

# Awareness, Behavior, and Gaps: A Survey-Based Analysis of Personal Hygiene, Home Safety, and Road Safety Practices

Neelesh Kumar Maurya<sup>1,\*</sup>, Gul Sirin<sup>2</sup>, Faiza Farji<sup>3</sup>, Vandita Mahanta<sup>4</sup>

## Abstract

*Personal hygiene and public safety remain two of the most critical yet behaviorally neglected pillars of community health in India. Despite decades of national health campaigns, a persistent gap continues to exist between what people know and what they actually do — particularly among urban youth. This cross-sectional, survey-based study examined awareness levels, behavioral practices, and compliance gaps across three interconnected domains: personal hygiene, home accident prevention, and road safety, among 32 respondents from urban, semi-urban, and rural settings in India. Data were collected using a structured 30-item Google Forms questionnaire covering demographic details, hygiene practices, household safety behaviors, and road safety knowledge. The sample was predominantly young (68.8% aged 18–25 years), female (59.4%), and urban (59.4%), reflecting the digital accessibility of the survey platform. Findings revealed a notable imbalance across the three domains. Personal hygiene awareness was relatively strong, with 84.4% of respondents consistently washing hands before meals and 87.5% practicing respiratory hygiene. Home safety compliance was equally encouraging, with 93.8% reporting consistent gas safety practices and 75% maintaining a first aid kit. Road safety, however, emerged as the most critical area of concern — 71.9% of respondents admitted to ignoring traffic rules in the absence of enforcement, and 37.5% reported skipping helmets or seatbelts when in a hurry, despite acknowledging road injuries as a serious public health threat. These findings confirm a deeply rooted knowledge–behavior gap, particularly in road safety, driven less by ignorance and more by attitudinal barriers such as time pressure (18.8%), lack of discipline (59%), and overconfidence (6.3%). The study underscores an urgent need for targeted, enforcement-integrated, and youth-centered behavioral interventions across all three safety domains in India.*

## \*Author for Correspondence

Neelesh Kumar Maurya  
E-mail: [neeshkumar.maurya@gmail.com](mailto:neeshkumar.maurya@gmail.com)

<sup>1</sup>Assistant Professor, Department of Nutrition and Dietetics, School of Allied Health Science, Sharda University, Greater Noida, Uttar Pradesh, India

<sup>2</sup>B.Sc. Student, Department of Nutrition and Dietetics, School of Allied Health Science, Sharda University, Greater Noida, Uttar Pradesh, India

<sup>3</sup>B.Sc. Student, Department of Nutrition and Dietetics, School of Allied Health Science, Sharda University, Greater Noida, Uttar Pradesh, India

<sup>4</sup>B.Sc. Student, Department of Nutrition and Dietetics, School of Allied Health Science, Sharda University, Greater Noida, India

Received Date: February 27, 2026

Accepted Date: June 04, 2026

Published Date: June 05, 2026

**Citation:** Neelesh Kumar Maurya, Gul Sirin, Faiza Farji, Vandita Mahanta. Awareness, Behavior, and Gaps: A Survey-Based Analysis of Personal Hygiene, Home Safety, and Road Safety Practices. International Journal of Behavioral Sciences. 2026; 3(1): 65–72p.

**Keywords:** Personal hygiene, public safety, handwashing, road safety, home accident prevention, behavior change, India

## INTRODUCTION

For a long time, the crucial link between individual cleanliness and societal wellness has been a critical cornerstone in the discipline of health care. While the reach of the two may be different, they aim towards the same goal of curtailing unnecessary sickness, injury, and mortality. Road traffic injuries and fatalities are a global health phenomenon, killing about 1.19 million people annually. Road traffic injuries are a fraction of the problem as low and middle-income countries (LMICs) have a much higher burden of disease due to insufficient hygiene [1]. The same

problem exists in homes. In the US, 2020 saw about 156,300 people die from injuries that could have been prevented in the home setting. It was a significant part of the 78% of the people that died of injuries that could have been prevented. In the context of India, the problems are aggravated more with population density, urbanization, and disparities in the knowledge of health. In the context of injuries, India has a considerable burden of disease, as reflected in the Disability-Adjusted Life Years (DALYs) where injuries form about 16% of the burden and more than 2/3 of the injuries are unintentional and happen in the home. The activities of the Dettol program, which has reached 26 million children in 22 states and recorded 38 billion handwashing moments in 2024, is associated with a school absenteeism reduction of 39%. It also coincides with the national health campaigns, Swachh Bharat Abhiyan and Banega Swasth India [2].

