

**Data sources for outcome indicators
on Article 9:**

Accessibility



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9.22 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities (SDG 11.2.1).

Level 2: Indicator could be produced with straightforward additions or modifications to existing data collection

[Link to the metadata related to this SDG indicator](#)

According to the metadata:

“The actual and recommended data sources for this indicator are the following:

- Data on location of public transport stops in city: city administration or service providers, GIS data*
- Dwelling units within 500m of public transport stops: Census, GIS data*
- Number of residents per dwellings unit: Census/household survey*
- Household surveys that collect information on the proportion of households that declare they have access to public means of transport within 0.5 km. These surveys can also collect information about the quality of the service.*

Due to its spatial nature, the use of the urban agglomeration is a precondition for the measurement and comparability of this indicator.

At the Global level, all this data will be assembled and compiled for international consumption and comparison by the UN-Habitat and other partners. UN-Habitat and partners will explore several capacity building options to ensure that uniform standards for generation, reporting and analysing data for this indicator are applied by all countries and regions.

This indicator is categorized under Tier II, meaning the indicator is conceptually clear and an established methodology exists but data is not easily available.

No internationally agreed methodology exists for measuring convenience and service quality of public transport. In addition, global/local on urban transport systems do not exist. Moreover, data is not harmonized and comparable at the global level. Obtaining this data will require collecting it at municipal/city level with serious deficiencies in some areas such as data on mass transit and on transport infrastructure. In addition, an open-source software platform for measuring accessibility, the Open Trip Planner Analyst (OTPA) accessibility tool, will be available to government officials and all urban transport practitioners. This tool was developed by the World Bank in conjunction with Conveyal (<http://conveyal.com>), this tool leverages the power of the OTPA engine and open standardized data to model block-level accessibility. The added value of the tool (free and

user friendly) is its ability to easily calculate the accessibility of various opportunities and transportation scenarios.”

Canada is an example of a country reporting close to this indicator; regarding transportation, it conducts the [Core Public Infrastructure Survey](#) every two years. The respondents are municipal governments, regional governments, and selected Provincial ministries that own one or more core public infrastructure assets. While the indicator does not directly report on the percentage of people with access to accessible transportation, it reports on the percentage of the infrastructure which is accessible, which should be highly correlated. A [sample of the survey’s results](#) can be found in table 1.

Table 1: Percentage of publicly owned public transit passenger stations and terminals that are accessible, 2016

Geography	Number of passenger stations and terminals	Percentage of passenger stations and terminals that are accessible
Canada	740	79.3
Newfoundland and Labrador	..	..
Prince Edward Island	..	..
Nova Scotia	14	100
New Brunswick	..	..
Quebec	150	26.4
Ontario	270	84.3
Manitoba	7	100
Saskatchewan	3	100
Alberta	120	99.9
British Columbia	175	100
Yukon	..	..
Northwest Territories	..	..
Nunavut	..	..

Source: Infrastructure Canada, “Percentage of publicly owned public transit passenger stations and terminals that are accessible”, 2016

In 2013, the European Commission coordinated a [survey on Europeans’ satisfaction with urban transport](#). The survey asked, “Do you or someone in your household have any accessibility issues when using transports?” Respondents could answer that they have faced accessibility issues for one of three reasons: disability, temporary impairment or ageing. However, because problems with ageing could very well be related to disability, using only the first category would underreport the percentage of people with accessibility issues related to disability. Using all three categories together may result in over-reporting beyond persons with disabilities.

Across the European Union, 5 per cent of people cited disability, 1 per cent cited temporary impairment, and 3 per cent cited ageing as the cause of their accessibility problems.

Maria Kett's, et al., 2020 study [“Disability, Mobility and Transport in Low- and Middle-Income Countries: A Thematic Review”](#), highlighted the challenge of identifying accessibility (beyond physical accessibility) and referred to the limits of data in low- and moderate-income countries.

A team of researchers from Australia developed and tested the “Journey Access Tool” developed for use by persons with disabilities and OPDs, which combines a Road Safety Audit approach with a disability-inclusive access/design audit approach. It has the potential to provide data for these indicators. While it has been tested in Cambodia in 2018, no published reports of its use were located.

9.23 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities (SDG 11.7.1).

Level 3: Indicator for which acquiring data is more complex or requires the development of data collection mechanisms which are currently not in place.

[Link to the metadata related to this SDG indicator](#)

According to the metadata:

“Satellite imagery (open sources), documentation outlining publicly owned land and community-based maps are the main sources of data.

