

Shared Sanitation Facilities: Challenges of Access

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Abstract

Shared sanitation by households is in a class of its own. This classification was necessitated by the fact that some of the shared facilities are structurally classified as improved sanitation. This paper describes the findings from a research on what sanitation facilities were available for use in Nakuru Municipality and the surrounding peri-urban area and the challenges faced by households in accessing shared sanitation facilities. A cross-sectional survey was undertaken. Data was collected from 400 respondents that were randomly selected from the study area. The data was analyzed using qualitative and inferential statistics at 0.5 confidence level. The findings revealed that 50.1% of the households shared a sanitation facility and in some cases one was shared by more than 10 households. Majority (62.5%) of those sharing a sanitation facility used a basic pit latrine that lacked a slab. A total of 70.1% of households sharing a sanitation facility were headed by females. The most common challenge experienced by a majority (57%) of respondents was unclean and smelly facilities that discouraged use of these facilities especially by children. This finding is useful to the residents, landlords and the department of housing and planning of the County of Nakuru department of public health for planning and effective management of the sanitation to ensure provision of additional sanitation facilities in order to protect public health.

Key words: Households, peri-urban, shared sanitation, public health

Introduction

At the current rate of progress the world may not realize SDG 6 target for 2030 on access to sanitation and hygiene and end open defecation (UN, 2018). Rapid population growth has led to rapid urbanization and movement of residential areas to the peri-urban areas without adequate facilities for sewage disposal. The rapid urbanization has also resorted to provision of single multi-dwelling units in most of the low-income urban areas. In these areas the plot sizes are also very small and providing each household with its own sanitation facility may not be tenable. Thus the only option is for households to share the available sanitation facility. According to WHO and UNICEF (2017), people using an improved sanitation facility but sharing it with other households are classified as having limited services.

The use of shared sanitation reflects demand. There is however limited data to confirm the perception that many of these facilities do not ensure hygienic separation of human excreta from human contact. Nevertheless, the lack of cleanliness of shared sanitation is one of the key reasons why they are considered as unimproved by JMP (WHO & UNICEF, 2012). A number of studies show that the quality of sanitation facilities is determined by maintenance practices such as cleaning or lack thereof (Rahman *et al.*, 2010; Simiyu *et al.*, 2017; Tumwebaze *et al.*, 2014). In addition to cleanliness and maintenance, other studies have highlighted the importance of aspects such as hygienic status of sanitation facilities, state of the superstructure, presence of smell, presence of flies, and the state of the slab (especially in the case of pit latrines) in defining the quality of shared sanitation (Nakagiri *et al.*, 2015). Serious concern has also been raised about the actual accessibility of such facilities throughout the day and about the security of users, especially at night (WHO & UNICEF, 2008).

Sharing a latrine has also been associated with an increased risk of adverse health outcomes, including diarrhoeal disease, helminth infection, poliomyelitis, trachoma as well as prematurity, ante partum fetal death and prenatal death (Heijnen *et al.*, 2014; Montgomery, *et al.*, 2010). Many studies carried out suggest that sharing a sanitation facility with just one to two other households can increase the risk

of moderate to severe diarrhea in young children, compared to using a private facility (Baker *et al.*, 2016; Fuller *et al.*, 2011; Mahamud *et al.*, 2012; Shultz *et al.*, 2009). Nonetheless, shared sanitation facilities serve a crucial role in ensuring reduction of open defecation which increases fecal contamination of water with dire consequences to human health.

Methodology

Location of the study site

The study was carried out in Nakuru Municipality and the surrounding peri-urban area. It lies within the Great Rift Valley and covers an area of 1169 Sq Km. It is located between longitudes 35° 0' East and 37° 0' East and latitudes 0° 0' South and 1° 0' (GoK, 2013).

Research Design, Sampling Procedure

A cross sectional survey was carried out where 400 respondents were drawn randomly from Nakuru municipality and surrounding peri-urban area. A questionnaire that contained both closed and open ended questions was administered to elicit information on the use of shared sanitation and the challenges faced by the respondents in accessing these facilities. An observation schedule was also used to record the status of the shared facility.

