

# WASH data (JMP and beyond)

## WASH in Households in odd years



## WASH in Schools and Health Care Facilities in even years






Global Task Force on Cholera Control (GTFCC)

Monday 20 March 2023

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[washdata.org](https://washdata.org)

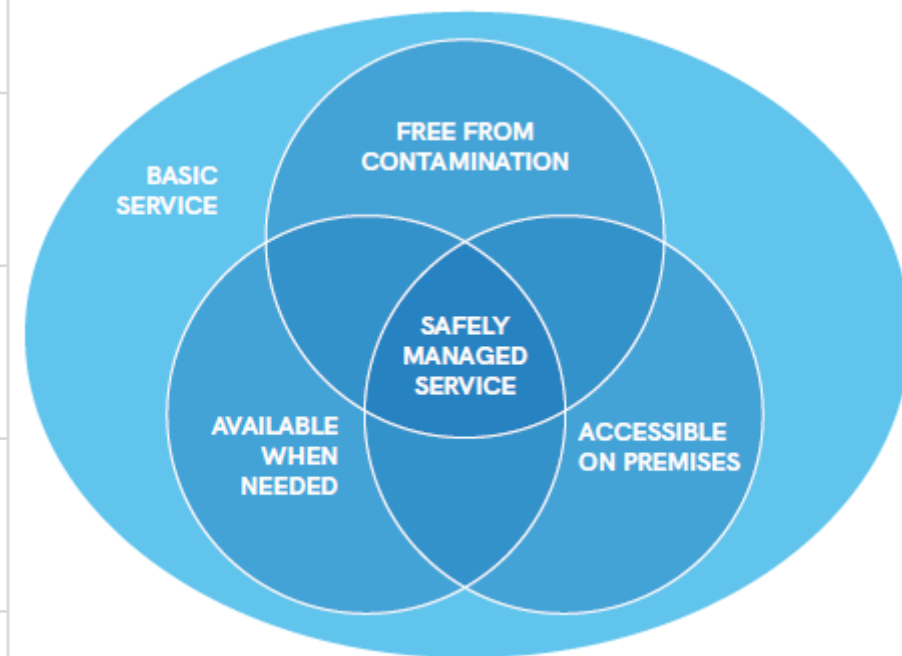
# Definitions matter (at least for indicators)

	SDG target	Target text	Global indicators
	1.4 Basic services	By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as <b>access to basic services</b> , ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	Proportion of population living in households with access to basic services  [includes <b>basic drinking water, sanitation and hygiene</b> ]
	3.8 Universal health coverage	Achieve <b>universal health coverage</b> , including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	Coverage of essential health services  [includes <b>basic sanitation</b> ]
	3.9 Burden of disease	By 2030, substantially reduce the number of <b>deaths and illnesses</b> from hazardous chemicals and air, water and soil pollution and contamination	Mortality rate attributed to <b>unsafe water, unsafe sanitation and lack of hygiene</b> (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)
	6.1 Drinking water	By 2030, <b>achieve universal and equitable access to safe and affordable drinking water for all</b>	Proportion of population using <b>safely managed drinking water services</b>
	6.2 Sanitation and hygiene	By 2030, <b>achieve access to adequate and equitable sanitation and hygiene for all and end open defecation</b> , paying special attention to the needs of women and girls and those in vulnerable situations	Proportion of population using <b>safely managed sanitation services</b>  Proportion of population with access to <b>handwashing facilities with soap and water in the home</b>

# Global indicators

- JMP mandate
  - Global monitoring
    - Representativeness
    - Comparability, harmonization
- Service ladders
  - Drinking water (5 levels)
  - Sanitation (5 levels)
  - Hygiene (3 levels)
- Health care facilities
  - Water, sanitation, hygiene (3 levels)
  - Waste management
  - Environmental cleaning
- Schools
  - Water, sanitation, hygiene (3 levels)

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
UNIMPROVED	Drinking water from an unprotected dug well or unprotected spring
SURFACE WATER	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal
<b>Note:</b> Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.	



SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite
BASIC	Use of improved facilities that are not shared with other households
LIMITED	Use of improved facilities that are not shared with other households
UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
OPEN DEFECCATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open paces, or with solid waste
<b>Note:</b> improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.	

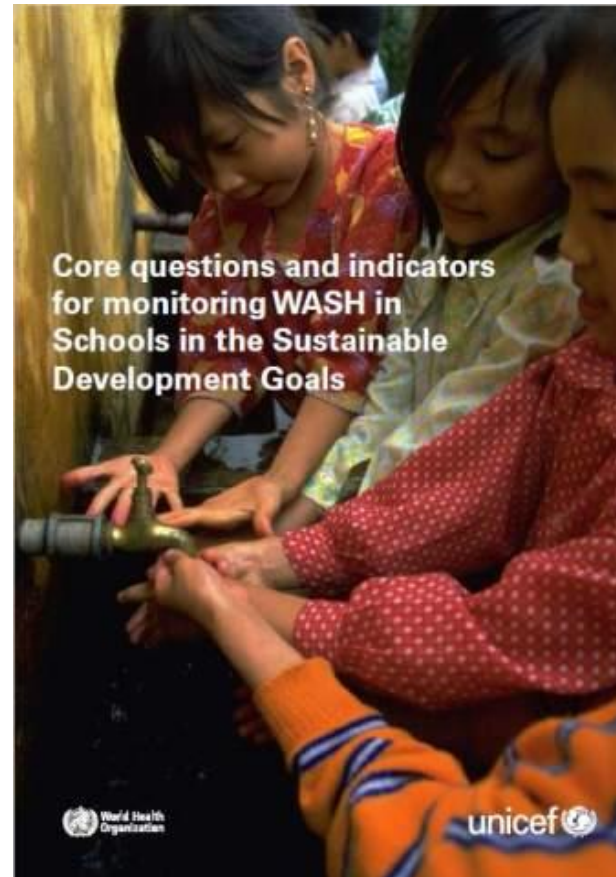


SERVICE LEVEL	DEFINITION
BASIC	Availability of a handwashing facility on premises with soap and water
LIMITED	Availability of a handwashing facility on premises without soap and water
NO FACILITY	No handwashing facility on premises
<p><b>Note:</b> Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.</p>	



