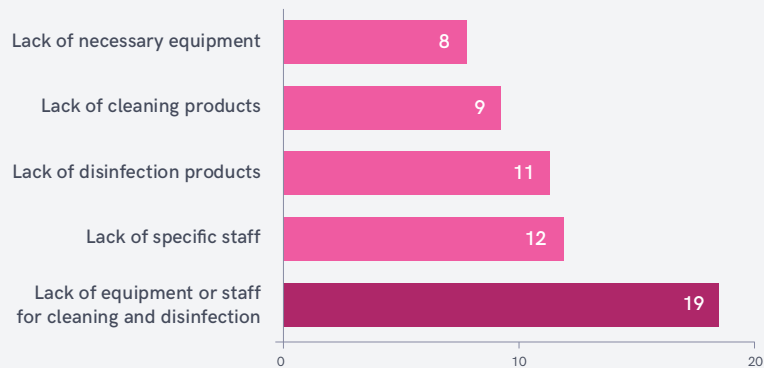


In Ecuador, a rapid nationwide assessment in response to COVID-19 identified schools with inadequate WASH facilities



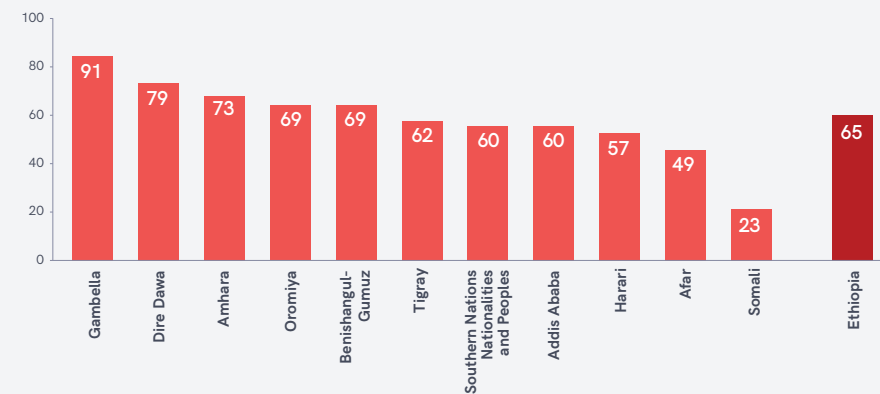
**FIGURE 14** Map of schools with adequate, limited and no drinking water, sanitation and hygiene service (national standards) in Ecuador (2020)  
**Source:** Diagnóstico de servicios de agua, saneamiento e higiene en las instituciones educativas, Dirección Nacional de Análisis e Información Educativa e Dirección Nacional de Gestión de Riegos, Ecuador (June, 2020)

In Tunisia, 1 in 5 primary schools lacked sufficient equipment or staff for cleaning and disinfection in 2015



**FIGURE 15** Proportion of primary schools lacking equipment, products or staff for cleaning and disinfection in Tunisia (2015)  
**Source:** Evaluation de l'état d'hygiène de l'environnement des écoles primaires en Tunisie, Ministère de l'Éducation, République Tunisienne (2015)

In Ethiopia, 1 in 3 primary schools lacked adequate solid waste disposal in 2017



**FIGURE 16** Proportion of primary schools with solid waste disposal by administrative region of Ethiopia in 2017 (%)  
**Source:** Education statistics annual abstract 2009 E.C., Ministry of Education, Ethiopia (2016-17)

## Additional indicators for expanded monitoring

The WHO/UNICEF Joint Monitoring Programme (JMP) service ladders are designed to track progress towards a basic level of WASH services in all schools. While the basic service indicators are universally relevant, they do not capture all aspects of WASH services that are important for the health and well-being of students and staff. The JMP has published core questions for monitoring the SDG indicators for basic WASH services in schools<sup>9</sup> and is compiling an expanded set of questions addressing other elements. In 2020, the JMP supported a review of emerging tools for monitoring menstrual health and hygiene, including in school settings (forthcoming).

Table 2 provides examples of additional indicators that may be included in national systems for monitoring WASH in schools. The indicators most relevant for monitoring efforts to prevent and control the spread of COVID-19 are in bold. Existing data from national monitoring systems are highlighted in subsequent sections and the specific challenges associated with providing safe and inclusive WASH services for all, including young children, students with disabilities and students who menstruate, is explored in Section 6.

<sup>9</sup> United Nations Children's Fund and World Health Organization, *Core Questions and Indicators for Monitoring WASH in Schools in the Sustainable Development Goals*, UNICEF and WHO, New York, 2018 <[www.washdata.org/sites/default/files/documents/reports/2018-08/SDGs-monitoring-wash-in-schools-2018-August-web2.pdf](http://www.washdata.org/sites/default/files/documents/reports/2018-08/SDGs-monitoring-wash-in-schools-2018-August-web2.pdf)>.

Service element	Basic indicators	Examples of additional indicators				
		Accessibility	Availability	Acceptability	Quality	Other
DRINKING WATER	<ul style="list-style-type: none"> <li>Availability/ accessibility</li> <li><b>water is available on premises</b></li> </ul> Quality <ul style="list-style-type: none"> <li><b>improved source</b></li> </ul>	<ul style="list-style-type: none"> <li>water source on school premises</li> <li>to those with limited mobility</li> <li>to young children</li> <li>in different locations (food hall, classroom, playground)</li> <li><b>with physical distancing</b></li> </ul>	<ul style="list-style-type: none"> <li>sufficient quantity</li> <li>continuity of supply</li> <li>water storage</li> <li>alternative supply</li> <li><b>students/ teachers per water point</b></li> </ul>	<ul style="list-style-type: none"> <li>culturally appropriate design</li> <li>taste and appearance</li> <li>drinking water fountains</li> <li><b>individual bottles or separate cups</b></li> </ul>	<ul style="list-style-type: none"> <li><i>E. coli</i>, <i>Legionella</i>, residual chlorine, chemicals</li> <li>on-site water treatment</li> </ul>	<ul style="list-style-type: none"> <li><b>provision for other uses (such as water for cleaning)</b></li> <li>piped or non-piped</li> <li>operation and maintenance</li> <li>supply of chemicals for treatment</li> <li>financing</li> </ul>
SANITATION	<ul style="list-style-type: none"> <li>Availability/ accessibility</li> <li><b>for girls and for boys</b></li> <li><b>usability</b></li> </ul> Quality <ul style="list-style-type: none"> <li><b>improved toilets</b></li> </ul>	<ul style="list-style-type: none"> <li>to those with limited mobility</li> <li>to young children</li> <li><b>with physical distancing</b></li> </ul>	<ul style="list-style-type: none"> <li><b>for teachers and staff</b></li> <li><b>students per toilet</b></li> <li>water and soap for managing menstruation</li> </ul>	<ul style="list-style-type: none"> <li>gender-appropriate design</li> <li>privacy for those who menstruate</li> </ul>	<ul style="list-style-type: none"> <li>cleanliness and smell</li> <li>faecal sludge management</li> <li><b>solid waste management</b></li> </ul>	<ul style="list-style-type: none"> <li>sewered or non-sewered</li> <li>operation and maintenance</li> <li><b>supply of equipment and materials for waste management</b></li> <li>financing</li> </ul>
HYGIENE	<ul style="list-style-type: none"> <li>Availability</li> <li><b>handwashing facilities with water</b></li> </ul> Quality <ul style="list-style-type: none"> <li><b>soap</b></li> </ul>	<ul style="list-style-type: none"> <li><b>in different locations (such as toilets, dining halls, kitchens, classrooms, playgrounds, staff rooms, entrances)</b></li> <li><b>to those with limited mobility</b></li> <li><b>to young children</b></li> <li><b>with physical distancing</b></li> </ul>	<ul style="list-style-type: none"> <li><b>for teachers and staff</b></li> <li><b>students per handwashing facility/tap</b></li> <li><b>sufficient for frequent handwashing (10 times per day per person)</b></li> <li><b>group handwashing exercises</b></li> <li><b>supply of materials for cleaning and disinfection</b></li> </ul>	<ul style="list-style-type: none"> <li>culturally appropriate design</li> <li><b>visual cues and nudges</b></li> <li><b>respiratory hygiene</b></li> </ul>	<ul style="list-style-type: none"> <li><b>hygiene promotion in school</b></li> <li><b>handwashing at critical times</b></li> <li><b>daily cleaning and disinfection of surfaces</b></li> <li><b>daily cleaning of school environment</b></li> </ul>	<ul style="list-style-type: none"> <li>type of handwashing facility</li> <li><b>food hygiene</b></li> <li><b>hand sanitizer</b></li> <li><b>training of cleaning staff</b></li> <li><b>PPE for cleaning staff</b></li> <li>financing</li> </ul>

TABLE 2 Basic and additional indicators for monitoring WASH in schools (COVID-19-related in bold)

## Data sources used for this report

The JMP uses national data sources to produce internationally comparable estimates of progress on WASH in schools. The main sources of national data used in this report are routine administrative reporting through EMIS and periodic censuses or surveys of school facilities. Primary data sources were compiled by UNICEF and WHO country offices in consultation with national statistical offices and ministries of education. The JMP team also compiled data from secondary sources, including information reported by the UNESCO Institute of Statistics (UIS). Preliminary national estimates were then circulated to country offices for a two-month period of consultation and feedback with national authorities prior to publication.



## Data availability on basic WASH in schools has improved since the global baseline report

Data coverage by region	DRINKING WATER		SANITATION		HYGIENE	
	2018 baseline report	2020 progress report	2018 baseline report	2020 progress report	2018 baseline report	2020 progress report
Australia and New Zealand (2)	82% (1)	82% (1)	82% (1)	82% (1)	82% (1)	82% (1)
Central and Southern Asia (14)	93% (7)	96% (10)	80% (6)	82% (8)	79% (4)	82% (6)
Eastern and South-Eastern Asia (18)	26% (9)	28% (11)	25% (9)	28% (12)	25% (9)	28% (13)
Europe and Northern America (50)	65% (24)	69% (27)	64% (23)	68% (26)	68% (25)	72% (29)
Latin America and the Caribbean (48)	25% (14)	21% (22)	92% (21)	45% (20)	34% (11)	35% (18)
Northern Africa and Western Asia (25)	33% (14)	37% (16)	53% (15)	57% (17)	42% (12)	54% (16)
Oceania (21)	88% (6)	90% (7)	88% (7)	89% (7)	88% (6)	90% (7)
Sub-Saharan Africa (51)	26% (17)	65% (26)	29% (19)	58% (26)	35% (13)	57% (20)
Least Developed Countries (47)	41% (17)	64% (27)	48% (21)	61% (28)	54% (15)	62% (22)
Landlocked Developing Countries (32)	45% (15)	91% (22)	47% (15)	79% (18)	59% (12)	81% (19)
Small Island Developing States (53)	29% (16)	49% (24)	46% (17)	50% (24)	28% (15)	49% (24)
<b>World (234)</b>	<b>51% (92)</b>	<b>60% (120)</b>	<b>54% (101)</b>	<b>58% (117)</b>	<b>50% (81)</b>	<b>57% (110)</b>

**FIGURE 17** Data coverage for basic WASH services in schools in JMP global reports on WASH in schools, % of school-age population (# countries) with national estimates

The updated JMP global database on WASH in schools contains a total of 1,029 national datasets covering the period 2000-19<sup>10</sup>. These were used to produce estimates for WASH in schools for a total of 173 countries, areas and territories. Among these, 120 countries had sufficient data to estimate national coverage of basic drinking water in 2019, 117 countries had sufficient data to estimate national coverage of basic sanitation, and 110 countries had sufficient data to estimate national coverage of basic hygiene. This represents

a significant improvement in data availability since the JMP baseline report, which included national estimates of basic services in 2016 for 92, 101 and 81 countries respectively (Figure 17). Sub-Saharan Africa recorded the biggest improvements in data coverage for basic WASH. Latin America and the Caribbean was the only region to record a decrease, due to a lack of recent data on basic water and sanitation. The JMP produces regional and global estimates provided data are available for at least 30% of the school-age population in each domain. For further information on JMP methods see Annex 1.

<sup>10</sup> Almost all national datasets used in this report were collected before the start of the COVID-19 pandemic. The impact of the pandemic and the COVID-19 response on WASH in schools will be assessed in future JMP reports.

# PROGRESS ON DRINKING WATER IN SCHOOLS

## Basic drinking water services

In 2019, 69% of schools around the world had a basic drinking water service, but coverage varied widely between SDG regions (Figure 18). In sub-Saharan Africa and Oceania, less than half of schools had a basic drinking water service, compared with two out of three schools in Central and Southern Asia and four out of five schools in Northern Africa and Western Asia. Europe and Northern America and Australia and New Zealand had already achieved universal coverage (>99%) but there were insufficient data to estimate basic drinking water coverage in schools in Eastern and South-Eastern Asia and in Latin America and the Caribbean in 2019.

Only six out of eight SDG regions had sufficient data to estimate trends in basic drinking water coverage between 2015 and 2019. Global coverage has increased from 67% to 69% over this time period. Most SDG regions recorded modest increases in

coverage, except for Oceania, while in Northern Africa and Western Asia coverage increased from 74% to 83%. In Latin America and the Caribbean coverage increased from 69% in 2015 to 73% in 2018, but there were insufficient data to produce an estimate for 2019. Data on basic drinking water services were available for less than 30% of the school-age population in Eastern and South-Eastern Asia.

Preliminary estimates of global trends suggest current rates of progress will not be sufficient to achieve universal access (>99%) to basic drinking water services in schools by 2030. Global coverage would need to increase by 2.7 percentage points each year, whereas the annual rate of increase between 2015 and 2019 was just 0.4 percentage points. Northern Africa and Western Asia is the only SDG region that has increased coverage by more than two percentage points per year since 2015.





Coverage of drinking water services in schools varied widely among the 151 countries with national estimates available in 2019 (Figure 19). One hundred and twenty countries had estimates for basic drinking water services, ranging from universal coverage (>99%) to just 3% in the Marshall Islands. Over a third of countries had <75% coverage and one in five had <50% coverage. More than half of the 53 countries with universal coverage were from Europe and North America, while two thirds of countries with <50% coverage were from sub-Saharan Africa. Thirty-one countries had data on the proportion of schools with no drinking water service, but these countries lacked sufficient data to determine how many of the schools with services met the criteria for a limited or basic service.

### 6 out of 8 SDG regions had sufficient data to estimate trends between 2015 and 2019

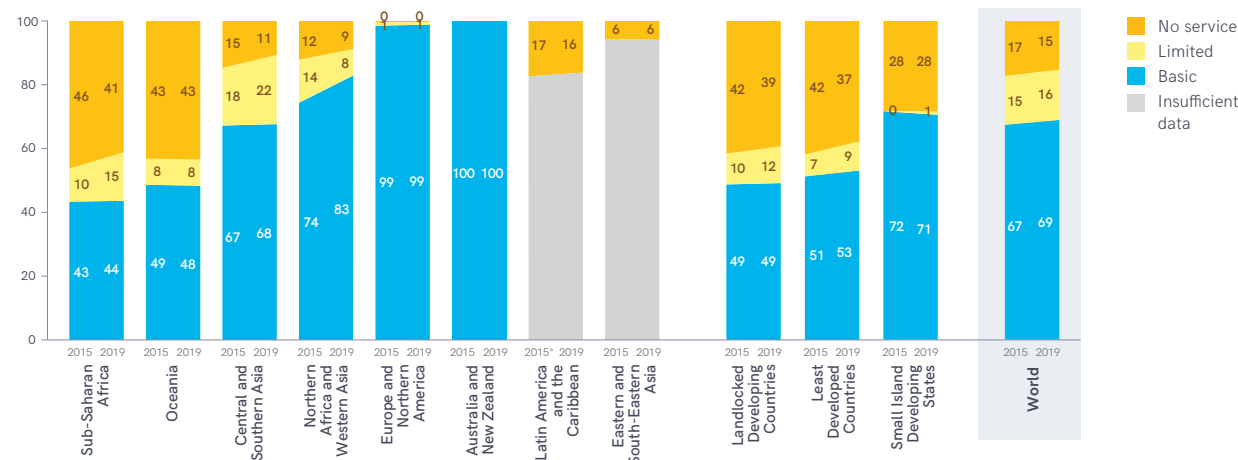


FIGURE 18 Regional and global coverage of drinking water services in schools, 2019 (%)

### Coverage of basic drinking water in schools varies widely between countries

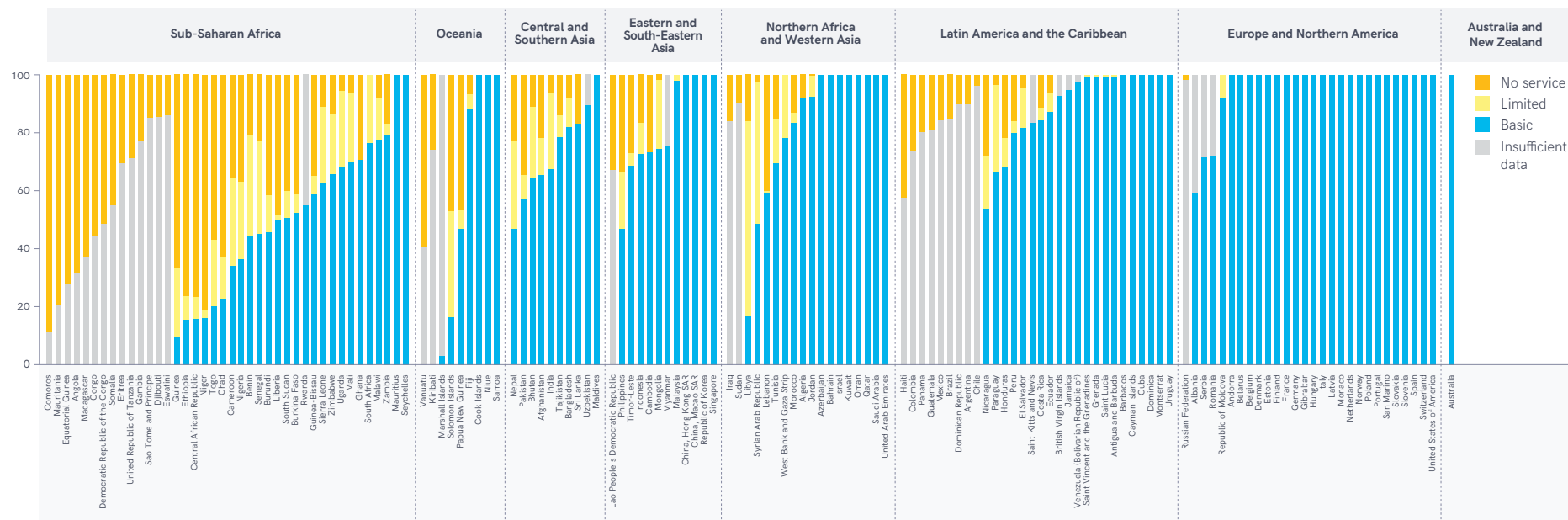


FIGURE 19 Regional and global coverage of drinking water services in schools, 2019 (%)

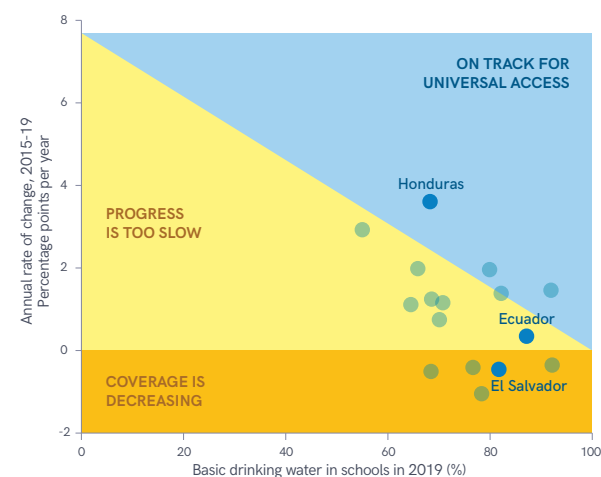
Few countries have data on trends in basic drinking water coverage in schools. Figure 20 shows current coverage and annual rates of change between 2015 and 2019 among countries with <99% coverage in 2019. It shows that at current rates of progress only 4 out of 16 countries are on track to achieve universal access by 2030. Most countries are progressing too slowly, and in some countries coverage has decreased since 2015.

For example, Honduras has increased access to basic drinking water services by 3.6 percentage points each year from 54% in 2015 to 68% in 2019 and is therefore on track to achieve universal access by 2030. In Ecuador 87% of schools had access to basic drinking water services in 2019 but coverage has increased by just 0.3 percentage points per year, which will not be sufficient to achieve universal access by 2030. In El Salvador coverage of basic drinking water services has decreased by 0.5

percentage points per year from 84% in 2015 to 82% in 2019.

To meet the criteria for a basic drinking water service, schools must have access to an improved source of drinking water and water from the main source must be available at the school at the time of the survey, although the water source itself can be located off premises. However, national data sources use different definitions of availability (Table 3). For example, some countries ask whether water sources are 'functional', 'reliable' or in 'good condition', while others record the number of 'hours per day' or 'days per week' water is available. Others focus on whether the school has sufficient water available for drinking and other purposes. Further work is required to harmonize the definitions used in EMIS and national surveys and censuses and improve comparability between surveys and across countries.

**4 out of 16 countries with data on trends in basic drinking water services are on track to achieve universal access by 2030**



**FIGURE 20** Progress towards universal access to basic drinking water services in schools (2015-19) among countries with <99% national coverage in 2019



## Definitions of drinking water availability vary within and between countries

Region	Country	Source	Year	Original definition	Schools with drinking water available (%)
Central and Southern Asia	Bhutan	EMIS	2015	Enough water for drinking	85
	Bhutan	EMIS	2018	Functional 5-7 days/week	71
	India	National survey	2018	More than 1.5 litres per person per day throughout the year	68
	Tajikistan	World Bank Poverty Diagnostic	2017	Available daily in the last week	93
Eastern and South-Eastern Asia	Indonesia	EMIS	2016	Enough water	84
	Indonesia	EMIS	2020	Sufficient water	84
	Cambodia	EMIS	2020	Available today on premises	83
	Mongolia	National survey	2017	Sufficient water for drinking and handwashing	77
	Philippines	EMIS	2016	Have faucets with water supply	62
Latin America and the Caribbean	Peru	National survey	2017	Proportion of handwashing facilities with water available	87
Northern Africa and Western Asia	Jordan	National survey	2015	Not in 'bad' or 'very bad' condition	93
	Lebanon	National survey	2017	Available on premises	81
	West Bank and Gaza Strip	National survey	2015	Not been unavailable in past 2 weeks	84
	Syrian Arab Republic	National survey	2018	Available	50
Oceania	Fiji	National survey	2017	Functional at time of survey (now)	94
	Papua New Guinea	EMIS	2016	Functional more than 4 hrs/day	72
	Papua New Guinea	EMIS	2019	Available	64
	Solomon Islands	National survey	2016	Continuously available	42
Sub-Saharan Africa	Burundi	National census	2018	Excluding currently broken down (toujours en panne)	50
	Ethiopia	EMIS	2017	Water available 5-7 days per week	25
	Ethiopia	Young Lives School Survey	2017	Water available at the time of survey	43
	Ghana	EMIS	2019	Drinking water source available	88
	Guinea	EMIS	2016	Functional	35
	Gambia	EMIS	2016	Unknown	70
	Guinea-Bissau	National survey (mWater)	2019	Available (observed or reported)	70
	Liberia	National survey	2016	Functional water source	92
	Mali	National survey	2017	Available during past two weeks	85
	Nigeria	National survey	2018	Currently available	36
	Sierra Leone	EMIS	2019	Available during school hours	74
	Uganda	National survey	2016	Available throughout the year	75
	South Africa	EMIS	2016	Not unreliable	78
	Zimbabwe	EMIS	2016	Water available/reliable	67
Zimbabwe	EMIS	2017	Consistently available	67	

**TABLE 3** Definitions of drinking water availability, selected national data sources, 2015-20

## Limited drinking water services

The JMP classifies schools with access to an improved source but no water available at the time of the survey as having a 'limited' service. In 2019, 16% of schools worldwide had a 'limited' drinking water service, affecting 298 million school-aged children. The worst affected region was Central and Southern Asia where more than one in five schools had a limited drinking water service, but the worst affected countries were in Northern Africa and Western Asia. Two thirds of schools in Libya (67%) and half of schools in the Syrian Arab Republic (49%) had an improved source but no water available at the time of the survey, while at least 30% of schools in Benin, Cameroon, Nepal, Paraguay, Senegal and the Solomon Islands also had a limited service (Figure 19).

National data show that schools use a variety of improved drinking water sources<sup>11</sup> and that many schools around the world do not have access to piped water. Figure 21 shows that the proportion of schools with access to piped supplies versus other improved sources varies widely across countries and regions<sup>12</sup>. In most countries in Europe and Northern America, Latin America and the Caribbean and Northern Africa and Western Asia, most schools have piped water supplies, except for Libya and Nicaragua. By contrast, in most countries in sub-Saharan Africa, East and South-Eastern Asia and Central and Southern Asia most schools use other types of improved sources such as boreholes, rainwater or protected wells and springs. The exceptions are Tajikistan, Bhutan, Mongolia, South Africa, Cabo Verde and Sao Tome and Principe.

<sup>11</sup> Improved sources include piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

<sup>12</sup> Figure 21 shows coverage of piped and non-piped improved water based on selected individual national data sources with recent information available. For further details see the individual JMP country files <[www.washdata.org](http://www.washdata.org)>.

