Assessment of the availability and need of private toilets in Maval Area

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Abstract: Lack of toilets leads to various problems in addition to health hazards. Various efforts have been made by Government to improve the sanitary conditions in the country. One of the major initiative is Intensive campaign for awareness generation and health education to create a felt need for personal, household and environmental sanitation facilities. With this background, a survey was done to assess the availability and need of private toilets in Maval Area and its association with socioeconomic factors. Activities were undertaken to increase the awareness about need of private toilets and impact of these activities was assessed after 6 months.

It was observed that in spite of 96% of the population being aware about diseases spread by unhygienic sanitary conditions, private latrines were owned by 45.6% of population. It was further noted that 16% of those who have private toilets also go for open air defecation. Financial disability was cause of not having private toilets for 31% people. Awareness improved marginally after 6 months of health awareness campaigns. Consistent efforts in this direction are needed to reach the goal of “swachha bharat abhiyaan”.

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Introduction: India has continuously topped the chart for open defecation, being practised by as many as 70 per cent of Indians in rural areas—or approximately 550 million people, according to UNICEF. Every day, an estimated 100,000 tonnes of
human excreta is deposited in the open along rivers and streams, in open fields, on road sides and farms to contaminate water sources. According to UNICEF, each gram of human excreta contains 10 million viruses, one million bacteria, 1,000 parasite cysts and 100 parasite eggs.

Recent reports suggest, this unacceptable lack of sanitation has been responsible for high malnutrition in India. A survey for stunting (2011 HUNGaMA (Hunger and malnutrition) reports 10% increase in open defecation was associated with a 0.7% increase in severe stunting.

Lack of toilets is also considered as one of the prime reasons for the dropout of children, especially the girl child from the school system. Various efforts have been made by Government to improve the sanitary conditions in the country. Central Rural Sanitation Programme, 1986, Total Sanitation Campaign (TSC), 1999 and Nirmal Bharat Abhiyan (NBA) 2012 are to name a few of them. Taking these efforts further and to accomplish the vision of a 'Clean India' by 2 October 2019, the 150th birthday of Mahatma Gandhi, Government of India launched स्वच्छ भारत अभियान, (Clean India Mission) on 2 October 2014. One of the major components of this program is Intensive campaign for awareness generation and health education to create a felt need for personal, household and environmental sanitation facilities.
Considering this background a survey was done to assess the availability and need of private toilets in Maval Area.

**Aim and Objectives.**

To assess the availability of private toilets in 10 adopted villages under RHTC of MIMER medical college.

**Objectives:** 1. To analysis association of need of private toilets with respect to socio economic status of the family

2. to assess knowledge of the study population regarding sanitation.

3. to assess the association of knowledge and availability of private toilets.

4. to assess impact of activities undertaken for promotion of private toilets.

**Materials and methods:** Complete survey was done to assess the availability of sanitary facilities of 10 adopted villages under rural health centre of Dept of community medicine of MIMER medical college.

A cross sectional study of randomly selected families was done to know the assess knowledge of the study population regarding sanitation. Data collection was done using a structured schedule for interviewing heads of the selected families. Data Analysis was done using simple statistical methods.
Health activities such as street plays, health talks, group discussions were organised to create awareness regarding private toilets. Survey of the villages was done after 6 months of after conducting these activities to assess their impact.

**Results: Observations of the field Area**

Complete survey of 1624 houses from 10 villages under the area of rural health centre revealed that overall less than half (48%) of the houses had private toilets. The situation was worse in two the villages where only 16.8% and 18.9% households had private toilets (Fig 1). Exception was Jambhul village, where private toilets were present in 92.2% houses, along with 10 public toilets. Public toilets were present only in 3 out of 10 villages. Toilet facility in school was available only in 5 villages.

It would be wrong to assume that construction of a toilet in every house can curb the problem of open defecation in India. It was observed that 16% of those who have private toilets also go for open air defecation. Another survey was carried out six months after these activities were undertaken. Maximum impact was seen in Kacharawadi, where percentage of household toilets increases from 38% to 59.2%. Almost all the houses from Jambhul village had private toilets at the end of the study. Work for the toilets in school started in 2 villages.

