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THE FUTURE OF WATER, SANITATION AND HYGIENE:
INNOVATION, ADAPTATION AND ENGAGEMENT IN A CHANGING WORLD

Making JMP data more useful for
local decision-making in Ghana

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Data from the WHO/UNICEF Joint Monitoring Programme (JMP) and the Ghana Statistical Service (GSS) portray Ghana as being on track to meeting her MDG target for drinking water. However, data from local water supply agencies portray Ghana as being off track. It has been established that differences between the figures are caused by differences in statistical methodologies. Sector professionals and the general public have hardly planned with JMP/GSS data for fear of exaggeration since water scarcity is still rampant in Ghana. A critical analysis of JMP/GSS data by the Water and Sanitation Monitoring Platform reveals that if the time that people spend to collect water was to be considered during data analyses and reporting, the JMP/GSS data would be more acceptable to stakeholders for planning and decision-making. The time factor should therefore be considered when the JMP is reviewing methodologies for the period beyond 2015.

Introduction

Major water sector plans in Ghana hardly rely on survey data generated by the Ghana Statistical Service, the main source of data on Ghana published periodically by the WHO/UNICEF Joint Monitoring Programme (JMP). For instance, the JMP access data on Ghana for improved drinking water as at 2008 was 82% (JMP 2008) (while Ghana's MDG target for 2015 based on JMP methodologies is 77%), while the two main local water supply agencies in Ghana provided 59% as at 2009 (CWSA 2008, 2009).

Stakeholders in the Water Sector, some development partners and the general Ghanaian public have mostly 'ridiculed' the usually comparatively high coverage data from the JMP/GSS, claiming that such figures 'exaggerate' the real water coverage levels in the country. This state of affairs has created confusion in the sector and in the country as to whether they should rejoice over JMP reports that Ghana is on track to meeting her MDG targets for water by 2015 or reject such reports because they do not reflect the reality.

The Water and Sanitation Monitoring Platform (WSMP), a project established with support from the JMP and the European Union to assemble, analyse, re-package and disseminate available water and sanitation sector data as a monitoring support to the government of Ghana decided to investigate the causes of these disparities and advise appropriately.

This paper discusses the reasons why water sector professionals and the Ghanaian public in general have usually rejected JMP and Ghana Statistical Service coverage data on Ghana and her reported progress toward achieving MDG targets for drinking water. The paper also makes a suggestion on how to improve on JMP methodologies and make its data look more reflective of the actual water supply coverage situation in the country. Such a move will make JMP data more useful locally for planning and decision-making, and minimize the usual confusion over the wide disparities between JMP data on Ghana and data provided by local water supply agencies.

Figure 1. Disparities between JMP and Local data on Ghana

Source: WSMP Ghana
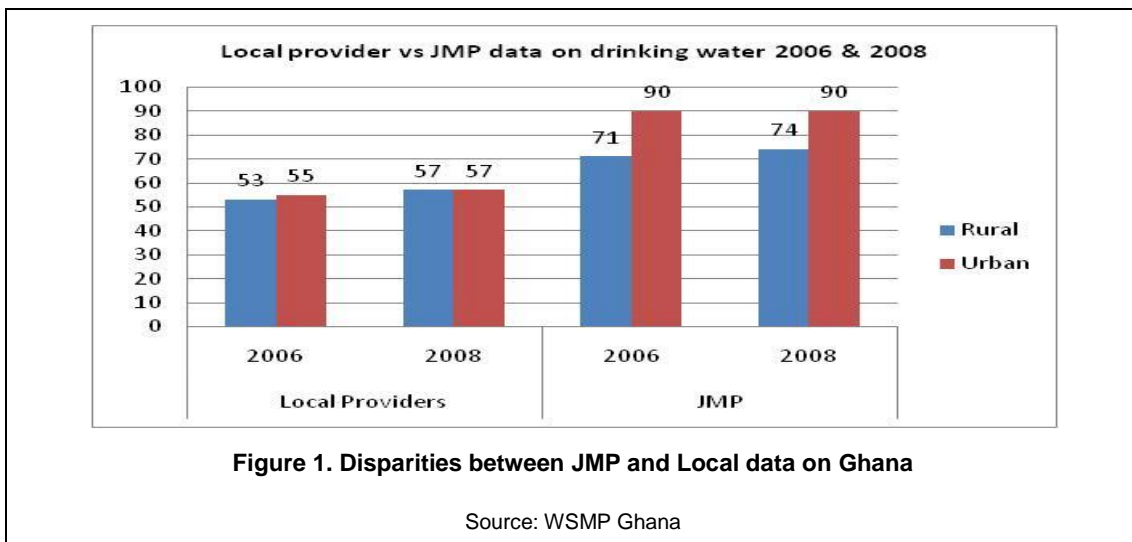
Methodology

The WSMP conducted a desk study by reviewing various reports from the JMP and the Ghana Statistical Service, as well as reports from the Community Water and Sanitation Agency (CWSA) and the Ghana Water Company Limited (GWCL). In all cases the methodologies for data collection and analyses were reviewed to obtain a better understanding of the basis for conclusions on data on access. From the Ghana Statistical Service, the main source of JMP data on Ghana, raw data from the 2008 Demographic and Health Survey was also obtained to analyse how much time people spend to collect water (GSS 2008).