## Coverage of piped and non-piped improved water in schools varies widely between countries

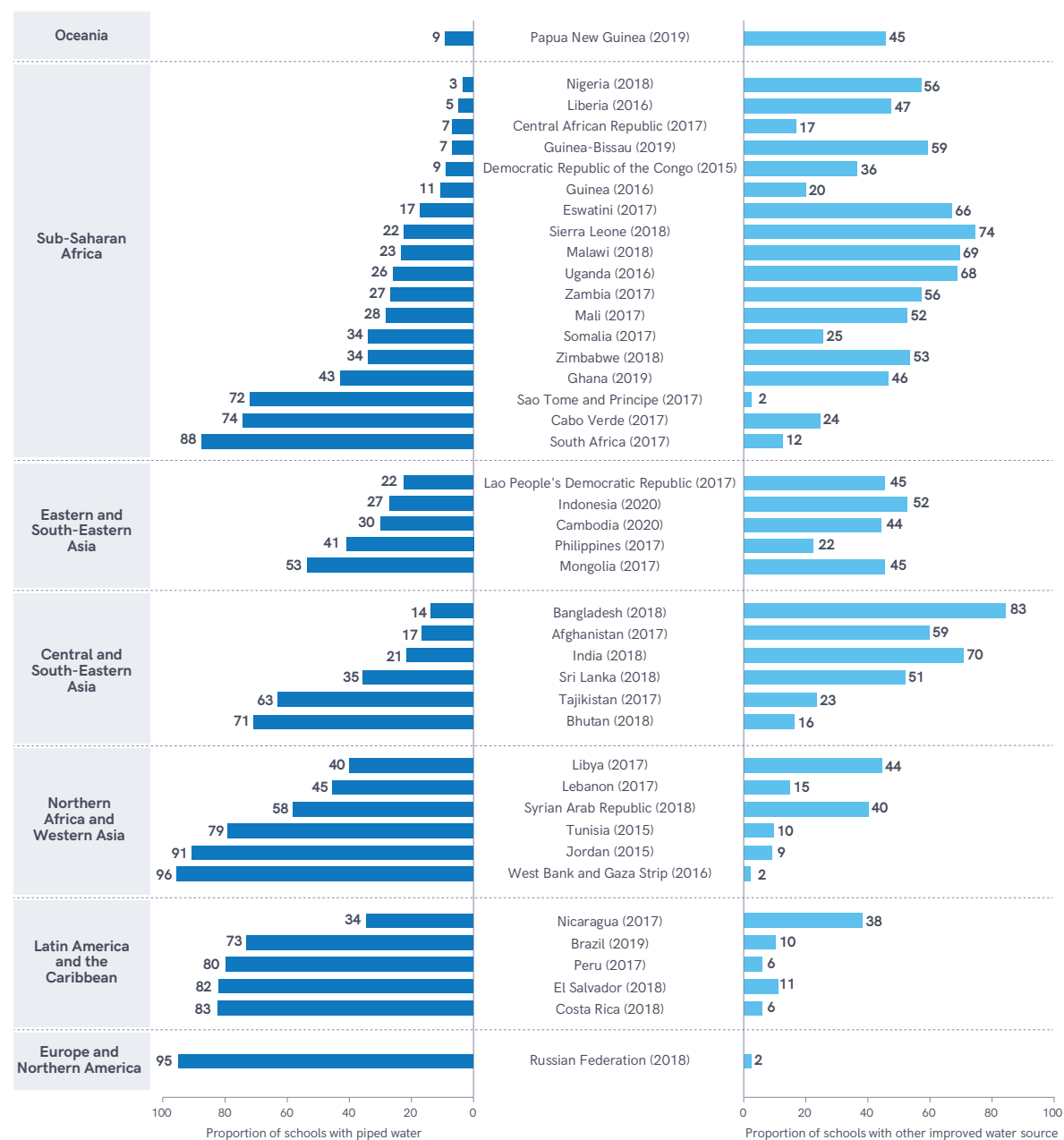
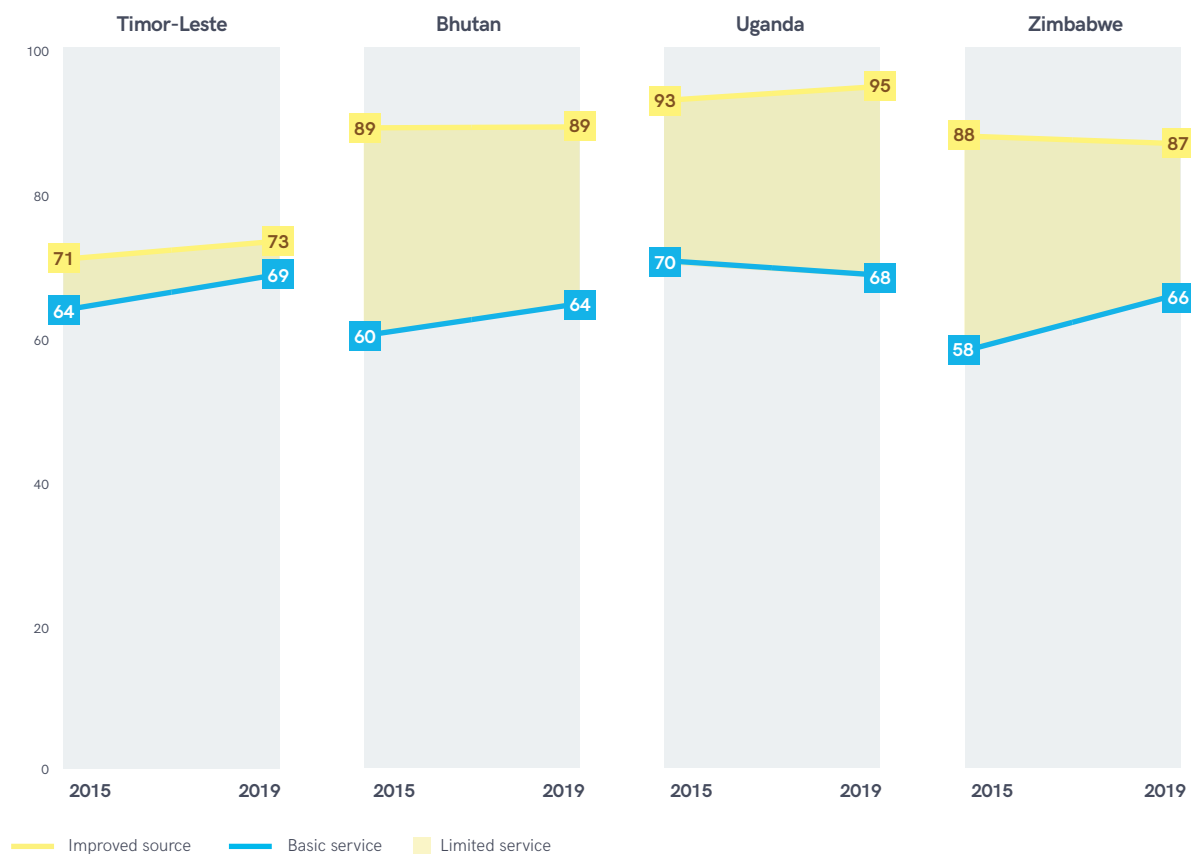


FIGURE 21 Proportion of schools using piped and non-piped improved water sources, selected countries by region (%)

## Progress towards ensuring all improved sources have water available varies



**FIGURE 22** Proportion of schools with an improved source and a basic drinking water service, selected countries, 2015-19 (%)

Figure 22 shows that progress in reducing the proportion of schools with a limited service has been mixed. Between 2015 and 2019, Timor-Leste not only increased coverage of improved sources but also improved the availability of drinking water, gradually reducing the proportion of schools with a limited service. In Bhutan coverage of improved sources remained unchanged but the proportion with water available at the time of the

survey increased. Over the same period, Uganda has increased coverage of improved sources in schools but the proportion with water available has decreased, thereby increasing the share with a limited service. Meanwhile, in Zimbabwe the proportion of schools meeting the standard for a basic service has increased, but the overall proportion of schools with an improved water source has declined.



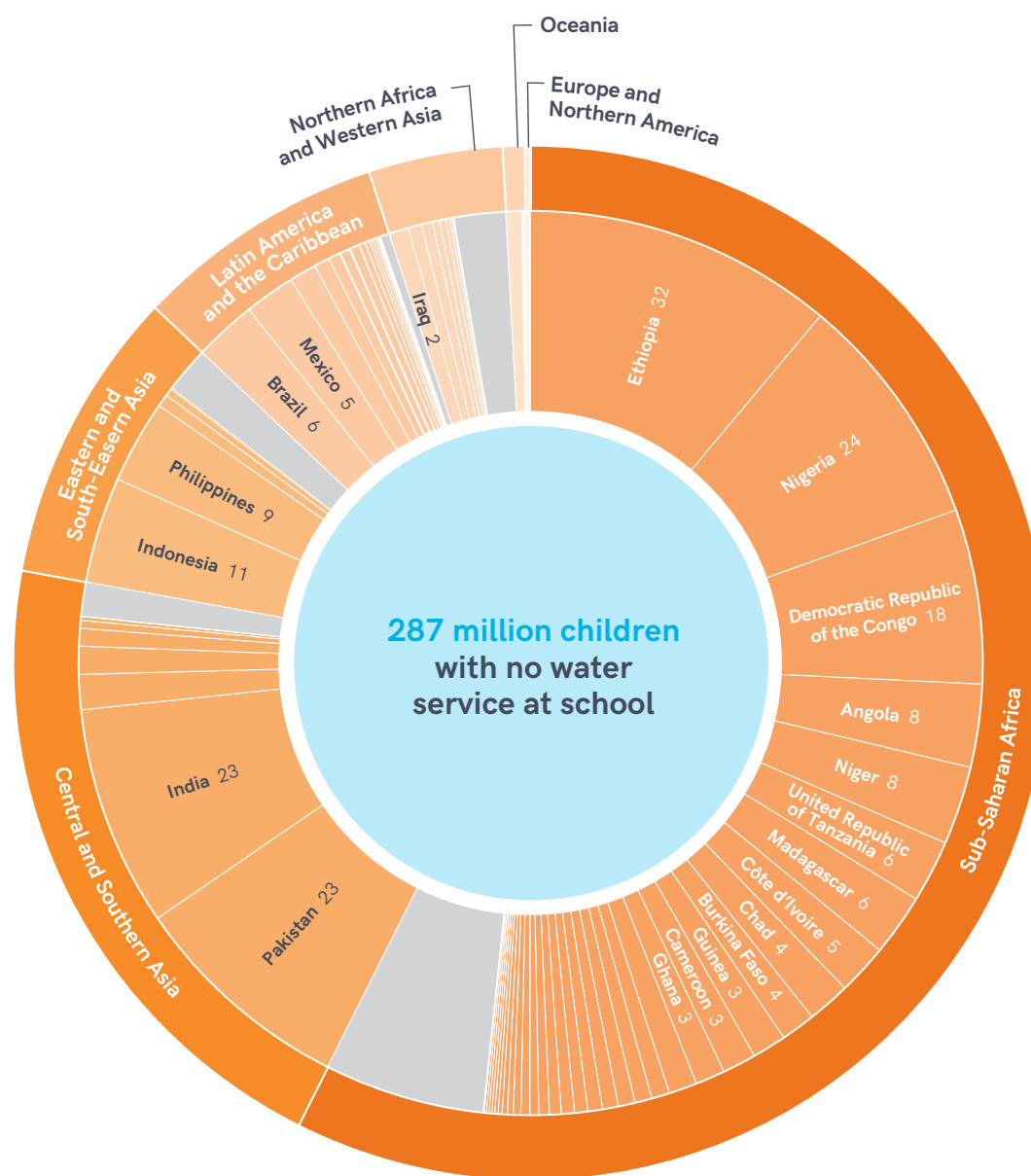
## No drinking water service

In 2019, 15% of schools around the world still had no drinking water service, meaning they either used an unimproved source or had no water source at all. More than half of the 18 countries where >33% of schools had no water service in 2019 were in sub-Saharan Africa and there was at least one country where >25% had no water service in all regions, except for Europe and Northern America and Australia and New Zealand (Figure 19).

Figure 23 shows the global distribution of the 287 children with no drinking water service at their school in 2019. Over half of them (164 million) were from sub-Saharan Africa and a quarter lived in just three countries: Ethiopia (32 million), Nigeria (24 million) and the Democratic Republic of the Congo (18 million). Pakistan and India each contribute 23 million, although the school-age population in the latter is six times greater. This is equivalent to the total number of children with no water service in Latin America and the Caribbean (24 million).

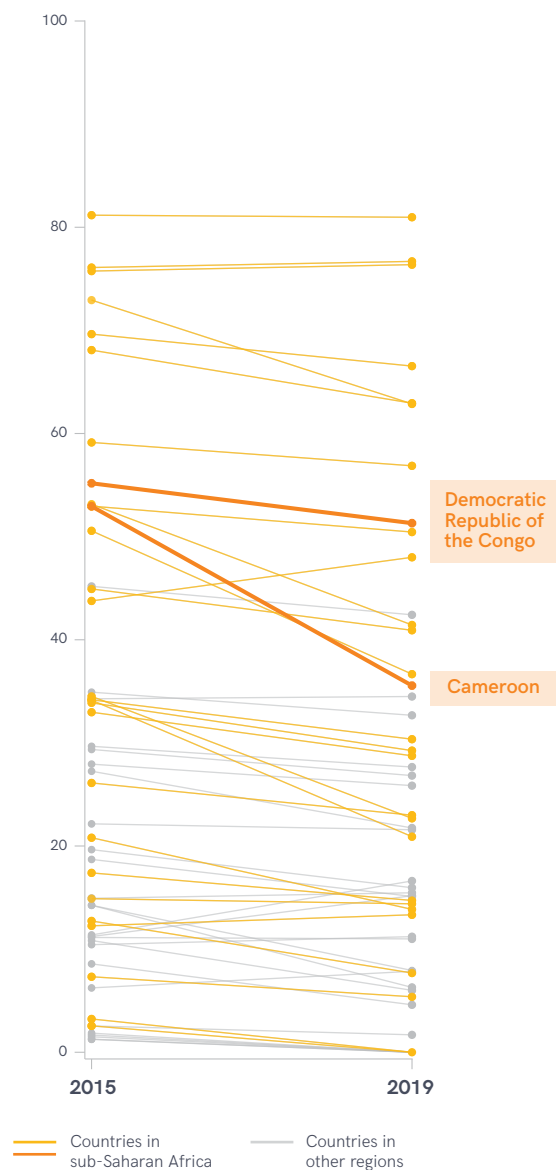
To calculate regional aggregates, the JMP imputes estimates for those countries with no data available using the population-weighted average for that region. In all SDG regions, there were data on the population with no drinking water service for over 50% of the regional population of school-age children.

## 287 million children had no drinking water service at their school in 2019



**FIGURE 23** School-age population (millions) with no drinking water service at school by region and country (2019)  
 Note: Countries with insufficient data shown in grey

**In sub-Saharan Africa some countries have significantly reduced the proportion of schools with no water service since 2015**



**FIGURE 24** Proportion of schools with no drinking water service by country and region, 2015-19 (%)

Between 2015 and 2019, the proportion of schools with no water service declined in all SDG regions, except for Oceania and Eastern and South-Eastern Asia where coverage remained unchanged. Figure 24 shows changes in the proportion of schools with no service among those countries with sufficient data to estimate trends over the same period. The chart highlights countries from sub-Saharan Africa where nearly half of all schools had no drinking water

service in 2015. Since then, many countries have reduced the proportion of schools with no service, but countries with similar starting points have achieved very different rates of reduction. In 2015, just over half of schools in Cameroon (53%) and the Democratic Republic of the Congo (55%) had no water service, but the former has since achieved a significant reduction of 17 percentage points compared with just 4 percentage points in the latter.



### Additional indicators used for monitoring drinking water services in schools

Guidelines for preventing and controlling COVID-19 in schools highlight a range of additional concerns beyond having access to a basic drinking water service. These include having a readily accessible and reliable supply of water that is sufficient to meet different needs and safe for students and staff to drink. This box contains examples of additional indicators that have been used to monitor drinking water services in schools.

If schools do not have access to water supplies on premises, drinking water must either be collected or delivered from sources located elsewhere. The 2017 South Sudan Education Cluster Assessment found that students and staff at nearly half of primary schools [with a water source] (45%) in rural areas spent more than 10 minutes per trip to collect drinking water, compared with less than a third (29%) in urban areas (Figure 25). This means that in one out of five schools in South Sudan students and staff spent over 30 minutes per roundtrip to collect water from sources located off premises. Availability throughout the year is also a challenge in many countries. The 2018 school infrastructure diagnostic in Burundi showed that just 24% of pre-primary, primary and secondary schools had a permanent year-round water supply, 18% had seasonal or irregular supplies, 14% had supplies that were currently or sometimes broken down, and nearly half (44%) had no water source at all (Figure 26).

Even if water is available, it may not be sufficient to meet all of the school's needs. For example, the 2018 Annual Education Statistics for Bhutan show that while 82% of schools had sufficient water for handwashing and 79% had sufficient water for drinking, only 66% had sufficient water for cleaning toilets and 58% had sufficient water for bathing (Figure 27).

### In South Sudan, students and staff at 1 in 5 primary schools spent >30 min per round trip to collect drinking water in 2017

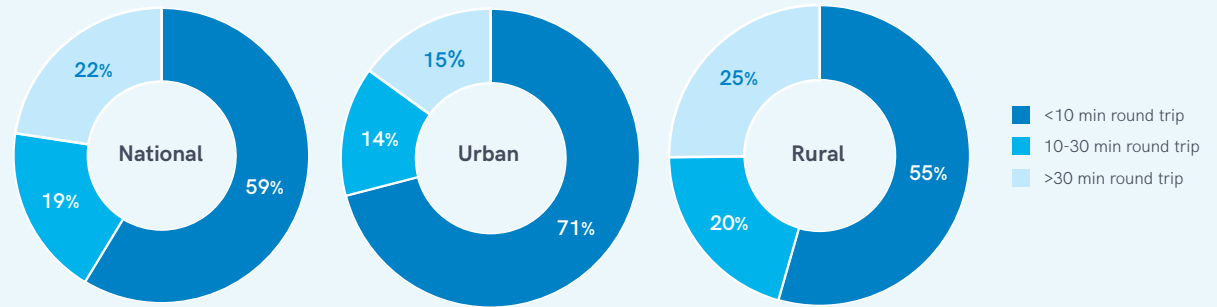


FIGURE 25 Drinking water collection by schools without a source on premises, by rural and urban in South Sudan, 2017 (%)  
Source: South Sudan Education Cluster Assessment (2017)

### In Burundi, just 1 in 4 schools had a permanent water supply available all year round in 2018

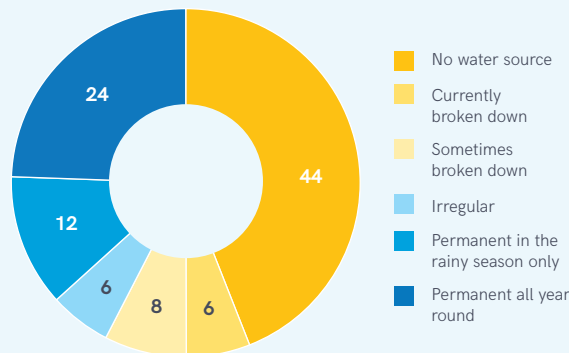


FIGURE 26 Availability of drinking water among pre-primary, primary and secondary schools in Burundi, 2018 (%)  
Source: Diagnostic des infrastructures et équipements scolaires du Burundi (DNIES), Ministère de l'Éducation Burundi (2018)

### In Bhutan, fewer schools had sufficient water for cleaning toilets and for bathing in 2018

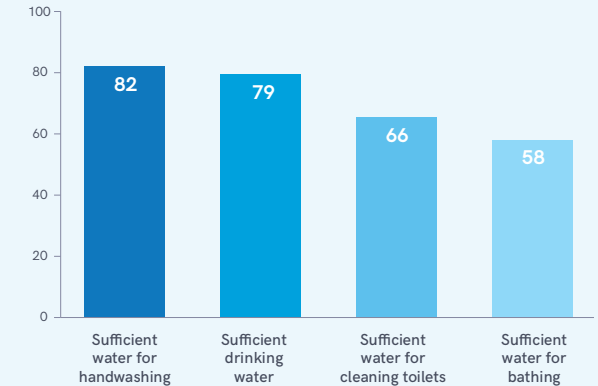
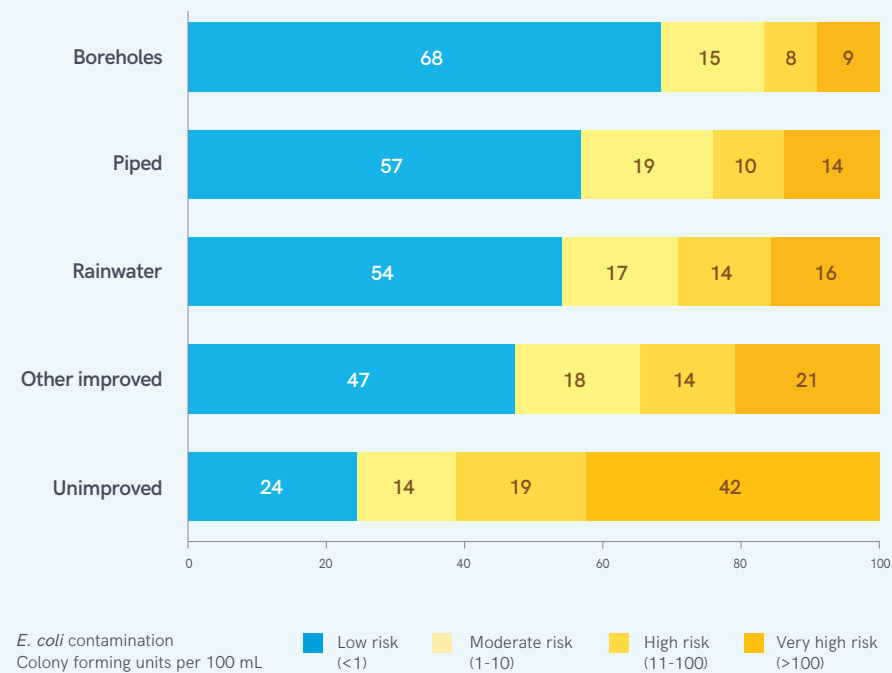


FIGURE 27 Proportion of schools with sufficient water available for different purposes in Bhutan, 2018 (%)  
Source: Annual Education Statistics, Ministry of Education Policy and Planning Division, Bhutan (2018)



Relatively few countries routinely collect information on the quality of drinking water in schools, but a recent World Vision survey of 12 countries in sub-Saharan Africa found widespread faecal contamination and significant variation between different types of supply. In rural schools, boreholes, piped water and rainwater were less likely to be contaminated than other improved sources, such as protected wells and springs, and unimproved sources were twice as likely to be very heavily contaminated (Figure 28).

### Faecal contamination of drinking water supplies is widespread in rural schools in 12 countries in sub-Saharan Africa



**FIGURE 28** Proportion of rural schools using different types of drinking water sources by risk of faecal contamination in 12 countries in sub-Saharan Africa, 2017 (%)

Source: Survey of drinking water quality in rural schools in Ethiopia, Kenya, Rwanda, Uganda, United Republic of Tanzania, Ghana, Mali, Niger, Zambia, Malawi, Mozambique and Zimbabwe, World Vision (2017)



# PROGRESS ON SANITATION IN SCHOOLS

## Basic sanitation services

In 2019, 63% of schools around the world had a basic sanitation service, but coverage varied widely between SDG regions (Figure 29). In sub-Saharan Africa and Oceania, less than half of schools had a basic sanitation service, compared with two out of three schools in Central and Southern Asia, three out of four schools in Latin America and the Caribbean, and four out of five schools in Northern Africa and Western Asia. Europe and Northern America and Australia and New Zealand had already achieved universal access (>99%) but there were insufficient data to estimate basic sanitation coverage in schools in Eastern and South-Eastern Asia.

Seven out of eight SDG regions had sufficient data to estimate trends in basic sanitation coverage between 2015 and 2019. Over this period, global coverage increased from 60% to 63%. Most SDG regions recorded modest increases in coverage,

except for Latin America and the Caribbean, while Central and Southern Asia and Northern Africa and Western Asia both increased coverage by eight percentage points. Data on basic sanitation services were available for less than 30% of the school-age population in Eastern and South-Eastern Asia.

These preliminary estimates of global trends suggest current rates of progress will not be sufficient to achieve universal access (>99%) to basic sanitation services in schools by 2030. Global coverage would need to increase by 3.3 percentage points each year, whereas the annual rate of increase between 2015 and 2019 was just 0.7 percentage points per year. Central and Southern Asia and Northern Africa and Western Asia are the only SDG regions that have increased basic sanitation coverage in schools by more than one percentage point per year since 2015.



Coverage of sanitation services in schools varied widely among the 151 countries with national estimates available in 2019 (Figure 30). 117 countries had estimates for basic sanitation services, ranging from universal coverage (>99%) to just 12% in Nicaragua. Nearly one in five countries had <50% coverage and two thirds had <75% coverage. All SDG regions contained countries that had achieved universal (>99%) coverage, but 22 out of 50 were in Europe and North America. Half of countries with <50% coverage were from sub-Saharan Africa. 23 countries had data on the proportion of schools with no sanitation service, but lacked sufficient data to determine how many of the schools with services met the criteria for a limited or basic service.

### 7 out of 8 SDG regions had sufficient data to estimate trends between 2015 and 2019

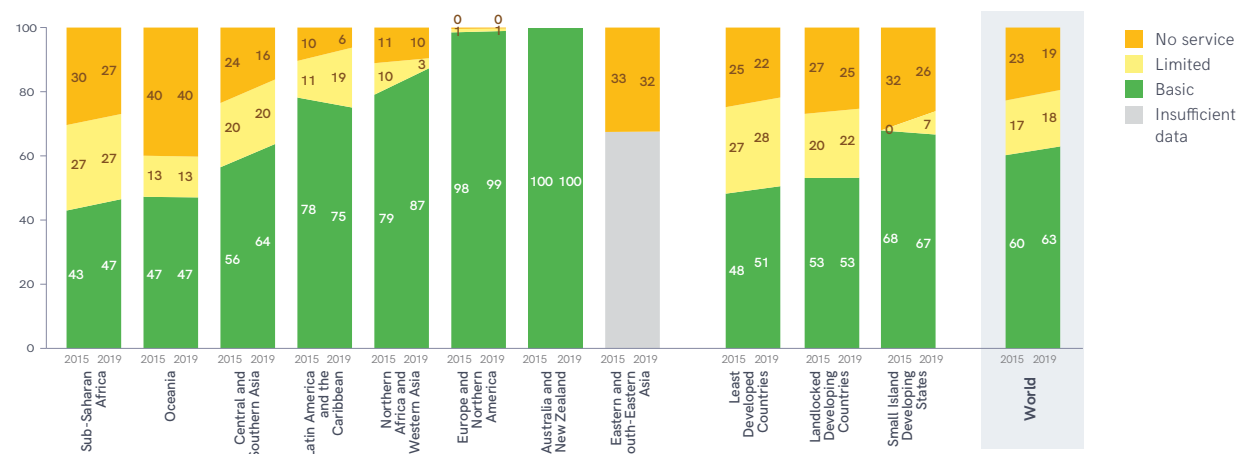


FIGURE 29 Regional and global coverage of sanitation services in schools, 2015-19 (%)

### Coverage of sanitation services in schools varies widely between countries

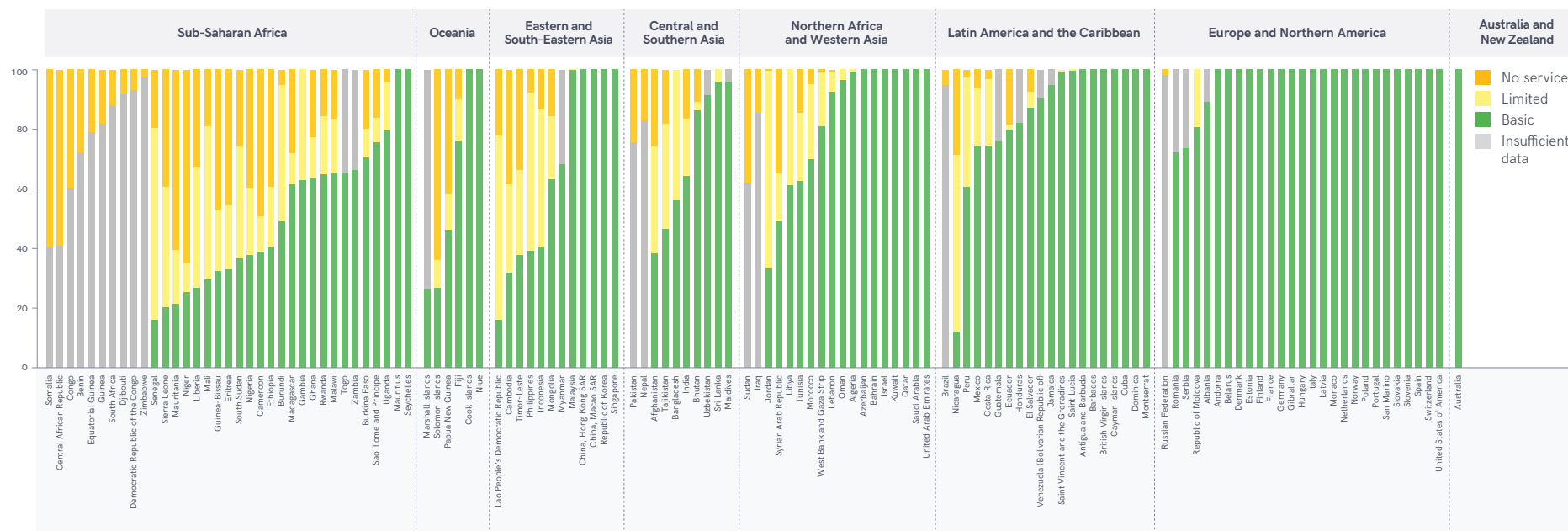


FIGURE 30 Sanitation service levels in schools, by country and SDG region, 2019 (%)

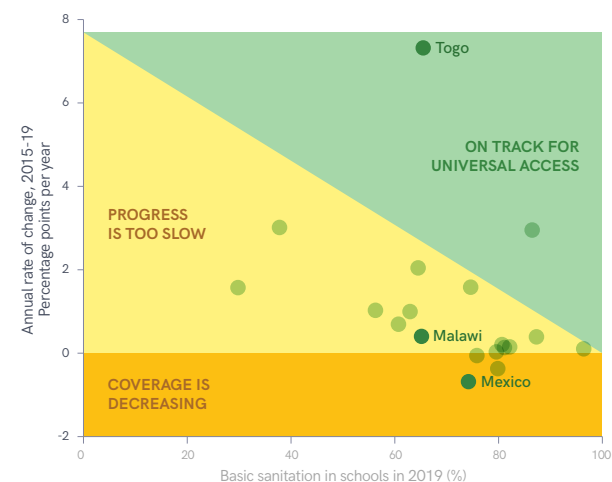
Few countries have data on recent trends in basic sanitation coverage in schools. Figure 31 shows current coverage and annual rates of change between 2015 and 2019 among the 19 countries with <99% coverage in 2019. It shows that at current rates of progress only 2 out of 19 countries are on track to achieve universal access by 2030. Most countries are progressing too slowly, and in a small number of countries coverage has decreased since 2015.

