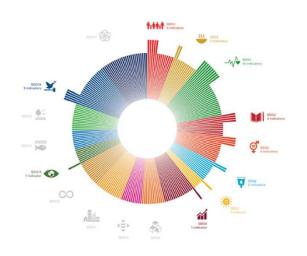
UNICEF indicator clinic Data for children in the SDGs Monitoring SDG indicators for WASH

International workshop on SDG monitoring



data.unicef.org

Beijing 28 June 2018

Tom Slaymaker
UNICEF HQ (New York)
WHO/UNICEF JMP
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UNICEF GLOBAL CUSTODIAN OF DATA FOR CHILDREN

CUSTODIAN	CO-CUSTODIAN
2.2.1 Stunting	3.b.1 Full vaccination coverage
2.2.1 Wasting/overweight	5.2.1 Sexual violence by intimate partner
3.1.2 Skilled attendance at birth	5.2.2 Sexual violence by non-intimate partner
3.2.1 Under-five mortality	6.1.1 Safely managed drinking water
3.2.2 Neonatal mortality	6.2.1 Safely managed sanitation and hygiene
4.2.1 Early childhood development	8.7.1 Child labour
5.3.1 Early marriage	16.9.1 Birth registration
5.3.2 FGM/C	
16.2.1 Child discipline	
16.2.3 Sexual violence against children	

UNICEF briefing notes on SDG global indicators related to children

Briefing note # 1 National and glob indicators	al monitoring of child-related SDG
Briefing note #2 Child poverty	
Briefing note #3 Nutritional status	
Briefing note #4 Maternal mortalit	y and skilled attendant at birth
Briefing note #5 Child mortality	
Briefing note #6 Universal health o	coverage
Briefing note #7 Learning	
Briefing note #8 Early childhood d	evelopment
Briefing note #9 Violence against	girls and women
Briefing note #10 Harmful practices	
Briefing note #11 Drinking water	
Briefing note #12 Sanitation and hy	giene
Briefing note #13 Child labour	
Briefing note #14 Abuse, exploitation	on and violence
Briefing note #15 Birth registration	

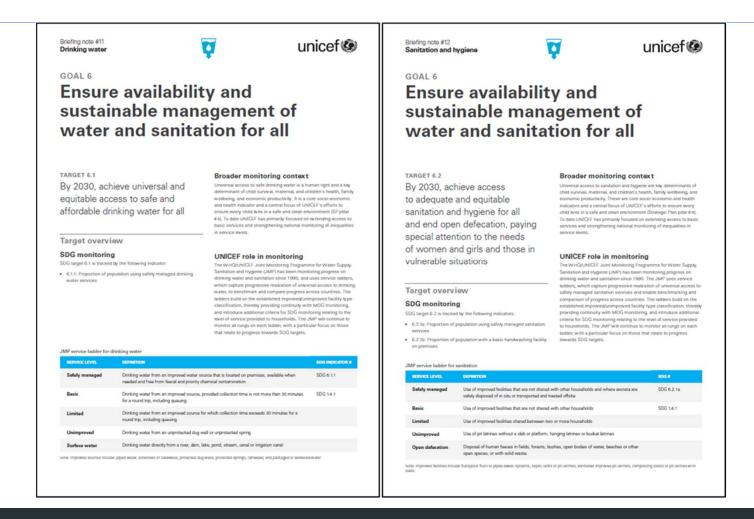
https://data.unicef.org/







Monitoring SDG indicators for WASH









SDG Target 6.1: Drinking water

By 2030, achieve **universal** and **equitable** access to **safe** and **affordable** drinking water **for all**

Indicator 6.1.1: Population using safely managed drinking water services

Definition: The population using an improved drinking water source which is

- >Accessible on premises
- >Available when needed
- > Free from faecal and priority chemical contamination







Improved drinking water sources (MDG)

Use of drinking water sources	DH\$15	Rwanda			
DHS	ICF Macro				
Demographic and Health Survey, 2014-20	015 Survey	2015			
Definitions	Facility type estimates	Urban	Rural	National	
	Improved	90.5	68.8	72.4	
	All piped	81.3	27.0	36.1	
	Non-piped	9.1	41.8	36.4	