Observations from WSMP analyses

The following observations were made, leading to a conclusion that there are a couple of limitations with the JMP methodology for computing the MDG coverage data on Ghana:

Observations with MDG indicators

- The MDG indicator for drinking water does not include a measure for time - *"The proportion of the population that uses an improved drinking water source, urban and rural."* Going by this indicator, coverage data provided by the Ghana Statistical Service and the JMP have usually not considered how much time that people spend to search for water and seem to have been limited to sources being considered improved. This observation is further confirmed by the following statement captured in a JMP report: *"The MDG indicator does not include a measure for time taken to collect water... However, some argue that, because it is a factor in drinking water use, the time needed to collect water should be considered when determining whether a source is 'improved' or not (JMP, 2008: 17)."*
- Quantity of water and distance covered in search for water are not monitored: *"The Global Water Supply and Sanitation Assessment 2000 Report defines reasonable access as the availability of 20 litres per capita per day at a distance no longer than 1,000 metres from the user's dwelling. However, only sources of drinking water that are thought to provide safe water were used as proxy (JMP, 2000)."*

Observations from Ghana Demographic and Health Survey

- The Ghana Demographic and Health Survey (GDHS) is a periodic survey designed to provide information to monitor the population and health situation in Ghana (GSS 2008). It includes the following questions:

  - What is the main source of drinking water for members of your household?
  - What is the main source of water by your household for other purposes such as cooking and hand washing?
  - Where is that water source located?
  - How long does it take to go there, get water and come back?

- In spite of the fact that the questionnaire helps to gather data on time, the GSS uses only the proportion of the population that uses improved drinking water source (question one) to compute the coverage data (Raw data on time is available from the GSS).
- There is no question on quantity of water one obtains in a day in the questionnaire.
- In the absence of information on distance, sustainability and quantity, studies have shown that time spent in collecting water (round trip) provides an indication of the effort, quantity and sufficiency of water that can be collected by a household. According to a WHO/UNICEF (JMP, 2008), studies have found that if the time spent in collecting water is between 3 and 30 minutes, the amount collected is fairly constant and suitable to meet basic needs (defined as between 15 to 20 litres per person per day). Research has also shown that households spending more than half an hour per round trip progressively collect less water, and eventually fail to meet their families' minimum daily drinking-water needs (Hutton and Haller 2004).

Photograph 1. A typical scene of the daily struggle for potable water in Ghana

Source: Mime Consult Limited

Discussion

Analysis by WSMP using 30 minutes as the preferred maximum time one should spend in a round trip in search for water, using available data from the GDHS 2008, reduced the reported coverage figure from 83.8% to 71%. The figure further dropped to 61% when 20 minutes maximum time was used.

These findings confirm stakeholder concerns over the fact that Ghana's MDG coverage figures perhaps exaggerate the actual water supply situation in Ghana, citing examples of long distances and long hours in search for water in many parts of the country. This is not to conclude that Ghana is not on track for the MDGs! The argument here is that using the MDG methodologies and indicators as they are currently, Ghana is indeed on track to meeting her targets by 2015. Again, the Ghana Statistical Service is not to be blamed for its methodologies and analyses; none of the surveys that it conducts is specifically for the water sector. The GDHS for instance is for the Health Sector whose primary concern probably is the quality of water that one uses as it affects one's health. It may therefore be appropriate (for the health sector) to conclude that once a person drinks from an improved source that person is covered. But the water supply sector would rather concern with both the type of water sources that people use and how they obtain that water for the sake of planning, budgeting among others.

Recommendations

- The WSMP would recommend the use of time in addition to water quality (using improved facilities as proxy indicators) for the computation of coverage data for water for the following reasons:

  – Data on time is available as against those of distance and quantity (in Ghana);

- Proximity of a water facility to the home is not a guarantee that one can obtain enough quantities of water daily (for instance if the facility is usually over crowded or has a very slow flow rate);
- The fact that one is able to obtain safe water within a very short time (e.g. 20 minutes) is an indication that the facility is functional, there is no congestion, and it is not located too far away!

- The JMP should consider the issue of universally agreed standard time in reviewing data analyses methodologies for the period beyond 2015 in order to help countries to make more effective use of their data. As it stands now, countries like Ghana have not benefited enough from the MDG data since local stakeholders have yet to use JMP/GSS data adequately because of perceptions of exaggeration. This is evidenced in the fact that none of the current Sector Investment Plans (urban and rural) was drafted with JMP/GSS survey data.
- Countries should continue efforts at harmonising sector definitions to create better understanding of sector data/statistics that will support timely evidence-based decision making.

Outcomes from disseminating the observations

Stakeholders in Ghana are now debating on three main considerations in order to find a better use for survey data first coming from the Ghana Statistical Service and then internationally published by the JMP:

1. Whether to emphasize on distance or time when deciding on coverage data;
2. If time should be used, how much time should be the maximum for a round trip to fetch water;
3. The possibility of getting the Ghana Statistical Service to conduct a water and sanitation-specific survey to cater for most of the sector's information needs and avoid reliance on surveys meant for other sectors.

Acknowledgements

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