For example, Togo has achieved 65% coverage of basic sanitation services in schools and has increased coverage by 7.3 percentage points per year since 2015, so if current rates of progress are maintained it is on track to achieve universal access (>99%) by 2030. Malawi also had 65% coverage in 2019 but coverage has increased by just 0.4 percentage points per year, which will not be sufficient to achieve universal access by 2030. Meanwhile in Mexico coverage of basic sanitation

services has gradually decreased by 0.7 percentage points per year from 77% in 2015 to 74% in 2019.

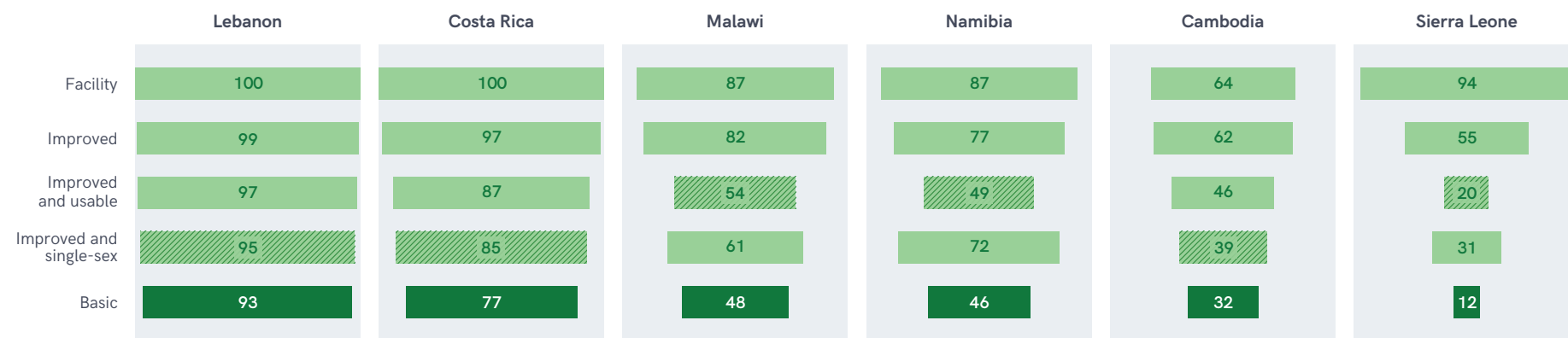
If schools have improved sanitation facilities that are either not single-sex or not usable (available, functional and private) at the time of the survey these are classified as having a 'limited' service. Figure 32 shows that the limiting criteria for basic sanitation services varies across countries. While nearly all schools in Sierra Leone (94%) had some type of sanitation facility in 2016, only half of these (55%) were improved. Furthermore, while 31% of facilities were classed as improved and single-sex, only 20% of toilets were improved and usable. This means just 12% of schools met all the criteria for a basic sanitation service. Improved and usable toilets were also the limiting factor in recent surveys in Malawi and Namibia, whereas in Lebanon, Costa Rica and Cambodia the constraint was access to single-sex improved toilets.

## 2 out of 19 countries with data on trends in basic sanitation services are on track to achieve universal access by 2030



**FIGURE 31** Progress towards universal access to basic sanitation services in schools (2015-19) among countries with <99% national coverage in 2019

## The limiting criteria for basic sanitation services varies across countries



Limiting factor

**FIGURE 32** Proportion of schools meeting the criteria for basic, limited and no sanitation service, selected countries, 2013-20

## Limited sanitation services

In 2019, 18% of schools worldwide had 'limited' sanitation services, affecting 331 million school-age children. More than a quarter of schools in sub-Saharan Africa, one in five schools in Central and Southern Asia, and nearly a third of schools in Least Developed Countries (LDCs) had a limited sanitation service. In 2019, >50% of schools in Jordan, Senegal, the Philippines, the Lao People's Democratic Republic and Nicaragua had improved facilities that were either not single-sex or not usable at the time of the survey. At least 30% of schools in Sierra Leone, Liberia, Mali, South Sudan, Burundi, Gambia, Cambodia, Indonesia, Afghanistan, Tajikistan, Bangladesh, Libya and Peru also had a limited service (Figure 30).

Figure 33 shows that progress in reducing the proportion of schools with limited services varies widely. In both Peru and El Salvador, coverage of improved facilities and coverage of basic services both increased between 2015 and 2019, but since the increase has been slower for basic services, the proportion of schools with limited services has increased. In Costa Rica, coverage of improved facilities has remained unchanged, while the proportion meeting the criteria for a basic sanitation service has increased steadily, thereby reducing the proportion with a limited service. While coverage of improved facilities has also remained unchanged in Mexico, the proportion meeting the criteria for a basic sanitation service has decreased from 77% to 74% between 2015 and 2019, and as a result the proportion of schools with a limited service has increased.



### Progress towards ensuring improved sanitation facilities are single-sex and usable varies



FIGURE 33 Proportion of schools with improved sanitation facilities and a basic sanitation service, selected countries, 2015-19 (%)

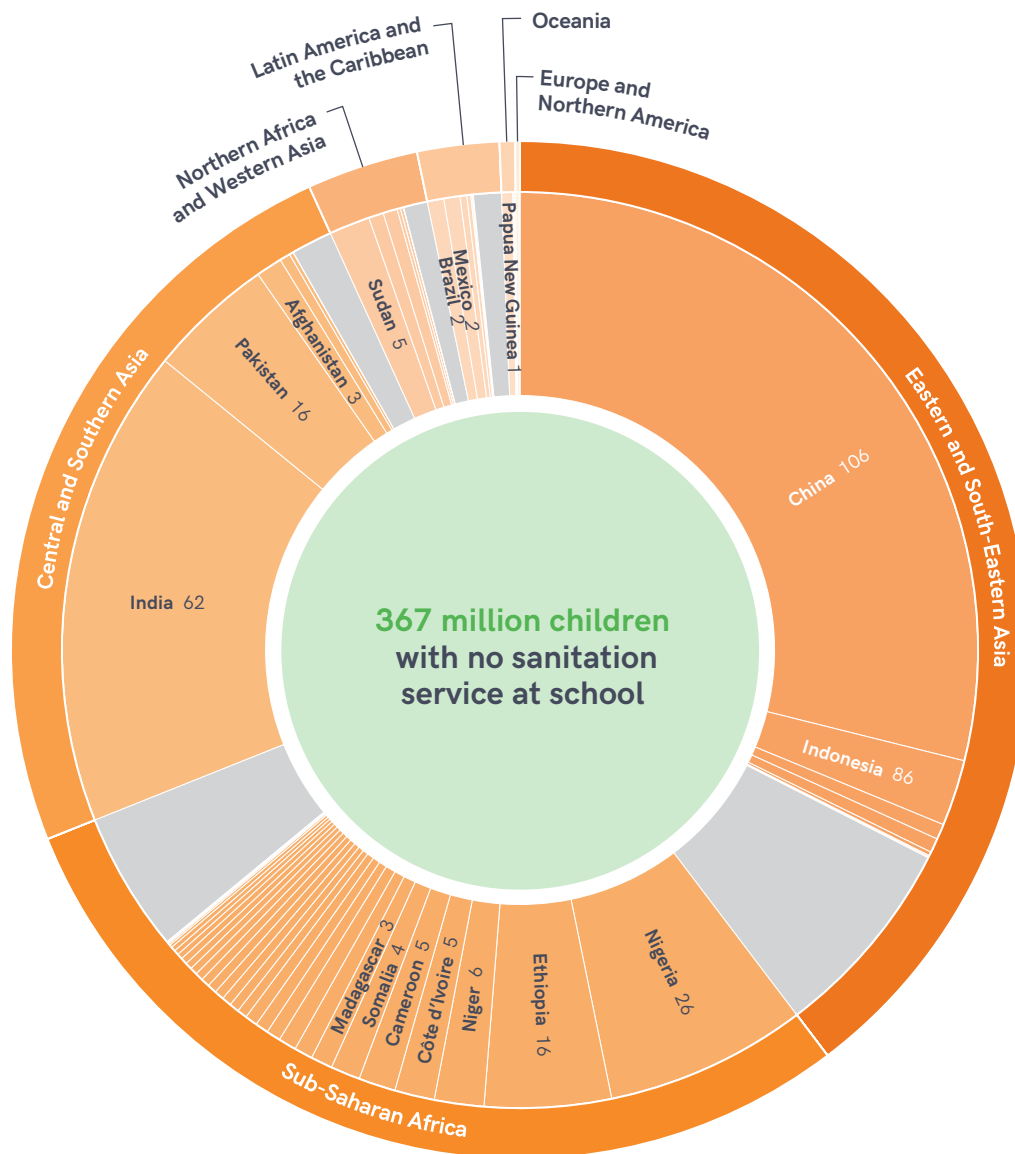
## No sanitation service

In 2019, nearly one in five schools around the world (19%) still had no sanitation service and either had unimproved sanitation facilities or no facility at all. In 14 countries over a third of schools had no service, rising to nearly two thirds in Niger and the Solomon Islands. There were countries where more than 25% of schools still lacked services in all SDG regions, except for Europe and Northern America and Australia and New Zealand (Figure 30).

Figure 34 shows the global distribution of the 367 million children with no sanitation service at their school in 2019. Two out of five (145 million) were in Eastern and South-Eastern Asia, mostly in China (106 million). Nearly a third were in sub-Saharan Africa (107 million) and a quarter were in Central and Southern Asia (89 million). These three regions account for more than 90% of the global school-age population with no sanitation service at their school.

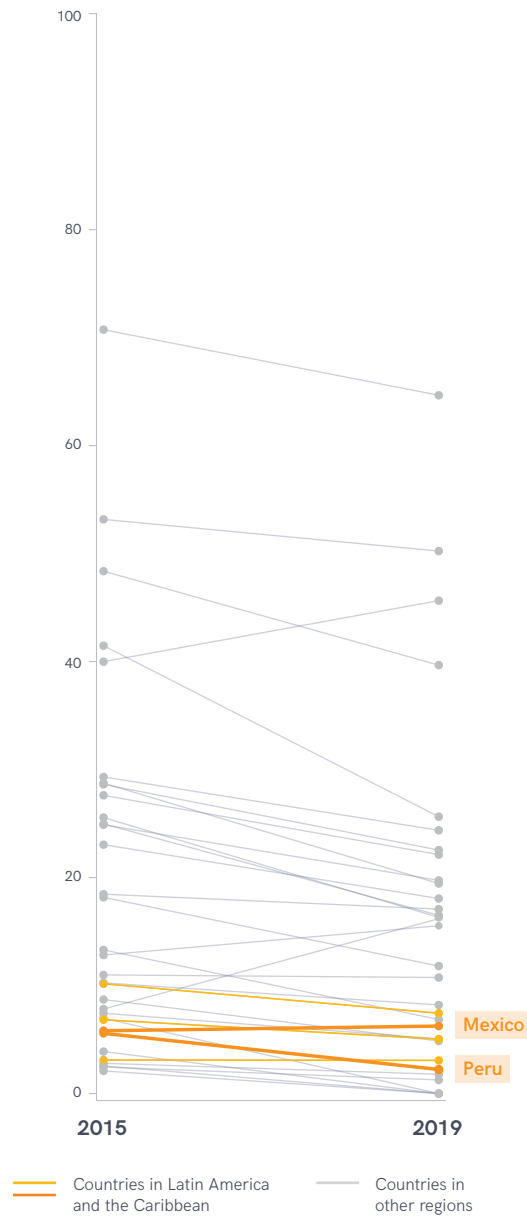


**367 million children had no sanitation service at their school in 2019**



**FIGURE 34** School-age population with no sanitation service at school by region and country (2019)  
 Note: Countries with insufficient data shown in grey

**In Latin America and the Caribbean, less than 10% of schools now have no sanitation service**



**FIGURE 35** Proportion of schools with no sanitation service by country and region, 2015-19 (%)

Between 2015 and 2019, the proportion of schools with no sanitation service declined in all SDG regions, except for Oceania where coverage remained unchanged, and Australia and New Zealand which had already achieved universal coverage (>99%). Central and Southern Asia achieved the largest reduction in the proportion of schools with no service from 24% to 16%.

Figure 35 shows changes in the proportion of schools with no service among those countries with sufficient data to estimate trends over this period.

By 2019, most countries in Latin America and the Caribbean had reduced the proportion of schools with no service to less than 10%, but progress since 2015 has been mixed. Between 2015 and 2019, El Salvador reduced the proportion of schools with no service from 10% to 7% and Brazil from 7% to 5%. Peru and Mexico both started at 6% no service in 2015 but while Peru achieved a reduction of three percentage points by 2019, coverage in Mexico remained unchanged. Trend data were not available for Haiti or the Plurinational State of Bolivia.



### Additional indicators used for monitoring sanitation services in schools

Schools around the world face various challenges when it comes to providing sanitation services. Guidelines for preventing and controlling COVID-19 in schools highlight the importance of providing enough toilets for students and staff and ensuring they are readily accessible, well maintained and kept clean, and accessible and acceptable to all students and staff.

In addition to monitoring whether schools have usable single-sex toilets, many countries also record the total number of toilets available and use enrollment data to calculate the average number of female and male students per toilet. Figure 36 shows that the ratio of students per toilet varies widely between countries, ranging from fewer than 20 in Bhutan to over 150 in Sao Tome and Principe. Most countries have similar ratios for girls and for boys, except for Afghanistan.

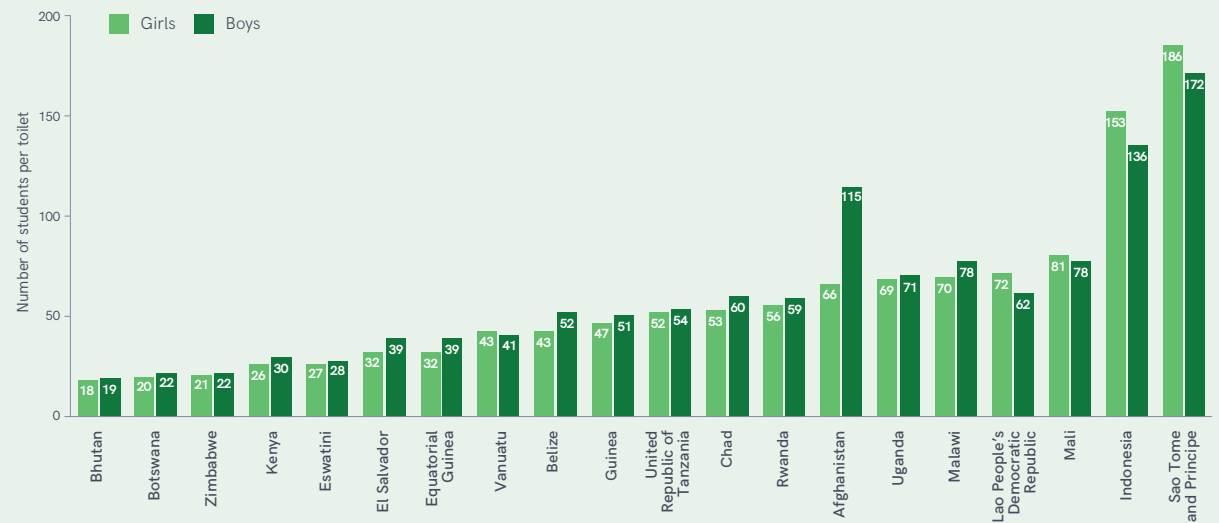
Some countries also report on the availability of toilets for teachers. For example, the 2014 Family Life Survey found that nearly all schools in Indonesia provided toilets for both students and teachers. The same survey also recorded the condition of toilets for students and teachers, and found that while they had similar rates of functionality, toilets for students were less likely to be clean (Figure 37).

Frequent and proper cleaning of school toilets is more important than ever in the context of the COVID-19 pandemic. A recent survey in Mali recorded the frequency of toilet cleaning and included inspections of the condition and cleanliness of toilets. 89% of toilets that were cleaned daily were found to be clean, compared with 70% of toilets that were cleaned weekly, and nearly half of those cleaned monthly were not clean (Figure 38).

A recent World Vision survey of rural schools in 12 countries in sub-Saharan Africa explored a wide range of factors affecting the accessibility, quality and acceptability of sanitation facilities. It showed that while almost all schools had toilets accessible on premises, only 7 out of 10 were always unlocked or had a key that was available and just 1 in 3 were accessible to students with limited mobility. While 8 out of 10 latrines were found to have stable slabs not cracked or broken, only 1 in 20 had lids covering the hole. Furthermore, many were found to be in an unacceptable condition. Nearly half had faeces visible on the floor, slab or walls, and nearly three quarters reported the presence of flies and bad smells (Figure 39).



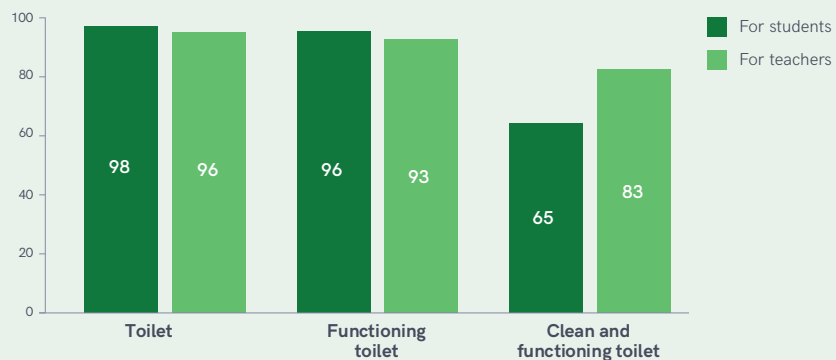
**The number of female and male students per toilet varies widely between countries**



**FIGURE 36** Number of female and male students per toilet by country, selected surveys (2009-18)

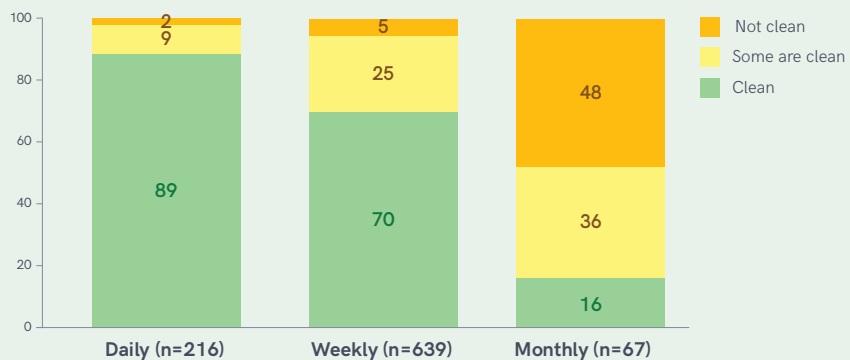


**In Indonesia, student toilets were less likely to be clean and functioning than toilets for teachers in 2014**



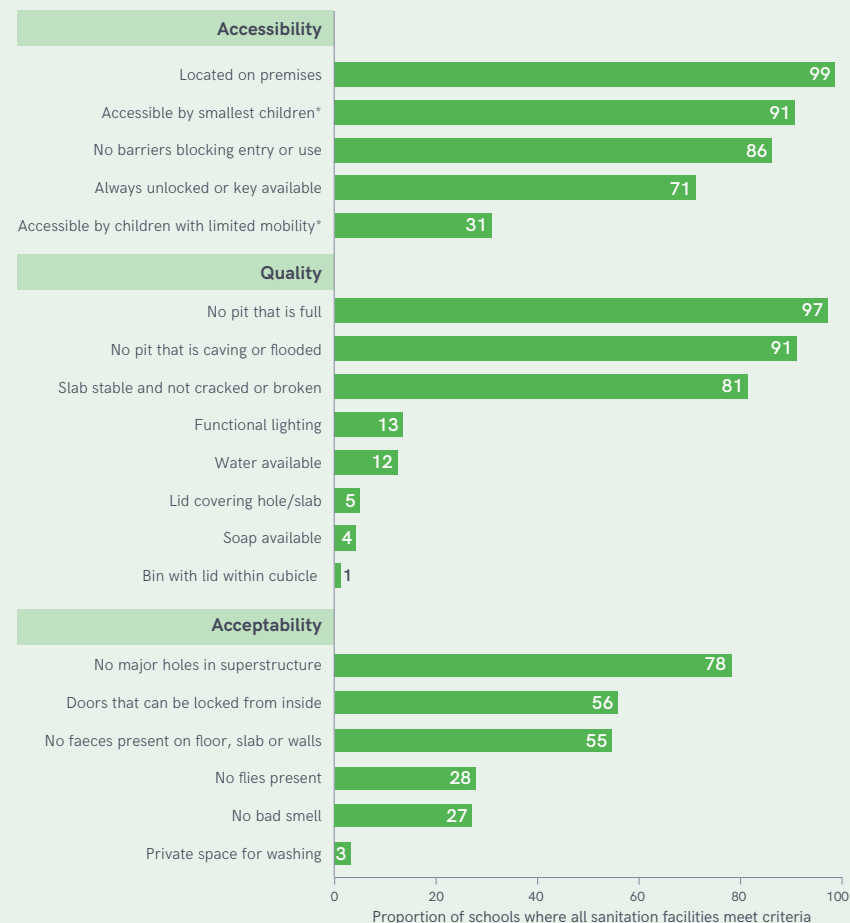
**FIGURE 37** Proportion of schools with clean and functioning toilets for students and teachers in Indonesia, 2014 (%)  
Source: Indonesia Family Life Survey (2014)

**In Mali, 9 out of 10 toilets cleaned daily and 7 out of 10 toilets cleaned weekly were clean when inspected in 2017**



**FIGURE 38** Proportion of schools with clean toilets by frequency of toilet cleaning  
Source: Situation WASH dans le milieu scolaire au Mali, Ministère de l'Éducation Nationale (2017)

**In rural sub-Saharan Africa, many school toilets did not meet criteria for accessibility, quality or acceptability in 2017**



**FIGURE 39** Proportion of schools in rural sub-Saharan Africa where all sanitation facilities meet additional criteria (%)  
\* At least one facility accessible to the smallest children and children with limited mobility  
Source: Survey of sanitation facilities in rural schools in Ethiopia, Kenya, Rwanda, Uganda, United Republic of Tanzania, Ghana, Mali, Niger, Zambia, Malawi, Mozambique and Zimbabwe, World Vision (2017)

# PROGRESS ON HYGIENE IN SCHOOLS

## Basic hygiene services

In 2019, 57% of schools around the world had a basic hygiene service, but coverage varied widely between SDG regions (Figure 40). In Oceania fewer than one in five schools had a basic hygiene service, compared with one in four schools in sub-Saharan Africa and just over half of schools in Central and Southern Asia. Three out of five schools in Latin America and the Caribbean and four out of five schools in Northern Africa and Western Asia had a basic service. Australia and New Zealand had already achieved universal coverage (>99%) and Europe and Northern America had 98% coverage but there were insufficient data to estimate basic hygiene coverage in schools in Eastern and South-Eastern Asia.

Seven out of eight SDG regions had enough data to estimate trends in basic hygiene coverage between 2015 and 2019. On this basis, it is estimated that global coverage of basic hygiene services has

increased from 52% to 57%. Most SDG regions recorded small increases in coverage, except for Northern Africa and Western Asia which achieved an increase of 10 percentage points. Data on basic hygiene services were available for less than 30% of the school-age population in Eastern and South-Eastern Asia.

These preliminary estimates of global trends suggest current rates of progress will not be sufficient to achieve universal access (>99%) to basic hygiene in schools by 2030. Global coverage would need to increase by 3.9 percentage points each year, whereas the annual rate of increase between 2015 and 2019 was just one percentage point per year. Only Northern Africa and Western Asia has increased basic hygiene coverage in schools by more than two percentage points per year since 2015.



### 7 out of 8 SDG regions had sufficient data to estimate trends between 2015 and 2019



FIGURE 40 Regional and global coverage of hygiene services in schools, 2015-19 (%)

### Coverage of hygiene services in schools varied widely between countries in 2019

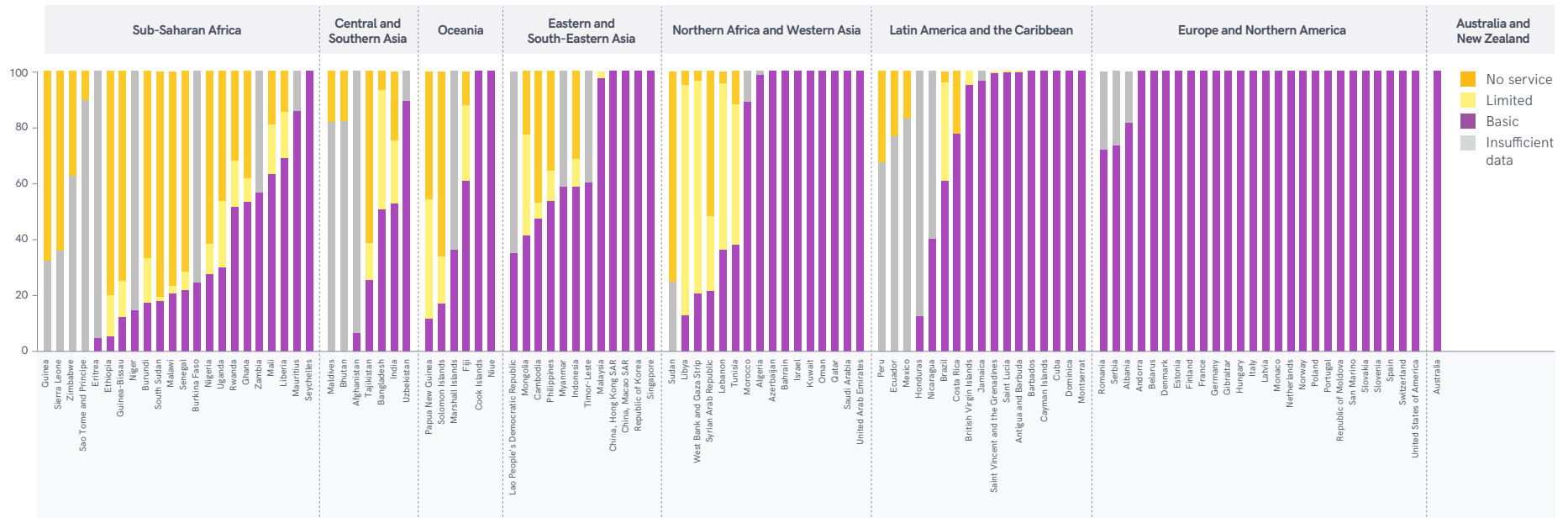
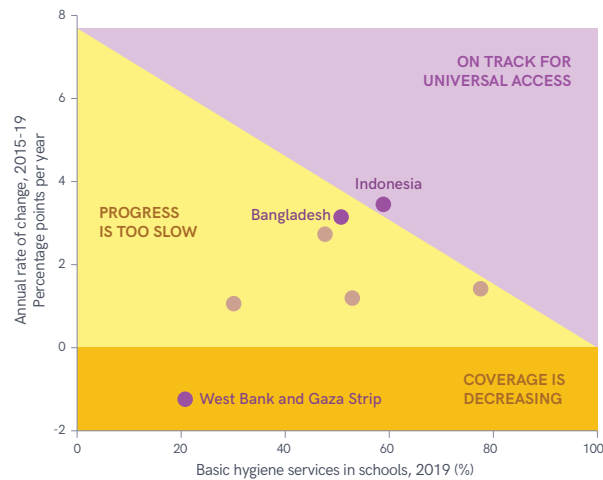


FIGURE 41 Hygiene service levels in schools, by country and SDG region, 2019 (%)

**1 out of 7 countries with data on trends in basic hygiene services are on track to achieve universal access by 2030**



**FIGURE 42** Progress towards universal access to basic hygiene services in schools (2015-19), among countries with <99% national coverage in 2019

Just seven countries had data on trends in basic hygiene coverage in schools between 2015 and 2019. Figure 42 shows current national coverage and annual rates of change, among countries with <99% coverage in 2019. It shows that at current rates of progress only Indonesia is on track to achieve universal access by 2030. While Bangladesh has increased coverage of basic sanitation services in schools by 3.1 percentage points per year from 38% in 2015 to 51% in 2019, it is progressing too slowly to achieve universal access by 2030, and in the West Bank and Gaza Strip coverage has decreased from 26% in 2015 to 21% in 2019.