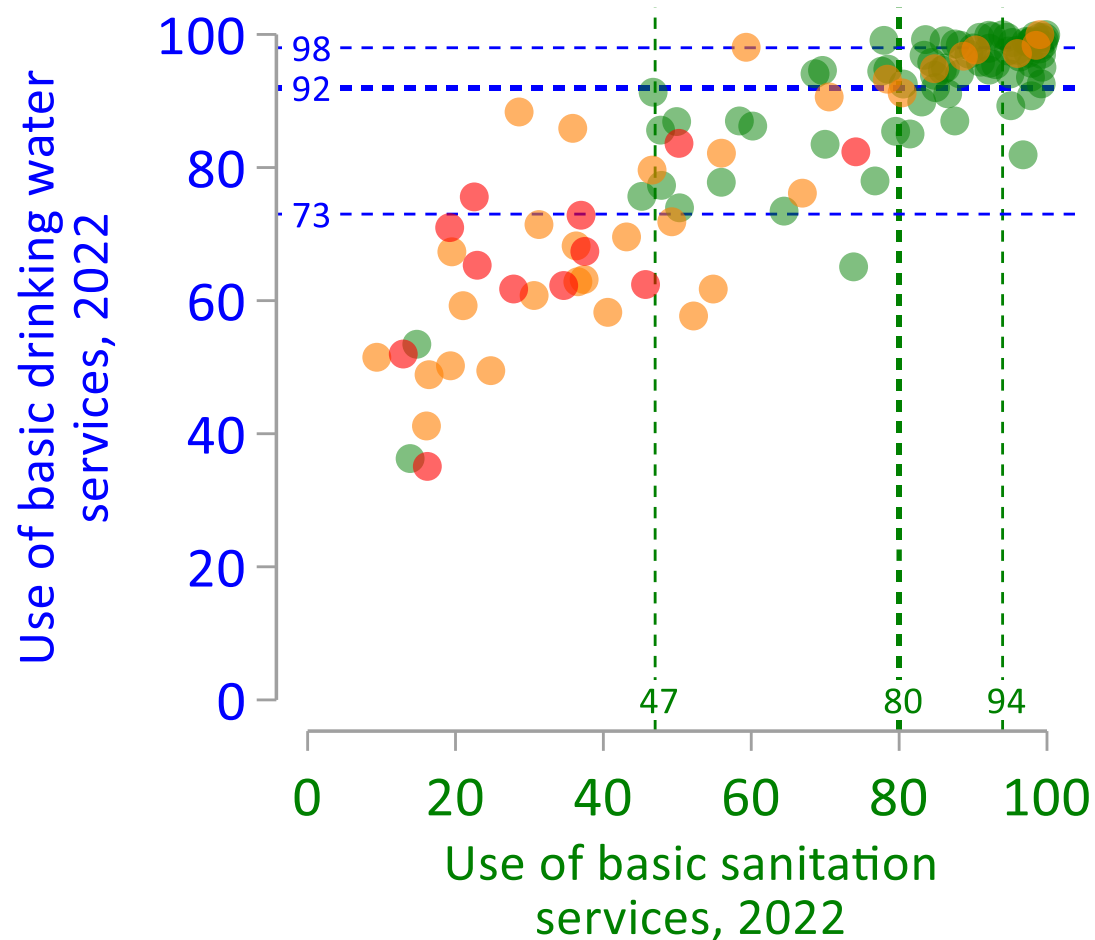


# Core questions and indicators



# Basic water, sanitation coverage among 136 LMICS

Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing



- Non-cholera countries
- Cholera countries (control or elimination)
- Cholera countries (crisis)

