

POSTER PRESENTATIONS

PP-01 THE GAP BETWEEN CONSTRUCTION AND USAGE OF TOILETS: AN UNDER-IDENTIFIED PROBLEM

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Background Government of India initiatives have been instrumental in constructing or partially subsidising the construction of toilets for poorer households. However, even after two decades of such large-scale efforts, the programme failed to tackle the water-borne disease burden. Of late, studies have located the rift between construction and use of toilets. Scientific analyses of identifying inter- and intra-household barriers to the use of toilets have rarely been undertaken. The present study paper attempts to bridge this gap using a primary survey of households in four villages of Jalpaiguri district, West Bengal.

Methods In this study, we used data from a survey of 300 households in four villages, selected from a total of 62, of Jalpaiguri district, West Bengal. We applied stratified random sampling at three levels. At the first level, two blocks were selected from Jalpaiguri district depending on their female literacy, an important indicator of human development. The two blocks selected were Nagrakata, with lowest female literacy rate (48.5%), and Jalpaiguri with highest female literacy rate (65.3%) as per Census 2011 data. Once the blocks were defined, at the second level we selected two big villages from each block with highest concentration of Scheduled Tribe (ST) population. The reason behind choosing ST-dominated villages was to explore how far socially marginalised classes have so far reacted to the public policy in terms of ownership and usage of toilets. In Nagrakata block we found six villages with more than thousand households (Bhagatpur Tea Garden, Chengmari Tea Garden, Gatia Tea Garden, Grassmore Tea Garden, Luksan Tea Garden and Naya Saili Tea Garden); in Jalpaiguri block we found 13 (Bahadur, Barpatina Nutanbus, Berubari, Bhelakoba, Boalmari, Garalbari, Kharia, Kharija Berubari, Mandalghat, Nandanpur, Paharpur, Patkata and Satkhamar). Next, considering the concentration of ST population among these villages in both blocks, we selected two villages in each block, namely Gatia Tea Garden and Grassmore Tea Garden in Nagrakata block (with a share of ST population of 79.4% and 72.4% respectively) and Barpatina Nutanbus and Patkata from Jalpaiguri block (with a share of 27.2% and 24.9% respectively). At the final step, we needed to select households within the village where we would run our questionnaires. For randomisation, we started from southeast corner of a village and chose the first household at the edge. Then we moved to left-hand corner and we choose the third household, thus moving towards the centre of the village. This way we assumed to cover all types of households, more prosperous ones at the centre and more marginalised ones on the edge of a village. We covered 75 households from each village surveyed. Following this method, we covered 150 (75×2) households from each block; hence total number of households was 300.

Multinomial logistic regression was used for the three categories of usage habits of toilets (exclusive home toilet, mixed usage

of home toilet and open defecation, and exclusive open defecation) in order to find out the inter-household and intra-household factors responsible for specific categories of toilet use. **Findings** Among 135 of selected households (715 members) who have toilets within their premises, the following usage habits were found: exclusive defecation in home toilets (56.7%), mixed usage of home toilets and open defecation (32.6%) and exclusive open defecation (10.7%). Though more than half of the individuals used home toilet, most of them (about 64%) used pit toilet compared to flush toilets. In case of pit toilet, household members tend to use open defecation more. In fact there was no household with flush toilet where all members exclusively used open defecation. The study posits that, within a household, the issues like sex, age and its square impose strong barriers on regular usage of existing toilets. Men prefer to use toilets less compared to women. Both age and square of age appeared to be highly significant, representing a non-linear relationship with choice of place. Muslims are more likely to practice open defecation than using exclusive home toilet compared to Hindus. Good condition of toilet induces the members to reduce open defecation. Economic condition of a household, education, marital status and technology of existing toilet facilities have no significant effect on toilet use.

Discussion Our study points out the problem of under-utilisation of constructed toilets in a typical under-developed setting in the state of West Bengal. The problem of absence of systematic and consistent use of the available toilets has been identified as one of the main reasons behind the failure of substantial public investment in creating sanitation facilities to reduce the burden of diarrhoea among Indian households.

While creation of toilets is a necessary first step towards improved sanitation facilities for the vulnerable sections of the population, it is not a sufficient one. Addressing the issues of acceptability and accommodation should be dealt with more seriousness and enthusiasm. The combined condition index emerged a significant determinant of utilisation in both panels of multinomial logistic regressions. This particular result implicitly brings into focus the critical availability of masons and plumbers at village level, who are required to correct construction defects and clogging of the existing toilets. Mass-scale adult awareness generation might be one step towards this end, to lead the way in eradicating open defecation by 2019. Having identified key barriers, our study expects to contribute to a change in direction of public policy, from just construction and use for dignity of women to a more broad-based right-oriented approach.

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