

## Shared Sanitation Facilities: A Reality or Mirage?

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### Abstract

Per current WHO/UNICEF JMP definition, improved sanitation facilities are those that are likely to ensure hygienic separation of human excreta from human contact. Improved sanitation facilities therefore exclude shared facilities of all types and open defecation. Unimproved sanitation (shared, other unimproved and open defecation) constitutes 32% of global sanitation access. Though shared sanitation facilities are not considered improved, current debate seeks to discount this and argues that non-shared sanitation facilities are virtually impossible in peri-urban settlements of mixed socio-cultural and religious settings with limited space for household sanitation construction, high poverty and population densities. Lower sharing of sanitation facilities is generally associated with higher benefits to users. Sanitation facilities provision at lower sharing can provide comparable levels of health benefits as flush toilets for individual households if they are well operated and maintained, convenient and provide security. We argue that though the Millennium Development Goals (MDGs) led to significant sanitation coverage, the narrow improved sanitation definition is a constraint – particularly because shared sanitation may be viable option and able to promote health in poor communities. This review concludes that the categorization of all shared facilities as unimproved is a misrepresentation of sanitation reality in poor communities, and has therefore hugely contributed to the low sanitation coverage recorded globally. It is thus recommended that shared sanitation facilities at low sharing of 2 – 3 households per shared facility (depending on the household sizes) under good operation and maintenance culture be included in the improved sanitation category for low-income countries.

**Keywords:** shared sanitation facilities; sanitation; health benefits; improved sanitation; Ghana

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## **1. Introduction**

As the MDGs deadline draws to a close, the world is not yet on track to achieve target 3 of the MDG 7 for ensuring environmental sustainability, which seeks to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation [1]. Measuring the sustainability of sanitation facilities remains a challenge, and so JMP used access to improved sanitation facilities as a proxy for progress. Improved sanitation facilities are those that are likely to hygienically separate human excreta from human contact, and include flush or pour-flush to a piped sewer, septic tank or pit latrine, ventilated improved pit (VIP) and Kumasi ventilated improved pit (KVIP) latrines, pit latrine with slab and composting toilets [1]. Only sanitation facilities that are not shared or not public are considered improved. Improved sanitation therefore excludes shared, open defecation, and other unimproved sanitation options. The economic benefits of improved sanitation are well documented [2]. For instance, 12% of Sub-Saharan Africa's total health expenditure is on diarrhea, and sanitation can reduce diarrhea by 88%. By implication, if improved sanitation could be provided to reduce diarrhea by this margin, the impact on health budgets across Africa would be phenomenal. It is therefore understandable for people to have improved sanitation access as a major preventive measure against sanitation-related diseases such as diarrhea [3] and significantly reduce Africa governments' health expenditure.

Even though WHO/UNICEF JMP excludes shared sanitation facilities from improved forms of sanitation, yet sanitation facilities shared between two or more households, including public latrines are otherwise-acceptable forms of sanitation in some low-income countries [4, 5, 1, 6]. Some research findings show that the number of households sharing a sanitation facility and excreta containment exhibit higher correlation with illness than the type of sanitation technologies used [7]. Lower sharing of sanitation facilities is therefore generally associated with higher benefits to consumers. However, non-shared sanitation facilities are virtually impossible in a peri-urban setting with limited space (for household sanitation construction), high poverty levels and population densities.

Studies also show that improving sanitation has greater benefits than disease burden reduction, as the wider economic and social benefits often motivate individuals and communities to improve sanitation [8, 9]. The non-health drivers for improving sanitation include improved privacy, convenience, time saving, prestige, safety for women and children, social status, odour and fly reduction, cleanliness, conflict with neighbours, and modernity [10, 11, 12, 13, 9]. However, most of these non-health drivers are not factored into improved sanitation's definition. Therefore, we argue that the current improved sanitation definition that limits one sanitation facility to a household without consideration for operation and maintenance standards as well as socio-cultural, religious and other non-health externalities is not comprehensive enough.

## **2. Access to shared sanitation**

Over 2.5 billion people lack improved sanitation globally, 784 million of them depend on shared facilities, and unimproved sanitation (shared, other unimproved and open defecation) constitutes 32% of global sanitation access [6, 1], which debatably are considered unimproved without regard to level of service. Dependents on shared facilities are highest (19%) in Sub-Saharan Africa and generally high (16%) in the least developed

countries [6]. The shared sanitation situation in Ghana is no different as 60% of Ghanaians use shared sanitation. Other sanitation uses in Ghana are: improved sanitation (15%), unimproved (6%), and open defecation (19%) [1]. Shared sanitation has thus immensely contributed to sanitation access both globally and in Ghana in particular. Though a deliberate sanitation policy successfully phased out some unimproved sanitation options in Ghana, shared sanitation access is on the ascendency.

