

Recent global reports make the case for Household Water Treatment & Safe storage (HWTS)

Safe water at the
household/point of use is key

HWTS Network Meeting - March 2026





What is the data telling us?

A review of four key global documents:

- 1 Progress on household drinking water, sanitation and hygiene - *JMP*, 2025
washdata.org/reports/jmp-2025-wash-households
- 2 Integrating water quality testing into household surveys - *WHO*, 2020
<https://washdata.org/sites/default/files/2020-10/JMP-2020-water-quality-testing-household-surveys.pdf>
- 3 Monitoring Drinking Water Quality in Nationally Representative Household Surveys in Low- and Middle-Income Countries - *Bain et al*, 2021
- 4 Global Analysis and Assessment of Sanitation and Drinking Water - *UN-Water*, 2025
www.unwater.org/news/un-water-glaas-2025-report

Let's start by celebrating progress

Why?

- Globally, basic water access is at 91% coverage and on track to reach 94% by 2030
- Latin America is on track to reach 100% basic water access coverage by 2030

Basic water access: the use of an improved drinking water source with a total round-trip collection time of 30 minutes or less, including queuing.

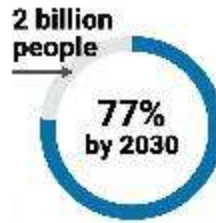


We are not on track for everyone to have safely managed water

1 Progress on household drinking water, sanitation and hygiene - JMP, 2025



Since 2015, 961 million people have gained access to safely managed water



At current rate of progress



Rate of progress needs to increase to reach everyone by 2030

Who is on track to reach universal coverage of safe drinking water by 2030?

1 Progress on household drinking water, sanitation and hygiene - *JMP, 2025*

- High income countries
- 1 upper-middle-income country - Turkmenistan

- No entire region is on track and
- The biggest gap is in Sub-Saharan Africa - currently at 32% coverage