## Limited hygiene services

In 2019, 19% of schools had a limited hygiene service, or access to handwashing facilities with water but no soap, affecting 355 million school-age children globally. Only a limited hygiene service was available in two out of five schools in Oceania and one in four schools in Central and Southern Asia and Latin America and the Caribbean, but the worst-affected countries were in Northern Africa and Western Asia. At least half of schools in Libya (82%), the West Bank and Gaza Strip (76%), Lebanon (60%) and Tunisia (50%) had handwashing facilities with water but no soap, and more than a third of schools in Bangladesh, Papua New Guinea, Mongolia and Brazil also had a limited service (Figure 41).

Figure 43 shows mixed progress towards ensuring all handwashing facilities in schools have water and soap available between 2015 and 2019. For example, the Republic of Moldova has progressively reduced the proportion of schools with a limited hygiene service, achieving universal coverage (>99%) of basic hygiene services in 2019. Bangladesh has increased coverage of basic hygiene services by 12 percentage points and halved the proportion of schools with no handwashing facilities or no water, but the proportion of schools with a limited service has only reduced by 6 percentage points. India has rapidly increased coverage of handwashing facilities with water but many of these still lack soap. The West Bank and Gaza Strip has maintained high coverage of handwashing facilities with water, but the proportion that also have soap has decreased since 2015.



Progress towards ensuring all handwashing facilities have soap available has been mixed

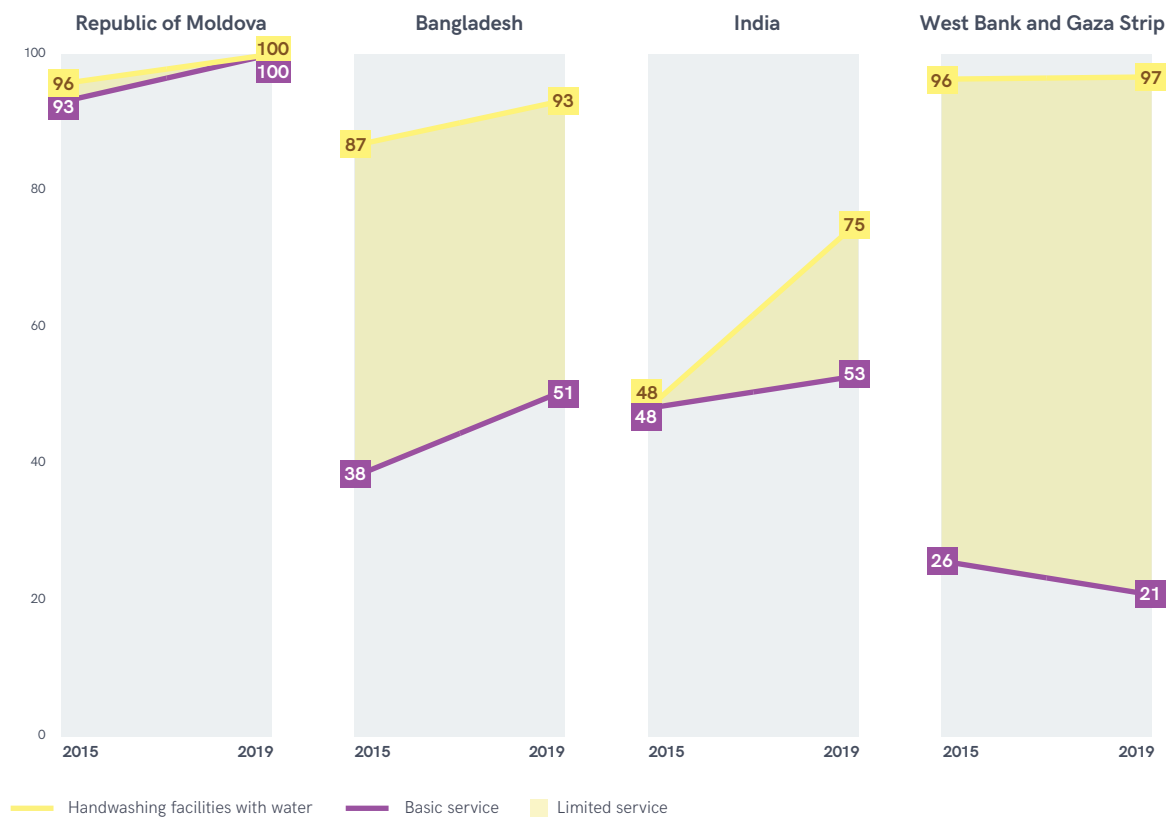


FIGURE 43 Proportion of schools with handwashing facilities with water and a basic hygiene service, selected countries, 2015-19 (%)

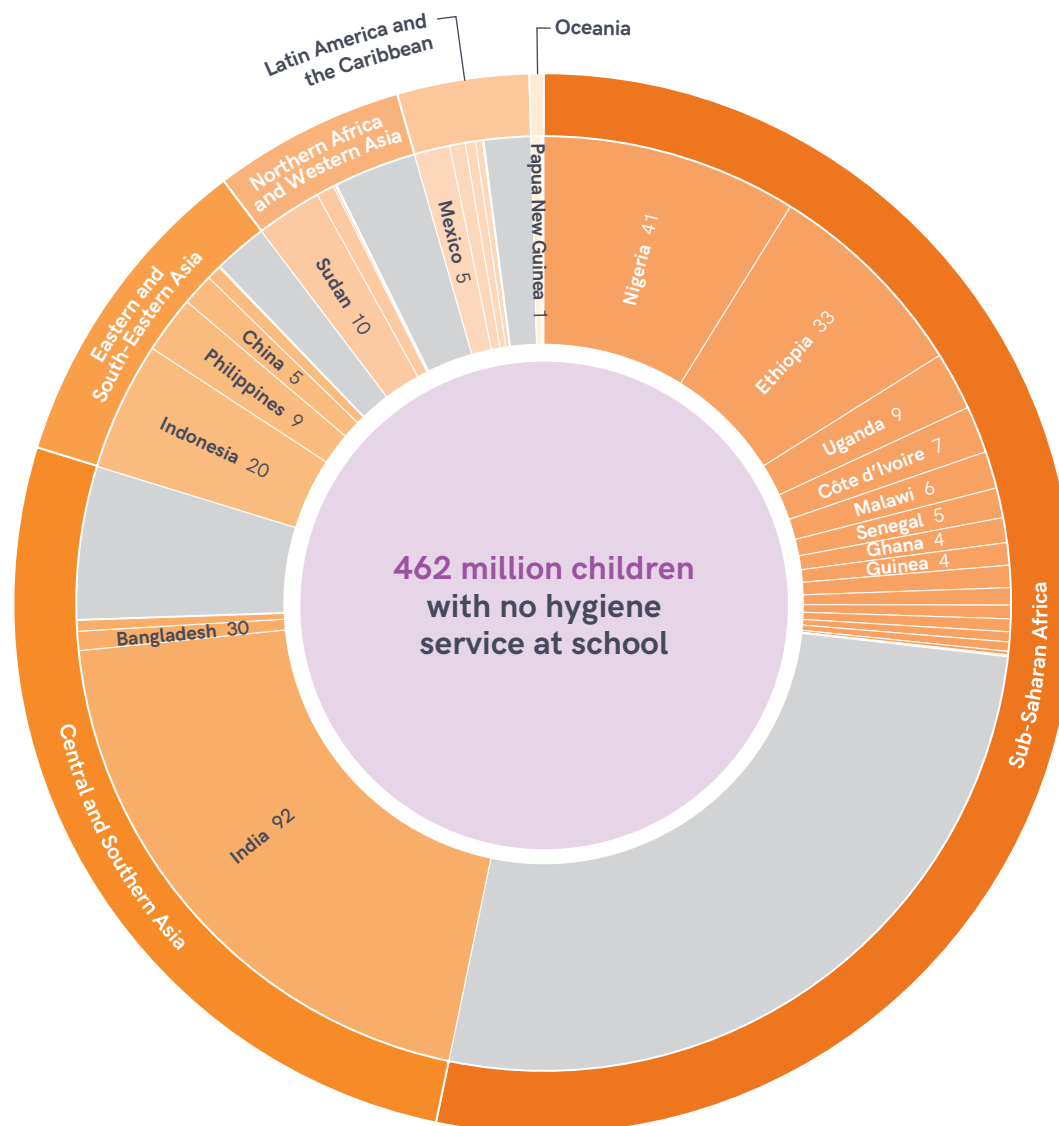
## No hygiene service

In 2019, one in four schools around the world still had no hygiene service, meaning they either had no handwashing facility or no water. In Least Developed Countries (LDCs) three out of five schools had no service. Most of the countries where >50% of schools had no service were in sub-Saharan Africa but there was also at least one country in Central and Southern Asia, Oceania, and Northern Africa and Western Asia (Figure 41).

Figure 44 shows the global distribution of the 462 million children with no hygiene service at their school in 2019. Over half (244 million) are from sub-Saharan Africa, although there are still insufficient data to estimate the precise number of schools affected in many countries in that region. A quarter (125 million) are from Central and Southern Asia, of which three quarters (92 million) are from India. There are the same number of school-age children with no hygiene service in India as there are in Eastern and South-Eastern Asia, Northern Africa and Western Asia, Latin America and the Caribbean, and Oceania combined (93 million).



**462 million children had no hygiene service at their school in 2019**



**FIGURE 44** School-age population with no hygiene service at school, by region and country (2019)  
 Note: Countries with insufficient data shown in grey

**Both countries with trend data available in Central and Southern Asia have reduced the proportion of schools with no hygiene service since 2015**



**FIGURE 45** Proportion of schools with no hygiene service by country and region, 2015-19 (%)

In Central and Southern Asia, the proportion of schools with no hygiene service decreased from 46% in 2015 to 23% in 2019. This has largely been driven by progress in India and Bangladesh, which have both halved the proportion of schools with no hygiene service over this period. India recorded a reduction of 27 percentage points (from 52% to

25%) while Bangladesh recorded a reduction of more than 6 percentage points (from 13% to 7%). This means by 2019 there were 104 million fewer children in India and 3.2 million fewer children in Bangladesh with no hygiene service at their school than in 2015.



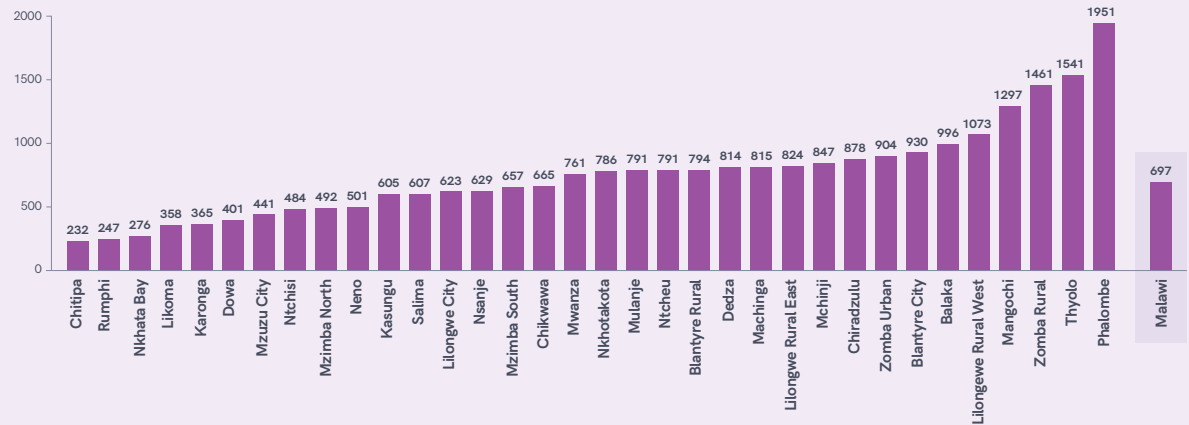
**Additional indicators used for monitoring hygiene services in schools**

There are various challenges associated with maintaining hygiene in schools that go beyond access to a basic hygiene service. Guidelines for preventing and controlling COVID-19 in schools highlight the importance of providing sufficient handwashing facilities in key locations around the school and ensuring they are well maintained, promoting changes in hygiene behaviour, and practising group handwashing at critical times.

There is no commonly agreed international standard for the number of students per handwashing station or tap, but several countries already include this indicator in national monitoring systems. For example, in Malawi there are nearly 700 students per handwashing facility in primary schools, with sub-national averages ranging from just over 200 students to nearly 2,000 students per facility (Figure 46). To meet the criteria for a basic hygiene service, the schools must have at least one handwashing facility with water and soap available, but this may not be sufficient to ensure school safety during the COVID-19 pandemic.

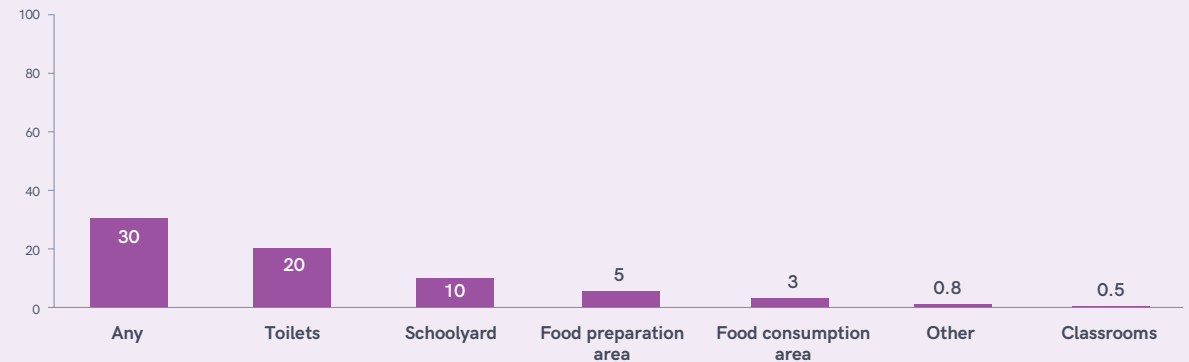
Protocols for the safe operation of schools during COVID-19 recommend providing handwashing stations at the toilets, playground and canteen, as well as next to classrooms and school entrances and exits. In many countries this will be a major challenge. For example, a recent survey in Guinea-Bissau showed that fewer than 1 in 3 schools had any handwashing facility, 1 in 5 had facilities at the toilets and 1 in 10 had facilities in the schoolyard. Even fewer schools had handwashing facilities at the canteen and other areas (Figure 47).

**In Malawian primary schools the number of students per handwashing facility varied widely in 2018**



**FIGURE 46** Number of students per handwashing facility in Malawi, 2018  
 Source: Malawi education statistics, 2017/18, Ministry of Education, Science and Technology

**In Guinea-Bissau, schools are more likely to have handwashing facilities at the toilets than in the schoolyard or canteen**



**FIGURE 47** Proportion of schools with handwashing facilities in different locations in Guinea-Bissau, 2019 (%)  
 Source: Projecto WASH nas Escolas Dashboard Nacional para Guiné-Bissau (mWater), Ministry of Education (2019)

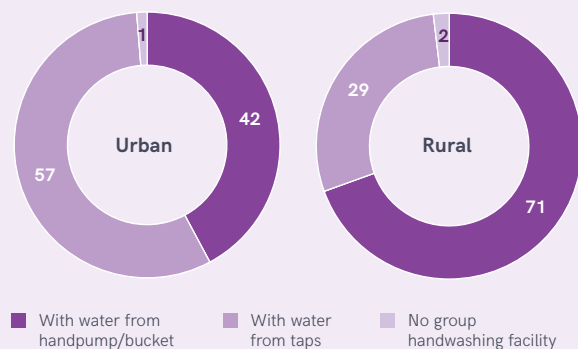


Many schools practise group handwashing to promote a culture of hygiene among students. In India, for example, 95% of schools report practising group handwashing before midday meals. Half of urban schools use piped water for handwashing but less than a third of rural schools use piped water and over three quarters use water collected from handpumps or buckets (Figure 48).

The availability of handwashing facilities at schools does not ensure students always wash their hands at all critical times or using soap. The WHO Global School-based Health Survey asks secondary school students several questions on hygiene practices and has been carried out in more than 100 countries<sup>13</sup>.

<sup>13</sup> World Health Organization, *Global School-based Health Survey (GSHS)* <[www.who.int/ncds/surveillance/gshs/en](http://www.who.int/ncds/surveillance/gshs/en)>.

### In India, most rural schools practised group handwashing before midday meals with water from a handpump or bucket in 2018



**FIGURE 48**

Proportion of urban and rural schools practising group handwashing before midday meals with water from taps and handpumps, 2018 (%)  
**Source:** Vidyalaya Puraskar microdata, Ministry of Education (2018)

### In Latin America and the Caribbean more students report handwashing after using the toilet than before eating



**FIGURE 49**

Proportion of students reporting always washing their hands after using the toilet and before eating, 2010-17 (%)  
**Source:** Global School-based Health Surveys, World Health Organization (2010-17)

Students in Latin America and the Caribbean are much more likely to report handwashing after using the toilet than before meals (Figure 49), a pattern that is seen in most regions. The self-assessment form also enables schools to examine whether handwashing practices differ between boys and girls or by age group. In many countries, girls are more likely to report always washing their hands with soap, particularly in Northern Africa and Western Asia (Figure 50). For example, in Yemen girls (52%) were almost twice as likely to report always washing their hands with soap than boys (32%).

### In Northern Africa and Western Asia, girls are more likely to report always washing their hands with soap



**FIGURE 50**

Proportion of girls and boys reporting always washing their hands with soap, 2010-17 (%)  
**Source:** Global School-based Health Surveys, World Health Organization (2010-17)

## REDUCING INEQUALITIES IN WASH IN SCHOOLS

The 2030 Agenda not only seeks to achieve universal access to WASH services in schools but also aims to reduce inequalities between and within countries and to leave no one behind. National governments are expected to establish mechanisms to identify the most relevant dimensions of inequality and monitor the situation of disadvantaged groups. Ongoing efforts to upgrade WASH services in schools in response to COVID-19 need to target those countries and populations with the greatest needs.

The most disadvantaged group of all are the 256 million children around the world who were estimated to still be out of school at the end of 2019. Over 190 countries have subsequently closed schools in response to COVID-19, affecting 90% of students worldwide (1.6 billion). Prolonged closures

threaten to reverse recent gains in enrollment, retention and graduation, with life-altering consequences for millions of children worldwide<sup>14</sup>.

The WHO/UNICEF JMP global database enables analysis of several different dimensions of inequality in access to WASH in schools. This section highlights examples of inequalities between and within countries, including by income, school level, residence and sub-national region, and school type, including schools for disadvantaged groups. It also underlines the challenge of expanding coverage of WASH in schools in order to provide for a growing school-age population.

<sup>14</sup> Progress towards the Sustainable Development Goals, Report of the Secretary General, High Level Political Forum on Sustainable Development, United Nations Economic and Social Council, July 2020 <[https://sustainabledevelopment.un.org/content/documents/26158Final\\_SG\\_SDG\\_Progress\\_Report\\_14052020.pdf](https://sustainabledevelopment.un.org/content/documents/26158Final_SG_SDG_Progress_Report_14052020.pdf)>.



## Lower-middle-income countries have achieved the biggest gains in basic WASH coverage since 2015

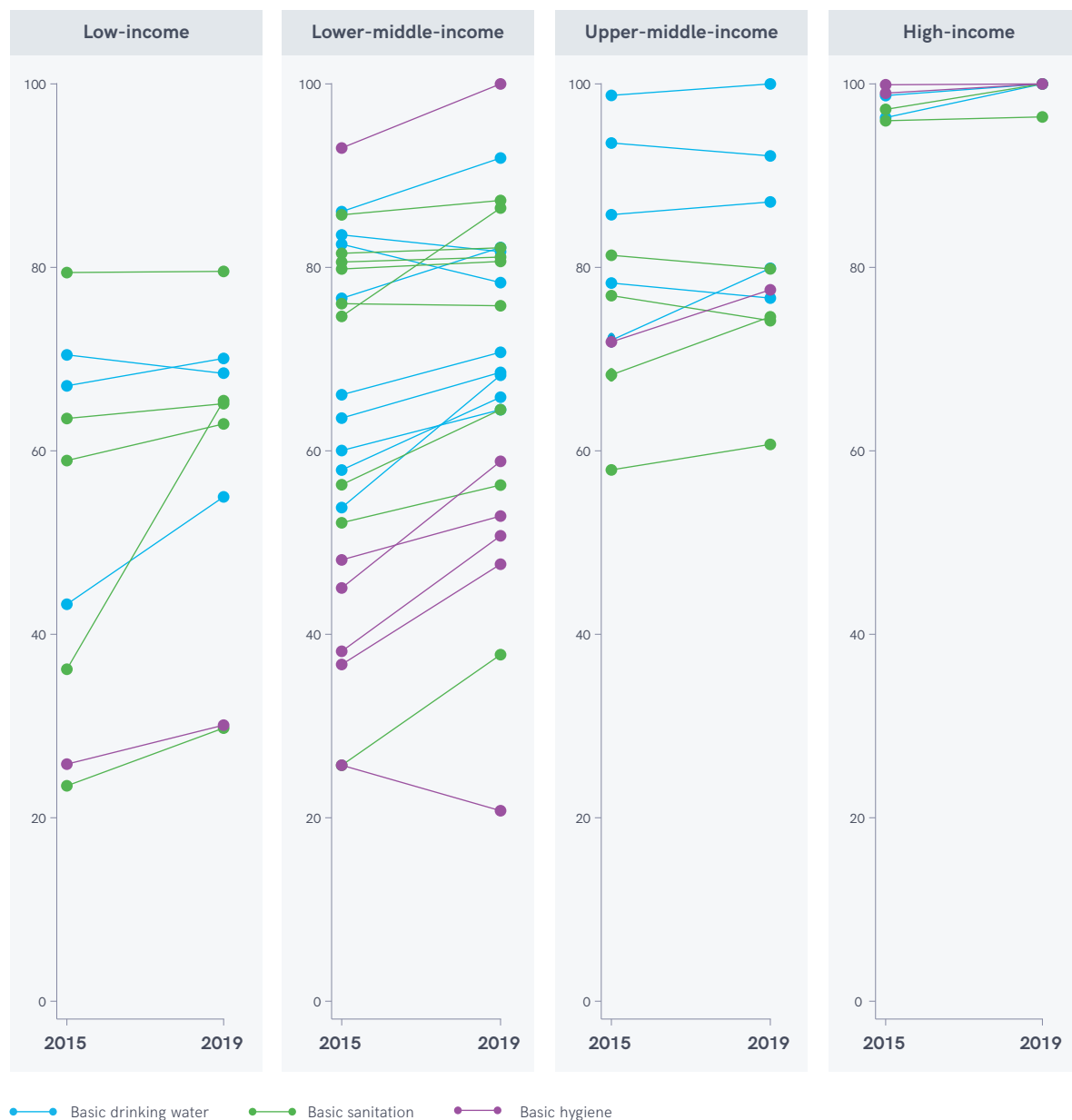


Figure 51 shows low-, lower-middle-, upper-middle- and high-income countries with data on recent trends in basic WASH in schools coverage between 2015 and 2019. As expected, coverage is generally higher in high- and upper-middle-income than in lower-middle- and low-income countries. Coverage of drinking water and sanitation is also generally higher than coverage of hygiene in schools. The figure shows that the biggest increases over this period have mostly been among lower-middle-income countries.



**FIGURE 51** Trends in basic drinking water, sanitation and hygiene in schools by country and income, 2015-2019 (%)

National data sources increasingly allow disaggregation of data on WASH in schools by urban and rural, sub-national region, and school level. Figure 52 shows how these data can be used to visualize inequalities in WASH in schools, both between and within countries. In 2019, 36% of schools in Nigeria had a basic drinking water service. This is lower than the average for sub-Saharan Africa, which in turn has the lowest coverage among SDG regions (44%). Basic sanitation coverage in schools in Bangladesh (56%) was similarly below the average for Central and Southern Asia (64%), while the Syrian Arab Republic (21%) was far below the regional average for basic hygiene services in schools in Northern Africa and Western Asia (80%).

But sub-national coverage also varied widely in all three countries. Urban schools had somewhat higher coverage than rural schools in Nigeria but there was almost no difference in Bangladesh. Urban/rural data weren't available from the Syrian Arab Republic. In all three countries, variation was substantial among different administrative areas. Coverage of basic drinking water in schools varied widely between the 36 states in Nigeria, ranging from 83% in Jigawa to 0% in Kaduna. Among the eight administrative divisions of Bangladesh basic sanitation coverage in schools ranged from 69% in Sylhet to 30% in Barisal. In the Syrian Arab Republic there was a 48 percentage point gap in coverage of basic hygiene in schools between the governorates of As-Suwayda and Al-Hasakah and Raqqa and Deir ez-Zor, which was among those worst affected by the ongoing conflict. In Nigeria and Bangladesh basic service coverage was significantly higher in secondary schools than primary schools, while in the Syrian Arab Republic there was almost no difference between primary (22%) and secondary (23%) but pre-primary coverage was significantly lower (9%).

Disaggregated data reveal significant inequalities in WASH in schools between and within countries



FIGURE 52 Inequalities in basic WASH in schools in Nigeria, Bangladesh and Syrian Arab Republic, 2018 (%)



## Inequalities between school levels

In 2019, 130 countries had estimates for basic WASH in primary schools and 117 countries had estimates for secondary schools, but only 16 countries had estimates for pre-primary schools. For the first time, there were sufficient data available to generate disaggregated regional and global estimates for coverage of basic WASH services in primary and secondary schools (Figure 53).

In 2019, secondary schools had higher coverage than primary schools globally and the same or higher coverage in all SDG regions. Globally 74% had basic water services, 71% had basic sanitation services and 58% had basic hygiene services, compared with 66%, 60% and 57% of primary schools respectively. Regional coverage varied widely and disparities between primary and secondary were generally greater for water and sanitation than for hygiene. The largest disparities in basic water and sanitation coverage were observed in Oceania (17 percentage points and 22 points) and in Central and Southern Asia (13 points and 10 points), while the biggest gaps in hygiene coverage were observed in Northern Africa and Western Asia and in Latin America and the Caribbean (12 points and 11 points).

Further analysis of national data highlights inequalities in services between school levels across countries. In most countries with disaggregated data available, secondary schools were more likely to have single-sex toilets than primary schools (Figure 54). In Ethiopia, for example, single-sex toilets were available in 64% of secondary schools but just 41% of primary schools. Secondary school toilets were also more likely to be usable, except for in the Syrian Arab Republic and Bangladesh. The biggest disparity in usability was in Cambodia, where 89% of secondary schools had usable toilets, compared with 71% of primary schools.

