

Surviving as an Unequal Community: WASH for Those on the Margins

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Abstract The Sustainable Development Goals intend to address populations “missed” by the Millennium Development Goals for safe water and sanitation access. To capture these populations, programs need to attend to community norms for usage and the groups most marginal in those communities. Policies should include a focus on ways to eradicate socioeconomic and political marginality.

Keywords Water · Sanitation · Sustainable Development Goals · Social inequality

Water and Sanitation

The Millennium Development Goal (MDG) for access to improved drinking water was met in 2010, ahead of schedule. However, the MDG for sanitation was missed by 700 million people, meaning 2.4 billion people lacked access to “improved” or “hygienic” sanitation in 2015. As with drinking water, rural populations are less likely than urban dwellers to have access to improved sanitation (7 of 10 globally). Regionally, South Asia, East Asia, and Sub-Saharan Africa are where most of those without access to improved sanitation reside. Rural dwellers are most likely to defecate in the open (9 of 10 open defecators globally). Open defecation includes defecating in fields, train tracks, garbage dumps, forests, bodies of water, and plastic bags that are then thrown onto rubbish heaps (“flying toilets”). Approximately 1 billion people defecate in the open, and most of these people live in India (WHO/JMP 2015).

Sanitation, simply put, is the proper disposal of human waste. This can include trash, wastewater, and disposal of human feces. The simplest way to safely dispose of human feces is to deposit them somewhere where they will not come in contact

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with water and food or with humans, animals, or insects that might transfer contaminants to eyes, mouths, water, and food. Sanitation can be simply digging a hole, defecating in it, and then covering the hole and the feces in it (“cat sanitation”). When latrines are built, the construction and maintenance of the units can matter a great deal about their ability to reduce the spread of disease. For example, a latrine with a dirt floor can harbor harmful parasites, while a latrine built with a slab has been found to be less contaminating. However, if the slab is cracked or broken, then the ability of the latrine to provide better protection to users is compromised (Exley et al. 2015). Safe sanitation is more than the building of hygienic latrines, it includes maintaining them, and having the ability to do so.

The Survival of the Most Vulnerable

Diarrheal disease kills three-quarters of a million children under the age of five every year. Although preventable, it is the second leading cause of death, and the leading cause of malnutrition in children under five years old. Malnutrition is linked to childhood stunting and underdevelopment. An estimated 165 million children have stunted growth, which may have short and long-term impacts for physical health and cognitive development. Recent evidence suggests that children’s height is linked to household hygiene practices, especially in situations where children ingest fecal bacteria through unwashed hands, contaminated utensils, and contaminated drinking water (Lin et al. 2013; Pickering et al. 2012). Subsequent gastrointestinal infections impact nutrient absorption, leading to malnutrition that contributes to stunting.

Other research undertaken at the household scale indicates additional factors that put children at risk of infection. In parts of Africa, for example, young children may not be expected to use the household latrine, in which case they defecate in the family courtyard. As they learn to use the latrine they may not be using the unit hygienically, as might be expected for a new user of any age. Third, anal cleansing may not take place in the unit, but instead outside it, in the family courtyard. In combination, these three practices put feces in the public domain and put children and others at risk of infection (Exley et al. 2015).

It is common knowledge that access to clean water and sanitation will lead to improvements in public health. But this conventional wisdom requires some unpacking. For example, clean water may be clean at the source, but can easily become contaminated by unwashed hands, unhygienic storage, and flies. It is well-known in the Indian context that access to sanitation does not necessarily mean that family members will use it, and may chose to defecate in the open instead (Mara et al. 2010). Evidence suggests that high levels of coverage and use at the community level are necessary to reduce disease associated with fecal contamination (Emerson et al. 2001).

Beyond Surviving to Living with Dignity

As Sanjay Wijesekera, head of UNICEF's global water, sanitation, and hygiene (WASH) programmes stated, "Although it is the poor who overwhelmingly do not have toilets, everyone suffers from the contaminating effects of open defecation, so everyone should have a sense of urgency about addressing this problem (UNICEF)." Eliminating open defecation could significantly diminish the spread of diarrheal diseases (and others) that can lead to death, malnutrition, and stunting. Handwashing can halt the spread of diarrheal disease through the fecal-oral route, but discussions of handwashing necessarily come back to provision of clean water that can be used for this purpose.

If communities are responsible for environmental health, then both quantitative and qualitative research can shed light on community norms of sanitation behavior (Mehrotra and Patnaik 2008). This begins with an understanding that vast differences exist across populations, across states, and across regions. It is clear from the WHO/JMP (2015) MDG report that the rich begin with greater access to WASH services and are those who enjoy the greatest improvements in services. By contrast, the poorest of the poor are the least likely to have services and remain the most underserved. All regions with the least access to sanitation exhibit large inequalities between the richest and the poorest 20 %, and these broad categories can be additionally parsed into rural/urban dwellers and the kind of services they receive (WHO/JMP 2015).

The reasons for why the world's poorest *are* the poorest can be explained by geographic factors, political-economy, and social marginality. Cross-cutting inequalities like widowhood and caste, geographical remoteness and indigeneity, homelessness and language barriers make social marginality difficult to untangle. They suggest that provision of WASH services to marginal communities requires a concerted, long-term effort. However, the effort goes beyond outreach to these poor communities. Efforts *inside* communities to address social inequalities are also required. For example, Community Led Total Sanitation approaches that galvanize rural communities into latrine building for all and community monitoring of open defecators have had great success in Bangladesh, where CLTS was developed (Kar and Chambers 2008). But strategies for behavior change like CLTS that include shaming of open defecators can add to stress already felt by the poor and those on the margins (Hirve et al. 2015). What's more, in rural areas, both the poor and the wealthy may be contributing to contaminated landscapes through open defecation, even those who have individual household latrines.

