Experiences Monitoring Global Drinking Water and Sanitation targets

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WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP)
Original scope of work of the JMP

- Monitor trends and progress within the water supply and sanitation sector
- Inform policymakers and advocate for action at all levels
- Strengthen national capacity for sector monitoring
MDG target + Indicators

MDG 7 Target 7C:
- Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Indicators:
- Proportion of population that uses an improved drinking water source
- Proportion of population that uses an improved sanitation facility
“Improved” means….

An improved drinking water source is:

“a source that by nature of its construction is adequately protected from outside contamination in particular with fecal matter”

An improved sanitation facility:

“a facility that hygienically separates human waste from human contact”
**MDG definitions of improved/unimproved**

### Drinking Water
- Piped into dwelling, plot or yard
- Public tap/standpipe
- Tube well/borehole
- Protected dug well
- Protected spring
- Rainwater collection

### Sanitation
- Flush/pour flush to:
  - piped sewer system
  - septic tank
  - pit latrine
  - Ventilated improved pit (VIP) latrine
  - Pit latrine with slab
  - Composting toilet

- Unprotected dug well
- Unprotected spring
- Cart with small tank/drum
- Tanker truck
- Surface water (river, dam, lake, pond, stream, canal, irrigation canal)
- Bottled water*

### IMPROVED
- Flush/Pour flush to elsewhere
- Pit latrine without slab/open pit
- Bucket
- Hanging toilet/hanging latrine
- Shared sanitation of any type
- No facilities, bush or field

### UN-IMPROVED
Data sources on access to water supply and sanitation

**JMP data sources are national sources:**

- Nationally representative household sample surveys (DHS, MICS, LSMS, CWIQ, SES, WHS, HBS, H&N, RHS, PAPFAM, etc)
- National census

**Note:** *JMP is not involved in primary data collection instead....*

*JMP promotes the use of standard questions & indicators among surveys*
JMP – data base (2009)

- Data for +/- 170 countries
  - **Note:** Limited data for developed countries
- 750+ results of HH surveys + Censuses from 1985 – 2008
- Bulk of surveys for LDCs, SSA, larger developing countries
- 35 - 40 new survey + census results per year
- Frequency for most developing countries one survey every three years
JMP Methodology - Summary

- Primarily based on *user* data derived from household surveys and censuses rather than data reported by governments.

- Adjustments made to full historical series to ensure comparability over time and between countries.

- Use linear regression to extrapolate and interpolate reference years instead of using the latest household survey data.
Cambodia - urban -
Use of improved sanitation facilities

<table>
<thead>
<tr>
<th>Year</th>
<th>Improved</th>
<th>Shared</th>
<th>Unimproved</th>
<th>Open defecation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>43%</td>
<td>4%</td>
<td>9%</td>
<td>44%</td>
</tr>
<tr>
<td>1995</td>
<td>44%</td>
<td>5%</td>
<td>11%</td>
<td>40%</td>
</tr>
<tr>
<td>2000</td>
<td>52%</td>
<td>5%</td>
<td>7%</td>
<td>36%</td>
</tr>
<tr>
<td>2008</td>
<td>63%</td>
<td>7%</td>
<td>0%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Estimated coverage 2010 preliminary data

Shared facilities:
The proportion of the population using a shared improved sanitation facility is based on the DHS05.
JMP - The early years

1990 - 1997

- Annual questionnaires to Ministries of Health
- Use of “reported” coverage data – different years

Problems

- Not the right institution reporting
- No standard definitions of what to report
- No consistency from year to year
- No inter-country comparability of data
- No incentive for national authorities to accurately report
- Data not objectively verifiable
User-based data

1997 - 2000

- Use of household sample surveys and national census data + reported data

- Development of current JMP methodology using linear regression for estimates

- Introduction of “improved” drinking water sources and sanitation facilities
Exclusive use of household sample surveys + census

2000 - 2002

- Exclusive use of survey and census data
  - Objective “snapshot” of the situation
  - Nett picture of new facilities constructed and those fallen in disrepair
  - Avoid double counting of upgraded improved facilities (e.g. hand pump to piped house connection)

- Discard reported data or administrative sources
  - Limited in scale, reliability and specificity

Problem

- Surveys and census do not use comparable definitions
Harmonization

2002 - 2006

- Coordination among major international data collection mechanisms (MICS, DHS)
  - Standard questions, response categories
  - Standard definitions

- Technical Advisory Group
  - Broaden sector input + support base + validation of methods

- MDG indicator brought in line with what is actually measured: access to → “Use of” an improved source/sanitation facility
JMP products

- Bi-ennial global updates
- UN- Reference data for monitoring the MGDs
- Core questions on water supply and sanitation for household sample surveys
The world is not on track to meet the MDG sanitation target

Progress on Drinking Water and Sanitation: Special Focus on Sanitation, UNICEF, WHO, 2008
Open defecation rates in East- and South-east Asia

<table>
<thead>
<tr>
<th>Rate Range</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>No open defecation</td>
<td>White</td>
</tr>
<tr>
<td>1% - 10%</td>
<td>Light Beige</td>
</tr>
<tr>
<td>11% - 25%</td>
<td>Beige</td>
</tr>
<tr>
<td>26% - 50%</td>
<td>Light Brown</td>
</tr>
<tr>
<td>51% - 77%</td>
<td>Brown</td>
</tr>
<tr>
<td>No or missing data</td>
<td>White</td>
</tr>
</tbody>
</table>
Challenges ahead

Methodological Challenges

- Continue to develop and validate tools and instruments to measure:
  - Sustainable access
  - Water quality
  - Access to basic sanitation
  - Appropriate hygiene - and hand washing behaviour
  - Disparities (pro-poor focus)
  - Gender disaggregated data
  - Access in peri-urban and urban slum areas

Challenges for wider sector monitoring

- Strengthen sub-national monitoring
- Invest in sector monitoring of the enabling environment
  - E.g. policies, HR capacity, financing mechanisms and investments, sustainable operation & maintenance, decentralization of authority, quality management etc.