## Secondary schools had the same or higher coverage of basic WASH services in all SDG regions in 2019

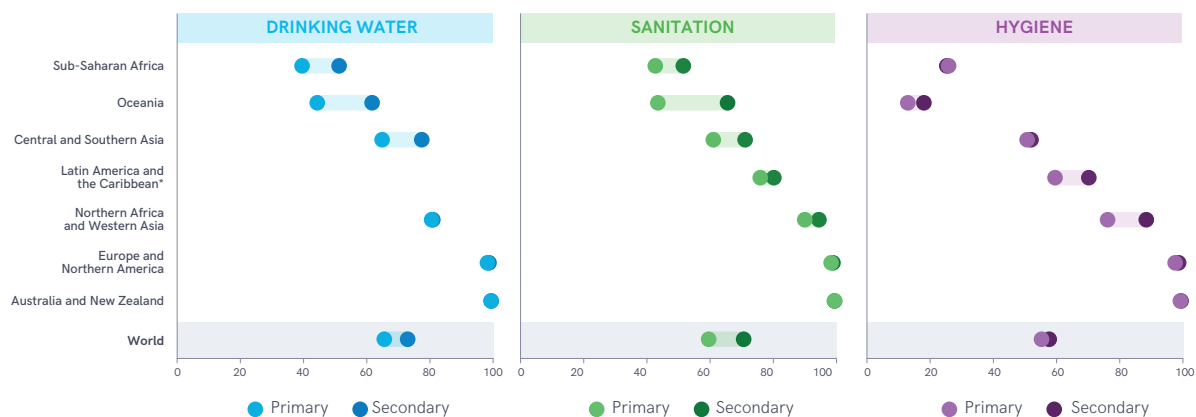


FIGURE 53 Proportion of primary and secondary schools with basic WASH services, SDG region and world, 2019 (%)

\*Insufficient data to produce basic water estimates for Latin America and the Caribbean

## Secondary schools are more likely to have single-sex and usable toilets than primary schools

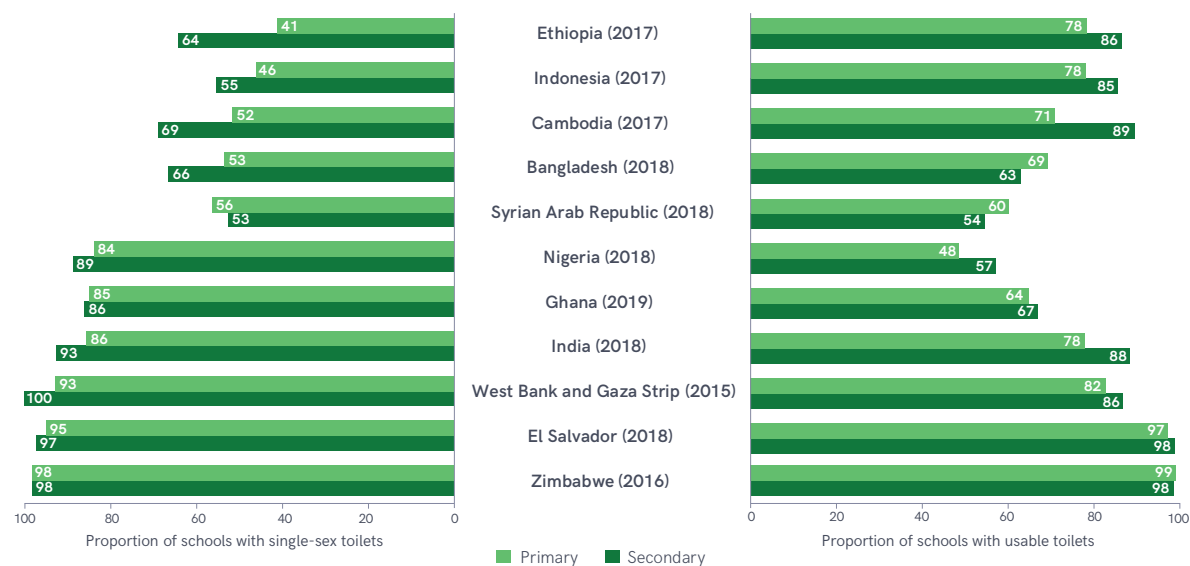


FIGURE 54 Proportion of primary and secondary schools with single-sex and usable toilets, selected countries, 2015-18 (%)

### Student toilet ratios often vary significantly between pre-primary, primary and secondary schools

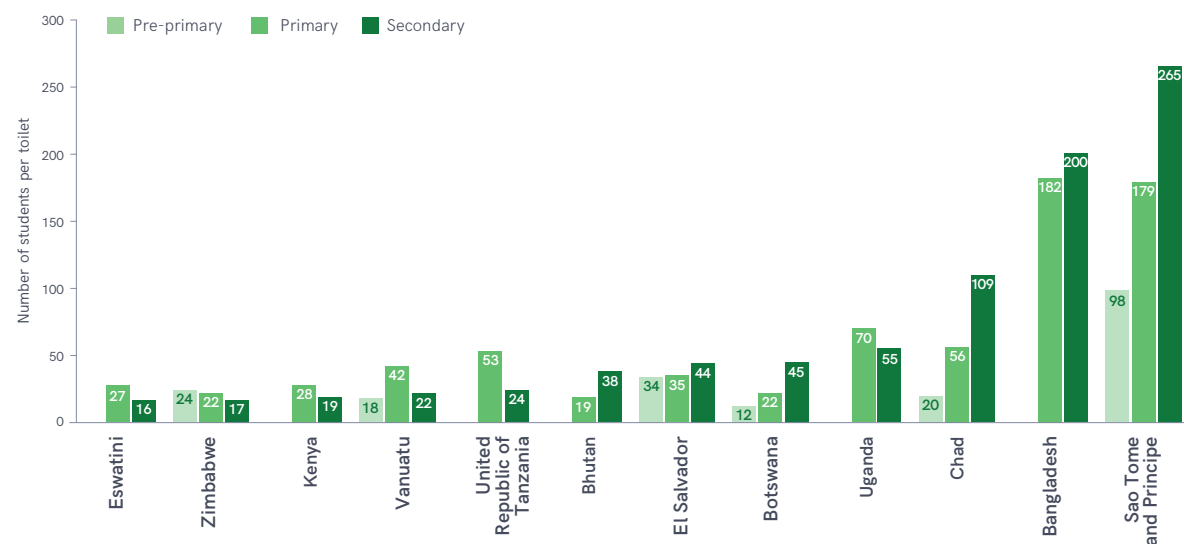


FIGURE 55 Number of students per toilet by school level, selected countries, 2014-18 (%)

The number of students per toilet also varied widely between school levels. Among countries with disaggregated data available, toilet ratios were often lower in pre-primary schools than in primary and secondary schools, but there were no consistent trends regarding which type of school had higher ratios. There was also considerable variation in the absolute number of students per toilet in both primary schools and secondary schools. In primary schools, Bangladesh had 10 times as many students per toilet as Bhutan, while in secondary schools, Sao Tome and Principe had 16 times as many students per toilet as Eswatini (Figure 55).

There are also significant disparities in basic water coverage among countries with estimates for all three school levels (Figure 56). For example, in Papua New Guinea, just one in three pre-primary schools (34%) had basic water services, compared with nearly half of primary schools (46%) and two out of three secondary schools (65%). In Romania coverage was much higher in secondary (85%) than in pre-primary (67%) and primary (64%), whereas in Sri Lanka and Cambodia coverage in pre-primary schools was more than 20 percentage points lower than in primary and secondary schools. The differences in coverage between school levels are much smaller in Lebanon, Indonesia and Peru.

### In some countries, coverage of basic water services varies widely between school levels

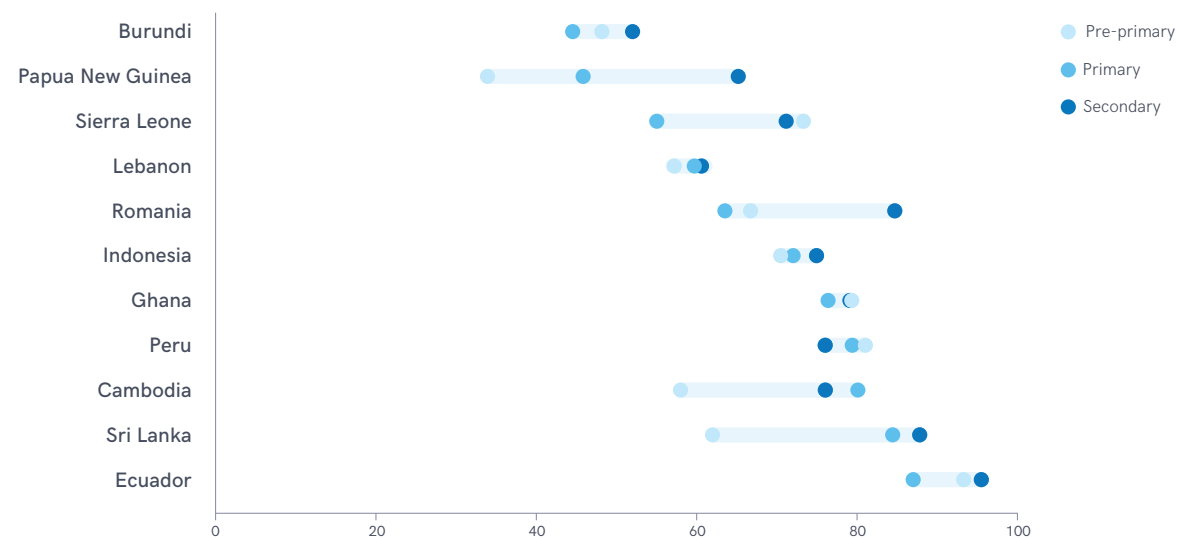


FIGURE 56 Proportion of pre-primary, primary and secondary schools with basic water services, selected countries, 2019 (%)



## Inequalities between urban, rural and sub-national regions

National data on WASH in schools is less frequently disaggregated by urban and rural areas and by sub-national region. In 2019, 31 countries had estimates for basic WASH in rural schools and 30 had estimates for basic WASH in urban schools. Insufficient data were available to generate global estimates for urban schools, but it was estimated that in rural areas 61% of schools had a basic water service, 44% had a basic sanitation service and just 34% had a basic hygiene service.

Central and Southern Asia and sub-Saharan Africa were the only SDG regions with urban and rural estimates for basic WASH services (Figure 57).

The biggest disparities were in sub-Saharan Africa where urban coverage was 9 percentage points higher for basic water, 19 points higher for basic sanitation and 38 points higher for basic hygiene. In rural sub-Saharan Africa, only one in nine schools (11%) had a basic hygiene service. Oceania only had urban and rural estimates for hygiene, revealing equally low coverage of 8% in urban and 6% in rural schools. Latin America and the Caribbean had the highest coverage of basic hygiene in urban schools (61%) but lacked sufficient data to estimate basic hygiene coverage in rural schools in 2019.

### In Central and Southern Asia and sub-Saharan Africa, urban schools had higher coverage of basic WASH services in 2019

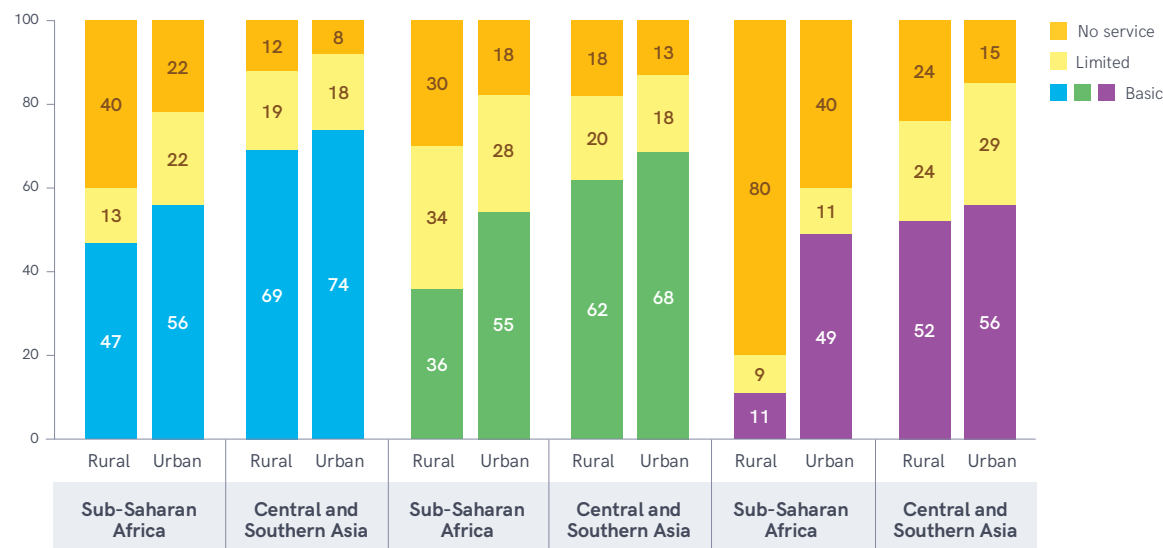


FIGURE 57 Urban and rural WASH in schools coverage by SDG region with urban and rural estimates, 2019 (%)





In many countries with disaggregated data, coverage of basic hygiene services is significantly higher among schools in urban areas (Figure 58). For example, in Uganda just 1 in 10 rural schools (12%) had a basic hygiene service, compared with half of urban schools (52%). In Mali, two out of five rural schools (38%) and three quarters of urban schools (74%) had a basic service. In a few countries, such as Brazil and Bangladesh, there was little difference in urban and rural coverage. The only country with significantly lower urban coverage was the West Bank and Gaza Strip where 24% of rural schools and 11% of urban schools had a basic hygiene service in 2019.

Regular cleaning and disinfection are critical for preventing and controlling COVID-19 in schools. The Bangladesh National Hygiene Survey in 2018 not only collected information on WASH in schools in rural and urban areas but also reported separately on schools in peri-urban/slum areas. Figure 59 shows schools in rural areas were less likely to have clean classrooms and clean premises than those in peri-urban/slum areas and urban areas (excluding slums). While half of schools in urban and peri-urban/slum areas had clean premises, only a third of schools in peri-urban/slum areas had clean classrooms, compared with two out of five schools in urban areas as a whole.



### Urban schools have significantly higher coverage of basic hygiene services in many countries

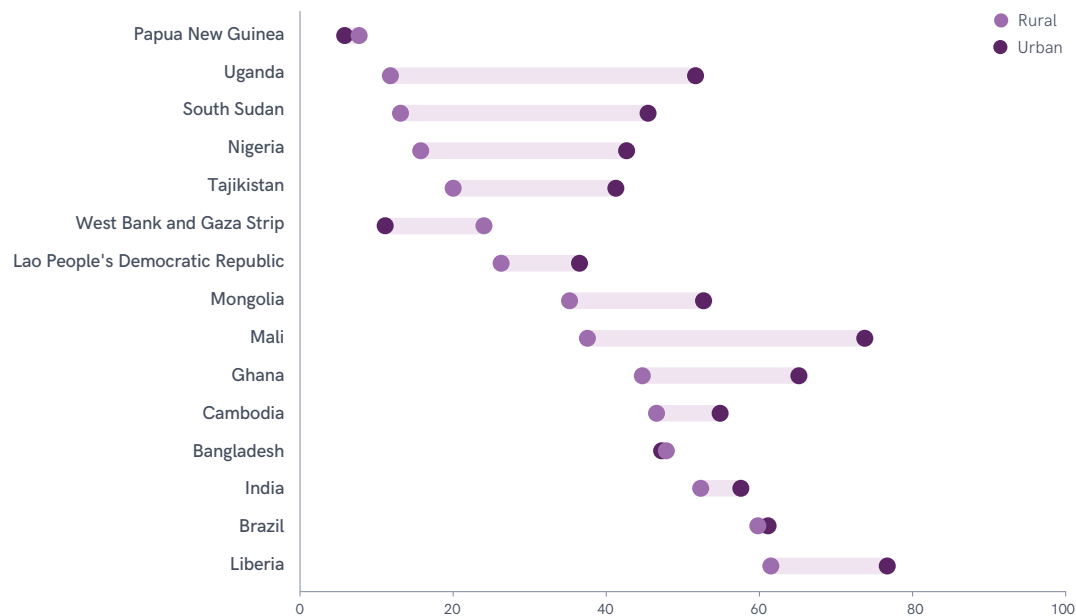


FIGURE 58 Proportion of urban and rural schools with a basic hygiene service, selected countries, 2019 (%)

### In Bangladesh, urban and peri-urban/slum schools were cleaner than rural schools in 2018

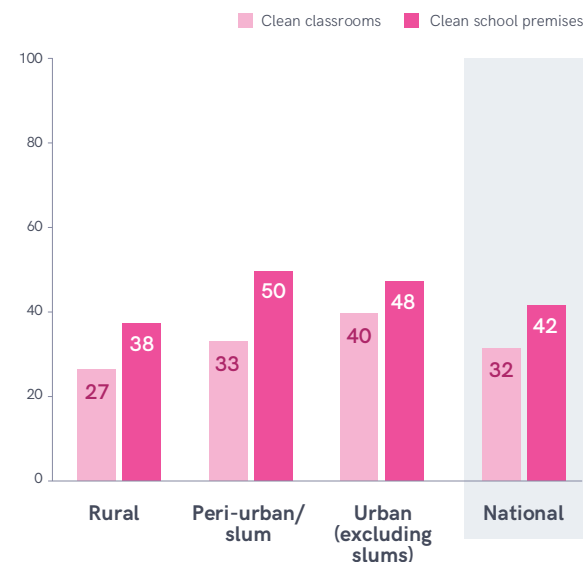


FIGURE 59 Proportion of rural and urban schools with clean classrooms and clean premises, Bangladesh, 2018 (%)



Many national data sources also allow disaggregation of data on WASH in schools by sub-national region. The type and number of political and administrative regions varies widely across countries but there are often significant geographic inequalities in service levels. For example, the Ministry of Education in Tunisia recently assessed water quality in primary schools and found that while 87% had piped water, only 55% of these met the national standard for residual chlorine (>2 mg/L). It also revealed wide variation between governorates, ranging from 14% compliance in Kassérine to 95% in Ben Arous (Figure 60).

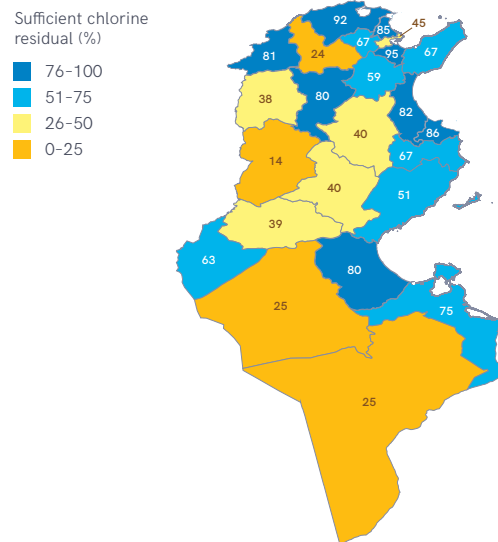
### Inequalities between different school types

There are also often disparities in access to WASH services between different types of school. Categories vary, but many countries produce disaggregated estimates for public and private schools, and some countries also report separately on other types, including religious schools, community schools and schools for disadvantaged groups, including indigenous groups, ethnic minorities and refugees.

A recent evaluation of pre-schools in Mexico showed community schools and indigenous schools

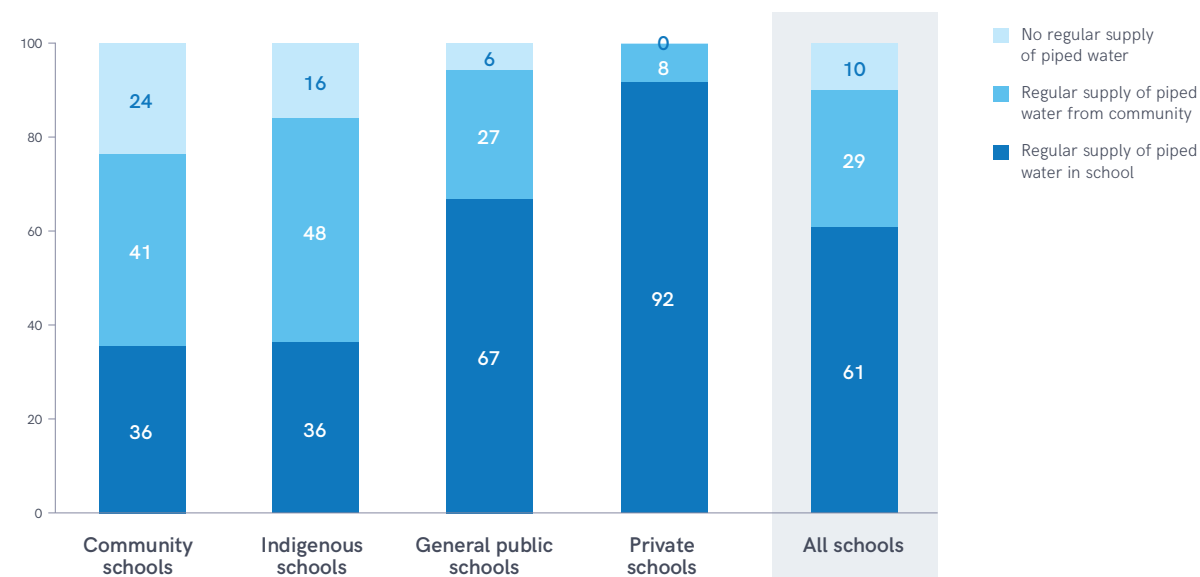
were less likely to have a regular supply of piped water in school (36%) than public schools (67%) and private schools (92%) (Figure 61). 41% of community schools and 48% of indigenous schools relied on piped supplies from the community. The same survey showed indigenous pre-schools with multi-grade classes (21%) were twice as likely to have no regular supply of piped water than indigenous schools with single-grade classes (10%). This illustrates the challenge of extending WASH services to small schools serving disadvantaged populations.

#### In Tunisia, chlorine residual in piped water in primary schools varies widely between governorates



**FIGURE 60** Proportion of primary schools with sufficient chlorine residual (>2 mg/L) in piped water in Tunisia, 2015 (%)  
**Source:** Evaluation de l'état d'hygiène et de l'environnement des écoles primaires en Tunisie, Ministère de la Santé (2015)

#### In Mexico, 2 out of 3 community and indigenous pre-primary schools lacked a regular supply of piped water in 2017



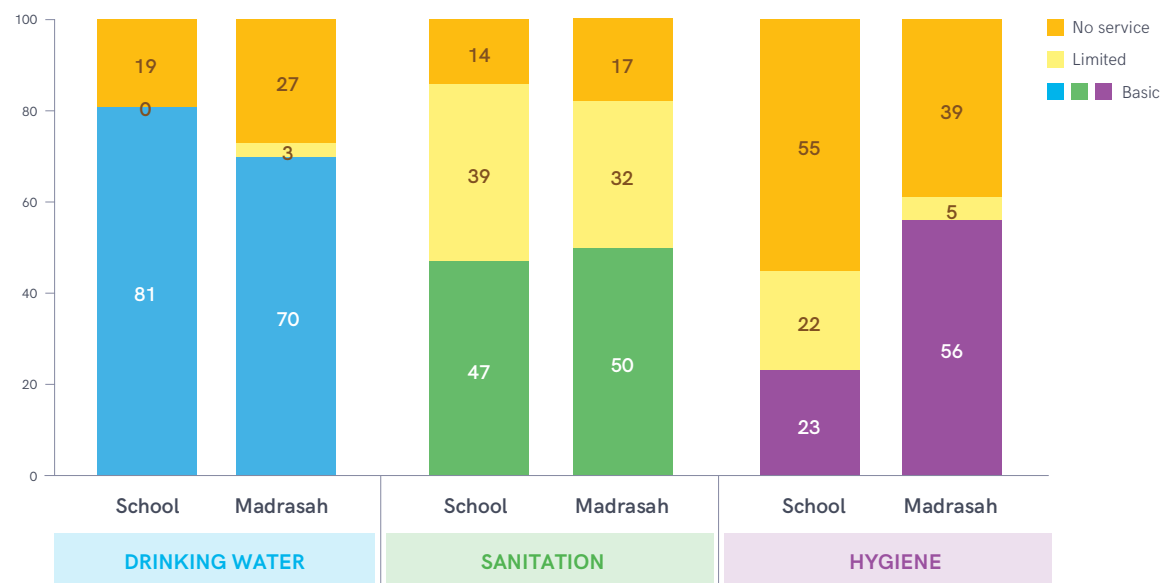
**FIGURE 61** Proportion of pre-primary schools with regular supply of piped water by school type, Mexico, 2017 (%)  
**Source:** Evaluación de condiciones básicas para la enseñanza y el aprendizaje en educación preescolar, Instituto Nacional para la Evaluación de la Educación, Mexico (2017)

There are more than 300,000 schools in Indonesia, including around 80,000 religious schools (madrasahs). The Ministry of Education and Culture is responsible for reporting on public and private schools and the Ministry of Religious Affairs is responsible for reporting on madrasahs. These data were recently combined to enable more comprehensive national reporting on WASH in schools in Indonesia. Figure 62 shows that while madrasahs had lower drinking water coverage and similar sanitation coverage compared with other schools, they were twice as likely to have handwashing facilities with soap and water available in 2019.

The Ministry of Education in Djibouti collects information on WASH services in all primary schools and reports separately on a much smaller number of Informal Learning Centres (n=5), which host children with disabilities and undocumented, refugee and migrant children, and schools in refugee camps (n=3). In 2019, the average ratio of girls per toilet in primary schools was 51 and lower in private schools (36) than in public schools (55). While the ratio in Informal Learning Centres was much lower (25), the ratio in refugee camps was approximately three times higher (150), illustrating the challenges associated with providing safe learning environments for refugee children (Figure 63).

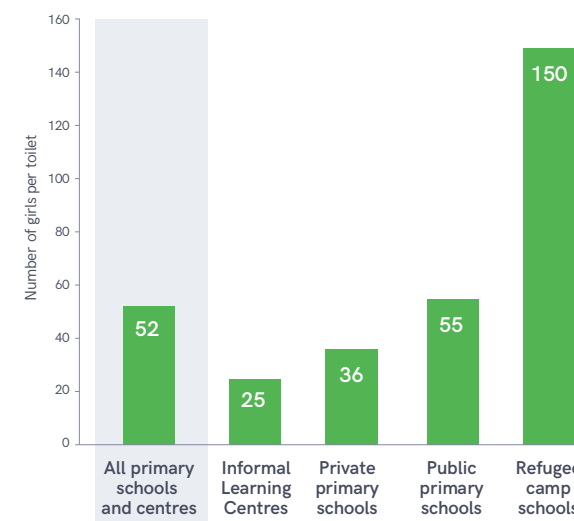


### In Indonesia, religious schools were twice as likely to have a basic hygiene service in 2019



**FIGURE 62** Coverage of basic drinking water, sanitation and hygiene services in schools and madrasahs in Indonesia, 2019 (%)  
Source: School and madrasah censuses, Ministry of Education and Culture and Ministry of Religious Affairs (2019-20)

### In Djibouti, the ratio of female students to toilets is highest in primary schools in refugee camps



**FIGURE 63** Number of girls per toilet in primary schools, by type of school, Djibouti (2019)  
Source: Annuaire Statistique 2018-2019, Ministère de L'Éducation, Djibouti

Progress on basic WASH services is not keeping up with school-age population growth in all regions



**FIGURE 64** Annual rate of change in total school-age population and in school-age population with basic WASH services by SDG region, 2015-19 (% pts/yr)  
 Note: Insufficient data were available to estimate trends in basic drinking water services in Latin America and the Caribbean and basic WASH services in Eastern and South-Eastern Asia

When assessing progress on WASH in schools, it is important to consider changes in the school-age population. Figure 64 compares annual rates of change in the school-age population with rates of change in the school-age population with access to basic WASH services between 2015 and 2019. Over this period, the school-age population has increased in all regions except for Latin America and the Caribbean. The fastest growing regions were Oceania and sub-Saharan Africa, where school-age populations increased by 2.8 and 2.7 percentage points per year (% pts/yr) respectively. In sub-Saharan Africa the population with access to basic sanitation and hygiene services has grown much faster (5 and 3.9% pts/yr respectively), while access to basic water services has kept pace with population

growth (2.9% pts/yr). In Oceania the population with access to basic water and sanitation services in schools has almost kept pace with population growth (2.6 and 2.7% pts/yr), but improvements in access to basic hygiene services have been significantly slower (2.0% pts/yr).

