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Clean India Mission: Sustaining Health and Environment

Dr. Seema Nikalje
Head, Dept. Public Administration
Ankushrao Tope College Jalna

Introduction

There exists a direct relationship between water, sanitation, health, nutrition, and human well being. Consumption of contaminated drinking water, improper disposal of human excreta, lack of personal and food hygiene and improper disposal of solid and liquid waste have been the major causes of many diseases in developing countries like India. Though a lot of work has been done in the field of rural sanitation in the past decade under TSC in the country, sanitation coverage, which ought to be a way of life to safeguard health, is still inadequate. The practice of open defecation in India is due to a combination of factors – the most prominent of them being the traditional behavioral pattern and lack of awareness of people about the associated health hazards. As per the latest data of Census 2011, in rural areas, 32.7% families have access to sanitation facilities (1).

Poor implementation of sanitation schemes is the reason that India is plagued with health and hygiene issues. Open defecation is rampant in India. According to a report by the World Health Organization, India is ranked the highest when it comes to the number of people practicing open defecation. The declining percentage is also insignificant, and we fall behind countries like Nigeria, Bangladesh, Sri Lanka, Pakistan, Ethiopia, etc. Open defecation does not only threaten health, hygiene and environment, but the lack of toilets is a roadblock in education of girls in our country, and a threat to security of women who go out in the open to relieve themselves. Many female students leave schools when they hit puberty due to the absence of separate toilets for boys and girls. The evil of manual scavenging still exists in our society due to the absence of proper toilets. Inadequate sanitation even has implication on the economy (2). The World Bank study analyzed the evidence on the adverse economic impacts of inadequate sanitation, which include costs associated with death and disease, accessing and treating water, and losses in education, productivity, time, and tourism. Inadequate sanitation causes India considerable economic losses, equivalent to 6.4 per cent of India's GDP in 2006 (3).

The problem is multi-dimensional and should be urgently looked into. An unclean India is a threat to the environment, health and hygiene of the people, education of the girl child, safety of women, and economy of the country.

Swachh Bharat Abhiyan (SBA) also known as Clean India Drive (CID) or Clean India Mission (CIM) is a national cleanliness campaign established by the Government of India, launched on 2nd of October 2014 by targeting its completeness in 2019. The mission has been implemented to cover all the rural and urban areas of India under the Ministry of Urban Development and the Ministry of Drinking Water and Sanitation accordingly. It has targeted to solve the sanitation problems as well as better waste management all over the India by creating sanitation facilities to all (4). The CIM also seeks to show that sanitation work once considered the exclusive domain of engineers, now requires the involvement of social scientists, behavior change experts, health professionals, and, vitally, individual people to improve health in the society(5). This paper will focus on the sanitation concern which is the chief objective of CIM.

This vision of a clean India is not unfamiliar to us. The rural sanitation programme in India was introduced in the year 1954 as a part of the First Five Year Plan of the Government of India. The 1981 Census revealed rural sanitation coverage was only 1%. The International

Decade for Drinking water and Sanitation during 1981-90, began giving emphasis on rural sanitation. Government of India introduced the Central Rural Sanitation Programme (CRSP) in 1986 primarily with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women(6). With effect from 1 April 1999, the Government of India restructured the Comprehensive Rural Sanitation Programme,1986 and launched the Total Sanitation Campaign (TSC). To give a fillip to the Total Sanitation Campaign, effective from June 2003 the government launched an incentive scheme in the form of an award for total sanitation coverage, maintenance of a clean environment and open defecation-free panchayat villages, blocks and districts called Nirmal Gram Puraskar. Effective from 1 April 2012, the TSC was renamed to Nirmal Bharat Abhiyan.

The main objectives of the SBM (Gramin) are as under:

- Bring about an improvement in the general quality of life in the rural areas.
- Accelerate sanitation coverage in rural areas to achieve the vision of Swachh Bharat by 2019 with all Gram Panchayats in the country attaining Nirmal status.
- Motivate communities and Panchayati Raj Institutions promoting sustainable sanitation facilities through awareness creation and health education.
- Encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation.
- Develop community managed environmental sanitation systems focusing on solid & liquid waste management for overall cleanliness in the rural areas.

Health Impacts of Sanitation

In 1842 Chadwick's influential "Report on an inquiry into the sanitary condition of the laboring population of Great Britain" first mentioned that lack of sanitation leads to disease (8). The diseases associated with poor sanitation alone account for about 10% of the global burden of disease and they are particularly coupled with poverty and infancy (9). Half of the urban populations of, Asia, Africa and Latin America do have a disease associated with deprived sanitation, hygiene, and water (10). The most dangerous to health of human excreta is feces. One gram of fresh feces from an infected person can contain around 10^6 viral pathogens(diseases – influenza, Ulcer, rubella, pneumonia), around 10^8 bacterial pathogens (tetanus, typhoid fever, diphtheria, syphilis, and leprosy.), 10^4 protozoan cysts (Colitis, malaria, diarrhea, liver abscess) , and 10^4 helminthes eggs(Hookworm, abdominal pain, cough, diarrhea or constipation, Rash) (11). Therefore it is urgently needed to sensitize and effectively implement sanitation programs for the safe disposal of feces, in preventing disease transmission.