Use of improved facilities that are not shared with other households



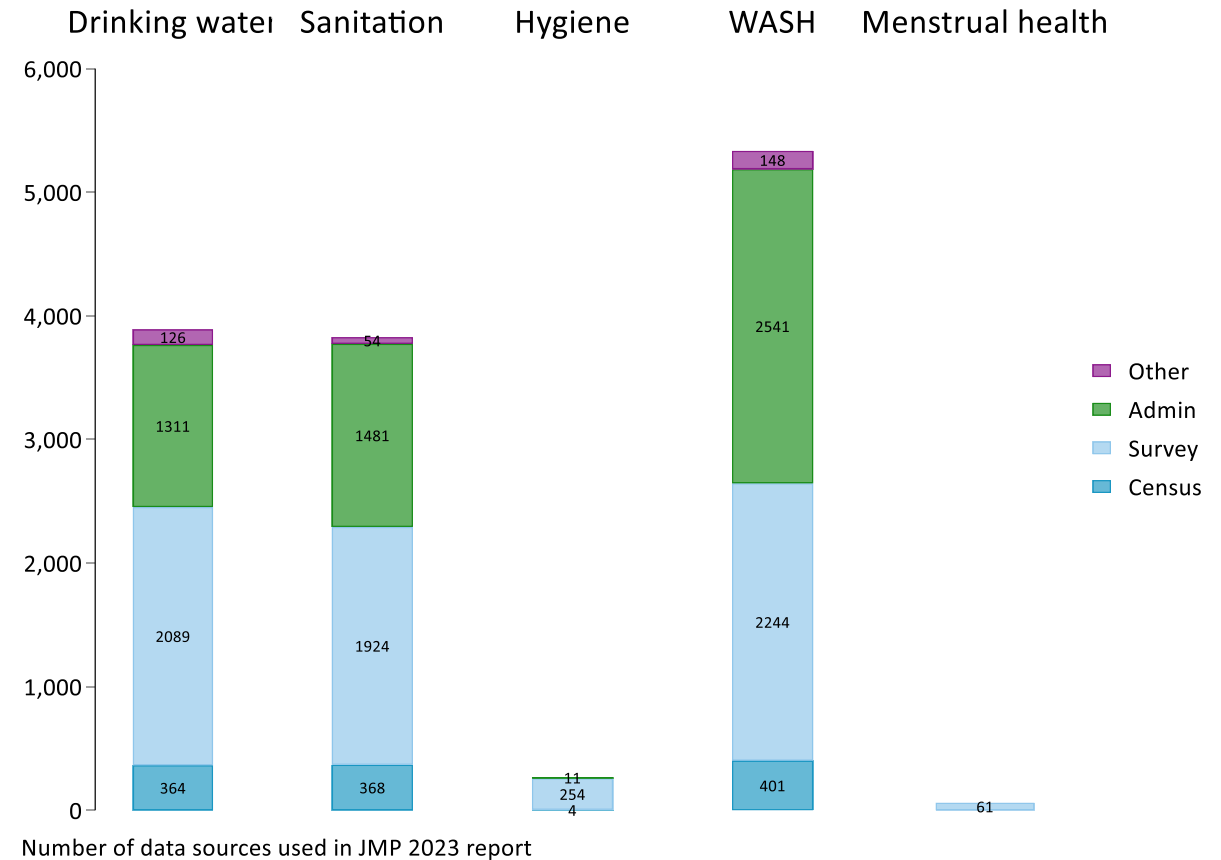
# Drinking water quality in household surveys

2012-2015	2016-17	2018	2019	2020	2021	2022	2023
<u>2012-13</u> Bangladesh MICS Ghana LSS  <u>2014-15</u> Congo MICS Nepal MICS (Pakistan MICS) (Belize MICS6 Pilot)	Côte d'Ivoire MICS DPRK MICS Ecuador ENEDMU Ethiopia ESS Lao PDR SIS Lebanon National (Mongolia MICS) Nigeria MICS Paraguay MICS Philippines APIS Senegal EEAH Sierra Leone MICS Togo MICS	DRC MICS Gambia MICS Georgia MICS Ghana MICS Iraq MICS Kiribati MICS Lesotho MICS Madagascar MICS Mongolia MICS Suriname MICS Tunisia MICS	Algeria MICS Bangladesh MICS CAR MICS Chad MICS Dominican Republic MICS Guinea-Bissau MICS Honduras MICS Nepal MICS <u>Nigeria NORM</u> Sao Tome and Principe MICS Tonga MICS Zimbabwe MICS	Côte d'Ivoire DHS Guyana MICS <u>Indonesia SKAM-RT</u> Kosovo MICS Malawi MICS Samoa MICS State of Palestine MICS Turks and Caicos MICS Tuvalu MICS	Benin MICS Eswatini MICS Fiji MICS Mozambique DHS <u>Nigeria NORM</u> Sri Lanka HIES Tanzania NPS Viet Nam MICS	Ecuador ENEDMU Trinidad and Tobago MICS	Afghanistan MICS Argentina MICS Azerbaijan MICS Belize MICS Burkina Faso NORM Ethiopia DHS FSM MICS Guatemala DHS Laos SIS Lebanon MICS Nauru MICS Nicaragua MICS Somalia MICS Sudan MICS Tunisia MICS Turkmenistan MICS Uganda DHS Vanuatu MICS

<https://washdata.org/reports/integrating-water-quality-testing-household-surveys>

# Global database

- Household surveys
  - Maybe one every 2-3 years, takes a long time for data to be published
  - Moderate resolution
- Censuses
  - Usually every 10 years, takes a long time for data to be published
  - Limited WASH variables
  - High resolution
- Administrative data



# Disaggregations

- Urban/Rural
- Wealth quintiles
- Sub-national regions
  - IHME 5x5 km grids
  - DHS exploratory analysis
  - JMP inequalities files: roughly admin1

# Mapping geographical inequalities in access to drinking water and sanitation facilities in low-income and middle-income countries, 2000–17



