A Snapshot of Sanitation, Hygiene and Drinking Water Safety in South Asia
2015 Update
Overview

South Asia has made considerable progress over the last 25 years

- The proportion of people using improved sanitation has increased by 25 percentage points from 1990 to 2015 (compared to just 14 points globally)
- Three countries met their MDG sanitation target (Maldives, Pakistan and Sri Lanka) and good progress was made in three others (Bangladesh, Bhutan, and Nepal)
- The proportion of people who practice open defecation has dropped by 32 percentage points, a faster rate of reduction than in any other region
- 545 million more people use improved sanitation facilities than 25 years ago
- The proportion of schools with adequate sanitation increased by 23 percentage points from 2008 to 2013, a faster rate than in any other region (see page 10)

However, substantial challenges remain

- South Asia has missed the MDG sanitation target. Maldives, Pakistan and Sri Lanka have met the MDG sanitation target.
- India is the only country in South Asia where the number of people without improved sanitation facilities increased: 774 million in 2015 vs. 723 million in 1990
- About 60% of the world’s open defecators live in India
- Richer households are much more likely to use improved sanitation than poorer households, and in Bangladesh, India, Nepal and Pakistan gaps are widening
- Richer households also have higher rates of handwashing and safe child faeces disposal

Information about this Snapshot

- This snapshot is produced by the UNICEF Regional Office for South Asia
- The UNICEF South Asia region encompasses Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka (which is different from the MDG Southern Asia region)
- Unless otherwise indicated, data in this snapshot is from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2015 dataset, the latest available. See last page for sources and credits.
Progress and Challenges

South Asia did not meet the MDG target for sanitation

Improved sanitation coverage: actual progress vs. progress that was necessary to meet the MDG target (per cent)

Sanitation coverage varies significantly from country to country

Sanitation coverage in South Asian countries, 2015, with South Asia and World comparators
Sanitation Inequities

Urban-rural disparities in sanitation are pronounced in South Asia

- In the South Asia region, there is a 30 percentage point difference between use of improved sanitation facilities in rural and urban areas: this is the highest differential of all UNICEF regions.
- The degree of disparity varies greatly from country to country: from Bhutan, with a 45 percentage point difference, to Bangladesh, the Maldives and Sri Lanka with little or no difference.
- There is an improving trend in urban-rural disparity in the region: in 1990 the ratio of rural to urban coverage was 1:5 (for every rural resident covered, five urban residents were covered), while in 2015 the ratio has improved to 1:2.

The degree of urban-rural disparity varies significantly from country to country

Use of improved sanitation facilities: urban-rural range in South Asian countries, 2015
(In Bangladesh, the Maldives and Sri Lanka, urban coverage is lower than rural coverage)
Economic inequities are also significant in South Asia, with widening gaps

- Disparities in improved sanitation coverage between rich and poor households in rural areas are pronounced in the region (see four examples below)
- In the four countries with available data, the average gap between poorest and richest ranges from 71 percentage points in Pakistan to 49 percentage points in Nepal
- Of even greater concern is the fact that the gaps between the poorest and richest households are getting wider: in all four countries not enough progress has been made increasing sanitation usage among the poorest households
- The trends are similar for open defecation (see pg. 6)
- However, progress has been better in urban areas: in these four countries the gap between richest and poorest has decreased from 1995 to 2012 (not shown here)

Regional and country averages mask large disparities within countries

- This ‘equity tree’ example from India illustrates the extent of disparities in the country.

Use of improved sanitation. Source: JMP Update Report 2015, and 2012 estimates of wealth quintile data

Other forms of disparity

- Other forms of sanitation inequalities include disparities based on gender, on education level, and in the India example below, by lower castes and indigenous peoples (known as scheduled castes and scheduled tribes in India).

Sanitation Coverage Among Scheduled Castes and Scheduled Tribes in India

Source: Census of India, 2011 data
Open Defecation

The majority of people practicing open defecation live in South Asia

Proportion of global population practicing open defecation, 2015, per cent

Open defecation numbers continue to decline in the region

Population practicing open defecation in 1990 to 2015, millions of people

Open defecation levels are much higher among the poor

- Rural open defecation levels are falling at a much greater rate among richer households than poorer households in the three countries with the highest numbers of open defecators in the region (India, Pakistan and Nepal)
- Very little progress has been made among the poorest households in India

Rural population practicing open defecation, 1995 and 2012 by wealth quintiles; Source: JMP analysis based on MICS, DHS and other surveys, JMP Update Report 2015
Open defecation is widespread in South Asia, with a concentration in the Gangetic plain

- Open defecation is practiced throughout South Asia, mainly in rural areas
- Levels tend to be higher in districts with higher rural population densities, but beyond that partial correlation there is a clustering of open defecators in the Gangetic plain

100,000 open defecators

Notes:
- based on data from 1,323 districts
- Nepal and Maldives figures are for total OD (not rural)
- Afghanistan dataset is incomplete (63 of 398 districts)

The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations
Handwashing with Soap and Water

Handwashing with soap varies by country but is always more common in urban areas.

