Progress on drinking water, sanitation and hygiene in schools

2000-2021 DATA UPDATE

WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY, SANITATION AND HYGIENE
Providing disability-inclusive WASH services in schools
Developing definitions and indicators

Education is widely recognized as a fundamental human right. Children with disabilities have historically been excluded from educational opportunities but under international law they have a right to education without discrimination and on the basis of equal opportunities. Article 24 of the 2006 Convention on the Rights of Persons with Disabilities (CRPD) explicitly calls for children with disabilities to have access to ‘an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live. This includes the provision of reasonable accommodations to children’s needs along with adequate support to maximize economic and social development.’

‘Disability-inclusive education’ has since become a major focus of the 2030 Sustainable Development Agenda commitment to ensure ‘inclusive and equitable quality education and to promote lifelong learning opportunities for all’ (SDG 4). The Inclusive Education Initiative advocates a twin-track approach focused on ensuring that mainstream education programmes are designed for all learners, and developing targeted support to address the specific needs of children with disabilities. Volume 3 of the Education Sector Analysis Methodological Guidelines includes a chapter on monitoring inclusive education for children with disabilities, which covers a range of issues related to system capacity and development, participation of children with disabilities, and demand-side and supply-side issues related to the learning environment and its quality.

The guidelines note that ‘an essential pre-requisite for disability-inclusive education is that schools are capable of receiving children with disabilities and that three supply-side characteristics are particularly important: teachers need to be trained to instruct classes in which children may have physical impairments or learning difficulties and need additional expert support; school infrastructure (buildings, classrooms, toilets, school grounds, transportation) must be accessible; and schools should also be able to provide textbooks and other learning materials for children with a variety of disabilities.’

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**BOX 1** Defining disability

Disability is a complex and evolving concept which, as stated in the CRPD, stems from the interaction between certain conditions or impairments and an unaccommodating environment that hinders an individual’s full and effective participation in society on an equal basis with others.

The framework of the International Classification of Functioning, Disability and Health (ICF) relies on a three-level model to describe the concept of disability. According to the ICF, disability can occur as:

- An impairment in body function or structure (e.g. a cataract or opacity of the natural lens of the eye, which prevents the passage of rays of light and impairs or destroys sight).
- A limitation in activity (e.g. low vision or inability to see, read or engage in other activities).
- A restriction in participation (e.g. exclusion from school or participation in other social, recreational or other events or roles).

The ICF framework defines disability within a biopsychosocial model, integrating both factors pertaining to the individual and his or her environment. In contrast, the medical model defines disability as a problem resulting from a medical condition. Awareness of the important role of the social context in defining disability led to the development of the social model of disability, which defines disability not merely as a medical condition or diagnosis but rather as a failure of the policy, cultural and physical environments to accommodate differences in function.

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SECTION 3 | PROVIDING DISABILITY-INCLUSIVE WASH SERVICES IN SCHOOLS
Monitoring progress on disability-inclusive education remains challenging. In recent years, there has been a renewed effort to collect more comprehensive data on children with disabilities, including through Child Functioning Modules in censuses and household surveys. Questions on children with disabilities have also been progressively included in school surveys and in EMIS20. At the same time there has been an increased effort in the WASH sector to monitor disability-inclusive drinking water, sanitation and hygiene services21. This thematic pull out highlights emerging national data on the provision of disability-inclusive WASH services in schools, which is widely recognized as a critical component of a safe and inclusive learning environment for all.

While a growing number of countries monitor coverage of disability-inclusive WASH services in schools, national definitions and indicators vary widely, which makes cross-country comparison difficult. Education programmes are increasingly moving towards a ‘universal design’ approach which aims to maximize usability for all students regardless of physical, intellectual or perceptual abilities, and to reduce the stigma associated with ‘accessible designs’ that involve modifying existing designs to make them more accessible for students with disabilities22. However, this shift is not yet reflected in national monitoring systems which mostly focus on disability-accessible designs and rarely collect information from students on their usability. Furthermore, the questions used for data collection are often outdated and stigmatizing (Table 1).

