



Health Infographics: An Effective Visual Key Element in Government Health Advertising Campaign on Water-borne Diseases in Maharashtra

Rahul Dhondiram Thorat

Research Scholar, Department of Visual Arts, School of Design
Graphic Era Hill University, Dehradun

Contact: 9657035854 | Email: rahuldhondiramthorat@gmail.com

Dr. Anirban Dhar

Assistant Professor, Department of Visual Arts, School of Design,
Graphic Era Hill University, Dehradun

Contact: 9401238589 | Email: anirbandhar2013@gmail.com

Abstract:

Water-borne diseases are seen to increase especially in rural areas and also in some part of urban area. These types of diseases are mainly occurring during the monsoon season. These Water-borne diseases are transmitted to a person to person through contaminated water. Newborns and children up to five years of age suffer more from these Water-borne diseases. Newborns aged 1 months to 6 months suffer more from Diarrhea. To prevent Diarrhea, especially during monsoon, young infants are prone to diarrhea due to the disease caused by contaminated water. Due to this, an informational Infographic poster such as 'Prevention of Diarrhea' has been released by the Public Health Department of the State of Maharashtra and Ministry of Health and Family Welfare Department, Government of India to create awareness on this issue. The poster 'Prevention of Diarrhea' is being publicized through various electronic social media and print media. Print media such as informational posters, pamphlets, hoardings, banners, newspapers, magazines, information booklets and digital templates on social media are very useful for raising public awareness about health and Water-borne diseases in rural and urban areas of Maharashtra.

Practical Implications: Epidemic diseases such as Water-borne diseases are very troubling to public health and society. A large group of mass people die due to these epidemic diseases every year in India. This critical situation has created a huge burden on entire society and government. In order to create awareness among society about these water-borne diseases, informative Infographic print and digital media are circulated every year during this monsoon season by the Public Health Department of the State of Maharashtra and Ministry of Health and Family Welfare Department, Government of India. These advertising campaigns are implemented with the effective Infographics and health education. If health education is provided to society on time, the number of patients of such water-borne diseases can be controlled. The objective of this research paper is to understand how these health awareness advertisements with health Infographics affect the minds of the people. Also, to find out the efficiency parameters of health infographics in government health advertisements, especially on Water-borne Diseases in Maharashtra state.



Keywords: Water-borne Diseases, Health Infographics, Swachh Bharat Mission, Intensified Diarrhea Control Fortnight, Health Advertising Campaign Government of Maharashtra.

1. Introduction: Theoretical Framework

The proposed study is based on Indian Health Infographics which are the main design elements of Indian social health educational advertising campaign. Health educational communication is a critical and complex process in India especially in rural areas (Kesavan, N. (2020)). According to CEIC records, the current population of Maharashtra is 127.928 million. Maharashtra is the second most populous state in India. The health departments of the state government and the central government always try to provide all the necessary medical facilities to such a large population. In India, 1.2 crore patients are diagnosed with acute diarrheal disease (ADD) every year and about 1216 of these patients die. These deaths occur due to lack of timely treatment and medical care. Often due to lack of health education, such diseases are not taken seriously (Ivan C., Tom G., Sagi H. (2011)). Moreover, lack of personal hygiene and lack of a balanced diet led to various diseases and their consequences result in death.

2. Research Question

What are the Efficiency Parameters of Health Infographics of Government Health Advertisements, especially on Water-borne Diseases in Maharashtra?

3. Water-borne Diseases in Maharashtra 2021-25

Sanitation Challenges

Medical services are provided by Public Health Department of the State of Maharashtra and Ministry of Health and Family Welfare Department, Government of India to the urban and rural population, in cities, towns and villages, through various government clinics and primary health centers. In Maharashtra state, various types of Waterborne diseases are prevalent during the rainy season. Diarrhea is spreading very widely in Maharashtra every year. This poses a threat to social health. Therefore, diarrhea has become an important public health issue. Diarrhea is a matter of concern for the health department of the Maharashtra government every year to control the disease. In the last few years, the Public Health Department of the State of Maharashtra has observed that there has been an alarming increase in diseases caused by contaminated water such as Cholera, Gastroenteritis and Jaundice at both urban and rural levels. The changing seasonal patterns, personal hygiene and inadequate availability of clean water have led to an increase in various water-borne diseases. As shown in Plate 1. in Maharashtra



state, Water-borne Diseases are reported by Government of Maharashtra's health department (Borade, N. (2025).