Local Burden of Disease WaSH Collaborators\*

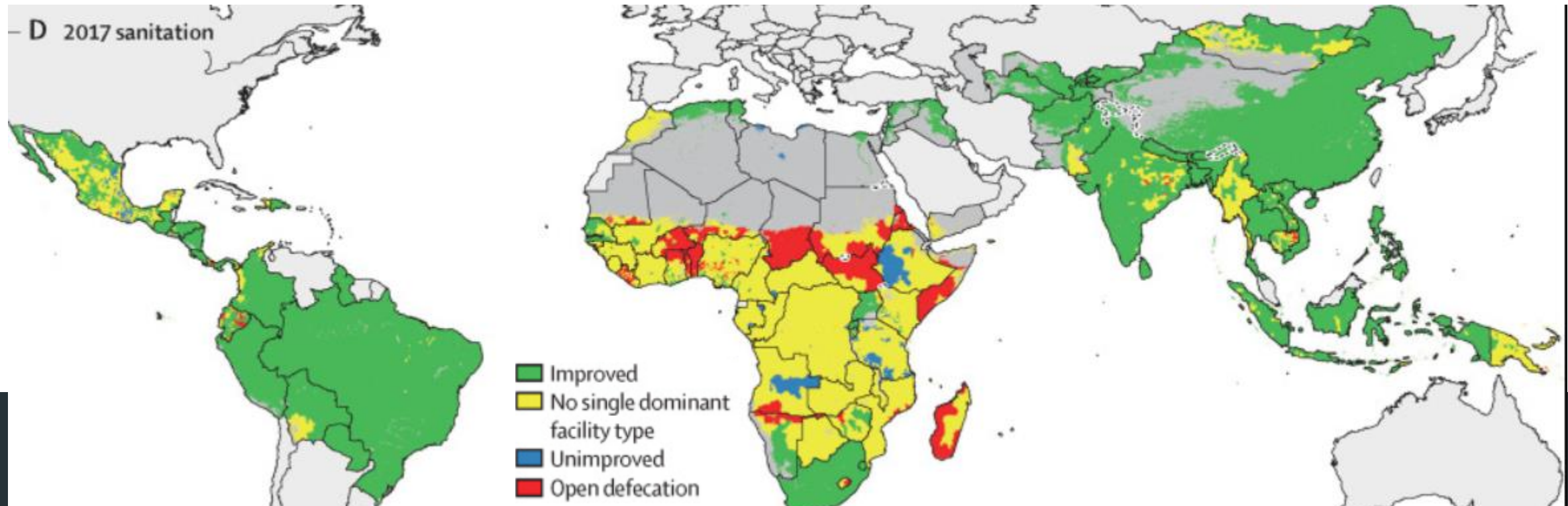


## Summary

**Background** Universal access to safe drinking water and sanitation facilities is an essential human right, recognised in the Sustainable Development Goals as crucial for preventing disease and improving human wellbeing. Comprehensive, high-resolution estimates are important to inform progress towards achieving this goal. We aimed to produce high-resolution geospatial estimates of access to drinking water and sanitation facilities.

*Lancet Glob Health* 2020;  
8: e1162–85

\*Collaborators listed at the end  
of the Article





## SPATIAL MODELING FOR SUBNATIONAL ADMINISTRATIVE LEVEL 2 SMALL-AREA ESTIMATION

### DHS SPATIAL ANALYSIS REPORTS 21



SEPTEMBER 2021

This publication was prepared by  
Yunus W. Zohary  
Rose E. Donohue, Brad

## MODELING COVID-19 RELATED INDICATORS AT THE SECOND SUBNATIONAL ADMINISTRATIVE LEVEL

### DHS SPATIAL ANALYSIS REPORTS 22

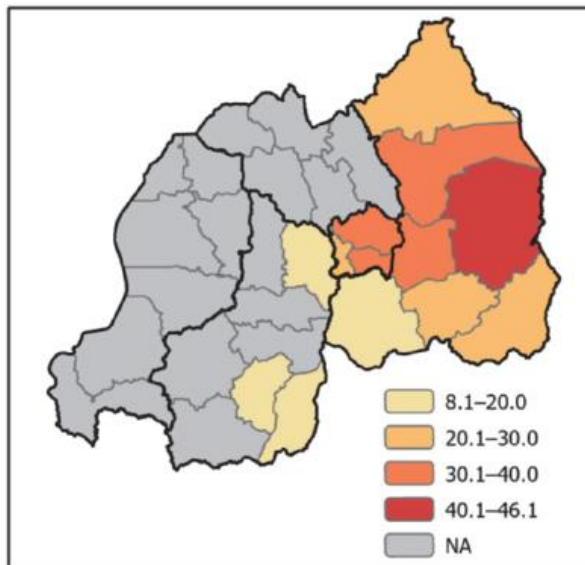


SEPTEMBER 2022

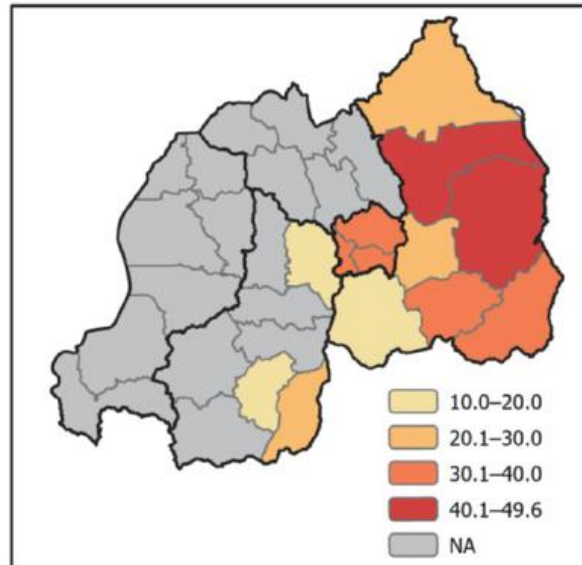
This publication was produced for review by the United States Agency for International Development (USAID). The report was prepared by Rose E. Donohue, Martha Medina, Bradley Janocha, Benjamin K. Mayala, and Trevor N. Croft.