For example, school surveys in Mali, the United Republic of Tanzania and Nigeria recorded whether drinking water sources are accessible to those with limited mobility or vision, whereas schools in the Solomon Islands are asked whether sources are accessible to all students, including small children and those with limited mobility. The annual census in Peru focuses on specific criteria related to disability-accessible sanitation, such as the presence of a support railing and having an obstacle-free space where a wheelchair can turn. By contrast, a recent survey in Tajikistan asked whether students with disabilities or other special needs are able to access facilities without assistance and provided detailed guidance on the classification of facilities as ‘accessible’. While many countries rely on information submitted by school managers, a growing number of school surveys include direct observation of WASH facilities by independent enumerators (e.g. Nigeria’s WASH NORM survey) in an effort to ensure more consistent classification. The Fiji EMIS guidelines on disability disaggregation23 recommend that school managers conduct a full disability audit in partnership with local organizations of persons with disabilities.

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### National definitions and indicators of disability-inclusive WASH in schools vary

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Year</th>
<th>Question*</th>
<th>Response options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peru</td>
<td>Encuesta Nacional a Instituciones Educativas, INEI/ENEDU</td>
<td>2013-present</td>
<td>Los servicios higiénicos, ¿Cuentan por lo menos con uno que disponga de barandas de apoyo?</td>
<td>Los servicios higiénicos ¿Cuentan por lo menos con uno que tenga un espacio libre de obstáculos donde pueda girar una silla de ruedas?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(annual)</td>
<td>Is there at least one toilet with support railing?</td>
<td>Is there at least one toilet with obstacle-free space where a wheelchair can turn?</td>
</tr>
<tr>
<td>Mali</td>
<td>Enquete de base WASH dans les écoles</td>
<td>2017</td>
<td>Le point de puisage est-il accessible pour les personnes à mobilité ou vision réduite?</td>
<td>Sont-ils accessibles pour les personnes à mobilité ou vision réduite?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the point of use accessible for people with reduced mobility or vision?</td>
<td></td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Poverty Diagnostic of Water Supply, Sanitation and Hygiene Sector in Tajikistan, World Bank</td>
<td>2017</td>
<td>Can students with disabilities or other special needs access drinking water facilities without assistance?†</td>
<td>Can students with disabilities or other special needs access the handwashing facilities without assistance?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Without any difficulty</td>
<td>• Without any difficulty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• With some difficulty</td>
<td>• With some difficulty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• With a lot of difficulty</td>
<td>• With a lot of difficulty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Not at all</td>
<td>• Not at all</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>National WinS Baseline Survey</td>
<td>2018</td>
<td>Is the primary water source accessible to all students, including small children and those with limited mobility? (multiple response)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Yes-small children</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Yes-those with limited mobility</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• There are no children with disability</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• N/A</td>
<td></td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>School Water, Sanitation and Hygiene Assessment</td>
<td>2018</td>
<td>Is drinking water accessible to those with limited mobility or vision?</td>
<td>Are the handwashing facilities accessible to all students including small children and those with limited mobility? (multiple response)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there at least one usable toilet/latrine that is accessible to those with physical disability or impaired vision? (☐ AND RECORD)</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>National Outcome Routine Mapping of Water, Sanitation and Hygiene Service Levels</td>
<td>2019</td>
<td>Is the drinking water source accessible to those with limited mobility or vision?</td>
<td>Are the handwashing facilities accessible to those with limited mobility or vision?</td>
</tr>
<tr>
<td>Fiji</td>
<td>Education Management Information System (FEMIS)</td>
<td>2018-present</td>
<td>Is drinking water accessible to boys and girls with disabilities?</td>
<td>Are the handwashing facilities accessible for boys and girls with physical disabilities? (taps and soap within reach)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(annual)</td>
<td>Are toilets accessible to boys and girls with physical disabilities? (ramp access, hand rails)</td>
<td></td>
</tr>
<tr>
<td>Gabon</td>
<td>Enquête de base sur la situation EHA dans les écoles du Gabon – Rapport final</td>
<td>2021</td>
<td>Le point de puisage est-il accessible aux personnes en situation de handicap?</td>
<td>Sont-ils accessibles pour les personnes en situation de handicap?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the point of use accessible to people with disabilities?</td>
<td>Are the handwashing facilities accessible for people with disabilities?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Y a-t-il au moins une cabine accessible aux personnes en situation de handicap?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there at least one cabin accessible to people with disabilities?</td>
<td></td>
</tr>
</tbody>
</table>