Diarrhea

Higher incidence of diarrhea in young children is related with young age, low socioeconomic status, poor maternal literacy, presence of under-five sibling in the family, birth weight, inadequate breastfeeding, malnutrition, poor sanitation and hygiene practices of the mother (12). Poor sanitation and unhygienic conditions are important risk factors for diarrhea. The under five children are inclined to diarrhea through mode of water transportation, and poor handling of water at the household level, presence of wastewater in the street, refuse storage, collection and disposal, domestic water reservoir conditions, feces disposal and presence of vectors (13) . Around 88% of childhood diarrhea in India is due to poor sanitation, lack of access to clean water, and inadequate personal hygiene(14) There is a huge disparity in terms of use of toilets in the rural-urban areas (34% and 80%, respectively) although the sanitation coverage in India is 59%. However, there have been significant improvements in households using toilets in rural areas during the last 10 years. India has

reached the Millenium Development Goal (MDG) 7 target on improved drinking water sources with 86% coverage, however, the piped water as a drinking water source has remained as 24% (15). The Disease Control Priorities Project, WHO recently found that sanitation and hygiene promotion can be the most cost-effective health intervention in the world for preventing diarrhea (16).

Acute Respiratory Infections (ARI)

There are also links between poor sanitation and acute respiratory infections such as pneumonia (17). Acute respiratory infections are the leading cause of mortality in developing countries With 4.2 million deaths each year (1.6 million among children under 5 years)(18,19). A recent study reported that 26% of acute lower respiratory infections among malnourished children in rural Ghana may have been due to recent episodes of diarrhea (20). Consequently, sanitation could be a powerful intervention against acute respiratory infections.

Malnutrition

The WHO estimates that 50 percent of undernourishment is coupled with repeated diarrhea or intestinal worm infections from unsafe water or poor sanitation or hygiene(21). The New York Times explored the link between high rates of child malnutrition in India and the country's poor sanitation, shedding light on a potential cause of a protracted problem. For India, the issue is not a lack of food, but rather a lack of toilets for its population (22).

Caring for sick

Lack of sanitation not only brings several physical ailments for children, but also few other important health vulnerability. When person is sick with diarrhea, especially if he or she is elderly or debilitated by AIDS or another serious illness, it is very difficult to nurse the patient when there is no toilet nearby. 'Differently abled people undergo great difficulty and discomfort in dealing with their excretory need. Especially women in the household caring for the sick or disabled lose time that could be spent on other domestic activities and income-earning'.

Mental health

The loss of child exacts a high toll on the mental health of surviving parents, siblings, and other relatives, creating a psychological burden that receives little attention' (23) .

Blindness

Trachoma is an infectious blindness disease caused by the bacterium Chlamydia trachomatis. Trachoma, the foremost cause of infectious blindness globally usually affects the most socio-economically disadvantaged regions of the world. According to recent estimates, trachoma is prevalent in 57 countries of the world and India is one of the five countries accounting for nearly half of the global burden of active trachoma. The bacteria that cause the disease can be spread by both direct and indirect contact with an affected person's eyes or nose. Indirect contact includes through clothing or flies that have come into contact with an affected person's eyes or nose. Children spread the disease more often than adults. Poor sanitation, crowded living conditions, and not enough clean water and toilets also increase the spread of this infection (24).

Wider benefits of Sanitation

Along with health benefits, enhanced sanitation produces both socio- economic developments. While the main goal of sanitation programming is to improve health, people seldom adopt and use toilets for health-related reasons. Nevertheless the chief motivations for sanitation adoption are generally the desire for privacy and to avoid awkwardness, wanting to be modern, the desire for convenience and to avoid the discomforts or dangers of the open fields (e.g., snakes, pests, rain), and wanting status (25, 26). Additionally, for women

household sanitation reduces the risk of rape or attack experienced when going to public latrines or the open fields to defecate, and for girls, the provision of school sanitation facilities means they don't miss school by staying at home during their monthly cycle. The economic benefits of improved sanitation also include lower health system costs, fewer days lost at work or at school through illness or through caring for an ill relative, and convenience (27). The greater demand created by sanitation marketing can be met by the development of a active local private sector for producing, marketing, and maintaining low-cost toilets. The local private sector can also be encouraged to become involved in pit-emptying, sale of safely composted human excreta as fertilizer, production of methane from biogas toilets, and also the business of public toilets (28). The world bank study notes that Indian economy can earn around $260 million (over Rs 1,000 crore) in tourism revenues through proper sanitation by attracting tourists who are reluctant to come to India due to lack of sanitation facilities (29).

Conclusion

As we discussed above we can view sanitation as a multifaceted issue, with links to health and to social and economic benefit. To achieve total sanitation The government of India has shown appropriate political leadership to bring about total sanitation with clear institutional responsibility and specific budget lines for sanitation, and various government sectors like health , water and utility services working together. It has also exposed the shift from 'centralized supply-led infrastructure provision to decentralized people-centered demand making', along with support to service providers to meet that demand making sanitation into a area of human economic activity.

Thus the present Clean India Mission has very timely initiated a brand new spirit to stir the Indian citizens along with government - international agencies, and private sector to achieve India free of sanitation related disease burden. Cleanliness in our life gives us simple life, saves money, supports local business, and preserves planet for future generations. SBA should not be a mere re-branding work out. A change should begin at home. Every citizen of the country should take part in making this campaign a success. We can all strive with a hope that this SBA can change the attitude of the people towards hygiene and make clean, green and prosperous.

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