MDG 7c for safe drinking water in India: an illusive achievement

Millennium Development Goal (MDG) target 7c aims to halve the proportion of the population without sustainable access to safe drinking water and basic sanitation.[1] With 89% coverage globally and 91% coverage in India in 2011, UN monitoring bodies judge the world to be on track for access to drinking water.[2]

However, celebration might be premature. The MDG target 7c indicator does not consider water quality, which relates to pathogens and chemicals that can cause disease. Rather, safe drinking water is defined via provenance from an "improved source", which includes piped water on premises and channels, such as public taps and hand pumps.[2]

Between May, 2013, and October, 2013, we did an interviewer-administered cross-sectional survey at two sites in India, targeting households with at least one woman with a child aged 12–23 months. Data were collected from random samples of 685 households in a New Delhi slum (Kirti Nagar) and 1192 households in 60 villages of a poor rural district of Uttar Pradesh. In addition to recording household water source, we tested water for faecal contamination using a UNICEF-validated rapid test for coliform bacteria (TARAenviro aquacheck). Data on household characteristics and child health were also collected. We also tested water in government centres designed for the health and welfare of mothers and children.

Although 99·6% (682 of 685) of urban and 97·7% (1165 of 1192) of rural households surveyed had access to safe water as defined by the MDG target 7c indicator, water was contaminated in 41·5% (284 of 685) of urban and 60% (715 of 1191) of rural households (appendix). About half of the health centres in each site

had contaminated water. Similar water quality results were found in a previous study of eight Indian districts.[3]

Overestimation of water quality through the MDG target 7c indicator leads to erroneous assessment of health challenges and living standards. Widespread access to safe drinking water coexists with very high levels of child morbidity and mortality, partly resulting from waterborne disease. The multidimensional poverty index is a living standards measure that takes into account water safety.[4] The use of multidimensional poverty index with coliform testing for water quality rather than the MDG definition leads to a substantial increase in estimated poverty (appendix).

In view of India's population size, there is every reason to question claims to have achieved the Indian and global MDG drinking water targets. Flawed data undermine effective research and appropriate action. The MDG target 7c indicator requires urgent reconsideration.

We declare that we have no competing interests.

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Commission on Global Governance for Health: just another report?

We welcome the report of The Lancet–University of Oslo Commission on Global Governance for Health (Feb 15, p 630)[1] and agree with its diagnosis that the root causes of health inequity are political and power imbalances, which drive an unequal neoliberal globalisation that current global governance institutions are unable or unwilling to address.

As members of the People's Health Movement, which has contributed background papers to this report, we are disappointed that its recommendations avoid defining actions "to root out the very causes of persistent health inequities".[1] While an Independent Scientific Monitoring Panel and a Multi-Stakeholder Platform on Governance for Health (MSPGH) could be mechanisms to track and mitigate adverse policies, it would require some form of intergovernmental agreement to ensure its findings were influential in national and international decision making. We are deeply concerned that the proposed MSPGH is recommended before considering how existing governance platforms might be strengthened. There is a risk in multiplying multilateral organisations until they individually become less powerful. We are also troubled by the call in the report[1] for "commitments to global solidarity and shared responsibility", which obfuscate the power imbalances among countries and between governments and stakeholders, such as transnational corporations.

In an increasingly globalised world economy, an appropriate global governance system is essential. We therefore propose that the Commission on Global Governance for Health should advocate for: the restoration of WHO as the legitimate supranational global health organisation, to be supported by member nations with non-earmarked

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Table. Water quality and correlates among 1877 households residing in an urban slum and a poor-performing rural district of India, 2013[1]

| Site | Water quality | | | Correlates | | | | |
| | Household | | Health centre[2] | Household characteristics | | Child health in 15 days prior to survey[3] | | |
	"Improved water" (MDG Target 7c)[4]	Water contaminated (rapid test)[5]	Water contaminated (rapid test)[5]	Open defecation	Child died[6]	Diarrhoea	Pneumonia	Fever
Kirti Nagar, New Delhi[7]	682 (99.6)	284[8] (41.5)	17 (51.5)	102 (14.9)	77 (11.2)	162 (23.7)	58 (8.5)	231 (33.7)
Multidimensional poverty[9]	*308 (45.0)*	*344 (50.2)*						
Hardoi district, Uttar Pradesh[10]	1165 (97.7)	715[11] (60.0)	41 (47.7)	1070 (89.8)	269 (22.6)	655 (55.0)	188 (15.8)	581 (48.7)
Multidimensional poverty[9]	*987 (82.8)*	*1020 (85.6)*						

[1] All data given as *n* (%)

[2] These are government Anganwadi centres serving children 0-6 years and pregnant and nursing mothers.

[3] Asked of the mother of the youngest child 12-23 months in the household, based on standard questions used in household surveys. We asked whether the child had had diarrhoea, cough accompanied by rapid breathing, or fever in the 15 days prior to the survey.

[4] In the urban site, 655 (95.6%) of households used piped water, usually from a public tap; 27 (3.9%) households used water from a hand pump. In the rural area, 1151 (96.6%) households used water from a hand pump; 14 (1.2%) used piped water.

[5] Presence of coliform bacteria indicating faecal contamination.

[6] Asked of the mother of the youngest child 12-23 months in the household. We asked whether she had a child born alive who later died.

[7] In the urban slum, Kirti Nagar, New Delhi, we surveyed 685 households, selecting one mother-child pair per household. We tested water in 33 health centres.

[8] The denominator is 683; two values are missing.

[9] Multidimensional poverty headcount: Percentage of the population with a weighted deprivation score of at least 33%, calculated using the assessment of water safety in the column header.[4]

[10] In Hardoi district, Uttar Pradesh, we surveyed 1192 rural households, selecting one mother-child pair per household. We tested water in 86 health centres.

[11] The denominator is 1191; one value is missing.