The WHO/UNICEF JMP's position that all shared facilities are unimproved and do not contribute towards the MDGs is one key reason for the low sanitation coverage figures recorded globally, as shared sanitation is the norm in Sub-Saharan Africa and elsewhere. This implies that shared sanitation is the only realistic option that will elevate the 2.5 billion people without improved sanitation up the sanitation ladder to the basic service level [6]. A study in informal settlements in Kigali (Rwanda) showed that shared facilities shared between four households were common [14]. 1,500 randomly selected latrines in Uganda showed that 78% of households shared their latrines with six households on average, and only 22% had improved or private sanitation facilities [15]. Shared sanitation is therefore a reality, not a mirage. We therefore argue that shared sanitation may be categorized as improved when sharing is limited to 2 – 3 households per facility (depending on household sizes), if well operated, maintained, convenient and provides security to users.

### **3. The household concept in sharing**

The household concept in Ghana is slightly unique, as most households live in rooms in compound houses, and household sizes could range from 1 – 100 [16]. Ghana's unusual household sizes coupled with the broader definition of a household means that very few (2 – 3) households can share a sanitation facility to achieve good health benefits. The level of sharing may therefore be community-specific and limited by household sizes. A household is thus considered to have adequate access to sanitation if excreta disposal system (private or public) shared with a reasonable number of people under good operation and maintenance conditions, is always available to the household members [9]. The current MDGs' categorization of sanitation facilities whereby any facility shared by more than one household is considered unimproved and does not count towards the MDGs targets achievements (WHO/UNICEF JMP, 2014), thus suffers a major drawback. Therefore we find this categorization inappropriate and debatable. Individual family or household sanitation provision (non-shared) in poor peri-urban communities may be unlikely owing to high levels of poverty and overcrowding.

It is argued by other experts that meeting the MDGs on sanitation and water supply is daunting and almost unachievable if new approaches are not adopted [17]. They therefore propose a "new paradigm" of low-cost approach, where sanitation services are provided to groups of households (preferably with family ties), not individuals. This proposal further confirms the debatable categorization of shared facilities as unimproved. The proponents believe this model may be the only likely way the MDG targets for water and sanitation can be achieved. Therefore if it is impossible to provide individual sanitation due to high costs and problems of land scarcity, one solution would be to have shared latrines, as confirmed by [18], that shared facilities are often the only existing sanitation facilities in low-income urban dwellings. Families often keep sanitation costs down by sharing latrines between one or more households, mostly with family ties [1]. Shared sanitation also reduces land area required and can be sited at most unfavourable geological locations as well as generate income

through “pay-per-use principles.

#### **4. Some limitations to shared sanitation**

The level of sharing has implications on how facilities are constructed, used, and managed [19]. Although shared sanitation offers a practical solution to improving the lives of people, it could pose some challenges such as proximity, religious orientation and socio-cultural issues including privacy and security. For example, research shows that increasing household distance to a sanitation facility is associated with decreased use and increased open defecation [20]. The issue of less sharing is not only limited to households' proximity to sanitation facilities, but also associated with well-documented non-health socio-cultural factors such as improved privacy, time-savings, prestige, convenience and security. Also not all “pay-per-use” communal latrines do operate successfully in some places as they generally require a subsidy and can present maintenance problems unless responsibilities are clearly defined [21]. For instance, it takes only one careless person, perhaps a child avoiding the frightening squat hole, to establish a chain of misuse for which no one is willing to take responsibility. All this implies that sanitation improvement drivers are not universal, but context-specific. Sanitation facilities' sharing is limited by household sizes, could be community-specific, and constrained in terms of operation and maintenance standards and level of users' responsibilities. To classify all shared sanitation facilities as unimproved because they are shared without considering service quality and other externalities is therefore a limitation.

#### **5. Conclusions and recommendations**

The WHO/UNICEF JMP declaration of all shared facilities as unimproved because they are shared is a limitation and hindrance to MDGs universal sanitation coverage achievement, and negates efforts to affordable sanitation provision to impoverished densely-populated communities. Therefore, we conclude by stating that the current limited definition of improved sanitation that restricts one sanitation facility per household without consideration of factors such as operation and maintenance standards, household size, socio-cultural, religious and other non-health externalities is misplaced. The classification of all shared facilities as unimproved because they are shared is a limitation and hindrance to achieving the MDGs on sanitation coverage. We argue that in peri-urban settlements of mixed socio-cultural and religious backgrounds with limited space, high poverty and population densities, non-shared sanitation facilities are impracticable and unaffordable. Under such circumstances, shared facilities may be the only practicable, workable and realistic option provided the facilities are well operated, maintained with security and convenience to users. We therefore recommend that properly operated and maintained sanitation facilities shared between 2 – 3 households (depending on household sizes) be included in the improved sanitation category.

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