Socio-demographic description of the sample: Participants were between the age of 25 yr to 80yr with average age of 46.6 yr. Most of families were large with 22.3%
families having 8 or more family members. One third (35%) houses were kuchcha and the remaining 65% were pucca type. Main occupation of the sample was farming (46/103 = 44.1%), followed by service category (33/103 = 32.03%). Family income showed a wide range of Rs 2000 to Rs. 50000. While 23.3% families had less than Rs 5000 income, 22.3% earned more than 10000 per month. Data was further analysed to see the association of socioeconomic variables with awareness of sanitation.

Knowledge about sanitation: Most of the families (96.1%) felt the need of owning a private latrines and the same families were also aware of the diseases spread by unhygienic sanitary conditions. In spite of such high awareness, private latrines were owned by 47 (45.6%) families only 36 were made by self funding and remaining 11 were built with the help of govt. funds.

Further analysis showed that only 10% of the lower income group families and 25.56% middle income group families had private families. However, only 10% of higher income group families had private latrines.

First step in improving sanitation is to understand which place people choose to defecate. Our analysis show that other than 40.6% participants who had private toilets remaining 59.4% people go for open air defecation. This is more alarming as 16% of those who have private toilets also go for open air defecation. Fig 2 shows that 52% people did not have private toilet due to lack of space. Financial disability was cause
of not having private toilets for 31% people. Other reasons for not having toilet mainly included unavailability of water.

Information regarding construction of private toilets was present in 75% people and 71% knew that government finds are available for the same.

**Discussion :** In June 2012 then Minister of Rural Development Jairam Ramesh remarked that Pakistan, Bangladesh and Afghanistan have better sanitation records as compared to India.[4] This is of greater concern as 88% of deaths from diarrhoea occur because of unsafe water, inadequate sanitation and poor hygiene (5,6,7,8). Sewerage, where available, is often in a bad state Though the facilities show an increase in percentage as estimated rural sanitation coverage increased, the growth is very slow and insignificant as compared to the need of the population.

The last Census data reveals that the percentage of households having access to television and telephones in rural India exceeds the percentage of households with access to toilet. (9) Further, NSSO surveys revealed that households in lower MPCE (monthly per capita expenditure) quintile (one-fifth) classes are more likely to be without a latrine facility than the households in higher quintile classes. However in our survey income was not associated with owning private toilets. Our findings match these observations as only 10% from the higher income group of families had private toilet. This in turn proves that mere availability of government-built latrines will not
end open defecation for decades yet. Similar findings are reported by Research Institute for Compassionate Economics (RICE), Uttar Pradesh, which observed that a significant number of people prefer to defecate in open despite having latrines in their houses. Sticking to toilet-using habit depends on several factors: good structure that protects privacy, availability of water and awareness of the economic benefits of good sanitation. Results of our study confirm this observation.

What is needed instead is public campaigns, in schools and in the media, to explain the health and economic benefits of using toilets and of better hygiene. Impact of such activities was seen in our study.

**CONCLUSION:** Tremendous efforts are being taken at the government level to handle the problem of sanitation. Yet the task ahead is vast and needs huge resources in terms of money and man power. Medical colleges can play a vital role in this regard. Simple steps taken at ground level, such as motivating and sensitizing people by making them aware regarding severity of the problem, will be instrumental making the environment clean, thereby reducing the clinical as well as economic burden of the society. This in turn will be helpful in making not only a clean India but also a healthy India.
REFERENCES:


10. Jamie Bartram, a Ryan Cronk, a Maggie Montgomery, b Bruce Gordon, b Maria Neira, b Edward Kelley c & Yael Vellemand Lack of toilets and safe water in health-care facilities. Bull World Health Organ 2015;93:210
Fig 1: Percentage of Houses with private Toilets

Fig 2: Reasons for not having private toilet
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