Original denomination	Classification	Urban	Rural	National
	Tap water	81.3	27.0	36.1
	House connections	43.6	2.8	9.6
piped into dwelling	Piped water into dwelling	2.8	0.3	0.7
piped to yard/plot	Piped water to yard/plot	40.8	2.4	8.8
public tap/standpipe	Public tap, standpipe	37.7	24.2	26.5
	Other			
tube well or borehole	Tubewell, borehole	0.9	1.7	1.6
	Private			
	Public			
	Other			
	Traditional wells	1.0	4.2	3.7
	Private			
	Public			
	Other			
protected well	Protected well	0.5	2.2	1.9
	Private			
	Public			
	Other			
unprotected well	Unprotected well	0.6	2.0	1.7

- Technology classification
 - Household surveys in many countries
- Improved sources
 - Tap water in the dwelling, yard or plot
 - Public standposts
 - Boreholes/tubewells
 - Protected wells and springs
 - Rainwater
 - Packaged and delivered water
- Unimproved sources
 - Unprotected wells and springs
- Surface water







SDG drinking water service ladder

SERVICE LEVEL	DEFINITION
SAFELY MANAGED Drinking water from an improved water source located on premises, available when needed from faecal and priority chemical contaminations.	
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









Accessible

Use of drinking water sources PMA15 Ugand					
РМА	PMA2020				
Performance Monitoring and Accountability	Survey		2015		
Definitions	Facility type estimates	Urban	Rural	National	
	Improved	94.9	73.8	77.4	
	All piped	51.3	12.1	18.7	
	Non-piped	43.6	61.8	58.7	
	Service level estimates				
	Accessibility				
0 mins	On premises	13.1	4.2	6.1	
No more than 30 mins roundtrip	Within 30 minutes	75.5	45.7	51.9	

- On premises
- Within 30 minutes

Household surveys and censuses

- Available for most countries
- "How long does it take for members of your household to go there, get water, and come back?"

- Household connections
- Maximum distances







Available when needed

Use of drinking water sources	CWA14	Mauritius		ıs
CWA	Central Water Authority			
Central Water Authority	Admin		2014	
Definitions	Facility type estimates	Urban	Rural	Nation al
	Improved			
	All piped			
	Non-piped			
	Service level estimates			
	Accessibility			
	On premises			
	Within 30 minutes			86.0
	Availability Sufficient			86.0
Population receiving water on a	0 0			
18-24 hour basis	Most of the time			86.0
	Continuous			
	National Standard			
	Quality			
	Microbial			
	Fluoride			
	Arsenic			
	Priority chemical			
	Safely managed			

Household surveys and censuses

- Continuity (hours of service) of piped water supplies
- In the last month, has there been any time when your household did not have sufficient quantities of drinking water?

- Continuity of piped supplies
- Different benchmarks and standards
 - 24/7, 20 hours/day, 12 hours/day, 5 days/week







Free from contamination

Use of drinking water sources	MICS13	Bangladesh			
MICS13	Bangladesh Bureau of Statistics				
Bangladesh Multiple Indicator Cluster Survey 2013	Survey		2013		
Definitions	- Currey	Urban	Rural	National	
	Improved	99.2	97.6	97.9	
	All piped	28.6	1.3	6.9	
	Non-piped	70.5	96.4	91.0	
	Service level estimates				
	Accessibility				
	On premises	83.8	73.7	75.8	
	Within 30 minutes	99.3	98.2	98.5	
	Availability				
	Sufficient				
	Most of the time				
	Continuous				
	National Standard				
	Quality	45.1	62.5	58.9	
Prop. With no E. coli / 100 mL in source water	Microbial	45.1	62.5	58.9	
	Fluoride				
Prop. within 10 ppb arsenic at source (WHO GV)	Arsenic	80.7	72.5	74.2	
Prop. within 50 ppb arsenic at source (Natl Standard)	Priority chemical	93.3	85.7	87.3	