Wijesekera's clarion's cry that "everyone should have a strong sense of urgency" sounds reasonable, but such statements are not wholly benign. Middle class urban residents malign the poor for contaminating their cities, without acknowledging how social and political inequalities generate the disparities of class often found contained within the cities of developing countries. Not only do the urban poor struggle to meet their livelihood needs, they struggle to meet their hygiene and sanitation needs without an infrastructure that supports either (Joshi et al. 2011).

Lack of access to sanitation may be especially difficult when social norms require greater levels of privacy for women's defecation than for men. Without access to a

latrine, women and girls must defecate in the open, bringing with it possibilities of attack, harassment, or public shame. Women speak of avoiding going for defecation by reducing food or water consumption, or disciplining their bodies so that defecation occurs at predetermined times and places (O'Reilly 2010). While the overall impact of psychosocial stress related to inadequate sanitation and water access is not well-known, recent work finds that women's stress surrounding defecation and menstrual hygiene management include worry, rushing, irritation, depression, and tension (Sahoo et al. 2015). Overall well-being, survival and health includes mental health, and increasingly research is beginning to explore the impact of women and girls' emotional stress due to absence of adequate sanitation at community and household scales, and at schools and public places like markets.

Available sanitation does not necessarily lead to lower stress levels, and may not contribute to improvements in community health. In urban India, poor women will reject substandard public or community latrines in favor of open defecation if they perceive the bodily harm or the risk of gender-based violence to be greater using the latrine (Kulkarni et al. 2014). Women's fear and stress then, is not a problem with sanitation, but with social inequalities that put women at risk of gender-based violence (O'Reilly 2016). Having access to sanitation does not mean being able to use it due to fear; lack of access to water; or the inability to manage fecal sludge when the latrine pit is filled. Community survival goes beyond provision of water and sanitation, as communities comprise diverse membership, not all of whom have equal access to resources and a community that supports their access.

The Sustainable Development Goals

In 2010 the United Nations recognized safe water and sanitation as a human right. The Sustainable Development Goals (SDGs) intend to address the populations "missed" by the MDGs. But much more needs to be understood as to who those populations are, and if they are on the social margins, what are the socioeconomic and political structures that produce this distance from mainstream society? Answers to these questions can lead to policies and practices that seek to eradicate social inequalities. Furthermore, the SDGs assume that those who were counted as having access to safe water and sanitation by 2015, continue to have access. But do they? Evidence suggests that access and use of a latrine once initiated, will not necessarily be maintained (Kwiringira et al. 2014).

Disease preventative programs include improving hygiene such as handwashing, increasing access to safe water and safe sanitation, and education campaigns. These same programs need to include attention to community norms for sanitation usage, access to water, and the most marginal in the community to assure not simply surviving through greater environmental health, but surviving with dignity.

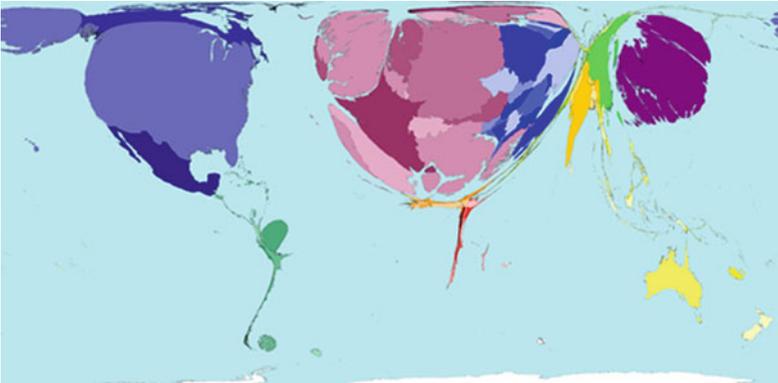
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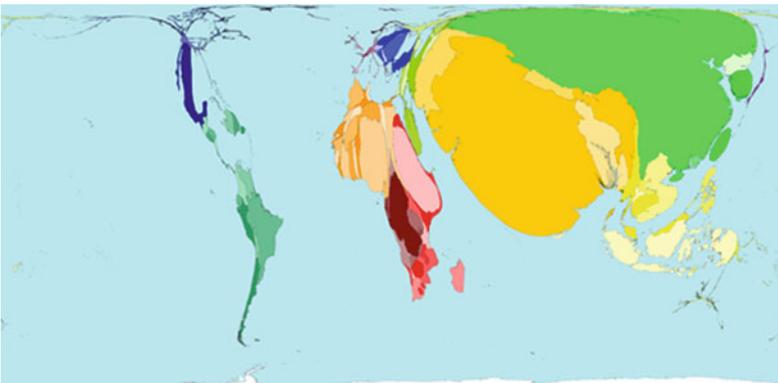
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Sewerage sanitation. In more than three quarters of territories fewer than 10 % of the population has access to toilets that are connected, via sewers, to a waste water treatment plant. In 8 regions less than 5 % of people are connected to sewerage systems. **Territory size shows the proportion of all people that have their toilets connected to public sewerage systems (and thus waste water treatment) that live there.** *Source* www.worldmapper.org. Published with kind permission of © Copyright Benjamin D. Hennig (Worldmapper Project)



Poor sanitation. Of all the people in the world, 39.8 % of us do not have access to basic sanitation. This means living within walking distance of private or shared (not public) latrines or toilets that effectively prevent human and animal contact with excreta. **Territory size shows the proportion of all people without access to basic sanitation (toilets) that live there.** *Source* www.worldmapper.org. Published with kind permission of © Copyright Benjamin D. Hennig (Worldmapper Project)