3.1 Monsoon Season & Social Health

As shown in Plate: 1 and 2 in India, health advertisements published by the Department of Health and Family Welfare, Government of India are being circulated in urban and rural areas. Diarrhea mainly occurs during the monsoon. This disease is seen to increase especially in rural areas. This disease is transmitted to a person through contaminated water. Newborns and children up to five years of age suffer more from this disease. Children aged 2 months to 6 months suffer more from Diarrhea. At such times, special care needs to be taken for such small children. In this, the dosage of ORS and consumption of zinc tablets are effective treatment methods.

Key Points

01. Increased number of patients: The report of the Public Health Department of the Government of Maharashtra has recorded that there has been a large outbreak of diarrheal diseases in Maharashtra in the last four years.

02. Outbreak of diseases caused by contaminated water: The outbreak of diseases such as Cholera, gastroenteritis, and Jaundice has increased in Maharashtra due to drinking contaminated water. In which the number of adverse effects of the outbreaks has increased significantly compared to the previous year.

03. Regional factors: According to the organization EC Pediatrics, the number of patients with diarrhea varies from district to district in the state. Nashik, Washim and Jalna districts of Maharashtra have the highest number of patients with diarrhea. While other areas like Sindhudurg, Mumbai suburbs and Palghar have seen a low number of patients with diarrhea.

04. Risk factors: The disease of diarrhea is mainly spread due to lack of personal hygiene, lack of availability of clean water and unclean surroundings.

05. Seasonal effects: Diarrhea is especially prevalent during the monsoon and summer months. Due to climate change, this disease reaches far and wide.

06. Vulnerable groups: Children aged 0 to 22 months and below five years are more susceptible to diarrheal diseases. Due to their young age, their immunity is low. Due to this, children in this age group are more at risk of diarrheal diseases due to their young age. The incidence of Diarrhea disease increases due to various factors such as very low-income group, low-income group, densely populated population

in unsanitary areas, illiteracy, low maternal literacy and insufficient breastfeeding. The risk of human health increases (Mascarenhas, A. (2024).

3.2 Water-borne Diseases in Maharashtra 2021-25

Health education is an effective solution to maintain social health (Austin, J. (2002). Health education creates awareness among people at all levels about the dangers of various diseases. The importance of good health is realized. It is necessary to educate people about how to prevent the disease rather than getting it.

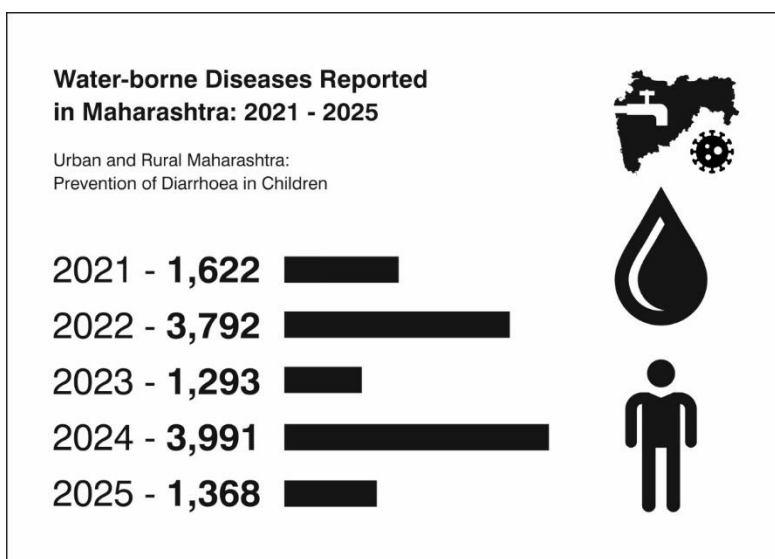


Plate 1: Water-borne Diseases Reported in Maharashtra- Year 2021 to 2025

Courtesy: Research Scholar

To control all waterborne diseases, it is necessary to provide public education at the city and village levels. It is necessary to create public awareness through print and electronic (digital) media regarding various waterborne diseases, their symptoms and precautions to be taken to avoid their infection (Pandey, P. (2015). For this, various advertising campaigns are implemented in Maharashtra through Ministry of Health and Family Welfare Department, Government of India and Public Health Department, Government of Maharashtra. They are broadcast. As shown in Plate 1. Water-borne Diseases reported in Maharashtra during monsoon year 2021 to 2025. In year 2024, the water-borne diseases cases have reported in very large numbers in Maharashtra by 3,991. This is a very dangerous indication of bad public health in Maharashtra specially in monsoon season (Mheskar, M. (2025).