## Percentage of households with basic handwashing facility, including soap and water

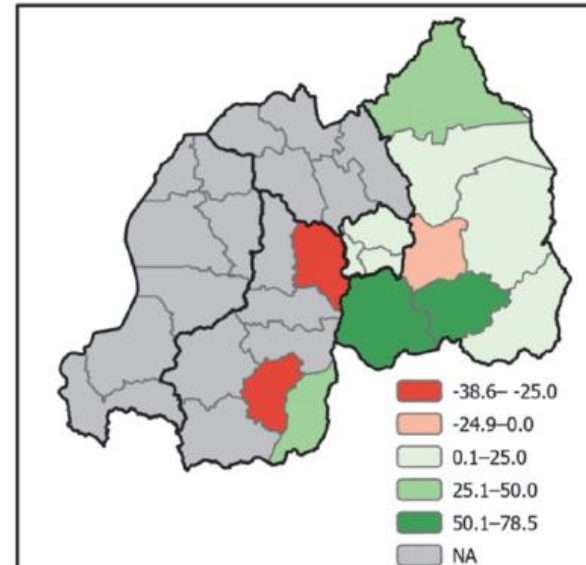
a. Pre data (Nov 2019–Mar 2020)



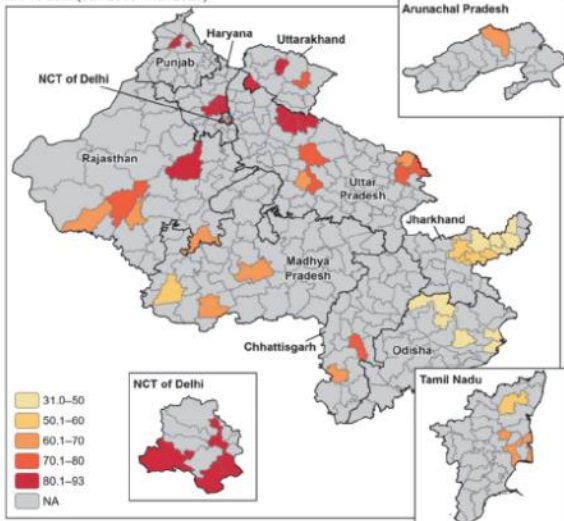
b. Post data (Jun 2020–Jul 2020)



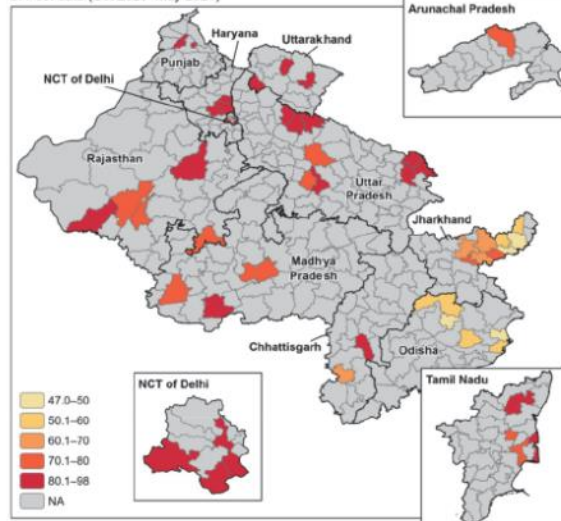
c. Percentage change



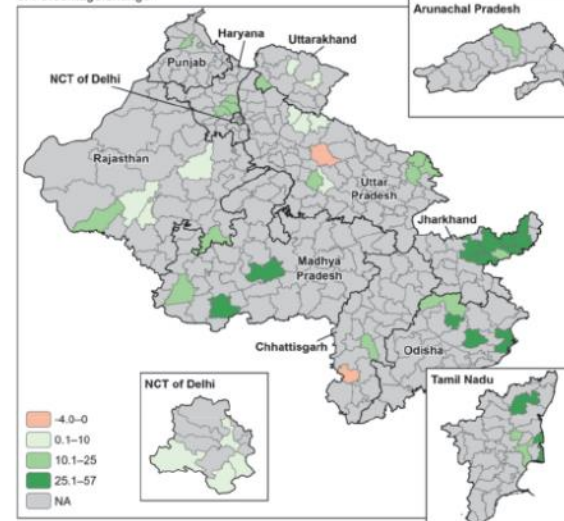
a. Pre data (Jun 2019–Mar 2020)



b. Post data (Oct 2020–May 2021)



c. Percentage change





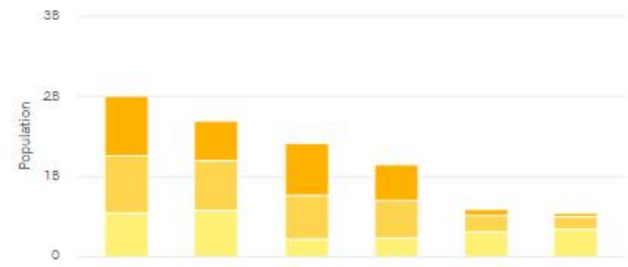
World

## World

[View data table](#) [Download data](#) [Create new chart](#)

