



Water & sanitation planning in developing countries

Session 3

Measuring access to W&S services

Objectives

- Highlight some of the challenges in defining and measuring access to improved services
- Launch small group assignment

The importance of measurement

Measuring both inputs (investment, construction, *etc.*) and outputs (access to and use of improved services, health outcomes) is a critical element of W&S policy and planning. Why?

- To measure progress (or lack thereof)
- To relate progress to specific policies and programs, and make changes as necessary
- To 'benchmark' performance by different institutions

How should we define access to W&S?

WHO/UNICEF: Household has “access to improved water supply” if it can obtain 20 lpcd from an “improved source” within 1 kilometer of the home

Unimproved

Unprotected well
Unprotected spring
Vended water
(including tankers)
Bottled water

Improved

Household connection
Public standpipe
Borewell/Tubewell
Protected well or spring
Rainwater

Defining access to W&S, cont'd.

WHO/UNICEF: Household has “access to improved sanitation” if it has access to an “improved facility,” distance not specified

Unimproved

Bucket/service latrines
Public latrines

Improved

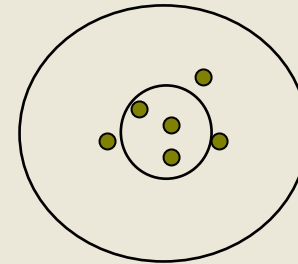
Household toilet with
sewer connection or
septic tank
Pour-flush latrine
Simple or twin pit
latrine

Critiques of these definitions?

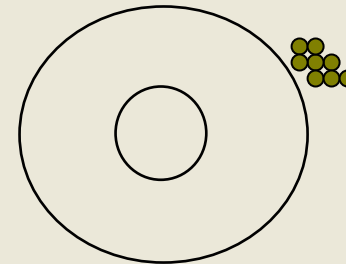
Can we do better?

Features of good measurement

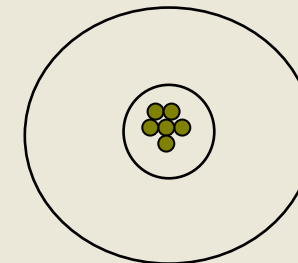
- **Validity:** indicator relates closely to concept you are interested in
- **Reliability:** Repeated measures will yield same value if state of the world hasn't changed
- **Feasibility:** Can obtain required information with reasonable expenditure of time and money



Valid, not very reliable



Reliable, not very valid



Valid and reliable

Which is the most feasible?

Small group assignment

- Form groups of 3 or 4 students (preferably including some you didn't know before this weekend, and mixing planners and engineers)
- As a group, develop a definition of 'access to safe water supply' and 'access to adequate sanitation' that you think should be adopted for the W&S sector
- As a group, decide on no more than 6 indicators (variables) that should be used to measure access to safe/improved water supply and access to adequate sanitation
- Prepare a short (~10 minutes) presentation for this afternoon's session

Tips on tackling the small group assignment

- Make sure you are in agreement on clear definitions of access to water supply and sanitation before you start to work on your indicators. (This is harder than it sounds!)
- Each indicator should be accompanied with specific measurement rules. For example, if you want to use the indicator “DISTANCE” as part of your water access definition, tell us how that should be measured (*e.g.*, meters, minutes’ walk). We should be able to take your list of indicators and know exactly how to operationalize them in the field.

Tips cont'd.

- When developing indicators, remember to think about whether they are reasonably valid, reliable, and feasible for implementation on a regular basis in developing countries.

Questions?