3.3 Rural Maharashtra

Swachh Bharat Mission: There has been a lack of interest in public sanitation in India for a long time. Various policies are implemented by the government to address this problem at the government level.



Public sanitation is a very important and sensitive issue in terms of social health. It hinders the progress of the nation. The increasing expenditure on health has an adverse effect on the overall development of the country. It puts pressure on the total GDP of the nation. Swachh Bharat Mission is an important ambitious project of the Central Government. The campaign is: Clean India. A huge amount of work is being done in the field of health across India under the campaign as shown in Plate: 2. This campaign has been started by the Government of India since 2014. This is an important campaign of the Government of India to strengthen and strengthen social health (Pandey, P. (2015). Through this campaign, health education, public awareness and medical treatment services are provided. Various advertising campaigns are being implemented through print and electronic media to create health education and public awareness (Borade, N. (2025).

4. Diarrhoeal disease patients increasing in Maharashtra:

A new analysis of the data of a government report by UNICEF, a social organization, has revealed that overflowing septic tanks may be a source of contaminated water. The condition of the septic tanks of the toilets built in the rural areas under the Swachh Bharat Mission is poor. Since these septic tanks are not cleaned regularly every three years, they get clogged. Due to this, they sometimes leak. Due to this, the surrounding area becomes unclean. This contaminated water comes into contact with the drinking water pipeline and the drinking water also gets contaminated. Due to this risk, the incidence of diarrheal diseases increases in rural areas, especially during the monsoon. The latest statistics from the Public Health Department of the Government of Maharashtra show that the spread of diarrheal diseases in rural areas of Maharashtra has been very large for the last four years.

To maintain family and personal health, the following acts are important and some precautions must have taken by society.

Toilet construction under Swachh Bharat Mission:

01. Septic tanks need to be cleaned every three years.
02. Faulty construction: construction of toilets and management of excreta
03. Delay in emptying septic tanks
04. Leaky septic tanks
05. Open sewage
06. Health ignorance of rural people
07. Personal Hygiene

4.2 Urban Maharashtra

In today's climate change situation, Maharashtra accumulates a lot of rain till the end of September. Various Water-borne diseases spread widely in the rainy season. In order to prevent and control these infectious diseases, a separate health system is made available every year through the Municipal Corporation and Public Health Department of Government of Maharashtra to provide medical services and treatment.

5. Literature Review



(Pawar, R. (2025), In 2024, the number of cases of Cholera, Jaundice, Diarrhea has doubled in Maharashtra. Against this backdrop, doctors had appealed to all the people of the state to be careful. The Maharashtra government has asked the public to be alert about water-borne diseases during the Ganpati festival and the upcoming assembly elections. In 2024, 437 cases of Cholera were found in Maharashtra. Out of these, 3 people died due to Cholera. In 2023, 5 cases of Cholera were found. Out of these, one died due to Cholera. In 2025, 15 cases of Cholera were found in Maharashtra. According to the data of the Health Department, due to continuous heavy rainfall, there has been an alarming increase in diseases caused by contaminated water like Cholera, Gastroenteritis and Jaundice in Maharashtra this year at the urban and rural levels. According to the latest study by the Public Health Department of Maharashtra, there has been a twofold increase in this case till the end of August 2024 compared to 2023. Till the end of August 2024, a total of 22,37 cases of Cholera, Gastroenteritis, Jaundice and Diarrhea were found, out of which 10 patients died. In 2023, 1,2134 cases were found during the same period. Out of these, one died. In 2024, 437 cases of Cholera were reported in Maharashtra. Out of these, 5 patients died. According to expert health officials of the Public Health Department, the issues and problems of water pollution can worsen due to heavy rainfall. According to the World Health Organization (WHO), consumption of contaminated food and water causes Cholera disease. It causes severe infection of the human intestines and kills the patient. In 2024, 11 cases of Jaundice were found and one person died. 252 cases of Gastroenteritis were found. Apart from this, 1,164 patients of Diarrhea have been found (Mheskar, M. (2025).

6. Research Methodology

A qualitative research method is applied for this research topic. Descriptive analysis on Indian health advertising campaign in print and electronic media has been conducted in the context of Infographics. For this research paper researcher used secondary data. Secondary data obtained from various print and digital media such as banners, posters, leaflets and digital social media templates- Facebook, WhatsApp, Internet.