Faecal and priority chemical

- *E. coli |* thermotolerant coliforms (all countries)
- Arsenic, fluoride (where relevant)

Household surveys

• New module to test E. coli

- Typically only formal systems, mainly urban
- Some lack E. coli or thermotolerant coliforms
- Many lack arsenic and fluoride
- Some report compliance for multiple parameters







Water quality testing in household surveys

Bangladesh global MICS5 pilot 2012

Nepal (MICS)

Pakistan (MICS)

Completed

Congo (MICS)
Cote d'Ivoire
(MICS)
Ethiopia (ESS)
Ghana (LSS)
Nigeria (MICS)
Bangladesh (MICS)
Ecuador (ENEMDU)
Lebanon (LBHS)

Afghanistan (ALCS)

Philippines (APIS)

Paraguay (MICS)
Mongolia (MICS)
Sierra Leone (MIC
DPRK (MICS)
Lao PDR (MICS)
Togo (MICS)
Gambia (MICS)

In fieldwork

- + DRC (MICS)
- + Tunisia (MICS)
- + Suriname (MICS)
- + Iraq (MICS)
- Sierra Leone (MICS) + Senegal (PEPAM)
 - + Lesotho (MICS)

About to start

- + Kiribati (MICS)
- + Chad (MICS)
- + CAR (MICS)

Belize field test 2016

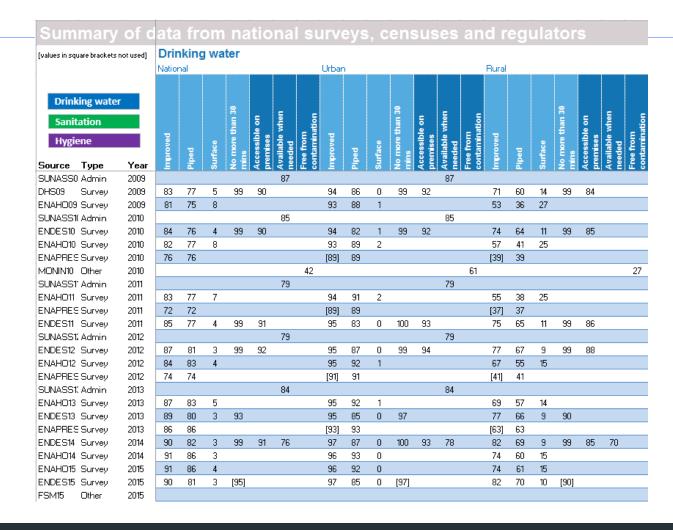








JMP country file contains a complete list of national data sources used to produce estimates





Supply, Sanitation and Hygiene

Peru

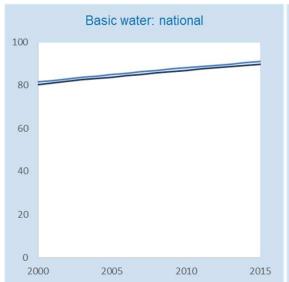
Updated July 2017

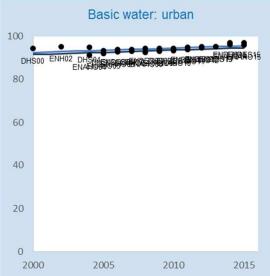
IMP Estimates

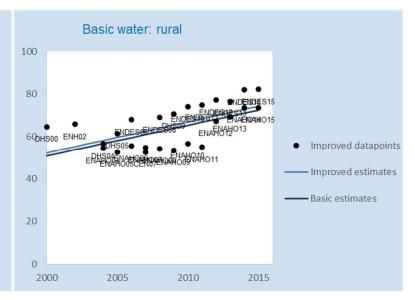




JMP estimates for improved and basic services based on average of all available national sources of data











Safely managed drinking water calculation

Dately managed drinking water calculation			
	National	Rural	Urban
Year:	2015	2015	2015
Proportion of population with improved:	91	74	96
Proportion of population with improved sources which are:			
Accessible on premises	85	67	89
Available when needed	73	51	79

Safely managed drinking water calculation

Notes: The indicator for SDG 6.1, safely managed drinking water services are defined as use of an improved drinking water source which is accessible on premises, available when needed and free from contamination. To make an estimate of safely managed services, information on the use of improved drinking water sources is combined with information on the accessibility, availability and quality of drinking water. Estimates are based on the minimum value of these criteria or, where estimates are available for both rural and urban, a population weighted average of the two. The JMP reports estimates for safely managed drinking water provided information is available for at least 50 per cent of the population on quality of drinking water and either accessibility or availability.