* Response options are yes or no unless otherwise noted.
† Question includes a note: ‘To be considered accessible, water can be accessed (directly from the source or from a storage container) via a clear path without stairs or steps that is free of obstructions and has age-appropriate handrails, the tap can be reached from a seated position, and the water source/dispenser can be opened/closed with minimal effort with one closed fist or feet.’
Assessing current status

Figure 42 shows the proportion of schools meeting different criteria for disability-accessible toilets in countries with disaggregated data available. It highlights that some criteria are more stringent than others and that the definitions of indicators selected for national monitoring can make a big difference to coverage figures. For example, in India 29% of schools had toilets accessible to students with special needs but only 14% had a ramp and a handrail, and just 6% had a ramp, a handrail and a wide door for a wheelchair. In Lebanon 17% of schools had toilets accessible for students with limited mobility and 15% had toilets accessible for students with limited vision. In Tajikistan teachers reported that students with disabilities or other special needs were able to access toilet facilities without difficulty in 63% of schools, but only 3% of schools had separate toilets for students with disabilities.

While many countries collect information on disability-accessible toilets, relatively few collect information on accessibility of drinking water and handwashing facilities. In all countries with data on two or more WASH services, schools were more likely to have accessible drinking water than accessible sanitation or hygiene (Figure 43). In the United Republic of Tanzania, coverage of accessible drinking water was nearly five times higher than accessible sanitation. Coverage also varied between school levels. In Nigeria, Gabon and the United Republic of Tanzania, coverage was higher in secondary schools than in primary schools, whereas in Fiji and Syria coverage was higher in primary schools. Coverage in pre-primary schools also varied widely. In the Solomon Islands pre-primary schools were less likely to have disability-accessible drinking water and sanitation, but more likely to have disability-accessible hygiene services.

24 Unless otherwise indicated, figures in this section are based on individual data sources. Short survey codes are provided for reference. For further information please refer to the relevant JMP country files for WASH in schools: <https://washdata.org/data/downloads>.
Coverage of disability-accessible drinking water, sanitation and hygiene often varies between school levels

FIGURE 43
Proportion of schools with disability-accessible drinking water, sanitation and hygiene, by school level in selected countries 2017-2021 (%)
In many countries with disaggregated data available, most schools have some kind of WASH facility, but far fewer schools have disability-accessible WASH services (Figure 44). In over half the countries, the gap between any sanitation facility and a disability-accessible toilet exceeded 50% pts. In Yemen, 8 out of 10 schools had toilets, but only 1 in 50 schools had disability-accessible toilets. While schools in Costa Rica and Peru universally (>99%) had some kind of sanitation facility, 2 out of 3 schools in Costa Rica and 1 in 20 schools in Peru had disability-accessible toilets. By contrast, only half the schools in the Solomon Islands had any kind of toilet, but nearly a third of these had disability-accessible toilets.

In some countries large gaps are also observed for drinking water. In Syria and Mali all schools had some kind of water source but only half had disability-accessible sources. In Sudan 8 out of 10 schools had any water source, but only 1 out of 4 had disability accessible sources. In most countries the accessibility gap for hygiene services was less than 30% pts, except for Gabon and Ecuador which had gaps of 32 and 66% pts respectively. Mali reported the smallest gap: 83% of schools had a handwashing facility and 81% considered the handwashing facilities to be accessible for those with limited vision or mobility.
Analysing inequalities

Costa Rica is one of the few countries with sufficient data to assess trends in coverage of disability-inclusive WASH services in schools. The Ministerio de Educación Pública Infraestructura has time series data from 2014 to 2020 which show that there has been a steady increase in the number of pre-primary, primary and secondary schools with toilets in good condition that comply with Law 7600 to ‘incorporate an inclusive approach and take into account the special needs of different types of people so that they are not excluded due to their disability’ (Figure 45). By 2020, coverage was higher in pre-primary schools and secondary schools than in primary schools, but since 2014 primary school coverage has nearly doubled from 32% to 61%.