Handwashing with soap, per cent, using the standardized MICS/DHS proxy indicator: percentage of households where a place for handwashing was observed with soap and water.

Handwashing with soap is much more common among richer households.

Handwashing with soap, per cent, using the standardized MICS/DHS proxy indicator: percentage of households where a place for handwashing was observed with soap and water.
Child Faeces Disposal Practices

The safe disposal of child faeces is even more important as the disposal of adult faeces for the prevention of diarrhoea. However it is common in the region (and globally) for child faeces to be unsafely disposed.

**Most households do not dispose child faeces safely**

In all countries in South Asia with available data, child faeces are usually disposed of unsafely (left in the open, buried in the courtyard, or thrown in a ditch or drain) instead of safely (child uses toilet, faeces disposed of in toilet/latrine).

**Regional variations: Pakistan Example**

The proportion of households that practice safe child faeces disposal can vary widely within countries. Additionally, rural households have lower safe disposal rates than urban households (not shown).

**Wealth quintile variation: Bangladesh Example**

Richer households are much more likely to dispose of child faeces correctly, and not only because of the greater availability of toilets in these households (see below).

**Availability of toilets is not the only factor: India Example**

As expected, households with improved sanitation facilities are more likely to dispose of child faeces correctly. However, even in households with improved toilets, child faeces are disposed of unsafely in many cases.

The proportion of children aged under three with safe feces disposal reported in MICS and DHS surveys. Source: *Management of Child Feces: Current Disposal Practices, June 2015, WSP and UNICEF*
Sanitation in Schools

School sanitation coverage varies in South Asian countries, but is improving

- Major gains have been made in the region over the last five years, notably in Bangladesh, India, Nepal and Sri Lanka
- However, these national averages do not take into account geographic and urban-rural disparities

Sanitation coverage in schools, national average, 2008 and 2013 (criteria for coverage varies by country, as per table below)

Data Quality and Completeness

Coverage criteria for countries

As marked on graph above, countries use different benchmarks to determine coverage:
- a = existence of facilities
- b = improved services
- c = functional services
- d = national quantity standards met
- e = single-sex toilets
- f = access to soap
- g = other indicator or unknown

The completeness of EMIS indicators varies by country

The UNICEF WASH in Schools monitoring working paper (see source below) includes scores for the completeness of source data from the national Education Monitoring Information System (EMIS) in five areas for sanitation:

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<th></th>
<th>Quantity</th>
<th>Functionality</th>
<th>Gender</th>
<th>Quality</th>
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</table>

No WASH indicators in EMIS in Maldives and Sri Lanka
Green: indicators present; red: indicators absent

Source: figures on this page are from Advancing WASH in schools monitoring, 2015, UNICEF
Drinking Water Safety

Water quality is a cause for concern in South Asia

Over the past 3 years household surveys in South Asia have pioneered water quality testing methods. Results are indicating that both bacteriological and chemical contamination of drinking water supplies is a serious problem in the region.

**Bacteriological Contamination (Nepal example)**
The 2014 Nepal MICS collected data on the quality of water consumed throughout Nepal by testing of microbiological parameters *Escherichia coli* and other coliform.

Overall, more than four fifths (82 percent) of household members are using drinking water at risk of *E. coli* concentration ≥ 1 cfu/100 ml. One fifth of the population are using drinking water with *E. coli* levels at very high levels of risk.

**Arsenic and Bacterial Contamination (Bangladesh example)**
Household drinking water tested in MICS 2012-13 confirmed widespread arsenic and *E. coli* contamination.

A quarter of the population are using water with arsenic levels above the WHO provisional guidelines.

**Household water treatment levels are low and uneven**

- Only 15 per cent of the population practice appropriate* household water treatment in South Asia (based on studies in 3 countries)
- Households using unimproved water supplies are more likely to treat water (19%) than those with improved supplies (13%)
- The richest households and urban households are by far the most likely to treat their home water supplies

*Appropriate treatment methods include boiling, bleaching/chlorinating, filtering, and solar disinfecting

Source: MICS and DHS from India (2005-06), Bangladesh (2006/11) and Nepal (2006/11).
## Sanitation Coverage Data


<table>
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<tr>
<th>Country</th>
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<th>Population (,000)</th>
<th>Urban (%)</th>
<th>Rural (%)</th>
<th>National (%)</th>
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### Sources and Notes


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