Free from contamination

Safely managed





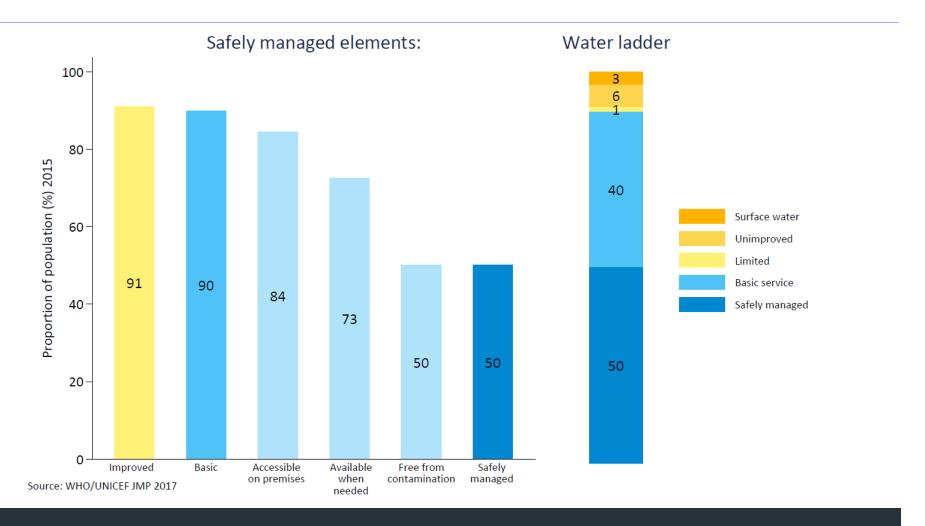
58

50

50

20

Safely managed drinking water estimate





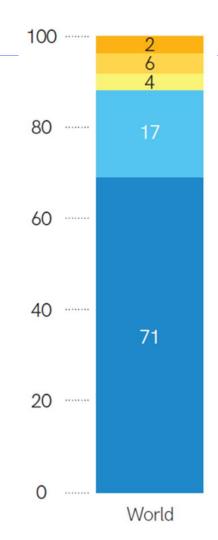


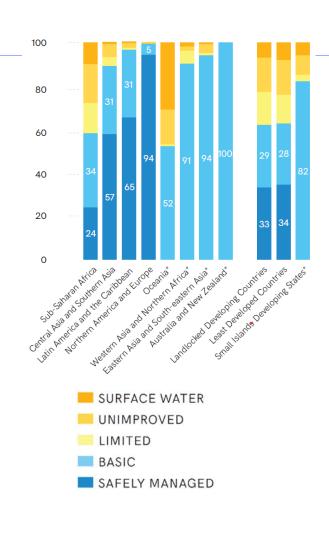


JMP estimates for drinking water (2000-2015)

In 2015

- 5.2 billion used a safely managed drinking water service
- Safely managed estimates available for 96 countries (4 out of 8 regions)
- 6.5 billion people used at least a basic service
- 844 million still lacked basic services
- 263 million used a limited service
- 159 million still used surface water sources











SDG Target 6.2: Sanitation

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**

Indicator 6.2.1a: Population using safely managed sanitation services

Definition: The population using an improved sanitation facility which is

- ➤ Not shared, and where
- Excreta are safely disposed in situ or
- ➤ Transported and treated off site







Improved sanitation facilities (MDG)

Use of sanitation facilities	MIS16	Ma	ıdaga	scar
MIS	ICF Macro			
Malaria Indicator Survey	Survey		2016	i
Definitions	Facility type estimates	Urban	Rural	National
	Improved	44.3	23.6	25.8
	Sewer	0.8	0.5	0.5
	Septic	14.2	1.1	2.5
	Other	29.3	22.1	22.8