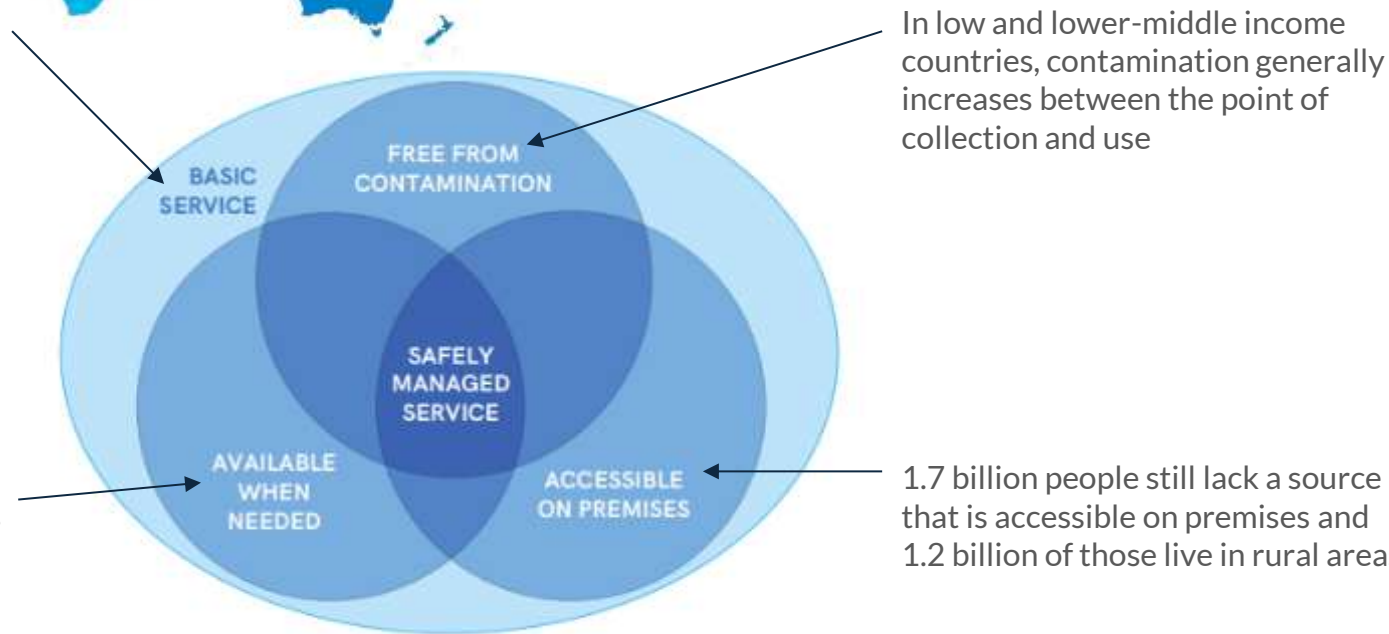


What is safely managed water?

**at
point
of use**



By 2024, 89 countries had already achieved >99% coverage of at least basic drinking water services



Water from non-piped supplies more often meets this criteria than piped supplies, especially in low and lower-middle income countries

In low and lower-middle income countries, contamination generally increases between the point of collection and use

1.7 billion people still lack a source that is accessible on premises and 1.2 billion of those live in rural areas



What is safely managed water?

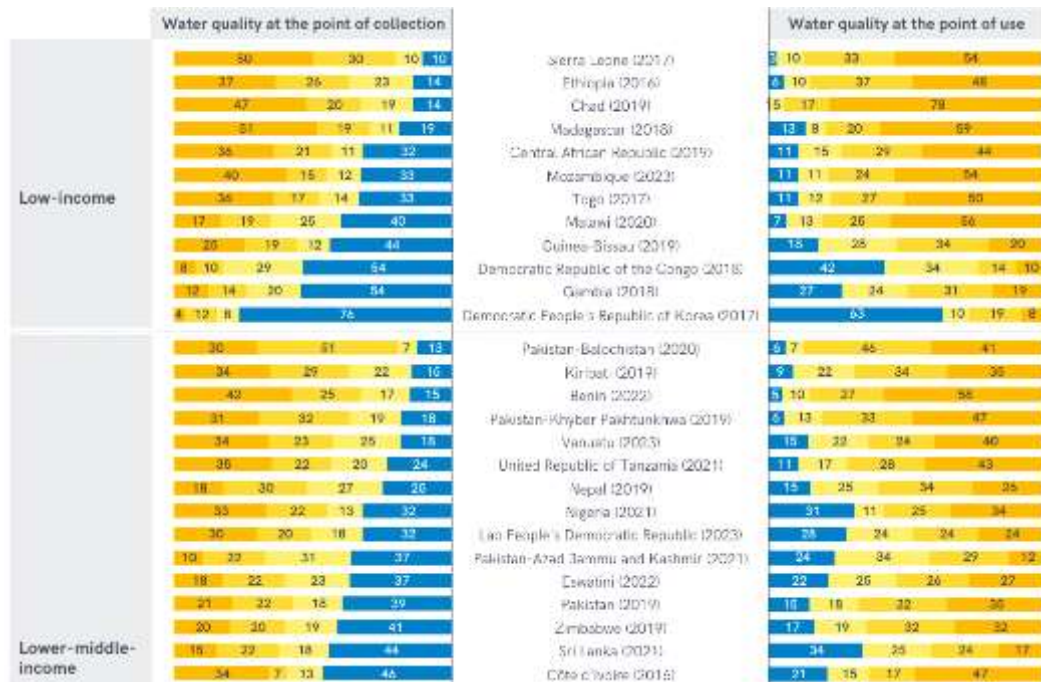
at
point
of use



The most common reason why water systems don't meet this standard is that **they are not free from contamination**

Recontamination of water is a widespread problem ^[1/2]

