

# DRINKING WATER IN BANGLADESH UPDATES



Key findings from the Bangladesh MICS 2018-2019:  
Water quality thematic report

**REACH**  
Improving water security for the poor

**unicef**   
for every child

 **icddr,b**



  
Foreign, Commonwealth  
& Development Office

  
**UKaid**  
from the British people

# WHO HAS ACCESS TO SAFELY MANAGED

## DRINKING WATER?



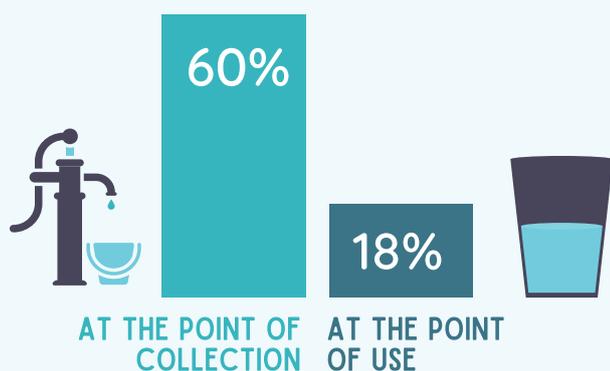
43%

have access to safely managed drinking water in Bangladesh.

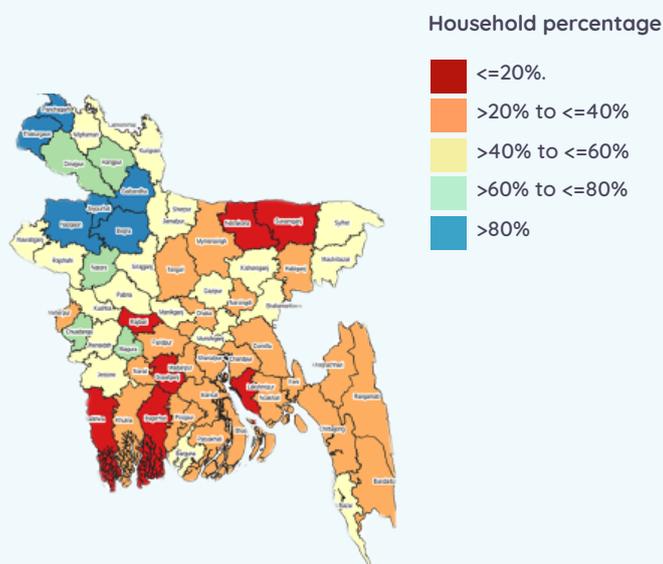
Safely managed drinking water means the use of an improved drinking water source which is located on premises, with sufficient drinking water available when needed, free of faecal (E.coli) and priority chemical (arsenic) contamination.

The biggest challenge to achieving safely managed drinking water quality remains faecal contamination (E. coli).

% of the population that has access to water free from faecal contamination:

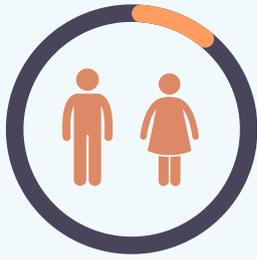


There are large inequalities in access to safely managed drinking water between districts.



**Recommendation:** water safety programmes need to target highly contaminated and unserved areas

# ARSENIC



12%

of the population is exposed to arsenic above the Bangladesh standard in drinking water.

The proportion of those exposed to:

<10ppb

(WHO guideline) has continued to decrease.



<50ppb

has only slightly reduced.

% OF THE POPULATION EXPOSED TO ARSENIC: 10PPB AND 50PPB.  
TOTAL POPULATION EXPOSED (IN MILLIONS).



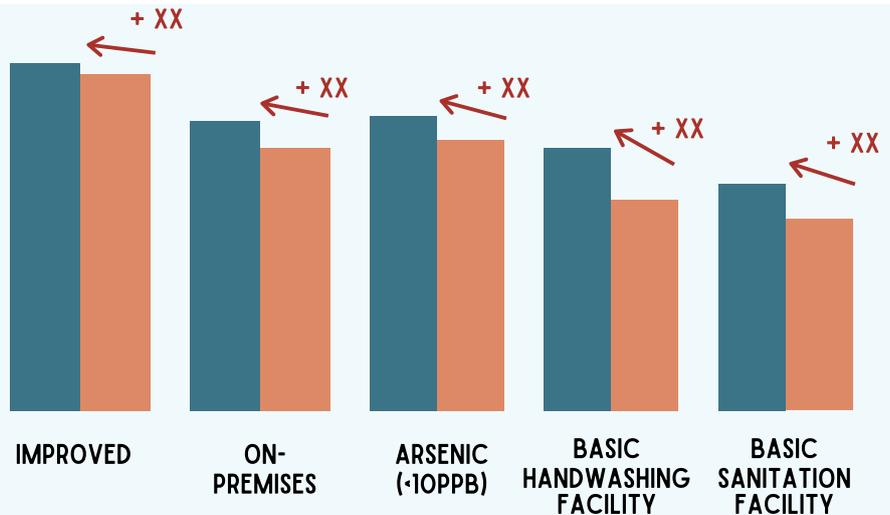
The population exposed to high concentrations (>200ppb) have increased in Sylhet, Chattogram, Khulna and Dhaka.



The risks of arsenic vary based on the geology

# HOW HAS ACCESS TO WASH CHANGED?

WASH access has improved in Bangladesh between **MICS5 (2012-13)** and **MICS6 (2019)**

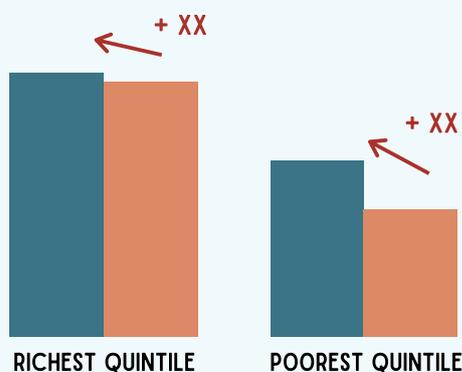


WASH access is unequal: the wealthiest have the highest levels of access, and the poorest lowest levels.

