ISSN 2231-1629 Knowledge Resonance
A Half Yearly National Peer-Reviewed & Indexing with SJIF Impact Factor Research Journal
IMPACT FACTOR 8.072

SANITATION AND HEALTH

Mr. Bharat V. Pallewad
Yashwantrao Chavan College Ambajogai
Mail Id:- bpallewad56@gmail.com

Introduction:

Adequate sanitation, together with good hygiene and safe water, are fundamental to good health and to social and economic development. That is why, in 2008, the Prime Minister of India quoted Mahatma Gandhi who said in 1923, ‘‘sanitation is more important than independence’’ Improvements in one or more of these three components of good health can substantially reduce the rates of morbidity and the severity of various diseases and improve the quality of life of huge numbers of people, particularly children, in developing countries. Although linked, and often mutually supporting, these three components have different public health characteristics. This paper focuses on sanitation. It seeks to present the latest evidence on the provision of adequate sanitation, to analyses why more progress has not been made, and to suggest strategies to improve the impact of sanitation, highlighting the role of the health sector. It also seeks to show that sanitation work to improve health, once considered the exclusive domain of engineers, now requires the involvement of social scientists, behaviour change experts, health professionals, and, vitally, individual people.

Throughout this paper, we define sanitation as the safe disposal of human excreta. The phrase ‘‘safe disposal’’ implies not only that people must excrete hygienically but also that their excreta must be contained or treated to avoid adversely affecting their health or that of other people.

Health Impacts of Sanitation:

The diseases associated with poor sanitation are particularly correlated with poverty and infancy and alone account for about 10% of the global burden of disease At any given time close to half of the urban populations of Africa, Asia, and Latin America have a disease associated with poor sanitation, hygiene, and water. Of human excreta, feces are the most dangerous to health. One gram of fresh faces from an infected person can contain around 106 viral pathogens, 106 –108 bacterial pathogens, 104 protozoan cysts or outcasts, and 10–104 helminthes eggs. The major faces-oral disease transmission pathways are demonstrated in the ‘‘F Diagram’’ Figure. Which illustrates the importance of particular interventions, notably the safe disposal of faces, in preventing disease transmission.

Diarrheal Diseases:

Systematic reviews suggest that improved sanitation can reduce rates of diarrheal diseases by 32%–37% [14– 16]. While many of the studies included in those reviews could not rigorously disaggregate the specific effects of sanitation from the overall effects of wider water, sanitation, and hygiene interventions, a longitudinal cohort study in Salvador, Brazil, found that an increase in sewerage coverage from 26% to 80% of the target population resulted in a 22% reduction of diarrhea prevalence in children under 3 years of age. Another longitudinal study in urban Brazil found that the major risk factors for diarrhea in the first three years of life were low socioeconomic status, poor sanitation conditions, presence of intestinal parasites, and absence of prenatal examination.

Neglected Tropical Diseases:

Trachoma is endemic in many of the world’s poorest countries. It is caused by the bacterium Chlamydia trachoma is and is the world’s leading cause of preventable blindness. Trachoma control is predominantly antibiotic-based despite the existence of the SAFE control strategy (surgery, antibiotics, face-washing, and environmental measures, namely sanitation promotion) However, a recent cluster-randomized control trial in Ghana found that the provision of toilets reduced appreciably the number of Musk sorbents flies (the vector for trachoma) caught on children’s eyes and by 30% the prevalence of trachoma, thus confirming the long-suspected role that sanitation could play in the control of trachoma. Helminthes infections negatively impact the

nutritional status of infected individuals, with consequent growth faltering in young children, and anemia, particularly in pregnant women. Adult helminthes live in the human gastrointestinal tract where they reproduce sexually. Their eggs are discharged in the faces of the infected host and thus, mainly via open defecation, to other people. Ending the practice of open defecation with good sanitation can cut this transmission path completely, but most current helminthes-control programmers' focus on medication, which must be repeated periodically in the absence of sanitation.

Undernutrition:

Poor sanitation, hygiene, and water are responsible for about 50% of the consequences of childhood and maternal underweight, primarily through the synergy between diarrheal diseases and under nutrition, whereby exposure to one increases vulnerability to the other

Wider Benefits of Sanitation:

While the main goal of agencies' sanitation programming is to improve health, householders rarely adopt and use toilets for health-related reasons. Instead, the main motivations for sanitation adoption and use include the desire for privacy and to avoid embarrassment, wanting to be modern, the desire for convenience and to avoid the discomforts or dangers of the bush (e.g., snakes, pests, rain), and wanting social acceptance or status. Furthermore, for women, the economic benefits of improved sanitation include lower health system costs, fewer days lost at work or at school through illness or through caring for an ill relative, and convenience time savings.