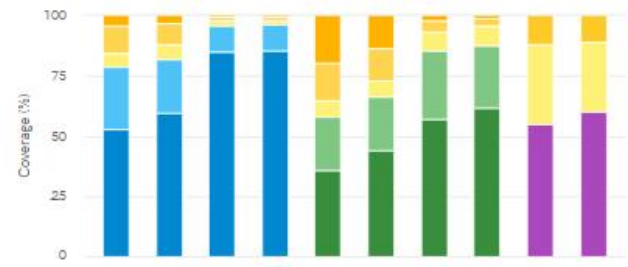
Summary Drinking Water Sanitation Hygiene

Population lacking basic sanitation, 2015 and 2020



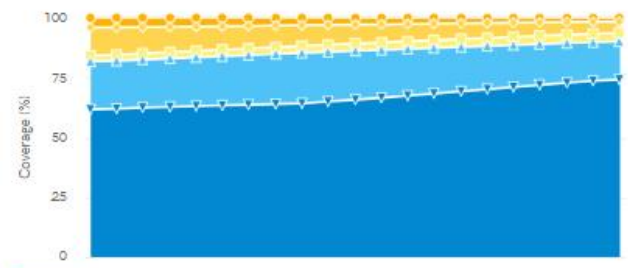
Edit

Rural and urban service levels, 2015 and 2020



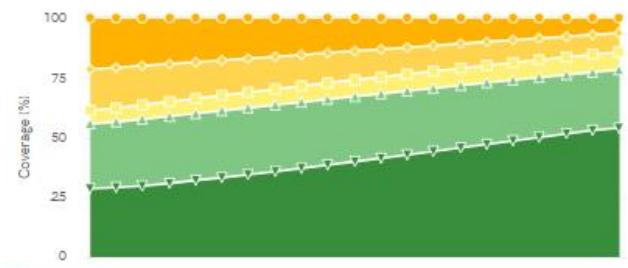
Edit

Trends in drinking water service levels, 2000-2020

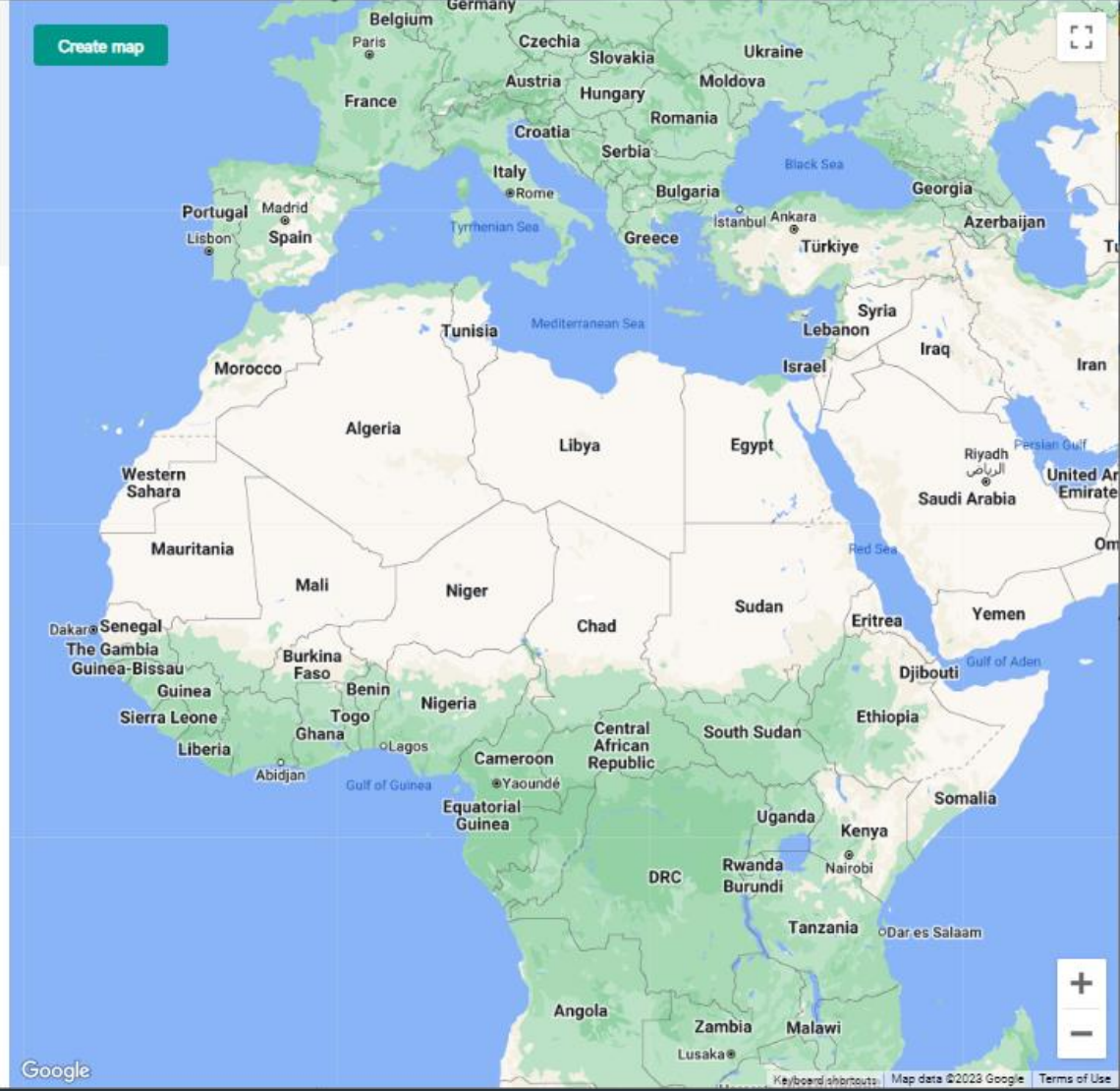


Edit

Trends in sanitation service levels, 2000-2020



Edit



Downloads index | JMP

<https://washdata.org>

washtdata.org/data/downloads#WLD

Household





School

Health Care Facilities

World	<a href="#">World file</a>	<a href="#">World file</a>	<a href="#">World file</a>
Regions	<a href="#">Regions file</a>	<a href="#">Regions file</a>	<a href="#">Regions file</a>
[ + ] Australia and New Zealand (2)			
[ + ] Central and Southern Asia (14)			
[ + ] Eastern and South-Eastern Asia (18)			
[ + ] Oceania (21)			
[ + ] Northern Africa and Western Asia (25)			
[ + ] Latin America and the Caribbean (48)			
[ - ] Sub-Saharan Africa (51)			
Angola	<a href="#">Country file Inequalities</a>	<a href="#">Country file</a>	<a href="#">Country file</a>
Benin	<a href="#">Country file Inequalities</a>	<a href="#">Country file</a>	<a href="#">Country file</a>