In addition to monitoring the provision of infrastructure meeting disability-accessible criteria, it is important to assess the extent to which students with disabilities are able to access and use school facilities without additional assistance. The Tajikistan 2017 WASH Poverty Diagnostic survey asked teachers to assess the degree to which students with disabilities have difficulties accessing WASH services. In three out of five rural schools teachers reported that students with disabilities had difficulties accessing WASH services. In three out of five rural schools teachers reported that students with disabilities had difficulties accessing WASH services. In three out of five rural schools teachers reported that students with disabilities had difficulties accessing WASH services. In three out of five rural schools teachers reported that students with disabilities had difficulties accessing WASH services. In three out of five rural schools teachers reported that students with disabilities had difficulties accessing WASH services. Further observations revealed that while more than half had a clear path with no obstructions, only around one in ten could be reached from a seated position and operated by feet and/or one closed fist with minimal effort (Figure 46).

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Increasingly, data are being collected on the number of students with disabilities as well as the type and extent of disabilities. For example, in Fiji student learning profiles record the extent to which students have functional difficulties with seeing, hearing, gross motor actions, fine motor actions, speaking, learning (general), learning (specific), behaviour/attention/socialization, and emotions. In some countries data on the number of students with disabilities can be combined with information on disability-accessible WASH services (Figure 47). Analysis of school-level data from four countries shows that 24% of schools in the Syrian Arabic Republic, 29% of schools in Liberia and Nigeria, and 40% of schools in Lao People’s Democratic Republic had students with disabilities but no disability-accessible toilets.

In 4 countries with data available, more than 1 in 5 schools had students with disabilities but no disability-accessible toilets

![Proportion of schools with disabled students and with disability-accessible toilets in selected countries with data 2017-2019 (%)](image)
In countries with disaggregated data available it is also possible to analyse sub-national inequalities in coverage of disability-accessible WASH in schools (Figure 48). In 2020, 47% of schools in Brazil had sanitation facilities accessible to students with limited mobility, but coverage was much lower in rural schools (20%) than in urban schools (60%), and in pre-primary schools (41%) than in secondary schools (67%). But the biggest gap in accessibility is between Federative districts: just one in six schools in Amazonas have accessible toilets, compared with nine out of ten schools in the capital Distrito Federal. A 2020 survey in the United Republic of Tanzania showed that 56% of schools had disability-accessible drinking water sources. It found smaller disparities between urban and rural (45%) and between school levels, but there was a gap of 20% pts between public (54%) and private (72%) schools, and children in Kusini Unguja region were three times more likely to have accessible drinking water sources than children in Simiyu region. Only half (53%) of schools in Gabon had disability-accessible handwashing facilities in 2021 and sub-national inequalities were less pronounced but coverage was twice as high among schools in the province of Estuaire (63%) than in Ogooue Ivindo (31%).

### FIGURE 48
Sub-national inequalities in coverage of drinking water, sanitation and hygiene facilities accessible to students with limited mobility in the United Republic of Tanzania, Brazil and Gabon, 2020-2021 (%)
The provision of disability-accessible infrastructure in schools goes far beyond drinking water, sanitation and hygiene services. The UNESCO Institute of Statistics (UIS) compiles general information on the proportion of schools in each country with ‘adapted infrastructure and materials for students with disabilities’ (SDG 4.a.1 d). Adapted infrastructure is defined as any built environment related to education facilities that is accessible to all users, including those with different types of disability, to be able to gain access to use and exit from them. Adapted materials include learning materials and assistive products that enable students and teachers with disabilities/functioning limitations to access learning and to participate fully in the school environment. Figure 50 combines survey data on coverage of disability-accessible toilets with UIS data on general coverage of adapted infrastructure and materials. It shows that in five out of eight countries with both types of data available, schools were more likely to have adapted infrastructure and materials. For example, in El Salvador two out of five schools have adapted infrastructure and materials, but just 1 out of 20 have disability-accessible toilets.