7. Finding and Discussion

In the present research paper, 25 various printed and electronic (digital) social advertisements have been studied using Infographics as a design element. These advertisements are particularly based on Water-borne Diseases in Maharashtra. These social advertisements have been published through Ministry of Health and Family Welfare Department, Government of India and Public Health Department, Government of Maharashtra. These advertisements have been published in print and electronic media



from the year 2021 to the year 2025. These informative posters have been prepared using effective health Infographics.

7.1 Health Infographics: Health Awareness Promotional Campaign

These posters are effectively using Infographics as a design element to present the measures needed to prevent diarrhea in an easy-to-understand manner. These informative posters are based on Diarrhea prevention measures. In it, simple and effective Infographics have been prepared based on each important element.

7.2 Use of Infographics as a design element in Waterborne Diseases health promotional advertisements. Year 2021 – 2026

Special Diarrhea Control Fortnight- World Alkali Sanjeevani Water Sanjeevani Day

To prevent diarrhea, especially during monsoon, young infants are prone to diarrhea due to the disease caused by contaminated water. Due to this, an informational poster on 'Prevention of Diarrhea' has been released by the Public Health Department of the State of Maharashtra to create awareness on this subject. The poster 'Prevention of Diarrhea' is being publicized through electronic social media and print media. This poster effectively uses Infographics as a design element to present the measures needed to prevent diarrhea in an easy-to-understand manner. As shown in Plate No. 1, and 2 in India, health advertisements published by the Department of Health and Family Welfare, Government of India are being circulated in urban and rural areas. In these print and digital advertisements very, effective Infographics have been incorporated for effective visual communication (Bergstrom, B. (2002). Mainly these social health advertisements are based on informative and educational manner. So, it has simple and easy to understand by common citizen of rural and urban India. Basically, this language is pictorial visual language. So that it is universal communication language (Ivan C., Tom G., Sagi H. (2011).

Poster No. 01

Measures needed to prevent Diarrhea

01. Wash both hands with soap and water before preparing food, before feeding the child, after using the toilet, and after cleaning the child's stool.
02. Ensure that drinking water is clean and stored in a safe and covered container.
03. Ensure that the child's surroundings are clean and that they wash their hands regularly.
04. Always use the toilet and do not defecate in the open. Make it a habit to dispose of the child's stool safely.

Treatment of Diarrhea

01. Mix the mixture properly until one sachet of ORS is dissolved in 1 liter of drinking water.
02. Give the child the ORS solution when diarrhea starts and every time after defecation.

SHRIJANSODH 2026: International Conference on Indian Knowledge Systems, Art, Design, Wellness, and Cultural Heritage Date: 29-30 August 2026

03. Take a spoonful of drinking water or breast milk and dissolve one zinc tablet in it and give it to the child once a day for 14 days.
04. Continue to give complementary foods and breast milk to the child during and after diarrhea.
05. If necessary, contact the nearest health facility or ASHA.



Plate 1: Intensified Diarrhoea Control Fortnight Campaign Government of Maharashtra
Courtesy: www.maharashtrgov.com

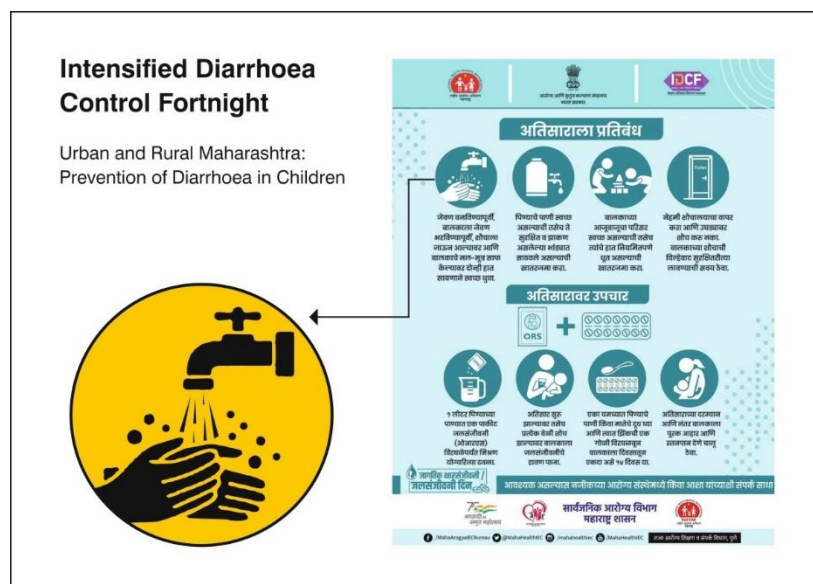


Plate 2: Intensified Diarrhoea Control Fortnight
Informative Poster: Prevention of Diarrhea in Children
 Courtesy: Research Scholar