Results

A total of 50.1% of the households shared a sanitation facility as shown in Figure 1. In a majority of cases two to four households shared one sanitation facility. On average seven households shared a sanitation facility translating to 28 people given the average size of household was four individuals, but in the worst cases a single sanitation facility was shared by 20 households totaling 80 individuals. Ideally a sanitation facility should be used by members of one household (WHO & UNICEF, 2010). The results also indicated that 29.6% of the respondents were sharing a water closet. According to WHO & UNICEF Joint Monitoring Program (JMP), any shared facility means that the respondents have limited access to a sanitation facility although it is an improved one. Majority of the respondents sharing a sanitation facility were from the low income areas of the urban (55.4%) and peri-urban (43.9%) area. These results are comparable to findings of a study that showed that sanitation facilities in Kisumu low income settlements were shared by between five and ten households that lived in the same compound (Simiyu *et al.*, 2017)

The most common challenges reported by the respondents were unclean and smelly facilities (57%); security at night (40%); safety for use by young children (38%); lack of privacy (35%); inconvenience (25%) and distance to the facility (15%). This finding compare well with those of other studies done in Kenya and other developing countries that showed that the use of the shared sanitation facilities were greatly hampered by lack of cleanliness and security (Schouten & Mathenge, 2010; Simiyu *et al.*, 2017; Tearfund, 2007; Tumwebaze *et al.*, 2014). Due to these challenges, the children were forced to defecate in the compounds of the multi-dwelling units, by the road, service lanes or nearby undeveloped plots. Some of the respondents also owned to answering short calls just by the door to their houses at night. To meet the JMP definition of improved sanitation, sanitation facilities must be used by only one household, as well as meet certain design standards that prevent human contact with feces (WHO & UNICEF, 2012).