Botswana	<a href="#">Country file</a>	<a href="#">Country file</a>	
Burkina Faso	<a href="#">Country file Inequalities</a>	<a href="#">Country file</a>	<a href="#">Country file</a>

AutoSave Off JMP\_20... JOHNSTON, Richard Paul

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Joint Monitoring Programme for Water Supply, Sanitation and Hygiene

Estimates on household water, sanitation and hygiene  
by wealth quintile and sub-national region in

## Uganda


Updated April 2021

*Follow the links below to find the following information:*

### JMP Estimates

WASH status and trends by wealth quintile  
(customized quintiles made without water and sanitation assets)

[Water](#)  
[Sanitation](#)  
[Hygiene](#)



### Data inputs

customized wealth quintiles and subnational data:

[DHS01](#)  
[DHS06](#)  
[MIS09](#)  
[AIS11](#)  
[DHS11](#)  
[MIS15](#)  
[DHS16](#)  
[MIS19](#)

Introduction Water Sanitation Hygiene DHS01 ...

Ready 100%

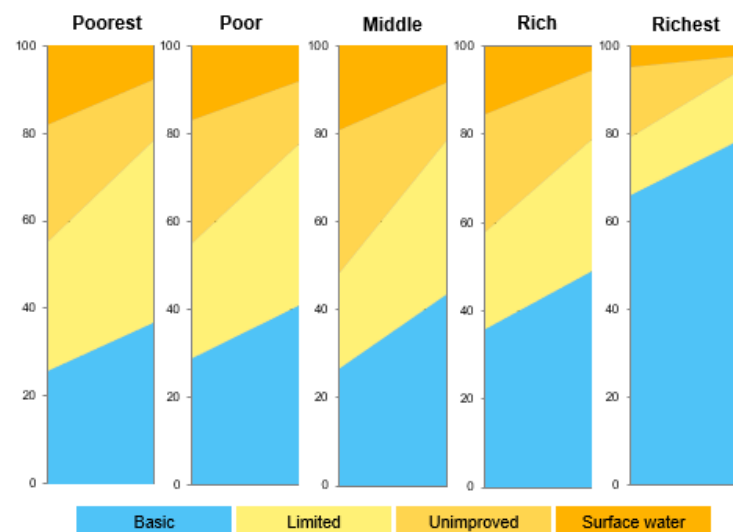
<https://washdata.org>

<https://washdata.org/data/downloads>

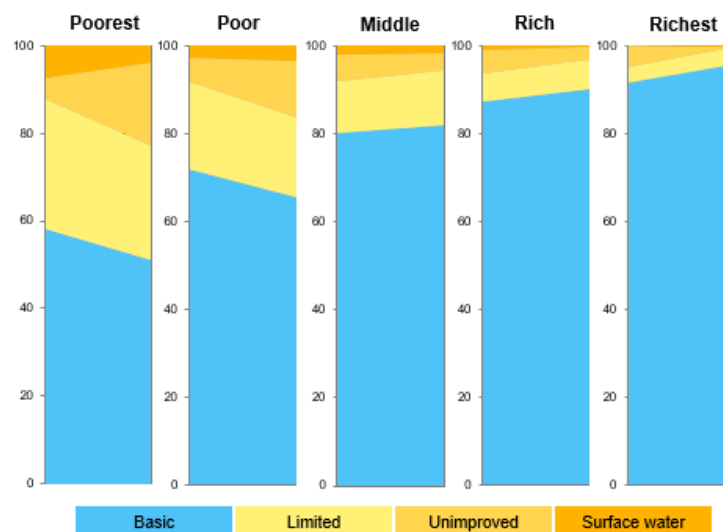
# Summary of trends in use of drinking water by wealth quintile (%)