Original denomination	Classification	Urban	Rural	National
F	lush and pour flush	15.6	25	39
Chasse d'eau connectée à un système d'égout	to piped sewer system	0.8	0.5	0.5
Chasse d'eau reliée à une fosse septique	to septic tank	14.2	1.1	2.5
Chasse d'eau reliée à une fosse d'aisances	to pit	0.5	0.8	0.8
Chasse d'eau à ne sait pas ou	to unknown placel not sure/DK	0.1	0.1	0.1
Chasse d'eau à quelque chose d'autre	to elsewhere	0.1	0.1	0.1

	Dry latrines	629	54.9	55.8
	Improved latrines	14.8	91	9.7
Fosse d'aisances améliorée autoaérée	Ventilated Improved Pit latrine	1.8	0.8	0.9
Fosses d'aisances avec dalle	Pit latrine with slab/covered latrine	13.0	8.3	8.8
	Traditional latrine			
Fosses d'aisances sans dalletrou ouvert	Pit latrine without slablopen pit	46.6	43.7	44.0
Toilettes/latrines suspendues	Hanging toile∜hanging latrine	1.0	1.9	1.8
Seau	Bucket latrine	0.6	0.1	0.2
	Other			
Foilettes à compostage	Composting toilets	1.8	1.0	1.1
	Composting toilet (private)			
	Composting toilet (shared)			
	Other improved			
	Other			
	Other			
Pas de toilettes/nature	No facility, bush, field	19.7	416	39.3
	Other unimproved			
	Other			
	Other			
	DK/missing information			
	Total	100.0	100.0	

- Technology classification
 - Household surveys and censuses
- Improved sanitation facilities
 - Flush and pour flush toilets
 - connected to sewers
 - connected to septic tanks or pits
 - Ventilated improved pit latrines
 - Pit latrines with slabs
 - Composting toilets, including twin pit latrines
 - Container-based systems
- Unimproved facilities
 - Pit latrines without slabs
 - Hanging latrines
 - Bucket latrines
- Open defecation







SDG Sanitation Ladder

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 shared between two or more households
UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste



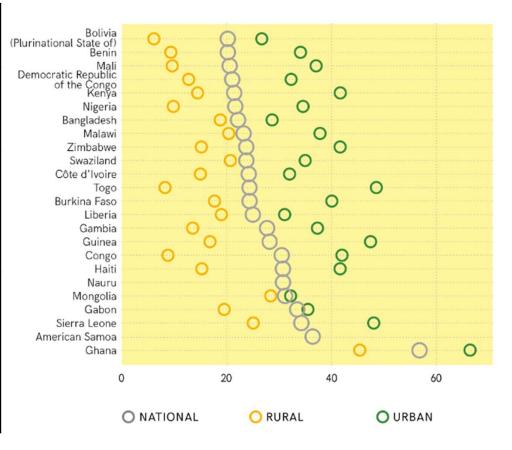






Not shared with other households

WS14. WHERE IS THIS TOILET	IN OWN DWELLING 1
FACILITY LOCATED?	IN OWN YARD / PLOT 2
	ELSEWHERE 3
WS15. Do you share this	YES 1
FACILITY WITH OTHERS WHO ARE	NO 2
NOT MEMBERS OF YOUR	
HOUSEHOLD?	
WS16. Do you share this	SHARED WITH KNOWN
FACILITY ONLY WITH MEMBERS	HOUSEHOLDS
OF OTHER HOUSEHOLDS THAT	(NOT PUBLIC) 1
YOU KNOW, OR IS THE FACILITY	SHARED WITH GENERAL
OPEN TO THE USE OF THE	PUBLIC 2
GENERAL PUBLIC?	
WS17. HOW MANY HOUSEHOLDS	NUMBER OF
IN TOTAL USE THIS TOILET	HOUSEHOLDS
FACILITY, INCLUDING YOUR OWN	(IF LESS THAN 10) <u>0</u>
HOUSEHOLD?	
	TEN OR MORE
	HOUSEHOLDS 10
	DK 98