1 Progress on household drinking water, sanitation and hygiene - JMP, 2025

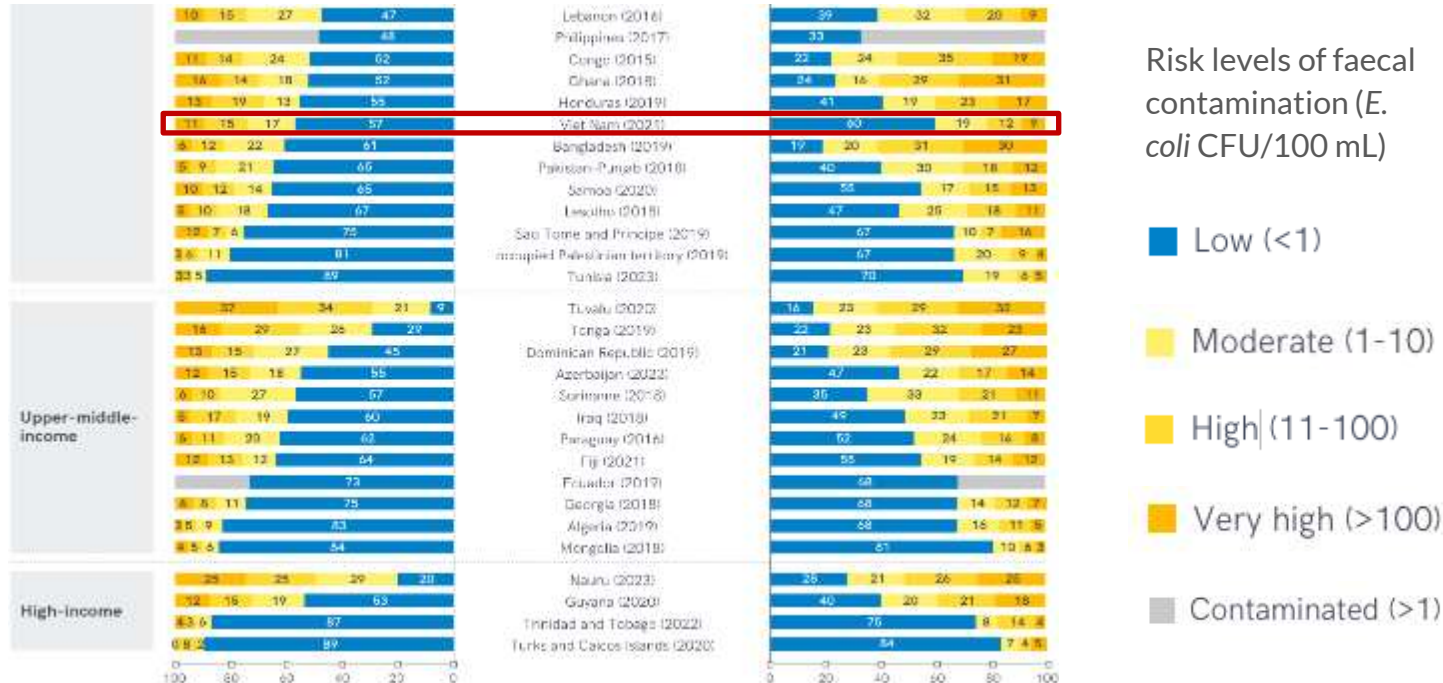


Risk levels of faecal contamination (*E. coli* CFU/100 mL)



Recontamination of water is a widespread problem ^[2/2]

1 Progress on household drinking water, sanitation and hygiene - JMP, 2025





Recontamination of water is a widespread problem

- 2 Integrating water quality testing into household surveys - *WHO, 2020*
- 3 Monitoring Drinking Water Quality in Nationally Representative Household Surveys in Low- and Middle-Income Countries - *Bain et al, 2021*

**Accessible and available sources
are NOT more likely to be free
from *E. coli* contamination**

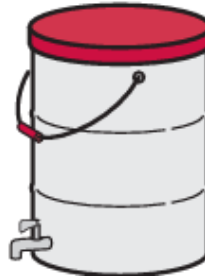


Recontamination of water is a widespread problem

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Widespread re-contamination between the point of collection and point of use