This research is based on a simple survey conducted on 32 individuals from urban, semi-urban, and rural areas concerning their understanding of personal hygiene, home accident prevention, and road safety. The results are analyzed alongside recent peer-reviewed studies to fill the knowledge-behavior gap and develop strategy frameworks based on the findings. [3].

## **METHODOLOGY**

The study adopts a descriptive cross-sectional research design to assess the level of knowledge and related practices regarding safety and hygiene in public spaces.

## **RESEARCH METHOD**

To evaluate the degree of knowledge and the corresponding actions taken to maintain safety and hygiene in public spaces, the descriptive cross-sectional method has been used. The primary data was collected through a Google Forms structured questionnaire, which consisted of 30 multiple-choice questions classified into 4 categories, namely: demographic information, personal hygiene, home accident prevention, and road safety knowledge. The research adopts the same methodology as the majority of studies in India, especially the cross-sectional hygiene assessment study conducted among college students using structured questionnaires to measure the frequency of certain behaviors. [4].

## **DATA GATHERING**

The survey was shared through digital platforms like WhatsApp, email, and social networking sites. 32 individuals answered the questionnaire. The demographic data collected indicated a predominantly young sample: 68.8% were aged 18-25 years, 59.4% were women, 65.6% were undergraduate students, and 59.4% lived in urban areas. This is in line with the demographics of the Internet based surveys, which typically show a bias towards urban and educated youth [5].

## **LIMITATIONS**

The survey being online limits the accessibility to individuals with internet access, leading to biases regarding the digital divide. Additionally, the survey sample size of 32 may not be statistically indicative of the diversity of the population in the country of India. Future studies should consider a sampling method of stratified sampling with a sample size of at minimum 300, which would provide a greater overall generalizability in relation to the recommended standards of epidemiology for community health surveys [6].

## **Personal Hygiene: Awareness and Practices**

Personal hygiene awareness and practices refer to the knowledge and daily habits that help individuals maintain cleanliness and prevent diseases. Good personal hygiene includes regular handwashing, bathing, oral care, wearing clean clothes, and maintaining clean surroundings. Proper hygiene practices promote overall health, reduce the spread of infections, and improve quality of life.

## **Significance of Hand Hygiene**

The intervention of education regarding handwashing is proven to be the most valuable and cost-effective intervention in public health. A study in 2024 proven that education of handwashing in the

community decreased diarrhea by a range of 23-40%, and decreased respiratory infections by 16-21%, while also decreasing the rates of school absenteeism due to gastrointestinal illness by 29-57%. Moreover, education of handwashing in low and middle income countries (LMIC) 17% (RR 0.83, 95% CI 0.76-0.90) improvements of acute respiratory infections (ARI). Handwashing education was shown to be protective against *Giardia lamblia*, *Entamoeba histolytica*, and *Cryptosporidium* spp. in a study done in Ethiopia [7].

In the current survey, 84.4% of participants always reported washing their hands before meals, 46.9% used soap, and 71.9% bathe once a day. Compared to a cross-sectional study of college students in India, where 61.5% washed their hands before meals and 16.75% practiced proper dental hygiene, our respondents showed significant improvement. We suggest that the hygiene awareness of people in urban settings is increasing over time. [8].

### Respiratory Hygiene

There is a strong literature base that supports the importance of covering one's mouth when coughing or sneezing. During the survey, 87.5% always responded that they cover their mouths when they cough, and this may very well be due to habitual practice in relation to the COVID-19 pandemic, as the respiratory hygiene messages circulated a lot during this time. In Zimbabwe, one of the studies that involved spatial modeling predicted that the risk of severe COVID-19 would be reduced by up to 16% if only people practiced improved handwashing. This study demonstrates the importance of this practice at the community level [9].

### Behavioral Gaps in Public Hygiene

While the behavioral gap survey shows high awareness, the most notable gap was face touching. 53.1% of respondents said they do this "sometimes." 18.8% said they do this "often," 9.4% said they do this "rarely." Very few respondents actively avoid this behavior. This lack of behavioral change is troubling [10]. Entry points of the body, such as the eyes, nose, and mouth, are the most common ways pathogens and viruses are spread. The most common barrier to the this behavior is lack of time (28.1%). A smaller number of respondents (6.3%) cited lack of knowledge as the barrier. This indicates that a behavioral design approach is needed (i.e. nudges, environmental cues) (Table 1).