Accessibility includes ease of independent approach, entry, evacuation and/or use of a building and its services and facilities (such as water and sanitation) by all of the building’s potential users, with an assurance of individual health, safety and welfare during the course of those activities.

Accessible learning materials include textbooks, instructional materials, assessments and other materials that are available and provided in appropriate formats, such as audio, braille, sign language and simplified formats, that can be used by students and teachers with disabilities/functioning limitations.
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

SDG 6 Progress Update 2021 – Summary
This summary report provides an executive update on progress towards all targets of SDG 6 and identifies priority areas for acceleration. The report, produced by the UN-Water Integrated Monitoring Initiative for SDG 6, presents new country, regional and global data on all the SDG 6 global indicators.

SDG 6 Progress Update 2021 – 8 reports, by SDG 6 global indicator
This series of reports provides an in-depth update and analysis of progress towards the different SDG 6 targets and identifies priority areas for acceleration: Progress on Drinking Water, Sanitation and Hygiene (WHO and UNICEF); Progress on Wastewater Treatment (WHO and UN-Habitat); Progress on Ambient Water Quality (UNEP); Progress on Water-use Efficiency (FAO); Progress on Level of Water Stress (FAO); Progress on Integrated Water Resources Management (UNEP); Progress on Transboundary Water Cooperation (UNECE and UNESCO); Progress on Water-related Ecosystems (UNEP). The reports, produced by the responsible custodian agencies, present new country, region and global data on the SDG 6 global indicators.

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 water and sanitation. It is a substantive input into the activities of Sanitation and Water for All (SWA) as well as the progress reporting on SDG 6 (see above).

United Nations World Water Development Report
The United Nations World Water Development Report is UN-Water’s flagship report on water and sanitation issues, focusing on a different theme each year. The report is published by UNESCO, on behalf of UN-Water and its production is coordinated by the UNESCO World Water Assessment Programme. The report gives insight on main trends concerning the state, use and management of freshwater and sanitation, based on work done by the Members and Partners of UN-Water. Launched in conjunction with World Water Day, the report provides decision-makers with knowledge and tools to formulate and implement sustainable water policies. It also offers best practices and in-depth analyses to stimulate ideas and actions for better stewardship in the water sector and beyond.

The progress reports of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)
The JMP is affiliated with UN-Water and is responsible for global monitoring of progress towards SDG 6 targets for universal access to safe and affordable drinking water and adequate and equitable sanitation and hygiene services. Every two years the JMP releases updated estimates and progress reports for WASH in households, schools and health care facilities.

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.

UN-WATER PLANNED PUBLICATIONS

• UN-Water Policy Brief on Gender and Water
• Update of UN-Water Policy Brief on Transboundary Waters Cooperation
• UN-Water Analytical Brief on Water Efficiency
• Country Acceleration Case Studies

More information: www.unwater.org/publications

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DRINKING WATER IN SCHOOLS IN 2021

• 133 countries and 7 out of 8 SDG regions had national estimates for basic drinking water services in schools.
• 71% of schools had a basic drinking water service, 14% had a limited service, and 15% had no service.
• 546 million children lacked a basic drinking water service at their school, including 288 million whose school still had no water service.
• Achieving universal access (>99%) to basic drinking water services in schools by 2030 would require a 14x increase in the current rate of progress.

SANITATION IN SCHOOLS IN 2021

• 123 countries and all 8 SDG regions had national estimates for basic sanitation services in schools.
• 72% of schools had a basic sanitation service, 16% had a limited service, and 13% had no service.
• 539 million children lacked a basic sanitation service at their school, including 240 million whose school still had no sanitation service.
• Achieving universal access to basic sanitation services in schools by 2030 would require a 3x increase in the current rate of progress.

HYGIENE IN SCHOOLS IN 2021

• 121 countries and 7 out of 8 SDG regions had national estimates for basic hygiene services in schools.
• 58% of schools had a basic hygiene service, 17% had a limited service, and 25% had no service.
• 802 million children lacked a basic hygiene service at their school, including 480 million whose school still had no hygiene service.
• Achieving universal access to basic hygiene services in schools by 2030 would require a 5x increase in the current rate of progress.