Since 2015, Northern Africa and Western Asia have achieved the fastest rate of growth in the school-age population with access to basic drinking water (4.3% pts/yr) and access to basic hygiene services (4.8% pts/yr). While the school-age population with access to basic hygiene services has increased at a faster rate in sub-Saharan Africa (3.9% pts/yr) than Central and Southern Asia (2.9% pts/yr), the school-age population in the latter is 1.5 times bigger, which means twice as many children gained access in Central and Southern Asia (30 million) as in sub-Saharan Africa (14 million).

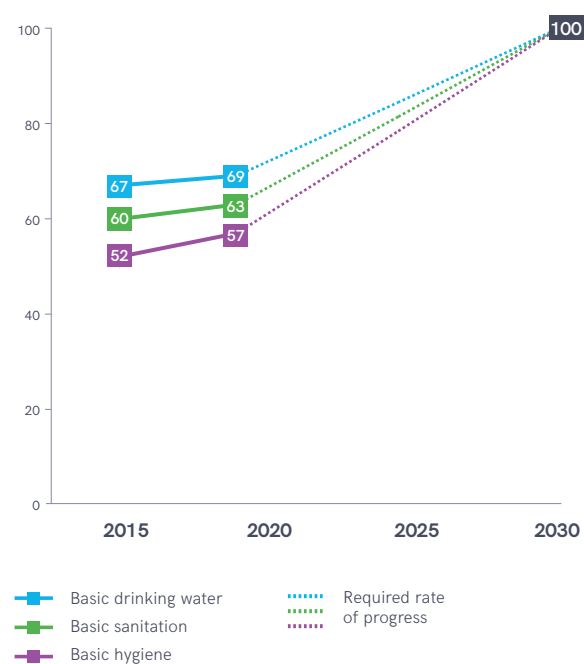


# PROVIDING SAFE AND INCLUSIVE FACILITIES FOR ALL

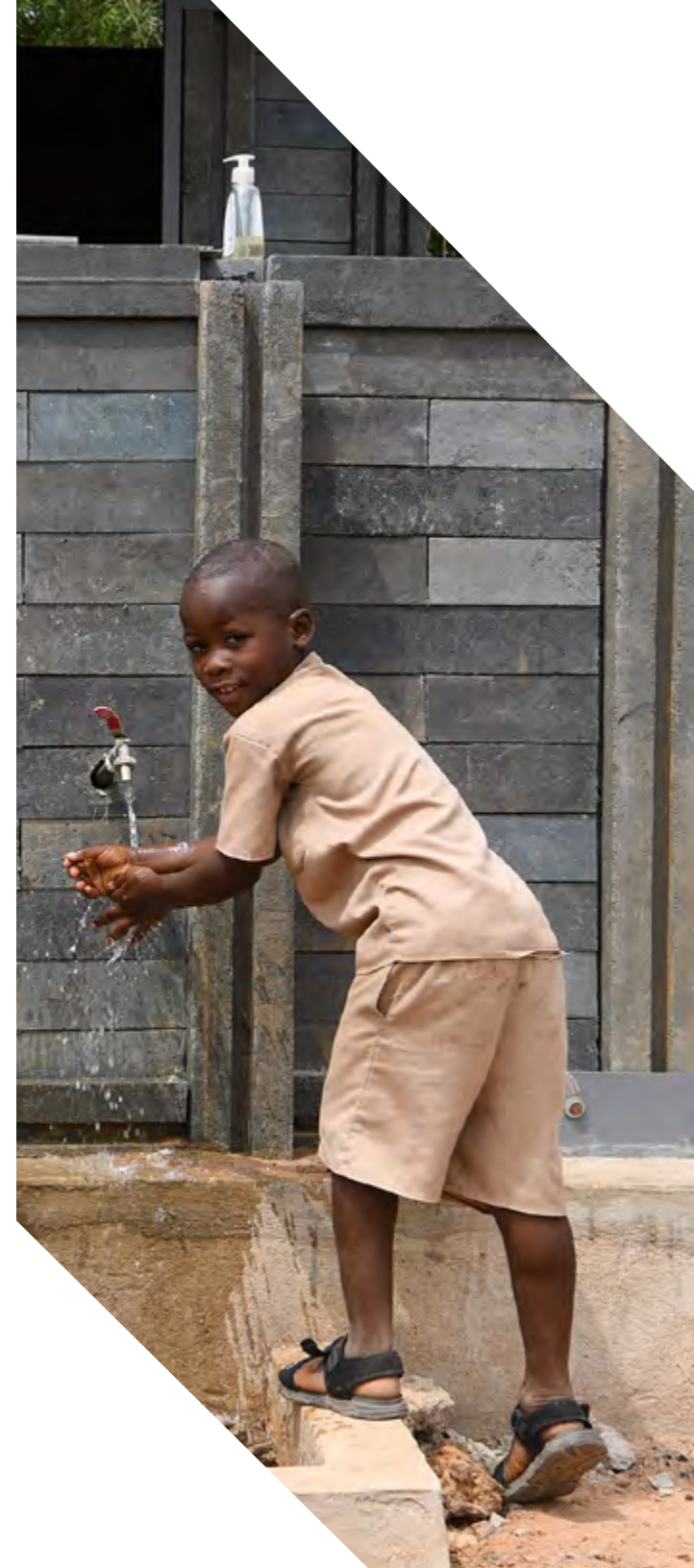
The 2030 Agenda includes global targets 6.1 and 6.2 that aim for 'universal' and 'equitable' access to safe drinking water, sanitation and hygiene 'for all', while 'paying special attention to the needs of women and girls and those in vulnerable situations'. 'Universal access' implies all schools and 'for all' implies providing inclusive WASH services that are accessible to all students. This section highlights the acceleration required to achieve universal access to basic WASH in schools by 2030, and the challenges associated with providing inclusive WASH services for students with disabilities and students who menstruate.

Preliminary estimates of global trends presented in this report suggest the current rates of progress will not be sufficient to achieve universal access (>99%) to basic WASH services in schools by 2030. Between 2015 and 2019, global coverage of basic WASH has increased by 0.4 percentage points, 0.7 points and 1 point per year respectively. Achieving universal access by 2030 would require a seven-fold increase in the current rate of progress on drinking water, a five-fold increase in the rate of progress on sanitation, and a four-fold increase in the rate of progress on hygiene (Figure 65).

**Achieving universal access to basic WASH in schools requires accelerating the current rates of progress**



**FIGURE 65** Proportion of schools with basic WASH services, in 2015 and 2019 (%)



## Providing inclusive WASH services for all students

In addition to providing all schools with access to WASH services, governments need to ensure WASH services are accessible for all students, including young children and those with disabilities, and address the specific needs of women and girls. This section highlights emerging national data on the availability of inclusive WASH services for all students.

Many countries monitor the availability of toilets that are accessible for students with disabilities, but

definitions of accessibility vary widely, making cross-country comparison difficult. Available national data nevertheless show that while most schools have some kind of toilet, far fewer have toilets accessible to students with disabilities (Figure 66). A recent survey in the West Bank and Gaza Strip found 63% of schools had toilets 'adapted to the needs of children with disabilities'. But while half of these were found to have proper slopes for students with motor/physical disabilities, most were not adapted

for other types, such as visual, hearing, speech or mental disabilities. In India 29% of schools had toilets classed as 'accessible to children with special needs' but only 14% had both a ramp and handrail and just 6% also had a wide door for wheelchair entry and support structure inside the toilet. While all schools in Tajikistan had toilets, just 11% of urban schools and 2% of rural schools met the more stringent criteria of having a separate toilet dedicated for students with disabilities.

### Many schools lack toilets accessible to students with disabilities

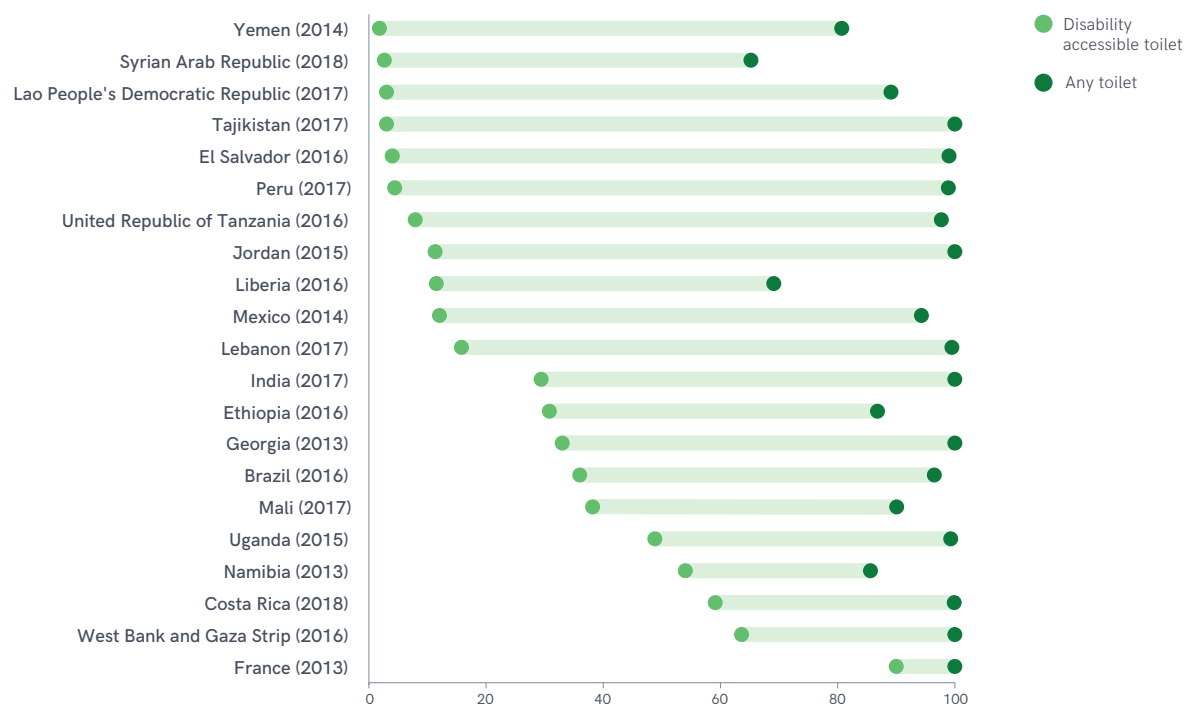
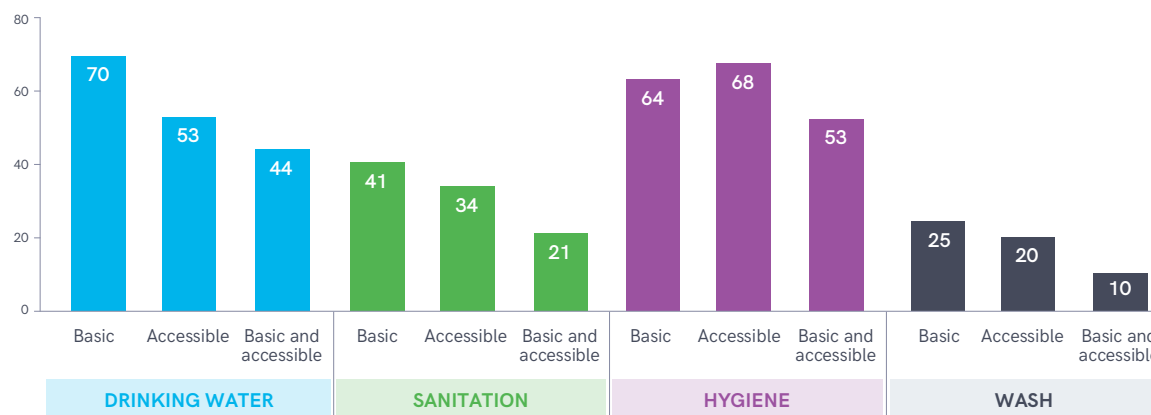


FIGURE 66 Proportion of schools with any toilet and with disability accessible toilets, selected countries, 2013-18 (%)



Mali is one of the few countries that collects information on the accessibility of water sources, toilets and handwashing facilities for those with 'reduced mobility or vision'. A recent survey found that while 70% of primary schools had a basic water service, just 53% had accessible water sources and only 44% met the criteria for both basic services and accessibility. While 41% of primary schools had a basic sanitation service, just 34% had accessible toilets and only 21% had both. The proportion of primary schools with WASH services meeting both sets of criteria was lower still. While 1 in 4 primary schools had basic WASH services, only 1 in 5 had accessible WASH services and just 1 in 10 had basic and accessible WASH (Figure 67).

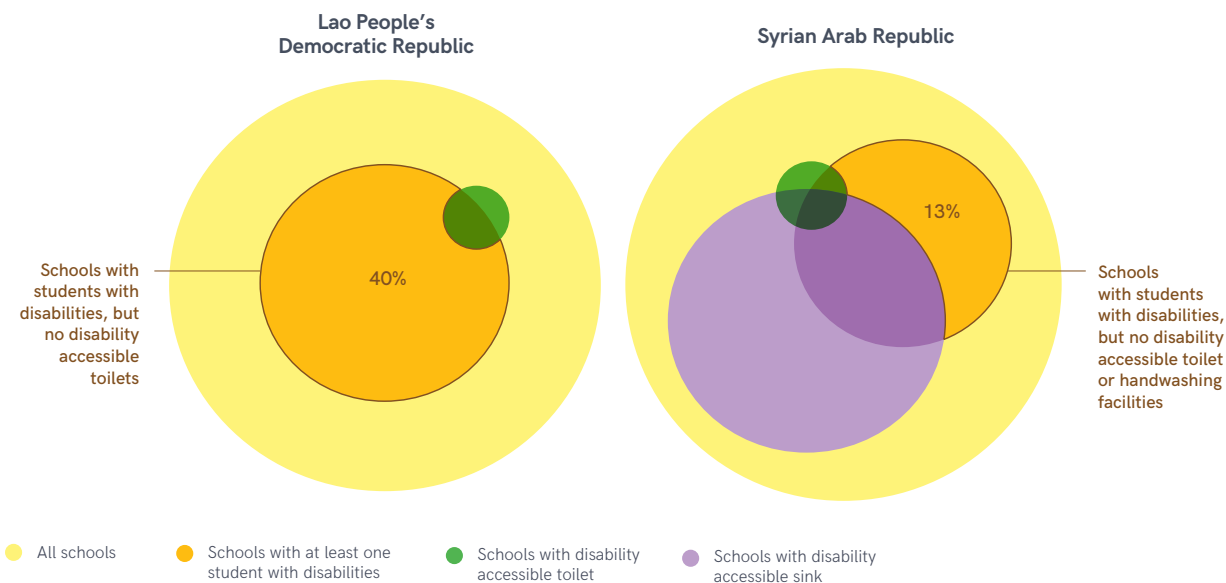
**In Mali, just 1 in 10 primary schools had basic and accessible WASH services in 2017**



**FIGURE 67** Proportion of public and community primary schools with basic and accessible WASH services, Mali, 2017 (%)

Some countries not only have information on the proportion of schools with disability accessible WASH facilities but also the number of students with disabilities. For example, in the Lao People's Democratic Republic, just 3% of schools had at least one disability accessible toilet even though 40% of schools had students with disabilities. In the Syrian Arab Republic, 41% of schools had disability accessible sinks but just 2% had accessible toilets and 1% had both. Among the 25% of schools with at least one student with disabilities, only half (13%) had disability accessible sinks and only 4% had both accessible sinks and toilets (Figure 68).

**In Lao People's Democratic Republic and the Syrian Arab Republic, many schools had students with disabilities but very few had accessible facilities in 2017**



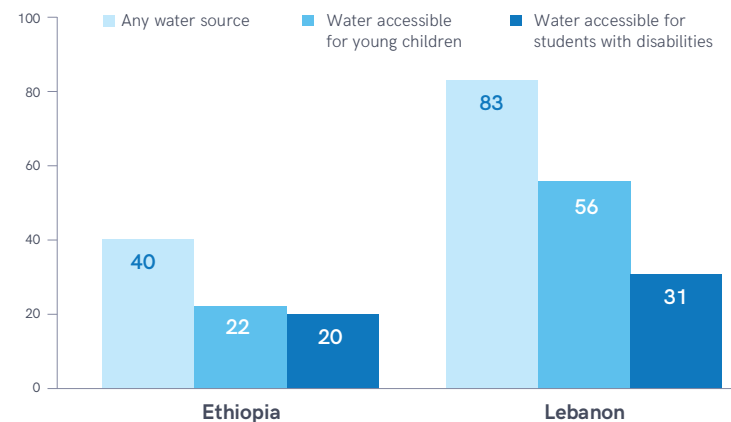
**FIGURE 68** Proportion of schools with disabled students and with accessible toilets and sinks in Lao People's Democratic Republic and Syrian Arab Republic (%)



In addition to being accessible for students with disabilities, WASH facilities in pre-primary and primary schools also need to be accessible for young children. For example, a recent survey of primary schools in Ethiopia showed that while 40% had a water source, only half as many had water sources accessible for young children and students with disabilities. A similar survey in Lebanon found that while four out of five pre-primary and primary schools had water sources, only half were accessible for young children and just one in three were accessible for students with disabilities (Figure 69).

**In Ethiopia and Lebanon, many pre-primary and primary schools have water sources that are not accessible for young children and students with disabilities**

**FIGURE 69**  
Proportion of pre-primary and primary schools with water sources accessible for young children and students with disabilities in Ethiopia and Lebanon (%)  
**Source:** Education statistics annual abstract 2009 E.C. (2016/17), Ministry of Education Ethiopia. Lebanon institutional WASH census, UNICEF and WHO (2016)



**Inclusive WASH services are necessary but not sufficient to support menstrual experiences in school**

Access to basic WASH services in schools is especially important for enabling students and staff who menstruate to manage their periods safely and with dignity. But programmes designed to improve menstrual experiences in schools need to consider a wider range of issues, including social support, knowledge and skills, facilities and services, and materials<sup>15</sup>. A recent review<sup>16</sup> found a growing number of countries are developing systems for monitoring menstrual health and hygiene (MHH) but relatively few go beyond WASH and the indicators used vary widely. While existing tools are not comprehensive, emerging indicators provide a starting point for more holistic monitoring of menstrual experiences in school, including but not limited to WASH services.

Adolescent girls often report missing school due to their period. For example, Performance Monitoring for Action (PMA) surveys of girls aged 15 to 24 in West Africa show that one in four girls in Nigeria, one in five in Côte d'Ivoire and one in seven in Burkina Faso missed school due to menstruation in the last 12 months (Figure 70). When in school, students and teachers may struggle to manage menstruation if school toilets lack the necessary facilities to enable them to wash and change when needed. For example, a recent survey in Nigeria showed 41% of urban schools and just 14% of rural schools had water and soap available in the girls' toilet compartments (Figure 71). Even fewer schools had covered bins in the toilets and mechanisms for disposing of menstrual materials, but urban schools were twice as likely to have these facilities than rural schools.

<sup>15</sup> United Nations Children's Fund, *Guidance on Menstrual Health and Hygiene*, UNICEF, New York, 2019 <[www.unicef.org/wash/files/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf](http://www.unicef.org/wash/files/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf)>.

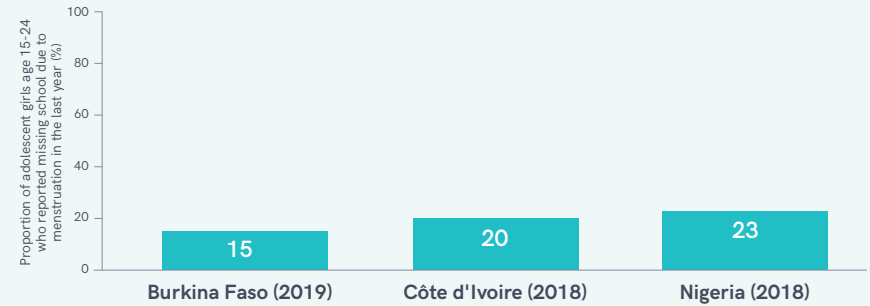
<sup>16</sup> The review was conducted to inform a guidance document developed by UNICEF with inputs from multiple organizations and menstrual health experts: UNICEF, *Guidance for Monitoring Menstrual Health and Hygiene*, UNICEF, New York (forthcoming).

**In West Africa, many adolescent girls reported missing school in the last year due to their period in 2018-19**

**FIGURE 70**

Proportion of adolescent girls (aged 15-24) attending school who reported missing school due to menstruation in the last year, selected countries, 2018-19 (%)

Source: 2020 Performance Monitoring and Accountability Surveys in Burkina Faso, Côte d'Ivoire and Nigeria. Johns Hopkins University



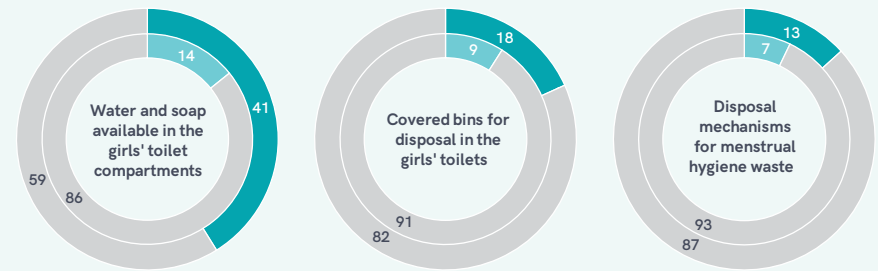
**In Nigeria, urban schools were 3 times more likely than rural schools to have water and soap available in the girls' toilets in 2018**

Urban Rural

**FIGURE 71**

Proportion of urban and rural schools with water and soap and covered bins in girls' toilets and with disposal mechanisms for menstrual materials, Nigeria, 2018 (%)

Source: National Outcome Routine Mapping of Water, Sanitation and Hygiene Service Levels: Nigeria (microdata), Federal Ministry of Water Resources, 2018.

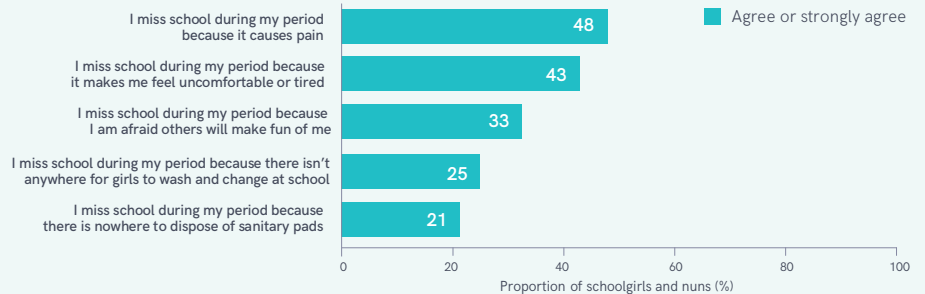


**In Bhutan, adolescent schoolgirls missed school during their periods for a range of different reasons in 2018**

**FIGURE 72**

Proportion of adolescent schoolgirls and nuns reporting missing school during menstruation for various reasons in Bhutan, 2018 (%)

Source: Menstrual Hygiene Management of Adolescent Schoolgirls and Nuns, Ministry of Education and UNICEF (2018)

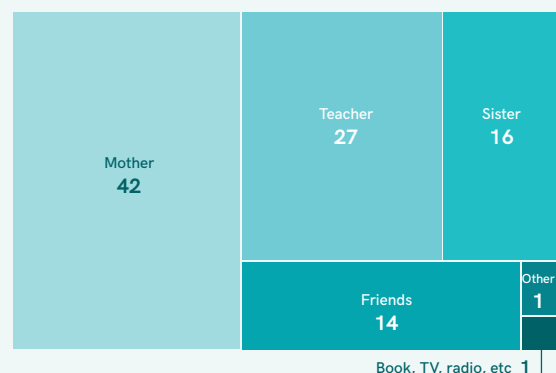


But inadequate WASH facilities are just one of many reasons why students miss school during their periods. For example, in a survey of adolescent schoolgirls and nuns in Bhutan, pain, discomfort, tiredness and fear of being teased were more frequently cited (Figure 72). The same survey also asked about social support, knowledge, attitudes and skills relating to menstruation. It found that while most girls received information from their mothers, a quarter of girls reported that their teachers were their main source of information on menstruation (Figure 73). This illustrates the critical role of education in supporting formative menstrual experiences.

In 2018, the Scottish government made sanitary products available for free in secondary schools, colleges and universities. A 2019 survey by the Young Scot Observatory found a quarter of secondary and post-secondary school students (25%) had struggled to access sanitary products in the previous year, and nearly half of those struggling to access products (43%) could not afford them. Subsequent surveys found 65% of secondary and post-secondary school students reported accessing free products in schools, colleges and universities, with similar levels of uptake across all wealth quintiles. 74% of students accessing free products did so because they did not have the products they needed with them, 14% took them for someone else, and 13% reported not having enough money to buy them (Figure 74).

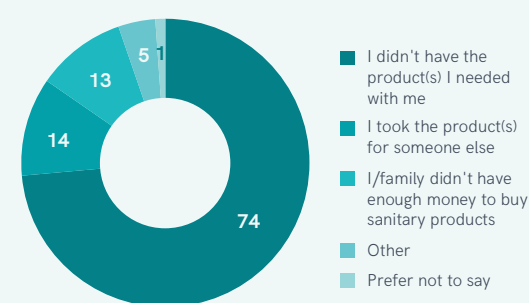
Among those students accessing free sanitary products, 82% reported being able to access their preferred type of product and 85% were able to access enough of the product to meet their needs. The main reason students reported being unable to access free products when needed was lack of availability, but significant numbers also reported difficulties due to awkwardness, embarrassment and stigma associated with accessing free products or an inadequate range of products (Figure 75). This illustrates the wider challenge of eliminating the embarrassment and stigma associated with menstruation and supporting marginalized and vulnerable individuals, including trans students.

### In Bhutan, a quarter of schoolgirls reported that teachers were their main source of information on menstruation in 2018



**FIGURE 73** Proportion of adolescent schoolgirls and nuns by main source of information on menstruation, Bhutan, 2018 (%)  
**Source:** Menstrual Hygiene Management of Adolescent Schoolgirls and Nuns, Ministry of Education and UNICEF (2018)

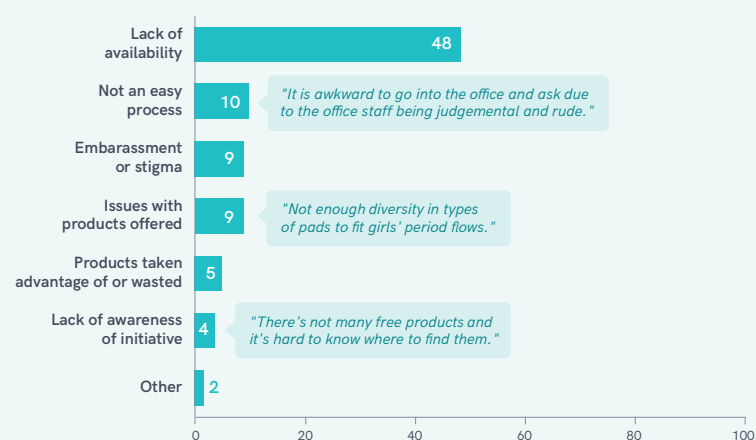
### In Scotland, students reported a variety of reasons for accessing free sanitary products at school, college or university in 2019



**FIGURE 74** Proportion of secondary and post-secondary school students reporting accessing free sanitary products at school, college or university for various reasons, Scotland, 2019 (%)  
**Source:** Access to period products in your school, college or university: survey results, Young Scot Observatory (2019)

### In Scotland, 1 in 10 students agreed or strongly agreed that accessing free sanitary products is not an easy process in 2019

**FIGURE 75** Proportion of students who menstruate that were prevented from accessing free sanitary products when needed, Scotland, 2019 (%)  
**Source:** Access to period products in your school, college or university: survey results, Young Scot Observatory (2019)





## Safe and effective learning environments for all (SDG 4.a)

SDG 4.a aims to 'build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all'. The global indicator proposed for tracking progress (4.a.1) is the 'proportion of schools with access to: a) electricity, b) the internet for pedagogical purposes, c) computers for pedagogical purposes, d) adapted infrastructure and materials for students with disabilities, e) basic drinking water, f) single-sex basic sanitation facilities, and g) basic handwashing facilities (as per the WASH indicator definitions)'.