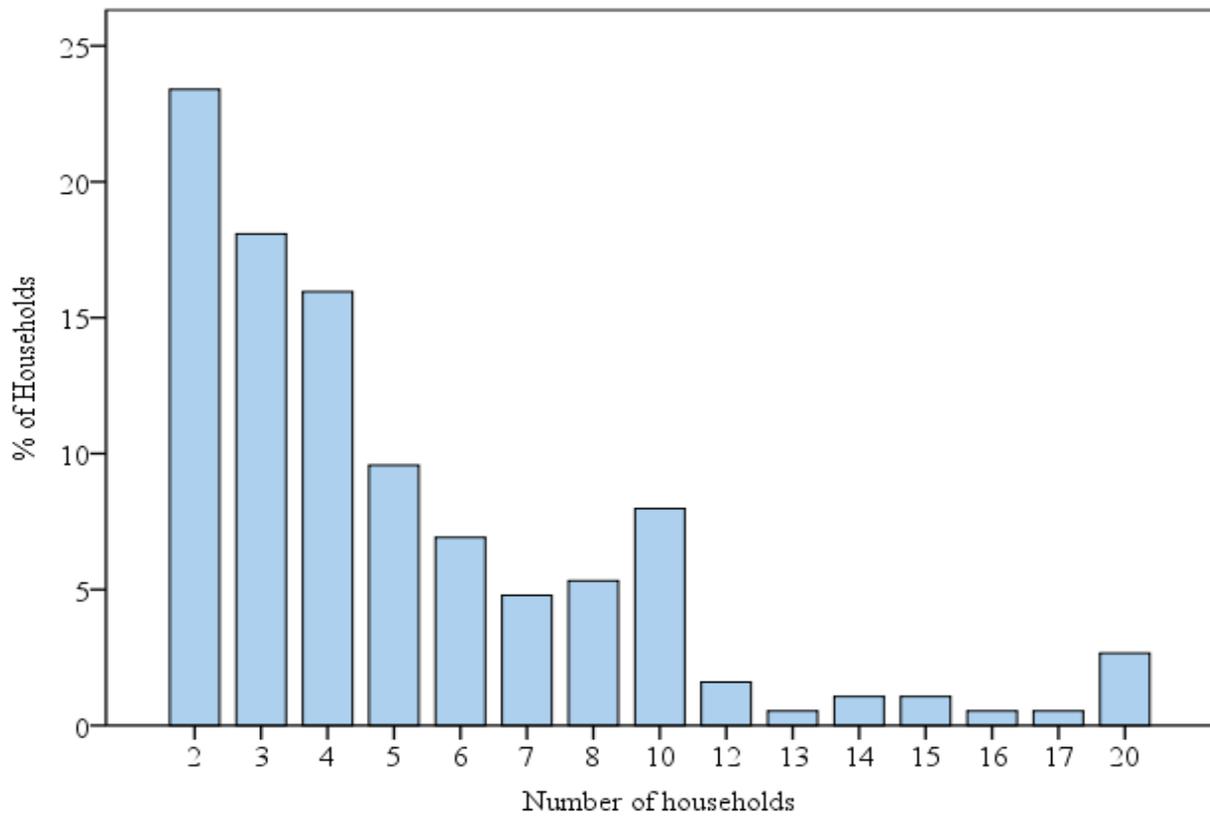


Figure 1: Number of households sharing a sanitation facility in the study area

Further analysis showed that 71.1% of households sharing a facility were residing in rented houses especially those living in the low income urban areas and 27.4% of those living in their own houses also shared a facility if they also had tenants in the same compound. A study carried out in Pikine-Dakar in Senegal revealed that there was inequitable access to improved sanitation with 77% of tenant households having shared sanitation facilities with other households compared to 17% of owner-occupiers (Scott, 2011).



Plate 1: A pit latrine shared by more than one household

However, not all shared sanitation facilities in the study area were poorly maintained, unhygienic and unsafe. Some of the shared sanitation facilities had a cleanable slab whereas a majority of them had earthen or wooden floors that posed a challenge cleaning and were wet throughout. Some of them had faecal matter on the floor. It was also observed that in the multi-dwelling units where the landlords provided cleaning services for the facilities they were better maintained and cleaned. This encouraged their use and there was less open defecation observed as compared to compounds where the tenants were required to clean the facilities.

Discussion

The predominance of shared sanitations in the low income settlements of both urban and peri-urban areas could be as a result of unplanned urbanization, specific features of housing and socio-economic characteristics of the population. The shared sanitations are often presented as the only solution in high density and low income urban areas (Mara & Alabaster, 2008). However, shared sanitations are not considered to be improved facilities by the JMP despite the role they play in many urban areas (WHO & UNICEF, 2006). This is consistent with other findings, justified by the poor hygiene and maintenance observed in these facilities, their privacy, safety and accessibility for certain categories of people (Allen *et al.*, 2008; Schouten & Mathenge, 2010). As reliance on shared sanitation is increasing, JMP has reclassified sanitation facilities into three categories namely "limited sanitation service"; "basic sanitation service" and "safely managed sanitation" (WHO & UNICEF, 2017). Limited sanitation services refer to the use of improved sanitation facilities that are shared between two or more households. According to this classification, the respondents have limited sanitation facilities which may not adequately protect them from the risk of exposure to pathogens. Furthermore, the majority of these households shared pit latrines which according to WHO & UNICEF (2006) are unimproved sanitation facilities. It can be argued then that some of the respondents in the study area lack even limited access to sanitation services. Heijnen *et al.* (2014) recommends further research to determine the circumstances, if any, under which shared sanitation can offer a safe, appropriate and acceptable alternative to individual household sanitation facilities which is re-echoed by this study.

Studies have demonstrated that the quality of sanitation facilities is determined by maintenance practices such as cleaning or lack thereof. A study carried out in informal settlements in Uganda revealed that the quality of shared sanitation decreased with an increase in the number of users (Günther *et al.*, 2012; Tumwebaze, 2013; Kwiringira *et al.* 2014). In addition to cleanliness and maintenance, studies have also highlighted the importance of aspects such as hygienic status of sanitation facilities, state of the superstructure, presence of smell, presence of flies, and the state of the slab (especially in the case of pit latrines) in defining the quality of shared sanitation (Nakagiri *et al.*, 2015). Serious concern has been raised about the actual accessibility of such facilities throughout the day and about the security of users, especially at night (WHO & UNICEF, 2008). Shared sanitation reflects demand, however limited data confirm the widely held perception that many of these facilities fail to ensure hygienic separation of human excreta from human contact. Thus the need for more studies to be done before classifying shared facilities as improved sanitation.

A study carried out by Garn *et al.* (2014) on the association between structural and design characteristics of sanitation facilities and facility use revealed that better maintenance, accessibility, privacy, facility type, cleanliness, newer latrines, and better hygiene access were all frequently associated with higher use, whereas poorer sanitation conditions were associated with lower use. Hence to improve the use of the existing facilities, efforts must be made to ensure that these factors are

addressed especially in the multi-dwelling compounds where sharing of sanitation facilities is widespread.

CONCLUSION AND RECOMMENDATIONS

Shared sanitation facilities could be the only solution in the rapidly urbanizing areas and especially the low income areas of Nakuru Municipality and the surrounding peri-urban areas where big segments of the population live in unplanned settlement. It is important to educate users on how best they can make these facilities cleaner. The involvement of the public health department in the County should also seek ways on how the landlords can be made to provide cleaning services to ensure hygienic conditions for these facilities.

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