- *For estimating the total surface of Built-up area - Data can be extracted from existing layers of satellite imagery ranging from open sources such as Google Earth, US Geological Survey/NASA Landsat imagery and Sentinel Imagery to higher resolution land cover data sets and commercial imagery. Images are to be analyzed for the latest available year.*
- *For the Inventory of open public space - Information can be obtained from legal documents outlining publicly owned land and well-defined land use plans. In some cases, where this information is lacking, incomplete or outdated, open sources, key informants in the city and community-based maps, which are increasingly recognized as a valid source of information, can be a viable alternative.*
- *The share of land occupied by public open spaces cannot be obtained directly from the use of high-resolution satellite imagery because it is not possible to determine the ownership or use of open spaces through remote sensing. However, fieldwork to*

validate and verify the open spaces derived from satellite imagery helps to map out land that is for public and non-public use.”

Unfortunately, none of these sources reports on the accessibility of open space. If there were national accessibility standards, then audits could be done to determine whether open spaces are accessible. These audits could be carried out by auditing teams or, if smartphone penetration were adequate, crowd-sourced data could be used, so that persons with disabilities could report on their experience in open spaces, using an auditing application. An example of such an application can be found at <https://www.axsmap.com/>

9.24 Proportion of persons with disabilities reporting access to public buildings in urban and rural areas, including government buildings in national and regional capitals.

Level 2: Indicator could be produced with straightforward additions or modifications to existing data collection efforts

No examples were found, but this information could be obtained by adding the appropriate questions to a national disability survey or from a crowd-sourced auditing application, such as the one found at <https://www.axsmap.com/>

9.25 Proportion of individuals using the Internet (SDG indicator 17.8.1) disaggregated by age, sex and disability.

Level 1: Indicator can be produced

[Link to the metadata related to this SDG indicator](#)

According to the metadata:

“The indicator proportion of individuals using the Internet is based on an internationally agreed definition and methodology, which have been developed under the coordination of ITU, through its Expert Groups and following an extensive consultation process with countries. It is also a core indicator of the Partnership on Measuring ICT for Development’s Core List of Indicators, which has been endorsed by the UN Statistical Commission (last time in 2014). Data on individuals using the Internet are collected through an annual questionnaire that ITU sends to national statistical offices (NSO). In this questionnaire ITU collects absolute values. The percentages are calculated a-posteriori. The survey methodology is verified to ensure that it meets adequate statistical standards.

The data are verified to ensure consistency with previous years' data and situation of the country for other related indicators (ICT and economic).

For most developed and an increasing number of developing countries, percentage of individuals using the Internet data are based on methodologically sound household surveys conducted by national statistical agencies. If the NSO has not collected Internet user statistics, then ITU estimates the percentage of individuals using the Internet.

Data are usually not adjusted, but discrepancies in the definition, age scope of individuals, reference period or the break in comparability between years are noted in a data note. For this reason, data are not always strictly comparable.

Some countries conduct a household survey where the question on Internet use is included every year. For others, the frequency is every two or three years. Overall, the indicator is available for 100 countries at least from one survey in the years 2011-2014.

ITU makes the indicator available for each year for 200 economies by using survey data and estimates for almost all countries of the world.

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The MICS is a good source of data for this indicator. The survey asks a series of questions about the use of computers, mobile phones and the internet, and includes the Washington Group Short Set on Disability. An example from the 2017-28 MICS from Pakistan is presented in table 2.

Table 2: Internet use among men and women age 15-49, by sex and disability status in Pakistan

	Per cent who used the internet		
	Ever	During the last 3 months	At least once a week during the last 3 months
Women			
Has a functional difficulty	5.2	4.5	3.6
Has no functional difficulty	14.0	12.5	10.5
Men			
Has a functional difficulty	14.0	12.9	9.9
Has no functional difficulty	32.8	31.0	26.5

Source: Bureau of Statistics Punjab, Planning & Development Board, Government of the Punjab, *Multiple Indicator Cluster Survey Punjab, 2017-18, Survey Findings Report* ([Lahore, Pakistan, Bureau of Statistics Punjab, Planning & Development Board, Government of the Punjab, 2018](#)).

9.26 Proportion of persons with disabilities reporting satisfaction in their access to emergency services via alternative means of communication, disaggregated by sex, age and disability.

Level 2: Indicator could be produced with straightforward additions or modifications to existing data collection efforts

No examples were found, but this information could be obtained from adding the appropriate questions to a national disability survey.

9.27 Proportion of persons with disabilities granted use of alternative communications in official interactions, disaggregated by the type of public service used, sex, age and disability.

Level 2: Indicator could be produced with straightforward additions or modifications to existing data collection efforts

No examples were found, but this information could be obtained from adding the appropriate questions to a national disability survey.