## Uganda

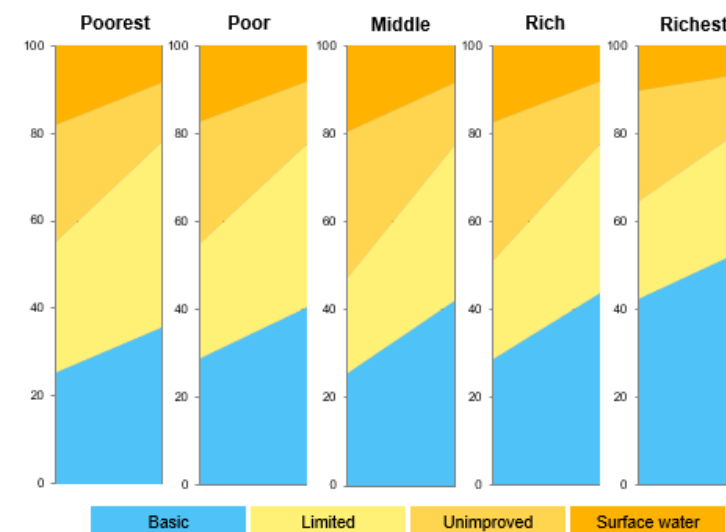
National use of drinking water sources, 2000–2020



Urban use of drinking water sources, 2000–2020



Rural use of drinking water sources, 2000–2020



Uganda			Poorest				Poor				Middle				Rich				Richest			
			Basic	Limited	Unimproved	Surface water	Basic	Limited	Unimproved	Surface water	Basic	Limited	Unimproved	Surface water	Basic	Limited	Unimproved	Surface water	Basic	Limited	Unimproved	Surface water
NATIONAL	Estimate	2000	25.8	29.3	26.7	18.2	28.9	25.8	28.3	17.0	26.8	21.6	32.4	19.1	36.0	22.0	26.6	15.3	65.9	13.3	16.0	4.8
		2020	36.6	41.6	14.0	7.7	41.0	36.5	14.3	8.2	43.5	35.0	13.2	8.3	49.0	30.0	15.4	5.6	78.2	15.8	3.7	2.2
URBAN	Estimate	2000	58.3	29.8	4.4	7.4	71.8	20.2	5.2	2.9	80.1	11.9	5.9	2.1	87.2	6.6	5.3	0.9	91.5	3.8	4.7	0.0
		2020	51.1	26.2	18.9	3.8	65.4	18.4	12.8	3.4	82.1	12.2	4.0	1.7	90.1	6.8	2.8	0.3	95.9	4.0	0.0	0.1
RURAL	Estimate	2000	25.2	29.9	26.8	18.1	28.5	26.3	27.8	17.4	25.7	21.8	33.2	19.4	28.7	22.5	31.3	17.5	42.4	22.0	25.3	10.3
		2020	35.7	42.2	13.7	8.4	40.4	37.2	14.3	8.1	41.9	35.6	14.1	8.5	43.6	34.1	14.1	8.1	53.7	27.9	12.4	6.1

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HYGIENEMHHBASICWATERRAWWEALTH QUINTILES

Uganda

2019

Use of sanitation facilities

by wealth quintile and sub-national region

Notes:

WHO/UNICEF JMP customised wealth index excludes water, sanitation and hygiene assets.

Survey used for analysis:

MIS19

Subnational Sanitation

acholi

ankole

bugisu

bukedi

bunyoro

busoga

kampala

karamoja

kigezi

lango

north buganda

south buganda

teso

tooro

west Nile

Use of sanitation facilities

SUB-REGIONS:

Weighted percentage (used in graphs)

acholi

ankole

bugisu

bukedi

bunyoro

busoga

kampala

karamoja

kigezi

lango

north buganda

south buganda

teso

tooro

west

Sanitation

Improved

Not Improved

38.3

53.0

42.9

42.1

32.2

37.3

86.6

2.1

31.1

14.8

47.9

65.7

18.6

39.6

46.3

Sanitation ladder

Basic

Limited

Unimproved

Open defecation

21.3

41.7

33.0

29.9

22.9

30.6

31.6

0.7

26.7

8.8

35.8

40.8

13.4

34.1

29.7

Shared among improved sanitation facilities

Yes

No

44.3

21.4

23.1

29.0

28.7

18.0

63.5

67.1

14.2

40.7

25.2

37.8

27.8

13.9

37.3

Sanitation type

Sewer connection

Septic tank connection

Improved latrines

Unimproved facilities

Open defecation

0.2

0.0

1.6

0.5

0.0

1.0

0.6

0.0

0.0

0.0

0.0

0.1

0.5

0.0

0.1

Shared among improved sanitation facilities

Yes

No

DK/missing

17.0

11.3

9.9

12.2

9.2

6.7

55.1

1.4

4.4

6.0

12.0

24.8

5.2

5.5

17.4

Shared among all sanitation facilities

Yes

No

42.6

19.5

21.9

26.6

26.7

18.1

64.1

38.6

10.9

29.5

18.5

31.6

25.3

13.2

44.2

flush to piped sewer system

flush to septic tank

flush to pit latrine

flush to somewhere else

0.2

0.0

1.6

0.5

0.0

1.0

0.6

0.0

0.0

0.0

0.0

0.1

0.5

0.0

0.1

MIS09

AIS11

DHS11

MIS15

DHS16

MIS19

data\_summary

Count: 0

90%



# Other data

- DRR
  - REACH/MSNA
  - HeRAMS
  - Water Severity Classification
- INGO/civil society
  - mWater
  - AKVO
  - Citizen science, crowdsourcing...
- Administrative
  - Infrastructure inventories
  - Disease surveillance

<https://www.reachresourcecentre.info/theme/multi-sector-assessments/>

<https://www.who.int/initiatives/herams>



Thank  
you!