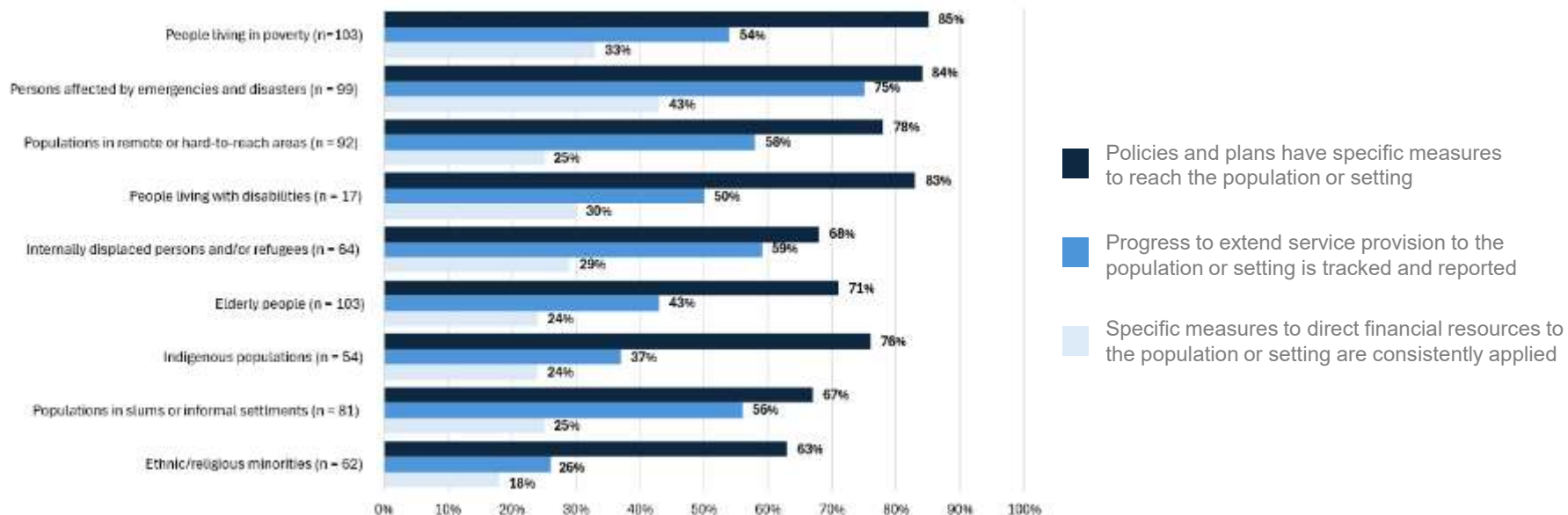
In many countries, households store water prior to use



Risk factors for re-contamination vary widely between countries

We are not reaching the most vulnerable

4 Global Analysis and Assessment of Sanitation and Drinking Water - *UN-Water, 2025*



Percentage of countries with measures in policies and plans, that monitor service provision and direct financial resources to improve and extend sanitation services to specific populations and settings
Source: GLAAS 2025/2025 country survey.



Where do we see household water treatment as a recommended solution?

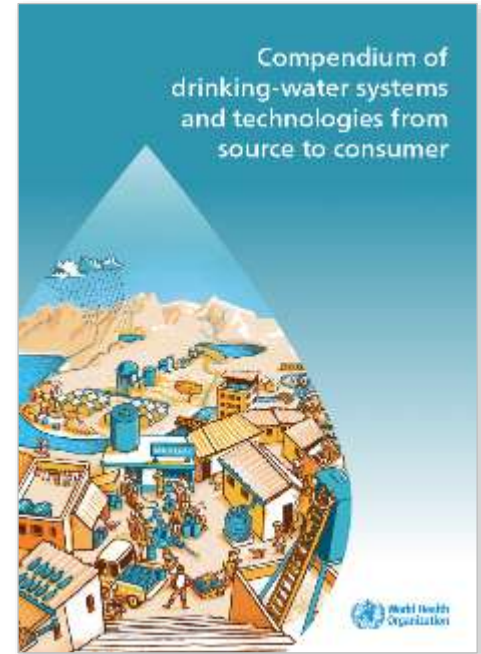
Household water treatment (HWTs) now represented in mainstream WASH publications