### Antibiotic Resistance and Hygiene

Poor hand hygiene can contribute to antimicrobial resistance (AMR), an all too common and often overlooked effect. Handwashing can prevent an estimated 30% of diarrhea-related illnesses and 20% of respiratory illnesses [11]. This would lead to a reduction in inappropriate prescriptions of antibiotics, which is the single most important driver of antibiotic resistance across the globe. An example would be a 2024 review of health care-associated infections (HAIs), which reiterated that consistent hand hygiene is paramount for the prevention of the spread of HAIs and AMR in both the healthcare system and the community. The Dettol Banega Swasth India KABP survey (2024-25) took place in 13 states, among 10,410 students. The survey recorded an incredible 35% increase in knowledge of hygiene, which rose to 99.5%. Actual self-reported hygiene practices also saw a remarkable increase from 11% to 85.6%. This demonstrates that structured, culturally tailored hygiene campaigns can have incredible effect [12].

**Table 1.** Personal hygiene awareness levels from survey (n = 32).

| Hygiene Practice                 | Always (%) | Sometimes (%) | Never/Rarely (%) |
|----------------------------------|------------|---------------|------------------|
| Handwashing before meals         | 84.4       | —             | —                |
| Using soap while washing         | 46.9       | 28.1 (often)  | —                |
| Bathing once daily               | 71.9       | —             | —                |
| Covering mouth (cough/sneeze)    | 87.5       | —             | —                |
| Avoiding face-touching in public | ~18.7      | 53.1          | 9.4              |

### Home Accident Prevention: Awareness and Risk Factors

Home Accident Prevention: Awareness and Risk Factors focuses on understanding how everyday household injuries occur and how they can be avoided. It involves increasing awareness about common hazards such as slippery floors, unsafe electrical connections, fire risks, and improper storage of chemicals. Identifying risk factors like lack of supervision, poor safety practices, and unsafe home environments helps in reducing accidents. Adopting preventive measures such as childproofing, safe handling of appliances, and maintaining a clean, organized home can significantly lower the chances of injuries.

### Epidemiology of Household Injuries

Domestic accidents are a consistent and significant area of focus in the realm of public health, and that holds true for India as well. In 2020, 200,955 cases of unintentional injury resulted in death in the United States [13]. Domestic accidents in India have a prevalence of 10.2% in urban areas, with a frequency of falls as the most accident prone area. The kitchen is the most accident prone area. Slips, trips, and falls dominate injuries sustained by older adults, the 2024 report notes. It found the most injuries occurred in the home, and that overcrowding increases the risk of domestic injuries (Prevalence Ratio: 1.74, 95% CI: 1.02–2.98,  $p = 0.04$ ).

**Kitchen and Gas Safety :** The main reasons for accidents in the kitchen are unattended cooking, gas explosions, and the improper use of sharp and hot objects. 93.8% of respondents reported always turning off the gas, and 96.9% said wires were covered. These numbers are likely due to safety messaging and regulation in urban India, and safety may not be as present in rural and semi-urban areas [14].

**Electrical Safety :** Poor wiring and overloaded sockets are a fire and electrocution risk. WHO country safety guides recommend regular maintenance of wiring, the use of grounded wiring, and repair of faulty wires. This is a common practice in higher-income urban areas and aligns with the largely urban setting of the survey [15].

**First Aid Preparedness :** Preparedness stands out as one of the most neglected areas of home safety. Fifteen point six percent (15.6%) of the respondents answered “maybe,” while 9.4% said they do not have a first aid kit. 75% of the respondents have a first aid kit at home. This absent first aid kit, home, and absent first aid kit, home, absent first aid kit. Basic supplies – antiseptics, bandages, oral rehydration solutions, and the foundational skills of CPR – can mean the difference, and death, from and death, difference from death and death, for example, emergency services [16]. First aid training workshops, directed especially for households, as first aid training workshops directed especially for households as first aid training workshops directed especially for households, first aid training workshops as first aid training workshops directed especially for households (Table 2).

### Prevention of Falls

Falls that occur in the home and affect older adults and children, are caused by unsafe flooring, inadequate lighting, and cluttered walkways. An April 2024 epidemiological study found that in the Korea Consumer Agency multi-year hazard study, slips, trips, and falls were the most frequent accidents in the home for older adults. Low-cost and high-impact measures include the installation of grab bars, ample lighting around stairways and the use of non-slip mats, and the maintenance of clear walkways [17].