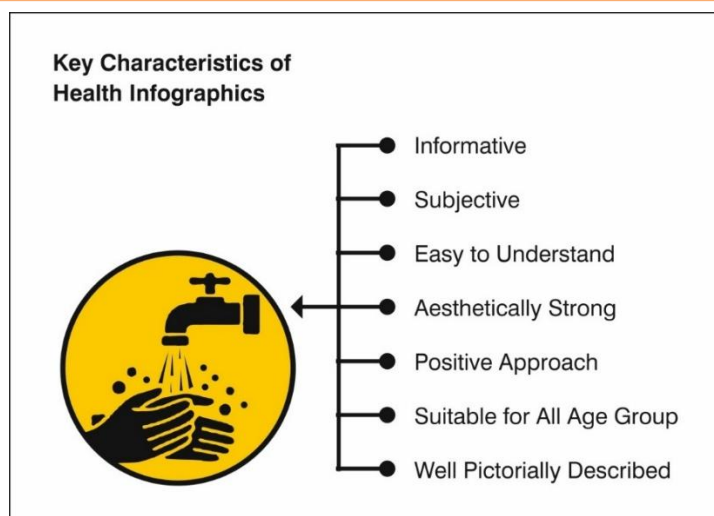


Plate 3: Key Characteristics and Effectiveness of Health Infographics

Courtesy: Research Scholar

8. Conclusion

In this research paper, an attempt has been made to critically study the importance, function and impact of Infographics in context of an effective characteristics of Indian Health Infographics and Government of India's Health Educational Advertising Campaign on Water-borne Diseases in Maharashtra. Health educational communication is a critical and complex process in India. After Covid- 19 pandemic, health awareness campaigns have increased by Government of India as well as Government of Maharashtra. Infographics as a visual design element has characterized by these super features as, aesthetic appeal, effective visual expression, simplicity and associating with content/subject that effectively communicates ideas and thoughts. These health Infographics have creative terminology, so that it helps specially in health education which is complex area itself. In today's digital era, Infographics are very effective key element in social health education system in rural and urban India, which is linguistically and culturally diverse.

References

- Austin, J. (2002). *The Graphics Book*, Switzerland, A Roto Vision Book.
- Benjamin, R. (2019). *Race After Technology: Abolitionist Tools for the New Jim Code*. United Kingdom, Polity Press.
- Bergstrom, B. (2002). *Essentials of Visual Communication*, Switzerland, Laurence King Publishing Ltd.
- Cairo, A. (2013). *The Functional Art: An Introduction to Information Graphics and Visualization*. Berkeley, CA: New Riders.
- Gobert, I., and J. van Looveren, eds. (2015). *Thoughts on Designing Information*. Zürich, Switzerland, Lars Müller.
- Lankow, J., J. Ritchie, and R. Crooks. (2012). *Infographics: The Power of Visual Storytelling*. New York, John Wiley.
- Murray, D. (2020). *The Infographic: A History of Data Graphics in News and Communications*, London: The MIT Press.



Pandey, P. (2015). *Pandeymonium- Piyush Pandey on Advertising*, Mumbai India, Penguin Books India.

Parikka, J. (2015). *A geology of media*. USA, University of Minnesota Press.

Randy K. (2013). *Cool Infographics: Effective Communication with Data Visualization and Design*, New York: Wiley.

Internet Sources

<https://arogya.maharashtra.gov.in/>

<https://education.nationalgeographic.org/resource/key-components-civilization>

<https://indianexpress.com/article/cities/pune/maharashtra-rise-waterborne-diseases-9563796/>://mohfw.gov.in/?q=en/documents/publication

<https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=149&lid=225>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3214440/>

<https://scroll.in/article/1080484/diarrhoea-is-rising-in-maharashtra-are-poorly-built-swachh-bharat-mission-toilets-responsible>

<https://www.thehindu.com/sci-tech/health/surveillance-upped-following-outbreak-of-acute-diarrheal-disease/article69223783.ece>

<https://www.thehindu.com/opinion/lead/the-challenges-of-public-health-education-in-india/article69337666.ece>