The COVID-19 pandemic has further underlined the importance of providing safe and effective learning environments and has led to renewed calls

to accelerate the upgrading of school infrastructure so schools can reopen and operate safely. National governments are expected to set targets to progressively upgrade education facilities and establish systems to monitor progress towards creating safe and effective learning environments for all. This represents a huge challenge in many parts of the world and many countries do not yet routinely monitor all the aspects of school infrastructure specified in SDG 4.a.1. Furthermore, currently available data suggest that while many schools already meet some of these criteria, relatively few schools meet all of them.

Figure 76 shows that among countries with national estimates available from the same survey for

WASH services in schools, there were often big differences between the proportion of schools with access to one of these services and the proportion with access to all three (WASH). In 2018, two thirds of schools in India had a basic water service, and over half had a basic sanitation service and a basic hygiene service, but only one in three schools had basic WASH. In the same year, half of schools in the Syrian Arab Republic had a basic water and basic sanitation service but just one in five had a basic hygiene service and just one in seven had all three. While over half of schools in Nicaragua had a basic water service and 2 in 5 had a basic hygiene service, just over 1 in 10 had a basic sanitation service and only 1 in 100 had basic WASH in 2017.

### Far fewer schools met the criteria for all three basic WASH services between 2017 and 2020

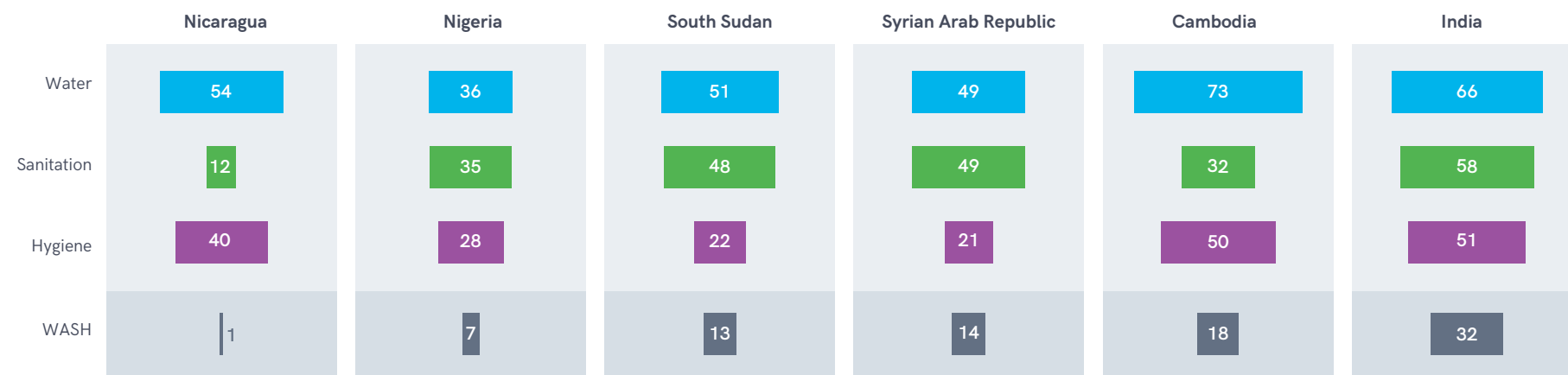


FIGURE 76 Proportion of schools with basic drinking water, sanitation, hygiene and all three (WASH), selected countries, 2017-20 (%)

Upgrading all the aspects of school infrastructure required for a safe and inclusive learning environment presents an even bigger challenge. Figure 77 combines the updated JMP estimates for access to basic WASH in schools with information compiled by the UNESCO Institute of Statistics on coverage of other elements of school infrastructure addressed in SDG 4.a.1 for 91 low-, lower-middle-, upper-middle- and high-income countries. Only a third of countries (32) had recent estimates for all seven elements of school infrastructure. While

almost all countries had estimates for access to electricity, computers and the internet, only half (45) had estimates for adapted infrastructure and materials for students with disabilities. Four out of five had estimates for basic water (72) and basic hygiene (73) and three quarters had recent estimates for basic sanitation (67).

As expected, access to each element of school infrastructure was generally higher in high- and upper-middle-income countries than in lower-

middle- and low-income countries. Ten high-income countries and two upper-middle-income countries had already achieved universal access (>99%) to all seven elements, but there were still six high-income countries and eight upper-middle-income countries with <50% coverage of adapted infrastructure and materials for students with disabilities. Nearly half of all countries with estimates for this indicator (22 out of 45) had <50% coverage and only two low- and lower-middle-income countries had >50%.

### Only 1 in 3 countries have estimates for all elements of school infrastructure

	Low income				Lower-middle income																			Upper-middle income																					
ELECTRICITY	19	8	74	6	22	43	87	79	41	100	98	100	25	48	52	100	96	27	100	50	100	100	100	100	100	36	94	97	100	100	96	99	88	96	100	100	79	100	100	100	36	100	98	100	54
INTERNET	0	0	30	1	3	4	52	16	8	48	23	16	8	16		41	79	0	91	13	49	58	89	85	6	47	40	100	54	87	62	96	43	59	13	100	39	100	72	84	13	90	97	100	26
COMPUTERS	0	2	75	3	7	18	14	42	31	78	61	15	3	16	10	89	77	1	100	28	96	82	97	74	85	50	65	100	94	100	54	97	81	63	100	100	75	100	72	85	13	66	100	100	22
ADAPTED INFRASTRUCTURE	2		24	5						30	12		5	64		17	1				66	13	46	4	5					28		55	2			22	12			40	100	21			
BASIC WATER			53	55	78	58				80		76	65	67		74	72		42	70			90	81	78	56			100	100			86	100	100	87		100	94		60	97	100	3	
BASIC SANITATION		62	61	46	48	75	91		100	87		62		64		70	65		9	63			93	78		83			100	100			71	100	100	80			94		92	100		27	
BASIC HYGIENE	26		50		49		83		100			52	5	53	100	81	54	100	25	38	74		90	22	55	71			100	100	61		75	100	100			100	96		34	97		36	
	Burkina Faso	Madagascar	Rwanda	Sierra Leone	Angola	Bangladesh	Bhutan	Cabo Verde	Comoros	Egypt	El Salvador	Eswatini	Ghana	Honduras	India	Kyrgyzstan	Morocco	Myanmar	Republic of Moldova	Senegal	Tunisia	Ukraine	Uzbekistan	West Bank and Gaza Strip	Zambia	Albania	Argentina	Armenia	Azerbaijan	Belarus	Brazil	China	Colombia	Costa Rica	Cuba	Dominica	Ecuador	Georgia	Grenada	Jamaica	Jordan	Lebanon	Malaysia	Maldives	Marshall Islands

FIGURE 77 Proportion of primary schools with electricity, internet, computers, adapted infrastructure, basic water, basic sanitation, and basic hygiene in 2019 (%)

Note: Most recent data on electricity, internet, computers and adapted infrastructure from UNESCO Institute of Statistics (2015-20) and data on basic drinking water, sanitation and hygiene services from WHO/UNICEF JMP (2019).



Figure 78 shows how coverage of each element of school infrastructure addressed in SDG 4.a.1 varies among the 32 countries with recent estimates available for all seven elements. For example, Myanmar had over 50% coverage of basic WASH, but only 27% coverage of electricity, and nearly zero (<1%) coverage of computers, internet, and adapted infrastructure. In the Marshall Islands 54% of schools had electricity but coverage for all other elements was below 50% and much lower for basic drinking water (3%).

By contrast, the West Bank and Gaza Strip had universal coverage (>99%) for electricity, over 75% coverage for internet, computers, basic water and basic sanitation, but only 46% of schools had adapted infrastructure and just 22% had a basic hygiene service. Only a quarter of schools in Rwanda had adapted infrastructure and a third had the internet, but over half had access to all other elements. Costa Rica had similarly high coverage of all elements and was approaching universal access to electricity (96%). Latvia had already achieved universal coverage (>99%) for six out of seven elements, but only 18% of schools had adapted infrastructure and materials for students with disabilities.

Further work is required to increase the number of countries with information on all seven elements of school infrastructure that can be used for national and global monitoring of progress towards SDG 4.a.1 and to better inform efforts to upgrade school infrastructure to provide a safe and effective learning environment for all.

### Coverage of individual elements of school infrastructure varies widely



FIGURE 78 Proportion of schools with access to each element of school infrastructure, selected countries with recent data for all elements (%)





## METHODS

Since it was established in 1990, the JMP has been instrumental in developing norms and standards to benchmark and compare progress on WASH across countries and regularly convenes expert groups to provide technical advice on methodological issues. The methodology used to produce estimates for WASH in schools builds on established methods developed by the JMP for monitoring WASH services at the household level.

### JMP classification of facility types and service levels

The JMP classifies drinking water and sanitation technologies into improved and unimproved types. Improved drinking water sources<sup>17</sup> are designed to protect against contamination, while improved sanitation facilities<sup>18</sup> are designed to hygienically separate excreta from human contact. A handwashing facility<sup>19</sup> is a device designed to contain, transport or regulate the flow of water to facilitate handwashing.

<sup>17</sup> 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.

<sup>18</sup> 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.

<sup>19</sup> 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.

The first step in the estimation process is to compile information on the types of facilities available 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<sup>20</sup> 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, as described in Sections 2 to 4.

<sup>20</sup> Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

### National data sources used in the JMP 2020 report

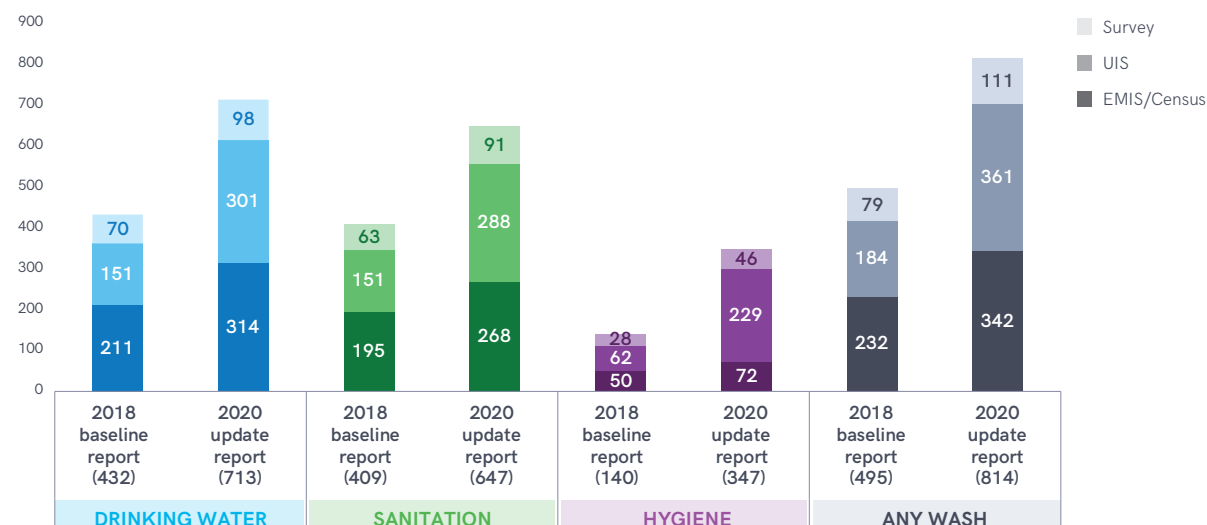


FIGURE A1 Number of national data sources used in the JMP 2018 and 2020 reports, by type

## National data sources for WASH in schools

JMP estimates are calculated from data produced by national authorities. 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 secondary information compiled by the UNESCO Institute of Statistics and regional monitoring initiatives, such as the European Protocol on Water and Health. 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.

In 2020, the JMP global database for WASH in schools contained a total of 1,029 national datasets covering the period 2000 to 2019. Some of these could not be used to produce estimates, but 814 datasets were used to produce estimates for 173 countries<sup>21</sup>, representing an average of 4.7 data points per country. Figure A1 shows that twice as many datasets were used to generate national estimates for drinking water (713) and sanitation (647) than for hygiene (347).

The majority of datasets used to generate national estimates were drawn from EMIS or periodic censuses (42%) and reports from the UNESCO Institute of Statistics (44%), with a smaller number coming from school surveys (14%). 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. Sub-national surveys are only used if they are representative of rural or urban schools.

<sup>21</sup> For the purposes of this report, 'countries' refers to countries, areas and territories included in the United Nations Population Division World Population Prospects, 2019 revision.



The JMP extracts data that are representative of national, urban and rural schools and pre-primary, primary and secondary schools. Unless otherwise categorised 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'<sup>22</sup>. This means some schools may be double-counted and the total

<sup>22</sup> Where data are available for early childhood development centres, these are counted as 'pre-primary'.

number of schools does not necessarily equal the sum of the pre-primary, primary and secondary schools.

The data for pre-primary, primary and secondary school-age populations used in this report are published by the UNESCO Institute of Statistics<sup>23</sup>. The data for the proportion of the population living in urban and rural areas are published by the UN Population Division.

<sup>23</sup> Last updated February 2018.

## Country estimates for WASH in schools

The JMP WASH in schools country files<sup>24</sup> contain a complete list of data sources available for each year since 2000 and show how national data correspond to the international standard classification used for global monitoring. The JMP uses a simple linear regression to generate estimates from all the available data points for each of the following indicators (Figure A2):

### Proportion of schools with:

- Any water facility
- An improved water source
- A basic water service

### Proportion of schools with:

- Any sanitation facility
- An improved sanitation facility
- A basic sanitation service

### Proportion of schools with:

- 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. On average, there were 2.8 national data points per country for drinking water, 2.7 for sanitation and 0.9 for hygiene. For this report, the number of data points used to calculate national estimates ranged from 1 to 18 data points for drinking water and for sanitation, and from 1 to 13 data points for hygiene.

<sup>24</sup> Country files are available for download from the JMP website <<https://washdata.org>>.

## The JMP uses linear regressions to derive estimates from available data points

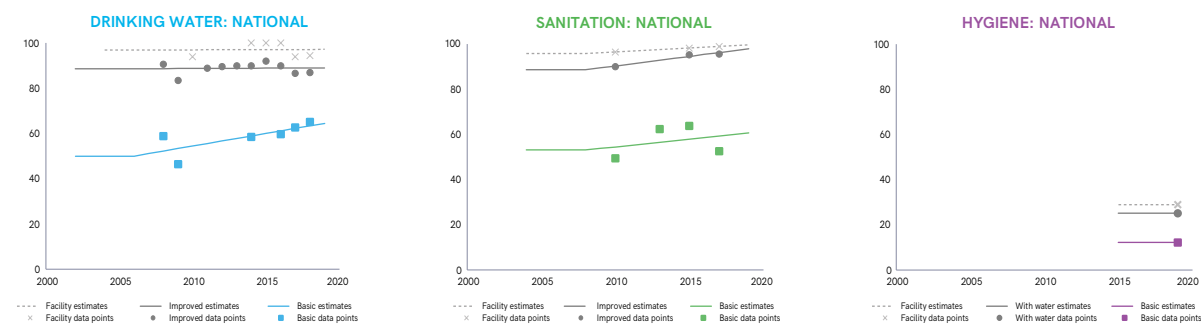


FIGURE A2 Examples of linear regressions producing estimates for WASH

## 94 countries had national estimates available for all 3 basic WASH services in schools in 2019

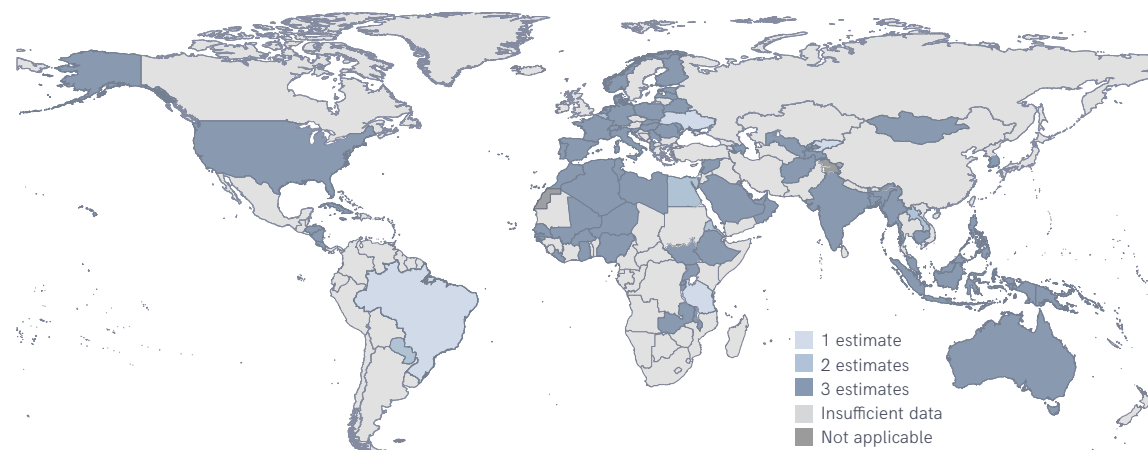


FIGURE A3 Countries with national estimates for 1, 2 or 3 basic WASH services in schools in 2019

Separate regressions are made for urban and rural schools and for pre-primary, primary and secondary schools. A national estimate can 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 be

calculated where these represent the majority of schools in a country. The number of countries with estimates available for all three elements of basic WASH services in schools has increased from 64 in 2016 to 94 in 2019 (Figure A3).

## Regional and global estimates for WASH in schools

Regional and global estimates are made by aggregating the populations of school-age children with and without WASH in school<sup>25</sup>. In countries with incomplete trend data, the school-age population is calculated using linear regression. In countries with no data, values are imputed based on an average proportion of the population that is school-age within the relevant M49 sub-region<sup>26</sup>.

<sup>25</sup> Reliable data on the total number of schools with and without WASH services is not yet available for all countries.

<sup>26</sup> United Nations Department of Economic and Social Affairs, *Methodology* <<https://unstats.un.org/unsd/methodology/m49/overview>>.

Urban and rural school-age populations are calculated based on the proportion of the national population that lives in urban areas.

Regional and global estimates are calculated if data on WASH in schools are available for at least 30% of the school-age population in each domain (the total, urban and rural schools, and pre-primary, primary and secondary schools). Missing data for each WASH in schools indicator are imputed based on a school-age population-weighted average of estimates from

countries with data. Global estimates use imputed values based on SDG regional groupings (see Annex 2). Estimates for a basic, limited and no service are then normalized to ensure they add up to 100%.

Figure A4 shows the global and SDG regional coverage of data on basic WASH in schools for the school-age population in 2019.

### Global availability of data on basic WASH 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
Australia and New Zealand (2)	82% (1)	0% (0)	0% (0)	0% (0)	86% (1)	81% (1)	82% (1)	0% (0)	0% (0)	0% (0)	86% (1)	81% (1)	82% (1)	0% (0)	0% (0)	0% (0)	86% (1)	81% (1)
Central and Southern Asia (14)	96% (10)	74% (3)	79% (3)	0% (1)	94% (9)	96% (9)	82% (8)	74% (3)	79% (3)	0% (1)	80% (6)	82% (6)	82% (6)	74% (3)	79% (3)	0% (0)	79% (5)	81% (5)
Eastern and South-Eastern Asia (18)	28% (11)	1% (5)	2% (2)	13% (2)	30% (11)	29% (11)	28% (12)	1% (6)	3% (3)	13% (2)	30% (12)	29% (11)	28% (13)	1% (6)	3% (3)	13% (2)	30% (13)	29% (12)
Europe and Northern America (53)	69% (27)	0% (1)	0% (0)	2% (1)	70% (26)	69% (26)	68% (26)	0% (1)	0% (0)	2% (1)	69% (25)	68% (25)	72% (29)	0% (1)	0% (0)	2% (1)	73% (29)	72% (29)
Latin America and the Caribbean (50)	21% (22)	7% (2)	17% (4)	35% (3)	22% (21)	32% (20)	45% (20)	9% (4)	19% (6)	12% (4)	45% (18)	30% (16)	35% (18)	30% (1)	24% (3)	17% (1)	30% (17)	59% (17)
Northern Africa and Western Asia (25)	37% (16)	2% (2)	1% (1)	1% (1)	33% (13)	38% (14)	57% (17)	9% (3)	7% (2)	1% (1)	55% (14)	43% (12)	54% (16)	2% (2)	1% (1)	1% (1)	55% (15)	50% (14)
Oceania (21)	90% (7)	0% (0)	6% (1)	82% (1)	85% (6)	81% (5)	89% (7)	0% (1)	6% (1)	82% (1)	83% (6)	79% (5)	90% (7)	49% (1)	89% (2)	82% (1)	79% (5)	74% (4)
Sub-Saharan Africa (51)	65% (26)	32% (7)	58% (13)	4% (3)	59% (23)	44% (14)	58% (26)	35% (9)	59% (13)	3% (3)	54% (23)	48% (19)	57% (20)	31% (6)	57% (12)	3% (2)	58% (19)	45% (14)
Least Developed Countries (47)	64% (27)	22% (6)	48% (12)	3% (3)	59% (25)	53% (18)	61% (28)	28% (10)	51% (14)	3% (3)	54% (25)	53% (21)	62% (22)	23% (7)	48% (13)	2% (2)	61% (20)	49% (14)
Landlocked Developing Countries (32)	91% (22)	23% (6)	62% (10)	1% (1)	87% (19)	63% (14)	79% (18)	26% (8)	60% (10)	0% (0)	70% (14)	54% (11)	81% (19)	21% (6)	60% (10)	1% (1)	81% (18)	60% (12)
Small Island Developing States (53)	49% (24)	5% (1)	2% (1)	24% (1)	44% (22)	41% (21)	50% (24)	5% (2)	2% (1)	24% (1)	44% (21)	41% (19)	49% (24)	10% (2)	38% (2)	24% (1)	43% (21)	40% (20)
World (234)	60% (120)	22% (20)	47% (24)	7% (12)	57% (110)	59% (100)	58% (117)	23% (27)	48% (28)	5% (13)	56% (105)	55% (95)	57% (110)	25% (20)	47% (24)	5% (8)	55% (104)	57% (96)

FIGURE A4 Proportion of relevant school-age population for which data were available on basic WASH in schools in each domain, by SDG region, % of school age population (# countries)

## REGIONAL GROUPINGS

### 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 (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, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bermuda, Bulgaria, Canada, Channel Islands, Croatia, Czech Republic, 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, 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.

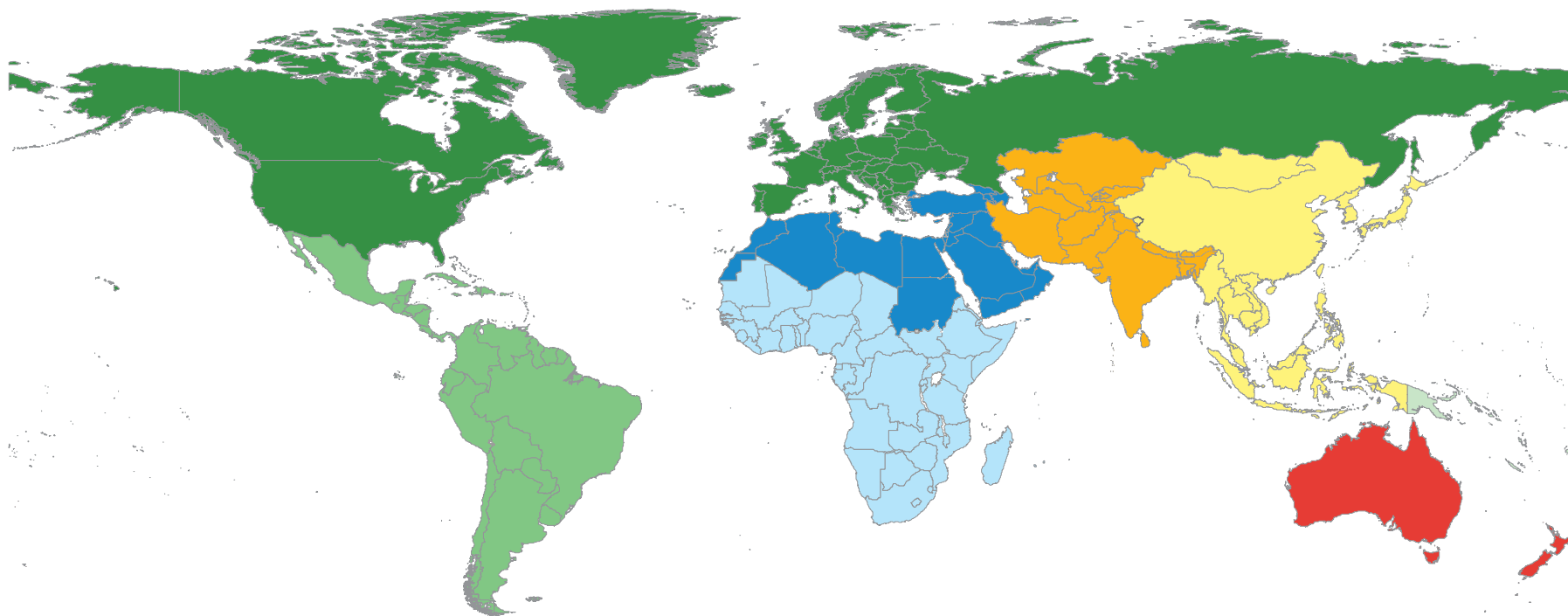
■ **LATIN AMERICA AND THE CARIBBEAN:** Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Bonaire, Sint Eustatius and Saba (Caribbean Netherlands), Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominica, 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, Sudan, Syrian Arab Republic, Tunisia, Turkey, United Arab Emirates, West Bank and Gaza Strip, Western Sahara, Yemen.

■ **OCEANIA (EXCLUDING AUSTRALIA AND NEW ZEALAND):** 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.



## 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, Vanuatu, Yemen, Zambia.

### SMALL ISLAND DEVELOPING STATES (SIDS):

American Samoa, Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, Sint Eustatius and Saba (Caribbean Netherlands), British Virgin Islands, Cabo Verde, Cayman Islands,

Comoros, Cook Islands, Cuba, Curaçao, Dominica, Dominican Republic, Fiji, French Polynesia, Grenada, Guadeloupe, 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-Barthélemy, Saint Kitts and Nevis, Saint Lucia, Saint-Martin (French part), 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, Turks and Caicos Islands, Tuvalu, United States Virgin Islands, Vanuatu.