**Table 2.** Home accident prevention awareness (n = 32).

| Safety Practice                   | Positive Response (%) | Area of Concern                         |
|-----------------------------------|-----------------------|-----------------------------------------|
| Always turn off gas after use     | 93.8                  | Low — strong compliance                 |
| Electrical wires properly covered | 96.9                  | Very low — near-universal compliance    |
| First aid kit available at home   | 75.0                  | Moderate — 24.6% partially/not prepared |
| Knowledge of basic first aid      | Not directly assessed | Needs improvement                       |

### Road Safety Awareness: The Knowledge–Behavior Gap

The Knowledge–Behavior Gap refers to the difference between what people know about road safety rules and how they actually behave on the road. Although many road users are aware of traffic regulations such as wearing helmets, using seat belts, and following speed limits, this knowledge is often not consistently practiced. This gap is influenced by factors such as risk-taking attitudes, peer pressure, weak enforcement, and overconfidence in driving skills. Bridging this gap requires not only awareness campaigns but also stricter enforcement and behavior change strategies.

### Global and Indian Context

Road traffic injuries are a global epidemic. The WHO Global Status Report on Road Safety 2023 states that road traffic deaths are a little better than 1.19 million per year, and road traffic deaths are still not improving enough to meet the United Nations Decade of Action for Road Safety (2021–2030) goal of reducing road traffic deaths by 2030. India has a disproportionately high number of road traffic deaths given that it has only 1% of the total number of vehicles in the world. India has approximately 11% of the total number of road traffic deaths in the world [18].

According to the ITF/OECD Road Safety Annual Report 2024, there was a 2.7% decrease in road fatalities in 2023 from 2022 in 23 monitored nations and the greatest decrease was on the motorways which was 8.7%. Although there was a decrease on the urban and rural roads, the decrease was only 2.2 and 2.3% which shows that the mixed-traffic environments will still require some additional behavioral changes.

### Survey Findings: High Risk Perception, Weak Compliance

In the survey, the respondents are in a paradox. respondents have shown road injuries to be a very serious threat to public health which, in this case, road injuries would be considered a serious threat to public health. 53.1% stated that it was very serious, 31.3% said it was serious, but, on the other hand, the behavioral compliance in this case is a paradox. As an example,

- 53.1% of respondents said they had seen a road accident more than once.
- 37.5% said they sometimes, or always, do not wear a helmet or seatbelt if they are in a rush.
- 71.9% said they do not have a traffic rule to follow if there is no one around.
- 18.8% said they are not rule breakers.

This knowledge-behavior gap is very real and is not a surprise. One road safety perception study in India reported an almost universal understanding of helmet mandates, yet the actual compliance remained low. 42% of respondents stated that they would support a higher fine as a deterrent. It is only possible to sustain a change in behavior when there is mandatory legislation in place and awareness alone will not be enough. This has been substantiated by the WHO.(Table 3)

### Root Causes of Traffic Rule Violation

Respondents were asked about the reasons they violate traffic rules, and the responses include: lack of discipline (59%), being in a rush (18.8%), lack of knowledge (15.6%), and overconfidence (6.3%). The responses show that the Indian roads and safety issue is more of a behavioral and attitude issue, and not knowledge. An evidence gap map published in 2024 in a systematic review showed an “implementation gap” where several proven interventions exist, but not enough proven interventions, especially in LMICs.

**Table 3.** Road safety behavioral compliance (n = 32).

| Behavior / Attitude                       | Response Distribution                                        |
|-------------------------------------------|--------------------------------------------------------------|
| Witnessed road accident                   | More than once: 53.1% Once: 21.9% Never: 25%                 |
| Skip helmet/seatbelt when late            | Yes: 12.5% Sometimes: 25% No: 62.5%                          |
| Ignoring traffic rules acceptable         | Yes: 9.4% Sometimes: 71.9% No: 18.8%                         |
| Know what to do after witnessing accident | Clearly: 37.5% Somewhat: 37.5% Not sure: 21.9% No idea: 3.1% |

---

**Knowledge of emergency responses**

22.9% of the respondents did not know how to respond to a road accident, and that number can have life or death consequences because a bystander calling an emergency service and keeping the victim's airway open can greatly increase the chances of survival before the victim receives professional medical help. The findings suggest that targeted mock exercises and first responder training for youth are needed.