**Good progress** has been made within the poorest groups, for some indicators.



Water on-premises has improved most for the poorest, as has access to basic sanitation.



ACCESS TO WATER ON PREMISES - **MICS5 (2012-13)** VS. **MICS6 (2019)**

But in other areas, improvements have **not benefitted the poorest:**

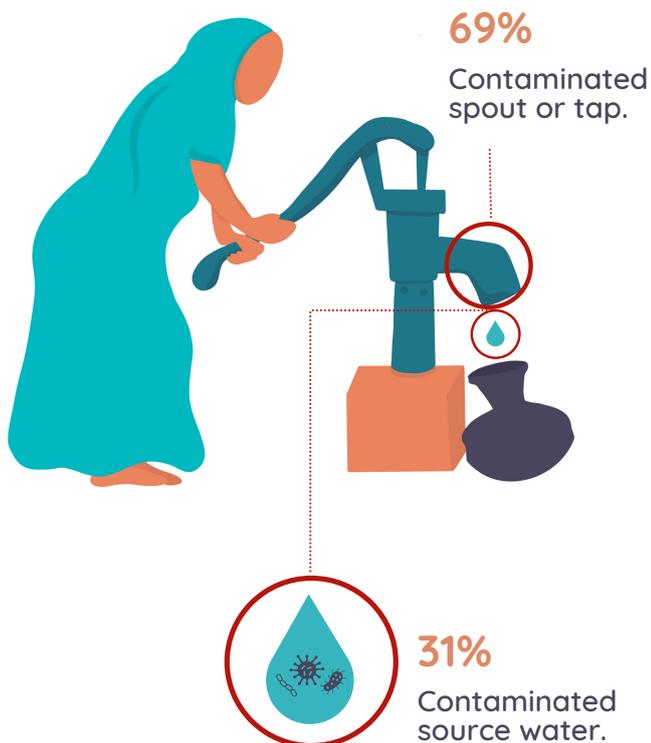
- Access to improved water has not improved for the poorest.
- Access to piped water has mostly increased for the urban population, and for the richest.
- Arsenic has improved most for the wealthiest (both in the <10 ppb category, and drops in the proportion in the 10-50 ppb category).
- Handwashing facilities have not improved much for the poorest.

# CHALLENGES: POOR HYGIENE IS A MAJOR SOURCE OF CONTAMINATION

**69%** of contamination at the point of consumption is estimated due to lack of cleaning of the spout or tap.

**62%** of contamination at the point of use is due to dirty cups or hands.

## CONTAMINATION AT POINT OF COLLECTION DUE TO:



## CONTAMINATION AT POINT OF USE DUE TO:



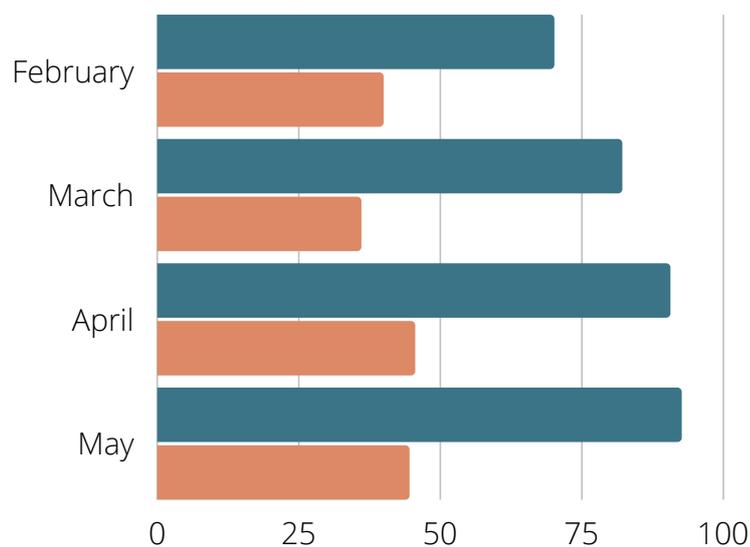
**Recommendation:** Ensure hygiene programmes promote regular cleaning of taps and spouts.

# CHALLENGES: WATER SUPPLIES HAVE POOR CLIMATE RESILIENCE



The water supplies lack climate resilience: faecal contamination increased at the point of collection and point of use across the study from January to May, as rainfall and temperature increased.

## PROPORTION OF SAMPLES THAT ARE UNSAFE AT THE POINT OF COLLECTION AND AT THE POINT OF USE



Compared to data collected in the same month, faecal contamination in drinking water in 2019 was lower than in 2012 at the point of collection but similar at the point of use.

### Recommendations:

- Strengthen climate resilience in water supplies.
- Establish a longitudinal water quality monitoring programme to enable measurement of advances in safely managed drinking water including climate resilience.

# CHALLENGES: MANY WATER SUPPLIES

# FACE MULTIPLE, UNMEASURED WATER

# QUALITY HAZARDS



In 2009, the MICS study included many more water quality hazards.



**61%**

of samples exceeded the Bangladesh standard for manganese (0.1 mg/L)



**12%**

of samples exceeded the Bangladesh standard for sodium, with higher concentrations in deep tube wells.

Arsenic and pathogens (as measured by the indicator E.coli) are two hazards, but salinity and manganese are also threats.

**Recommendations:** Expand access to treated water.