Safely disposed in situ

WS12. Has your (answer from WS11) ever been	YES, EMPTIED
emptied?	WITHIN THE LAST 5 YEARS 1
	MORE THAN 5 YEARS AGO2
	DON'T KNOW WHEN 3
	NO, NEVER EMPTIED 4
	DK8
WS13. The last time it was emptied, where were the	REMOVED BY SERVICE PROVIDER
contents emptied to?	TO A TREATMENT PLANT 1
	BURIED IN A COVERED PIT2
Probe:	TO DON'T KNOW WHERE 3
Was it removed by a service provider?	
	EMPTIED BY HOUSEHOLD
	BURIED IN A COVERED PIT4
	TO UNCOVERED PIT, OPEN GROUND,
	WATER BODY OR ELSEWHERE 5
	OTHER (specify)6
	DK8

http://mics.unicef.org/tools

Household surveys

- Has your (pit latrine/septic tank) ever been emptied?
- The last time it was emptied, where were the contents emptied to?

Safely managed

- Not removed
- Removed and buried on site









Emptied and treated

EE14	S	Senegal			
ANOD					
Survey		2014			
	Urban	Urban Rural Nation			
Sewer					
Wastewater enters network					
Wastewater reaches treatment plant					
Septic					
Contained					
Not emptied	31.5	58.4	46.0		
Emptied and buried on site	0.0	0.0	0.0		
Emptied and discharged locally	16.4	21.9	19.1		
Emptied and removed offsite	52.1	18.2	34.0		
Delivered to treatment plant					
Latrines and other improved					
Contained					
Not emptied	31.5	58.4	46.0		
Emptied and buried on site	0.0	0.0	0.0		
Emptied and discharged locally	16.4	21.9	19.1		
Emptied and removed offsite	52.1	18.2	34.0		
Delivered to treatment plant Treated					
1100100					
At wastewater treatment plant At faecal sludge treatment plant					
Shared					
Safely managed					

Sector data and regulators

- Desludging services, emptying and transport
- Faecal sludge treatment plants
- Wastewater treatment plants that receive faecal sludge

Safely managed

Solid and liquid wastes treated









Wastewater treated

Treatment technology	Examples	SMS
Tertiary treatment uses additional processes to remove compounds which are not typically removed in secondary treatment such as nitrogen and phosphorus.	Chemical or advanced oxidation processes, carbon adsorption, ion exchange, membrane filtration and disinfection.	Yes
Secondary treatment makes use of biological and chemical processes to remove organic matter.	Activated sludge, trickling filters, membrane bioreactors, anaerobic digestion, waste stabilization ponds, and constructed wetlands.	Yes
Primary treatment involves mechanical or physical processes to remove solids from sewage	Screens, flotation, sedimentation tanks, Imhoff tanks, and rapid filtration beds.	No (unless long ocean outfall)

Household surveys

• "sewer connection"

- Primarily in urban areas
- Treatment by service provider
- Little data on transport, leakage

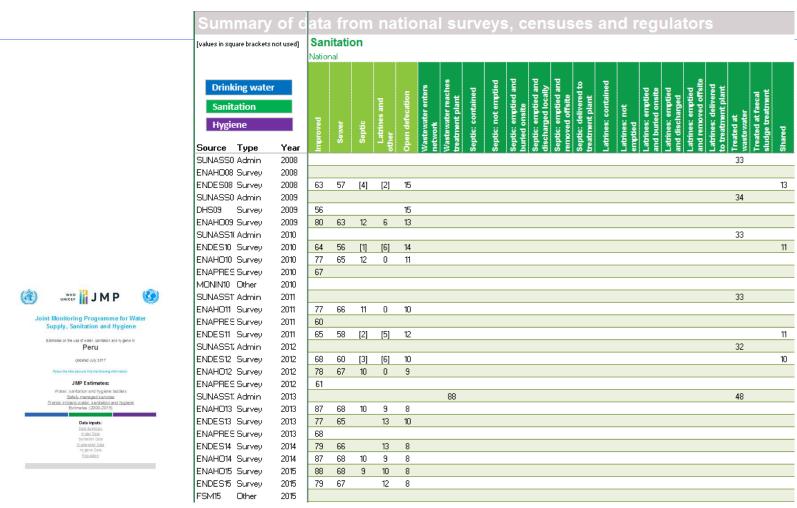








JMP country file contains a complete list of national data sources used to produce estimates