## NATIONAL WASH IN SCHOOLS ESTIMATES

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)
							Afghanistan	2019	13 162	26	9	48	43	66	13	22	-	-	24	-	-	26	-	-	-	58	17
Albania	2019	503	61	15	32	54	59	-	-	-	-	-	-	-	-	-	-	56	-	-	66	-	-				
Algeria	2019	9 098	73	6	46	48	92	0	8	-	-	-	-	-	-	-	-	85	0	15	98	1	1				
Andorra	2019	19	88	19	39	42	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Angola	2019	12 368	66	17	46	37	-	-	68	-	-	-	-	-	-	-	-	-	-	82	-	-	52				
Antigua and Barbuda	2019	20	25	15	49	35	100	0	0	-	-	-	-	-	-	-	-	99	1	0	100	0	0				
Argentina	2019	10 875	92	20	40	39	-	-	10	-	-	2	-	-	17	-	-	-	-	10	-	-	-				
Armenia	2019	564	63	19	30	51	-	-	-	-	-	-	-	-	-	-	-	-	-	95	-	-					
Australia	2019	4 424	86	7	51	41	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Azerbaijan	2019	1 848	56	25	27	48	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Bahrain	2019	287	89	22	41	37	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Bangladesh	2019	45 181	37	19	33	48	82	10	8	85	13	2	90	7	4	-	-	-	78	13	9	93	7	0			
Barbados	2019	45	31	14	44	42	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Belarus	2019	1 419	79	23	31	46	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Belgium	2019	1 963	98	20	41	39	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0				
Belize	2019	108	46	14	42	44	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-				
Benin	2019	4 371	48	16	43	42	45	34	21	-	-	-	-	-	-	-	-	45	37	19	-	-	27				
Bermuda	2019	9	100	6	40	53	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-				
Bhutan	2019	198	42	12	46	42	64	25	11	-	-	-	-	-	-	-	-	58	31	11	63	29	8				

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









COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)
Egypt	2019	27 387	43	16	46	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
El Salvador	2019	1 722	73	18	40	41	82	14	5	-	-	3	-	-	4	-	-	6	80	15	5	84	12	4	-	-	-
Equatorial Guinea	2019	416	73	23	43	35	-	-	72	-	-	-	-	-	-	-	74	-	-	74	-	-	49	-	-	-	-
Eritrea	2019	1 302	41	17	39	44	-	-	30	-	-	-	-	-	-	-	59	-	-	35	-	-	20	-	-	-	-
Estonia	2019	229	69	27	40	33	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
Eswatini	2019	429	24	21	48	31	-	-	14	-	-	-	-	-	-	-	-	-	-	17	-	-	9	-	-	-	-
Ethiopia	2019	41 527	21	22	41	37	15	8	76	-	-	-	37	13	50	-	-	-	15	6	80	22	31	47	-	-	-
Fiji	2019	266	57	20	39	40	88	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Finland	2019	964	85	25	39	37	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
France	2019	12 496	81	20	34	46	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
Gambia	2019	955	62	29	39	32	-	-	23	-	-	-	-	-	-	-	31	-	-	15	-	-	11	-	-	-	-
Georgia	2019	745	59	22	43	36	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	-	-	-	-
Germany	2019	12 018	77	17	24	59	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
Ghana	2019	10 305	57	15	42	43	71	0	29	85	10	5	73	11	16	79	6	15	76	8	16	79	14	6	-	-	-
Gibraltar	2019	5	100	9	54	37	100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0	-	-	-
Grenada	2019	24	36	15	53	32	99	1	0	-	-	-	-	-	-	-	-	100	0	0	99	1	0	-	-	-	-
Guatemala	2019	5 468	51	22	42	36	-	-	19	-	-	1	-	-	27	-	-	-	-	19	-	-	-	-	-	-	-
Guinea	2019	5 242	37	21	39	39	9	24	67	-	-	44	-	-	80	-	-	15	9	25	65	-	-	-	-	-	-
Guinea-Bissau	2019	730	44	23	42	35	59	6	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haiti	2019	3 843	56	20	38	42	-	-	42	-	-	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-
Honduras	2019	2 853	58	21	42	36	68	10	22	-	-	-	74	6	20	-	-	-	65	-	-	52	-	-	-	-	-
Hungary	2019	1 519	72	24	25	51	100	0	0	-	-	-	-	-	-	-	0	100	0	0	100	0	0	-	-	-	-
India	2019	376 155	34	20	33	47	67	27	6	72	21	7	67	25	8	-	-	-	67	25	8	75	18	6	-	-	-
Indonesia	2019	65 269	56	15	43	43	73	11	17	-	-	0	-	-	0	70	2	27	72	11	17	75	11	14	-	-	-
Iraq	2019	12 794	71	16	45	39	-	-	16	-	-	-	-	-	-	-	2	-	-	19	-	-	9	-	-	-	-
Israel	2019	2 217	93	22	41	36	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
Italy	2019	9 085	71	19	31	50	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	-	-	-	-
Jamaica	2019	638	56	20	43	37	95	-	-	-	-	-	-	-	-	-	-	94	-	-	96	-	-	-	-	-	-
Jordan	2019	3 170	91	15	44	40	93	7	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kenya	2019	20 280	28	22	41	37	-	-	-	-	-	-	72	3	25	-	-	-	-	-	-	-	-	-	-	-	-

NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			
Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)				
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
87	5	7	92	4	3	85	6	10	87	5	8	87	5	8	92	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	21	-	-	-	-	-	-	-	-	30	-	-	15	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
33	21	46	-	-	-	-	-	-	-	-	-	26	17	57	46	25	29	5	-	-	-	-	-	-	-	-	-	-	3	-	-	8	-	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
40	20	39	-	-	-	23	54	23	-	-	-	39	21	40	61	11	28	5	15	80	-	-	-	1	2	97	-	-	-	5	14	81	8	25	68	
76	14	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	27	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
63	37	0	-	-	-	-	-	-	38	-	-	83	17	0	80	20	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
64	14	23	72	20	8	57	20	23	64	16	19	62	12	25	65	19	16	54	8	38	65	6	29	45	10	46	56	7	37	52	9	40	52	8	39	
100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
76	-	-	-	-	1	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	18	-	-	7	-	-	32	-	-	22	-	-	22	-	-	6	-	-	68	-	-	-	-	-	-	-	-	-	-	68	-	-	-	-	
32	20	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	13	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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82	-	-	-	-	-	23	66	11	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	19	29	52	-	-	-	5	-	-	21	-	-	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
64	19	16	71	15	14	63	19	18	-	-	-	64	19	17	73	9	18	53	23	25	58	26	16	52	22	26	-	-	-	53	22	25	53	29	17	
40	46	13	-	-	-	-	-	-	28	53	19	37	50	13	50	34	16	59	10	31	-	-	-	-	-	-	57	5	38	59	11	30	57	10	33	
-	-	14	-	-	-	-	-	-	-	-	2	-	-	18	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0		
95	-	-	-	-	-	-	-	-	-	-	-	94	-	-	96	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	66	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	0	-	-	0	50	46	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	13	85	-	-	-	-	-	-	-	-	-	-



NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
100	0	0	100	0	0	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	-	-				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
16	62	22	23	61	16	11	63	26	-	-	-	16	62	22	-	-	-	35	-	-	37	-	-	-	-	-	-	-	-	-	-	-	-	-				
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
93	7	1	-	-	-	-	-	-	92	7	1	92	7	1	95	4	1	36	60	4	-	-	-	-	-	-	34	62	4	34	62	5	46	51	3			
-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
27	40	33	35	45	20	22	22	56	-	-	-	24	37	39	35	48	17	69	16	15	77	13	10	61	20	19	-	-	-	-	-	-	-	-	-			
61	39	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	82	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
62	10	28	80	-	-	60	-	-	-	-	-	62	3	36	52	27	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
65	19	16	74	4	22	62	22	16	-	-	-	75	6	19	56	8	35	21	3	76	-	-	55	13	11	76	-	-	-	-	-	-	-	-	-	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	98	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	51	19	25	66	9	42	39	19	-	-	-	30	51	19	20	-	-	63	18	19	74	14	12	38	14	48	-	-	-	-	-	-	-	-	-	-		
27	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	18	60	-	-	-	-	-	-	-	-	-	20	20	60	32	2	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	20	6	-	-	2	-	-	-	-	-	6	74	20	6	80	16	5	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100	0	0	-	-	-	NA	NA	NA	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-
63	21	16	70	30	0	58	18	24	-	-	-	70	16	14	63	21	15	41	36	23	53	34	13	35	41	24	-	-	-	-	-	-	-	-	-	-	-	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	25	5	82	-	-	56	-	-	-	-	-	70	21	9	-	-	0	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	26	41	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0	94	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	65	-	-	71	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
86	-	-	87	-	-	NA	NA	NA	-	-	-	100	0	0	66	-	-	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-
-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	59	29	-	-	-	12	57	30	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	10	65	28	23	48	23	6	71	-	-	78	23	0	77	-	-	44	15	-	-	-	-	-	4	3	92	-	-	-	-	-	-	-	-	-	-	-	
38	23	40	49	27	23	28	21	51	-	-	-	35	26	40	46	17	37	28	11	62	43	11	46	16	10	74	-	-	-	-	-	-	-	-	-	-	-	

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY					
							Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)
							Niue	2019	0	46	7	44	49	100	0	0	-	-	-	-	-	-	-	-	-	100	0
Norway	2019	1 017	83	18	44	38	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Oman	2019	820	85	16	34	50	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Pakistan	2019	66 594	37	15	37	47	57	8	34	-	-	16	-	-	34	-	-	-	52	11	37	81	4	15			
Panama	2019	1 071	68	17	42	40	-	-	20	-	-	0	-	-	30	-	-	-	-	-	20	-	-	-			
Papua New Guinea	2019	3 444	13	26	41	32	47	6	47	-	-	-	-	-	-	34	8	58	46	6	48	65	23	12			
Paraguay	2019	2 021	62	20	41	39	67	30	3	-	-	0	-	-	9	-	-	-	67	30	3	-	-	-			
Peru	2019	7 556	78	22	43	34	80	4	16	89	4	7	68	5	27	81	8	11	79	5	15	76	9	15			
Philippines	2019	25 462	47	9	52	39	47	20	34	-	-	-	-	-	-	-	-	-	45	20	35	54	18	28			
Poland	2019	5 965	60	25	40	35	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Portugal	2019	1 456	66	18	39	43	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Qatar	2019	330	99	25	47	28	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Republic of Korea	2019	7 188	81	21	38	41	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Republic of Moldova	2019	480	43	30	26	45	92	8	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0			
Romania	2019	3 330	54	19	32	49	72	-	-	-	-	-	-	-	-	67	-	-	64	-	-	85	-	-			
Russian Federation	2019	24 193	75	30	28	42	-	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-			
Rwanda	2019	4 614	17	23	41	36	55	-	-	-	-	-	-	-	-	-	-	-	53	-	-	65	-	-			
Saint Kitts and Nevis	2019	10	31	13	50	37	84	-	-	-	-	-	-	-	-	-	-	-	79	-	-	100	0	0			
Saint Lucia	2019	32	19	12	48	40	100	0	0	-	-	-	-	-	-	-	-	-	99	1	0	100	0	0			
Saint Vincent and the Grenadines	2019	24	53	13	49	38	99	1	0	-	-	-	-	-	-	-	-	-	100	0	0	99	1	0			
Samoa	2019	70	18	16	42	42	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
San Marino	2019	5	97	19	32	49	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Sao Tome and Principe	2019	85	74	21	42	36	-	-	15	-	-	-	-	-	-	-	-	39	-	-	10	-	-	5			
Saudi Arabia	2019	7 963	84	22	42	35	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Senegal	2019	6 625	48	23	40	38	45	32	23	-	-	6	-	-	34	-	-	63	42	32	26	79	16	5			
Serbia	2019	1 039	56	25	25	50	72	-	-	-	-	-	-	-	-	-	-	-	63	-	-	91	-	-			
Seychelles	2019	22	57	14	43	43	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			
Sierra Leone	2019	3 160	42	22	39	39	63	26	11	-	-	-	-	-	-	73	24	2	55	37	8	71	26	2			
Singapore	2019	506	100	22	46	32	100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0			
Slovakia	2019	884	54	19	26	55	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0			



NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)			
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
96	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	0	0	-	-	-	-	-	-	-	-	-	-	-	-	100	0	0
-	-	24	-	-	17	-	-	29	-	-	-	-	-	35	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	12	42	-	-	-	-	-	-	45	13	42	46	12	42	69	10	21	12	43	46	6	44	50	8	42	50	12	41	46	11	43	46	16	44	40
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	37	2	80	19	1	39	58	4	54	43	3	62	37	1	67	29	3	-	-	32	-	-	20	-	-	46	-	-	32	-	-	32	-	-	27
39	53	8	-	-	-	-	-	-	-	-	-	33	59	8	68	25	7	54	11	36	-	-	-	-	-	-	-	-	-	56	9	35	39	23	38
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
81	19	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
72	-	-	-	-	-	-	-	-	64	-	-	64	-	-	87	-	-	72	-	-	-	-	-	-	-	-	64	-	-	64	-	-	87	-	-
-	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	20	16	-	-	-	-	-	-	-	-	28	61	23	16	73	10	17	52	17	32	-	-	-	-	-	-	-	-	74	50	15	35	49	25	26
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	-	-	-	-	79	-	-	100	0	0	
100	0	0	-	-	-	-	-	-	-	-	-	99	1	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	99	1	0	100	0	0	
99	1	0	-	-	-	-	-	-	-	-	-	100	0	0	99	1	0	99	1	0	-	-	-	-	-	-	-	-	100	0	0	99	1	0	
-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
76	8	16	-	-	-	-	-	-	-	-	15	70	15	15	-	-	11	-	-	10	-	-	-	-	-	-	-	-	-	-	12	-	-	0	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
16	64	19	-	-	2	-	-	23	-	-	42	9	72	18	40	50	10	22	7	72	-	-	59	-	-	74	-	-	25	4	72	9	-	-	
74	-	-	-	-	-	-	-	-	-	-	-	66	-	-	92	-	-	73	-	-	-	-	-	-	-	-	-	-	66	-	-	91	-	-	
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
20	40	39	-	-	-	-	-	-	10	70	20	46	8	46	25	45	30	-	-	64	-	-	-	-	-	-	-	-	-	-	25	-	-	26	
100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	NA	NA	NA	-	-	-	100	0	0	100	0	0
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	

COUNTRY, AREA OR TERRITORY	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
							Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)
Slovenia	2019	318	55	19	40	41	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Solomon Islands	2019	260	24	22	40	39	17	36	47	-	-	-	14	39	47	-	-	-	20	-	-	19	-	-
Somalia	2019	6 404	46	24	42	35	-	-	45	-	-	-	-	-	-	-	-	-	-	-	46	-	-	37
South Africa	2019	15 589	67	18	50	32	77	23	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Sudan	2019	4 378	20	24	41	35	51	9	40	61	4	35	48	11	41	-	-	-	51	9	40	-	-	8
Spain	2019	7 236	81	21	41	38	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Sri Lanka	2019	4 795	19	7	36	57	83	0	17	-	-	-	-	-	-	62	24	14	84	-	-	88	-	-
Sudan	2019	13 890	35	17	47	36	-	-	10	-	-	-	-	-	-	-	-	-	-	-	14	-	-	5
Switzerland	2019	1 242	74	13	40	48	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Syrian Arab Republic	2019	5 512	55	25	39	35	49	49	2	-	-	-	-	-	-	-	-	-	49	48	2	49	49	2
Tajikistan	2019	2 888	27	30	29	41	79	8	14	93	4	3	73	9	18	-	-	-	-	-	-	-	-	-
Timor-Leste	2019	470	31	21	39	40	69	5	27	-	-	-	-	-	-	-	-	-	69	3	28	62	14	24
Togo	2019	3 238	42	22	39	39	20	23	57	-	-	-	-	-	-	-	-	-	20	15	65	-	-	49
Tunisia	2019	2 738	69	20	39	41	70	15	15	-	-	-	-	-	-	-	-	-	70	17	13	-	-	0
Turks and Caicos Islands	2019	9	93	19	39	42	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Uganda	2019	19 971	24	22	46	32	68	26	5	90	10	0	54	34	12	-	-	-	70	23	7	-	-	-
Ukraine	2019	4 955	69	22	31	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2019	1 238	87	17	39	44	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
United Republic of Tanzania	2019	22 135	35	16	50	34	-	-	29	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-
United States of America	2019	62 202	82	20	39	41	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Uruguay	2019	705	95	19	40	41	100	0	0	-	-	1	-	-	19	-	-	-	100	0	0	100	0	0
Uzbekistan	2019	9 010	50	26	27	46	90	-	-	-	-	-	-	-	-	-	-	-	90	-	-	89	-	-
Vanuatu	2019	106	25	15	43	41	-	-	59	-	-	-	-	-	-	-	65	-	-	-	51	-	-	58
Venezuela (Bolivarian Republic of)	2019	7 677	88	23	43	34	97	-	-	-	-	-	-	-	-	-	-	-	97	-	-	-	-	-
West Bank and Gaza Strip	2019	1 644	76	16	29	55	78	22	0	78	19	3	81	18	2	-	-	2	81	19	0	86	14	0
Yemen	2019	10 660	37	22	41	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	-
Zambia	2019	7 882	44	29	44	27	79	4	17	-	-	-	79	5	16	-	-	-	78	3	18	94	1	5
Zimbabwe	2019	5 764	32	15	50	35	66	21	13	86	13	1	60	30	9	-	-	-	64	22	14	69	19	12

NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic sanitation service (improved, usable and single-sex)	Limited sanitation service (improved, not usable or not single-sex)	No sanitation service (no facility or unimproved)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)	Basic hygiene service (facility with water and soap)	Limited hygiene service (facility with water, but no soap)	No hygiene service (no facility or no water)			
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
27	9	64	-	-	-	25	11	64	-	-	-	22	-	-	34	-	-	17	17	66	-	-	-	17	17	66	-	-	-	-	-	-			
-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
37	38	26	67	22	11	40	23	37	-	-	32	37	38	26	-	-	11	18	1	80	45	-	-	13	-	-	-	-	-	-	18	1	80		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
96	4	0	-	-	-	-	-	-	89	9	2	93	-	-	94	6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	38	-	-	-	-	-	-	-	-	-	-	-	28	-	-	10	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-			
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
49	16	35	-	-	-	-	-	-	-	-	-	51	16	33	47	13	40	21	27	52	-	-	-	-	-	-	-	-	-	22	27	51			
47	35	18	58	36	6	43	35	22	-	-	-	-	-	-	-	-	26	13	61	41	15	44	20	12	68	-	-	-	-	-	-				
38	28	34	-	-	-	-	-	-	-	-	-	37	29	34	43	35	22	60	-	-	-	-	-	-	-	-	-	-	61	-	-	52	-		
65	-	-	-	-	-	-	-	-	-	-	-	62	-	-	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
63	23	15	-	-	-	-	-	-	-	-	-	63	23	15	-	-	0	38	50	12	-	-	-	-	-	-	-	-	38	50	12	-	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
80	16	4	80	20	0	57	37	5	-	-	-	80	16	4	-	-	1	30	24	46	52	19	29	12	5	83	-	-	-	31	16	53			
t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	74	-	-	93	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	21	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-		
100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
92	-	-	-	-	-	-	-	-	-	-	-	93	-	-	91	-	-	89	-	-	-	-	-	-	-	-	-	-	90	-	-	89	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
90	-	-	-	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
81	18	1	79	21	0	84	16	0	-	-	0	78	22	0	86	13	1	21	76	3	11	80	9	24	72	4	-	-	-	22	73	5			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
66	-	-	-	-	-	23	66	11	-	-	-	-	-	-	-	-	-	57	-	-	-	-	-	19	29	52	-	-	55	-	-	58	-		
-	-	3	-	-	6	-	-	4	-	-	13	-	-	2	-	-	3	-	-	37	-	-	12	-	-	42	-	-	35	-	-	37	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41		

## REGIONAL AND GLOBAL WASH IN SCHOOLS ESTIMATES

REGION	Year	School-age population (thousands)	% urban	% pre-primary	% primary	% secondary	NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
							Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)	Basic water service (improved and available)	Limited water service (improved, not available)	No water service (no facility or unimproved)
<b>SDG REGIONS</b>																								
Australia and New Zealand	2019	5 367	86	8	49	42	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0
Central and Southern Asia	2019	549 888	36	19	34	47	68	22	11	74	18	8	69	19	12	-	-	-	65	22	13	78	15	7
Eastern and South-Eastern Asia	2019	448 945	59	18	41	41	-	-	6	-	-	-	-	-	-	-	-	-	69	24	7	-	-	5
Europe and Northern America	2019	186 470	78	20	36	44	99	1	0	-	-	-	-	-	-	-	-	-	99	1	0	99	1	0
Latin America and the Caribbean	2019	152 102	80	18	38	44	-	-	16	-	-	3	-	-	28	68	19	13	-	-	17	61	30	9
Northern Africa and Western Asia	2019	136 350	61	18	41	41	83	8	9	-	-	-	-	-	-	-	-	-	81	7	12	82	14	5
Oceania	2019	4 504	21	25	41	34	48	8	43	-	-	-	-	-	-	34	8	58	45	8	47	62	25	13
Sub-Saharan Africa	2019	398 484	40	19	44	37	44	15	41	56	22	22	47	13	40	-	-	-	40	16	44	52	13	35
<b>OTHER REGIONAL GROUPINGS</b>																								
Least Developed Countries	2019	370 364	34	21	41	38	53	9	37	-	-	12	57	12	31	-	-	-	51	10	39	67	3	30
Landlocked Developing Countries	2019	186 762	29	22	40	38	49	12	39	-	-	12	47	19	34	-	-	-	47	11	41	56	10	34
Small Island Developing States	2019	18 015	54	21	41	39	71	1	28	-	-	6	-	-	-	-	-	-	70	0	30	81	8	11
<b>WORLD</b>	2019	1 882 111	52	19	39	42	69	16	15	-	-	6	61	21	17	-	-	-	66	16	18	74	15	11

NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY			NATIONAL			URBAN			RURAL			PRE-PRIMARY			PRIMARY			SECONDARY		
Basic sanitation service (improved, usable and single-sex)			Limited sanitation service (improved, not usable or not single-sex)			No sanitation service (no facility or unimproved)			Basic sanitation service (improved, usable and single-sex)			Limited sanitation service (improved, not usable or not single-sex)			No sanitation service (no facility or unimproved)			Basic sanitation service (improved, usable and single-sex)			Limited sanitation service (improved, not usable or not single-sex)			No sanitation service (no facility or unimproved)			Basic hygiene service (facility with water and soap)			Limited hygiene service (facility with water, but no soap)			No hygiene service (no facility or no water)		
100	0	0	-	-	-	-	-	-	-	-	100	0	0	100	0	0	100	0	0	-	-	-	-	-	-	-	-	-	100	0	0	100	0	0	
64	20	16	68	18	13	62	20	18	-	-	-	62	20	18	72	14	14	52	25	23	56	29	15	52	24	24	-	-	-	51	25	24	53	32	16
-	-	32	-	-	-	-	-	-	-	-	-	46	50	4	-	-	4	-	-	10	-	-	-	-	-	-	-	-	62	27	11	-	-	10	
99	1	0	-	-	-	-	-	-	-	-	-	99	1	0	99	1	0	98	2	0	-	-	-	-	-	-	-	-	98	2	0	99	1	0	
75	19	6	-	-	3	-	-	13	-	-	6	76	18	5	81	15	5	60	28	12	61	33	6	-	-	27	-	-	-	60	30	10	71	25	5
87	3	10	-	-	-	-	-	-	-	-	-	91	0	9	95	1	4	80	1	20	-	-	-	-	-	-	-	-	77	0	23	89	0	11	
47	13	40	-	-	-	-	-	-	45	13	42	44	15	41	66	13	21	17	39	44	6	44	50	8	41	51	12	41	46	14	42	45	19	43	39
47	27	27	55	28	18	36	34	30	-	-	-	43	25	31	52	25	23	26	13	61	49	11	40	11	9	80	-	-	-	26	12	61	26	15	59
51	28	22	-	-	9	39	41	21	-	-	-	46	30	24	58	28	14	30	21	49	-	-	-	20	14	66	-	-	-	29	17	54	34	32	34
53	22	25	-	-	14	35	42	23	-	-	-	48	23	29	64	15	21	29	12	59	-	-	-	9	8	83	-	-	-	27	13	60	32	11	57
67	7	26	-	-	-	-	-	-	-	-	-	69	6	26	81	8	11	52	17	31	-	-	-	8	41	51	-	-	-	56	18	26	62	18	20
63	18	19	-	-	10	44	33	22	-	-	-	60	25	15	71	18	11	57	19	25	-	-	-	34	24	41	-	-	-	56	18	26	58	22	20





## UN-Water Reports

UN-Water coordinates the efforts of United Nations entities and international organizations working on water and sanitation issues. By doing so, UN-Water seeks to increase the effectiveness of the support provided to Member States in their efforts towards achieving international agreements on water and sanitation. UN-Water publications draw on the experience and expertise of UN-Water's Members and Partners.

### PERIODIC REPORTS:

#### Sustainable Development Goal 6 Synthesis Report 2018 on Water and Sanitation

The SDG 6 Synthesis Report 2018 on Water and Sanitation was published in June 2018 ahead of the High-level Political Forum on Sustainable Development where Member States reviewed SDG 6 in-depth. Representing a joint position from the United Nations family, the report offers guidance to understanding global progress on SDG 6 and its interdependencies with other goals and targets.

#### Sustainable Development Goal 6 Indicator Reports

This series of reports shows the progress towards targets set out in SDG 6 using the SDG global indicators. The reports are based on country data, compiled and verified by the United Nations agencies serving as custodians of each indicator.

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

GLAAS is produced by the World Health Organization (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 sanitation and drinking water. It is a substantive input into the activities of Sanitation and Water for All (SWA).

#### United Nations World Water Development Report

This annual report, published by UNESCO on behalf of UN-Water, represents the coherent and integrated response of the United Nations system to freshwater-related issues and emerging challenges. The theme of the report is harmonized with the theme of World Water Day (22 March) and changes annually.

#### 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 basis for further research, discussion and future policy guidance.

#### The progress report of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)

This report is affiliated with UN-Water and presents the results of the global monitoring of progress towards access to safe and affordable drinking-water, and adequate and equitable sanitation and hygiene. Monitoring draws on the findings of household surveys and censuses usually supported by national statistics bureaus in accordance with international criteria and increasingly draws on national administrative and regulatory datasets.

### UN-WATER PLANNED PUBLICATIONS 2019

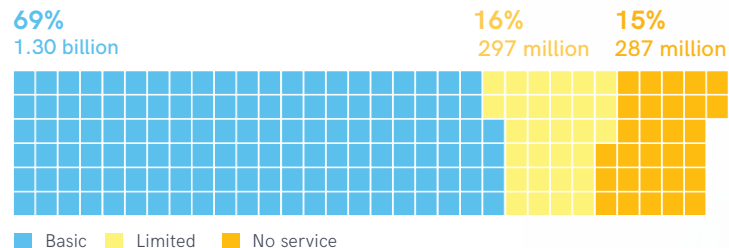
- Update of UN-Water Policy Brief on Water and Climate Change
- UN-Water Policy Brief on the Water Conventions
- UN-Water Analytical Brief on Water Efficiency

More information on UN-Water reports at [www.unwater.org/publications](http://www.unwater.org/publications)

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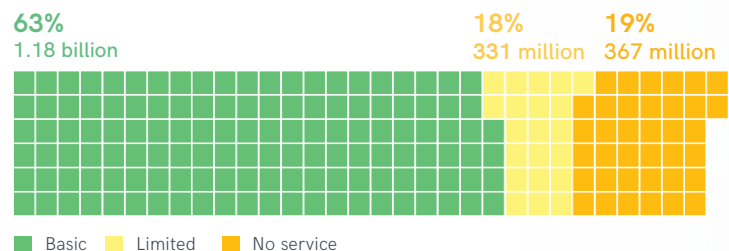
# Global coverage of drinking water, sanitation and hygiene services in schools in 2019

## DRINKING WATER



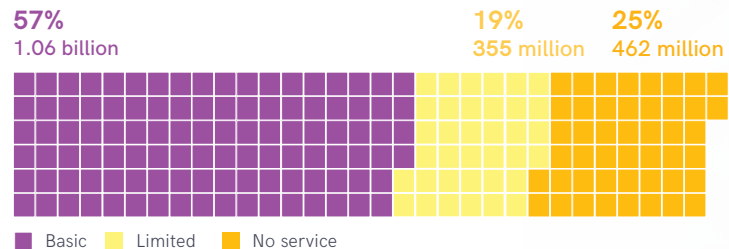
Achieving universal access to basic drinking water services in schools by 2030 will require a **seven-fold** increase in the current rate of progress.

## SANITATION



Achieving universal access to basic sanitation services in schools by 2030 will require a **five-fold** increase in the current rate of progress.

## HYGIENE



Achieving universal access to basic hygiene services in schools by 2030 will require a **four-fold** increase in the current rate of progress.



JMP website: [washdata.org](http://washdata.org)