Sanitation Marketing:

These are then used to develop both demand- and supply-side interventions to ensure that appropriate sanitation products and services are available to match the demand. A successful example of sanitation marketing is described in Text.

Community-Led Total Sanitation:

Community-led total sanitation is a communications-based approach that aims to achieve ''open defecation–free'' status for whole communities rather than helping individual households to acquire toilets. CLTS was developed in Bangladesh (see section 2 in Text S1) and uses external facilitators and community volunteers to rise (''ignite'') community awareness that open defecation contaminates the environment and the water and food ingested by householders. It encourages a cooperative, participatory approach towards ending open defecation and creating a clean, healthy, and hygienic environment from which everyone bane fits.

Community Health Clubs:

Community Health Clubs aim to change sanitation and hygiene attitudes and behavior through communal activities. The approach has proved effective and cost-effective in the Makoni and Tsholotsho Districts of Zimbabwe where villagers were invited to weekly sessions where one health topic was debated and then action plans formulated. In one year in Makoni District, for example, 1,244 health sessions were held by 14 trainers, costing an average of US$0.21 per beneficiary and involving 11,450 club members. Club members' hygiene in both districts was significantly different (p,0.0001) from that of a control group, and the study's authors concluded that if a strong community structure is developed and the norms of a community are altered, sanitation and hygiene behavior are likely to improve.

Role of The Health Sector in Improving Sanitation:

Sanitation can be promoted by the health sector through a stand-alone programmer such as sanitation marketing or CLTS or included in disease-specific control programmers such as the 'SAFE' approach to trachoma [63]. Alternatively, it can be incorporated into a wider integrated community health package such as Ethiopia's HEP (Health Extension Programmer), which was developed in 2004 to prevent the five most prevalent diseases in the country [61,62]; safe sanitation and hygiene became a major focus within HEP because of the recognition that these diseases are all linked with poor environmental health.

The health sector also has an important role to play in advocacy and leadership. Politicians

and the general public listen to doctors. That puts an onus on the medical profession to speak out on all important health issues, including sanitation. Historically, this has not happened. Thus, in 2008, The Lancet wrote, ‘‘the shamefully weak presence of the health sector in advocating for improved access to water and sanitation is incomprehensible and completely short-sighted.

References:

- WHO, UNICEF (2010) Progress on sanitation and drinking-water – 2010 update. Geneva: World Health Organization. 60 p.
- Ferriman A (2007) BMJ readers choose the ‘sanitary revolution’ as greatest medical advance since 1840. BMJ 334: 111.
- Esrey SA, Potash JB, Roberts L, Shiff C (1991) Effects of improved water supply and sanitation on ascariasis, diarrhoea, dracunculiasis, hookworm infection, schistosomiasis, and trachoma. Bull World Health Organ 69: 609–621.
- Fewtrell L, Kaufmann RB, Kay D, Enanoria W, Haller L, et al. (2005) Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis. Lancet Infect Dis 5: 42–52.
- Wagner EG, Lanoix JN (1958) Excreta disposal in rural areas and small communities. Geneva: World Health Organization. 327 p.
- Hotez PJ, Molyneux DH, Fenwick A, et al. (2007) Control of neglected tropical diseases. N Engl J Med 357: 1018
- Melese M, Alemayehu W, Lakew T, Yi I, House J, et al. (2008) Comparison of annual and biannual mass antibiotic administration for elimination of infectious trachoma. JAMA 299: 778–784
- World Bank (2008) Environmental health and child survival: epidemiology, economics, experience. Washington, DC: World Bank. 135 p
- Albonico M, Montresor A, Crompton DWT, Savioli L (2006) Intervention for the control of soil-transmitted helminthiasis in the community. Trends Parasitol
- de Silva NR, Brooker S, Hotez PJ, Montresor A, Engels D, et al. (2004) Soil-transmitted helminth infections: updating the global picture. Trends Parasitol
- Merchant AT, Jones C, Kiure A, Kupka R, Fitzmaurice G, et al. (2003) Water and sanitation associated with improved child growth. Eur J Clin Nutr.