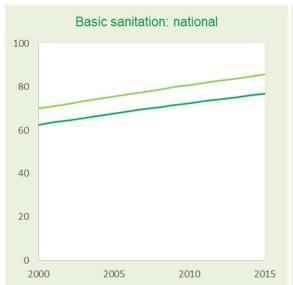


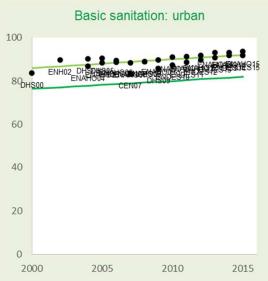


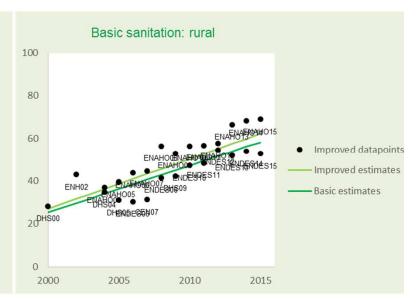




JMP estimates for improved and basic services based on average of all available national sources of data











Safely managed sanitation calculation

Safely managed sanitation calculation			
	National	Rural	Urban
Year:	2015	2015	2015
Proportion of population with improved:	86	62	92
Proportion of population with improved facilities which are:			
Sewer connected	62	13	75
Septic tanks	9	31	3
Latrines and other	6	14	4
Disposed in situ	7		3
Emptied and treated	0		0
Wastewater treated	23	5	32
Safely managed	30		35

Notes: The indicator for SDG 6.2, safely managed sanitation services are defined as use of an improved sanitation facility which is not shared with other households and where excreta are disposed in situ or transported and treated offsite. To make an estimate of safely managed services, information on use of different improved sanitation facilities types (sewer connections, septic tanks and latrines and other) is combined with information on containment, emptying, transport and treatment. The JMP reports estimates for safely managed sanitation when information on excreta management is available for at least 50 per cent of the population using the dominant type of improved sanitation facility (sewer connections or on-site sanitation systems).







Safely managed sanitation estimate





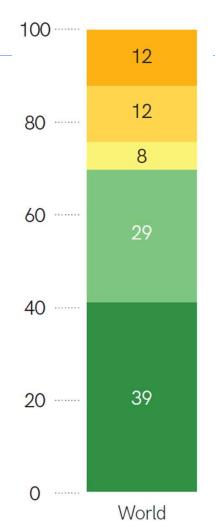


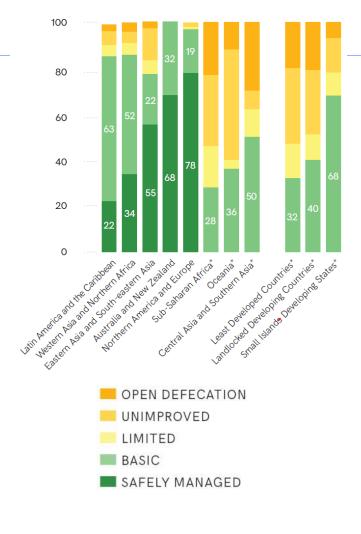


JMP estimates for sanitation (2000-2015)

In 2015

- 2.9 billion used a safely managed sanitation service
- Safely managed sanitation estimates were available for 84 countries (5 out of 8 regions)
- 5 billion used at least a basic sanitation service
- 2.3 billion still lacked basic services
- 600 million used a limited service
- 892 million still practised open defecation











SDG Target 6.2: Hygiene

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**

Indicator 6.2.1b: Population with a handwashing facility with soap and water available







SDG Ladder for Hygiene

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

Note: 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.