**Target Audience and Campaign Strategy**

The campaign strategy is designed after identifying the primary target audience based on age, behavior, and risk exposure.

**Primary Target Group**

Considering the behavioral patterns and the demographic profile of the survey participants, our first target audience for the campaign is bachelor's degree students in the 18-25 age bracket, particularly those in the urban and semi-urban areas.

This demographic suffers from a disproportionate number of fatalities from road accidents, particularly from two-wheeled vehicles, and demonstrates the most significant disparity between their knowledge of road safety and compliance with road safety behaviors. The KABP 2024 report from Dettol Banega Swasth India Programme provides evidence of this. It states that children and youths with the right knowledge were 3.23 times more likely to practice hand hygiene, when their attitudes and behaviors were targeted simultaneously.

**Proposed Strategies**

The analysis of the survey and the evidence available in published documents led to the following multi-faceted strategies for each of the levels described in the survey.

**For Personal Hygiene:**

- Sanitization stations will be established at the entrances and exits of each building, as well as in the dining halls
- "Don't Touch Your Face" Campaigns will be launched and posters will be displayed around the entrances to build awareness.
- Modules regarding hygiene will be included in the health courses at the Colleges.

**For Home Safety**

- First aid training will be provided to communities to train them in the safety of their homes.
- Home safety checklists will be created and translated into the native languages of the recipients.
- Encourage the community to check their gas fittings and install smoke alarms.

**For Road Safety (Persuasion)**

- Promote road safety mock drills to be undertaken by fellow students.
- Encourage children to adopt the social norm of "No Rule Breaking Even When Alone" through the use of videos, clips, snippets, and shorts.
- Lobby for the enforcement of the law regarding head and lap belt restraints. This should be in line with the legislation of the World Health Organization.

\*Create college-based road safety ambassadors the same way Bal Sansad did for the hygiene campaigns\*

**Discussion**

Most of the population's health-related interventions have a result in heightened awareness but do not have a positive effect on the preventative measures. The respondents were given positive feedback

---

and commendable awareness of all the hygiene and safety constructs over 80%. The home safety constructs had an 85-95% awareness but the road safety awareness compliance was the weakest at 60-70%. This phenomenon has been a constant in all studies focusing on compliance to road safety. The 2024 evidence gap map created by Bhaumik et al. 2024 shows the interventions in the LMICs with a good evidence based but the gap in evidence due to the inconsistent enforcement of the regulation and the specific context. To create and implement effective campaigns road safety compliance venues that foster and facilitate adaptable design to the road safety compliance will be of utmost importance. The road safety campaign will require an adaptable design to be effective. An effective road safety campaign will require adaptable design enforcement. The presence of soap and visible hand washing stations or hand sanitizers will be a requirement for compliance to the environmental hygiene. In 2024 we will start a longitudinal study to assess the flexibly adaptive design for the hand hygiene promotional resources. This study will also repurpose the hand hygiene resources for road safety. The age group of the respondents makes the use of digital media imperative. With 68.8% of the respondents falling in the 18-25 age group, the use of social media, coupled with engagement and promotional activities, will provide road safety messages at a minimal cost. The STOP Diarrhoea Campaign 2024 in India and the Swachhata Hi Sewa 2024 Campaign of CBSE (Swabhav Swachhata – Sanskaar Swachhata) are examples of national level behavioural campaigns integrated with a culture-based communication strategy that can provide a wide reach and significant impact.

## CONCLUSION

The combined assessment of the primary survey data and the prevailing literature from India and the globe, makes it evident that the domains of personal hygiene and public safety are both learnable and actionable. The hygiene awareness of the respondents, the strong awareness of safety at home, and the alarming silence on road safety awareness among the urban youth very clearly dictates the road safety campaign design. There is a strong basis for moving beyond models that focus solely on creating awareness and toward incorporating behavioral change strategies that include enforcement and peer and environment design. Simple but effective structural adjustments can reduce diarrheal disease by up to 40% and respiratory infections by 21%, as can handwashing. Preparedness and structural changes can also dramatically reduce home accidents, which account for 78% of all preventable injury deaths in community settings. Road traffic deaths—claiming 1.19 million lives every year—can also be reduced, but only through the rapid and large-scale adoption of proven legislative and behavioral changes by 2030. This campaign is a symptomatic of the desperate need for integrated, evidence-based, youth-centered public health action in India and be