- 5 Compendium of drinking water systems and technologies from source to consumer - WHO 2025
[who.int/publications/i/item/9789240113992](https://www.who.int/publications/i/item/9789240113992)
- 6 Guidelines for drinking-water quality: Small water supplies - WHO, 2024
[who.int/publications/i/item/9789240088740](https://www.who.int/publications/i/item/9789240088740)
- 7 Sanitary inspection packages for drinking-water supplies - WHO, 2024
[who.int/publications/i/item/9789240089006](https://www.who.int/publications/i/item/9789240089006)

Household water treatment (HWTs) now represented in mainstream WASH publications

5 Compendium of drinking water systems and technologies from source to consumer - WHO 2025

- HWTs is recommended for freshwater sources with manual transport
- HWTs is identified as an option for
 - rainwater harvesting
 - gravity flow supplies
 - high quality groundwater
 - groundwater with contaminants of concern



Household water treatment (HWTs) now represented in mainstream WASH publications

5 Compendium of drinking water systems and technologies from source to consumer - WHO 2025

Includes a HWTs section with fact sheets on a variety of technologies

- Storage tanks or reservoirs
- Ceramic filtration
- Ultrafiltration
- Chemical disinfection
- Boiling
- Pasteurization
- Biosand filtration
- Ultraviolet (UV) light disinfection
- Solar water disinfection
- Fluoride removal filters
- Arsenic removal filters

Did you know?

CAWST also has a large library of factsheets and resources for these and others washresources.org

Household water treatment (HWTs) now represented in mainstream WASH publications

6 Guidelines for drinking-water quality: Small water supplies - WHO, 2024

- Household managed supplies recognized as one of 3 management models for small supplies
- Chapter 3: Health-based regulations - recommends governments establish performance targets for HWTs technologies
- Case study (A3.27) on HWTs standards and product certification in Ghana
- Many of the guiding principles align well with HWTs



Prioritize public health



Take a risk-based approach



Progressively improve



Adapt for context



Strengthen systems



Engage water suppliers



Practise supportive regulation



Approach WASH[®] holistically



Provide equitable services



Build climate resilience

Household water treatment (HWTs) now represented in mainstream WASH publications

7 Sanitary inspection packages for drinking-water supplies - WHO, 2024

- WHO released its first sanitary inspection form on household practices (all others are for water sources)
- CAWST is developing sanitary inspection packages for ceramic filters and chlorination.



Did you know?

CAWST has developed sanitary inspection packages for biosand filters, boiling and collection and storage.

<https://washresources.cawst.org/en/collections/d5756fa0/household-water-treatment-technologies-sanitary-inspection-forms>

Summary: Safe drinking water at the household is not being achieved

The key documents discussed clearly outline that water quality needs to be addressed, especially at point of use and that a range of solutions is how we will reach everyone.





This is an opportunity to move the WASH sector from 'either/or' to 'both/and'

Household water treatment:

- **is part of the range of options** to reach everyone with safely managed drinking water
- plays an important role as a **legitimate, evidence based** service delivery model
- backed by decades of field research, implementation experience, and quality assurance advancements



Opportunities

- Advocate for policy and funding environments that **integrate** non-networked options within national strategies
- Encourage policymakers and funders to recognize decentralized approaches as **complementary** - not competitive - with centralized systems
- Centre households' priorities and criteria in WASH interventions
- Promote household water treatment as a proven, necessary component, particularly where centralized systems **cannot yet** or **may never** deliver consistent quality at the point of use
 - Remote, dispersed communities
 - Informal settlements
 - Unreliable piped systems



Additional Resource: What is the evidence that household water treatment is effective?

- A new white paper answers these important questions about household water treatment and safe storage:
 - Does it reduce diarrhea?
 - Does it improve water quality?
 - Does it reduce stunting in children?

Available in English. Other languages coming soon.

There's more to this story... [click here to read it.](#)