Observation of handwashing facilities

Access to handwashing	DHS14	Ghana		
DHS	ICF Macro			
Demographic and Health Survey	Survey	2014		4
Definitions	Facility estimates	Urban	Rural	National
Observed handwashing facility	Handwashing facility	57.7	46.5	52.0
Water and soap/detergent available	with water and soap	46.6	28.2	38.3
Water or soap/detergent not available	without either water or soap	53.4	71.8	61.7
Not in dwelling/other reason	No handwashing facility	41.4	53.2	47.3
No permission to see	No permission to see	0.9	0.3	0.6
	Missing/DK			
	Total	100.0	100.0	100.0
	Handwashing facilities observed	58.2	46.6	52.4
	Facility with water and soap	27.2	13.2	20.1
	Used for estimates:	Yes	Yes	No
	Used for estimates:	Yes	Yes	No

Household surveys

- Direct observation of handwashing is challenging
- Recommended proxy is observation of facilities and availability of water and soap

Standard module in MICS & DHS

 Can you please show me where members of your household most often wash their hands?

http://mics.unicef.org/tools



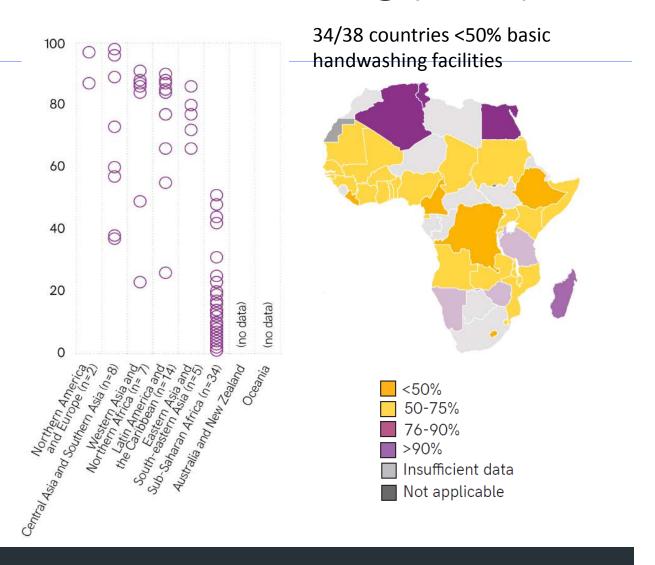




JMP estimates for handwashing (2015)

In 2015

- Handwashing estimates available for 70 countries (2 out of 8 regions)
- Regional coverage varied from 15% in SSA to 76% in WANA
- In LDCs just 27% of the population had basic facilities with soap and water available
- In 34 out of 38 African countries less than 50% used basic handwashing facilities
- Many high income countries lacked data









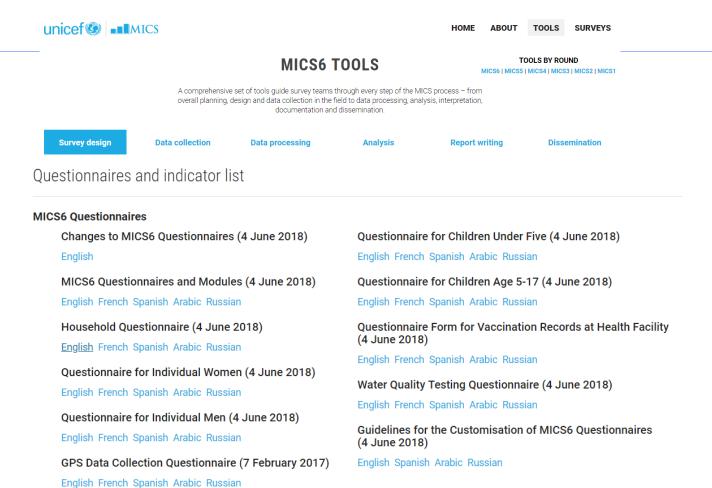








Updated survey tools for SDG monitoring



http://mics.unicef.org/tools