## REFERENCES

1. Segui-Gomez M, Luo F, Tingvall C, Taylor MP. Assessing the impact of the WHO global status reports on road safety. *Injury Prevention*. 2025 Dec 1;31(Suppl 1):i1-6.
2. Hansen A, Day G, Wehrli M, Eichelberger L. “Gives us peace of mind for keeping our hands clean”: targeted handwashing intervention increases water use and hand hygiene in rural Alaska. *International Journal of Circumpolar Health*. 2025 Dec 31;84(1):2569761.
3. Nagassar RP, Bridgelal-Nagassar RJ, Francis A, De Silva C, Rochford J, Seetaram J, Beharry S, Seetaram T, Dhawalaghar V. Assessment of hand hygiene knowledge, attitudes, and practices among medical and non-medical students in the post COVID-19 pandemic era in Trinidad and Tobago. *Discover Public Health*. 2025 Nov 21;22(1):729.
4. Kritya M, Yadav AK, Shridhar G. A survey of hand hygiene practices among Indian medical undergraduates. *medical journal armed forces india*. 2022 Sep 1;78:S201-5.
5. World Health Organization. WHO research agenda for hand hygiene in health care 2023–2030: summary. <https://www.who.int/publications/i/item/9789240073715>
6. Omaki E, Brown B, Shargo I, Moreno H, McKnight M, McDonald E, Stewart W, Shiang E, Norton RA, Shields WC. CHASE (Children’s Housing Assessment for a Safe Environment): a protocol for the inspection and modification of injury risks in children’s homes. *Injury Epidemiology*. 2023 Oct 11;10(1):47.

7. Goel R, Tiwari G, Varghese M, Bhalla K, Agrawal G, Saini G, Jha A, John D, Saran A, White H, Mohan D. Effectiveness of road safety interventions: An evidence and gap map. *Campbell systematic reviews*. 2024 Mar;20(1):e1367.
8. Alabdulsalam M, Al Saadoon M. Readiness of Omani families to prevent accidental injuries at home in children younger than six years old. *Oman medical journal*. 2024 May 30;39(3):e627.
9. Seema RB, Pawar VR. PLATFORM PRESENTATION 1 30TH JULY 2015-SESSION 1, ROOM 1. *Journal of Family Medicine and Primary Care*. 2018 Jan 1;7(Suppl 2):S1-61.
10. Murphy E, Luo F, Auert J. Assessing progress of road safety legislation globally: criteria, methodology and evolution 2015–2023. *Injury Prevention*. 2025 Dec 1;31(Suppl 1):i7-11.
11. Ohwo O. Status of water, sanitation and hygiene facilities in public secondary schools in Yenagoa, Nigeria. *World Journal of Social Sciences and Humanities*. 2019;5(3):176-83.
12. Sarkingobir Y, Hiliya AA, Umar K. Schools in Nigeria: An Assessment of Water, Sanitation, and Hygiene in Sokoto State. *Archives of Educational Studies (ARES)*. 2022;2(2):223–42.
13. Mushota O, Mathur A, Pathak A. Effect of school-based educational water, sanitation, and hygiene intervention on student's knowledge in a resource-limited setting. *BMC Public Health*. 2021 Dec 11;21(1):2258.
14. International Transport Forum. Road safety annual report 2017. OECD Publishing; 2017 Oct 10. <https://www.itf-oecd.org/road-safety-annual-report-2017>
15. Comprehensive Awareness Group (CAG). Road safety perception report: understanding India's road users. New Delhi: Comprehensive Awareness Group; 2024. <https://www.cag.org.in/sites/default/files/database/Road%20Safety%20Perception%20Report.%20Final.pdf>
16. Tartari E, Bellissimo-Rodrigues F, Pires D, Fankhauser C, Lotfinejad N, Saito H, Suchomel M, Kramer A, Allegranzi B, Boyce J, Sax H. Updates and future directions regarding hand hygiene in the healthcare setting: insights from the 3rd ICPIIC alcohol-based handrub (ABHR) task force. *Antimicrobial Resistance & Infection Control*. 2024 Feb 29;13(1):26.
17. Crosby S, Younie S, Ujenia HV, Laird K. The longitudinal effect of disseminating handwashing public health education to children in India via co-created, culturally relevant resources. *Access Microbiology*. 2024 Jan 1;6(1):000677-v3.
18. Ministry of Health and Family Welfare, Government of India. STOP Diarrhoea Campaign 2024. New Delhi: Ministry of Health and Family Welfare; 2024 Jun. <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2028350&reg=48&lang=2>