Chapter 13

Effective Communication in Public Health

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Overview

This chapter explores the rich and complex world of Communication, an essential element of human interaction. It outlines different types of Communication—Intrapersonal, Interpersonal, Group, and Mass—each serving distinct purposes and dynamics. It also explores various modes of

communication-based on hierarchy and direction. Communication can be Verbal, Non-verbal, or Gestural, with each type having specific advantages and challenges in different contexts. The chapter further discusses communication models like Aristotle's, the Shannon-Weaver, and Berlo's S-M-C-R models, explaining their components and relevance to Effective Communication. Clarity, appropriate channel selection, and feedback mechanisms are essential to successful Communication. The chapter also highlights barriers to Communication, such as language, hierarchy, and physical, psychological, and cultural factors, suggesting strategies to overcome these and enhance communication efficacy. Additionally, it includes Case Studies and Examples to provide a deeper understanding of Communication in India's public health context.

Learning Objectives

Upon completing this chapter, readers will be able to:

1. Define communication and health communication

2. Identify and describe the different types of Communication—Intrapersonal, Interpersonal, Group, and Mass—and understand their specific roles and dynamics within the context of public health.

3. Explain the various modes of Communication and assess their effectiveness in different hierarchical and directional settings.

4. Discuss the critical communication models, including Aristotle's, the Shannon-Weaver, and Berlo's S-M-C-R models, and evaluate their components and relevance to effective communication strategies.

5. Recognize the barriers to effective Communication, such as language, hierarchy, physical, psychological, and cultural factors, and apply strategies to overcome these barriers in a public health setting.

Introduction

In human interaction, Communication is a pivotal process through which information is exchanged among individuals using a shared system of symbols, signs, or behaviours (Merriam-Webster Online 2024b). Communication extends beyond one person's mere message transmission; it encompasses the active engagement of the receiver, who listens, interprets,

and responds accordingly. Originating from the Latin word 'communicate', meaning 'to impart, participate' (Merriam-Webster 2024a), Communication fosters the sharing of shared experiences, ideas, thoughts, feelings, and information. This sharing spans a spectrum of activities, from thinking and dreaming to speaking and debating. Communication can transform people's knowledge, attitudes, and behaviours, empowering them to make informed choices. Health Communication represents efforts to improve health outcomes across individual, community, and societal levels by integrating strategic and evidence-informed communication interventions.

Types of Communication

(Sathe and Doke 2022; Indira Gandhi National Open University 2017)

Intrapersonal

- Internal dialogue that takes place ‘within’ an individual
- This includes daydreaming, self-talk, memories, contemplating, conceptualizing, and formulating thoughts or ideas before expressing them.

Interpersonal

- Communication between two persons
- The roles of the sender and receiver become interchangeable.
- There are many sensory channels used; feedback is immediate.
- Example: in-depth interview, telephonic conversation

Group

- In an extension of interpersonal Communication, more than two people are involved.
- It can be both formal/ informal.
- Helpful in reaching collective decisions on problems, issues, or matters of common interest.

- Not all group members can participate freely; some may dominate the conversation, while others may feel too shy or reluctant to express themselves, impeding the free flow of Communication.

- Example: Classroom communication, focus group discussion (FGD)

Mass communication

- The communicator (sender) is separated from the audience (receiver) regarding time and place.

- The source is usually an institution or a group of people.

- The audience (mass) is large and heterogeneous, with different likes, dislikes, social, economic, and ethnic backgrounds.

- Communication occurs through mass media such as print, radio, television, the Internet, etc.

- Feedback is weak and delayed compared to the group and interpersonal Communication.

Modes of Communication

(Sathe and Doke 2022; Lunenburg 2010; Indira Gandhi National Open University 2017)

i. Based on hierarchy

a. Vertical Communication occurs between individuals holding superior and subordinate positions within the organizational hierarchy. Examples include teacher-student and employer-employee interactions. This Communication can flow upward from lower to higher levels in the organization or downward from higher to lower levels.

b. Horizontal Communication takes place among peers or equals within the organization. Examples include student- student and Professors from department A and B interactions.

ii. Based on the direction of flow:

a. Didactic method: Communication flows in one direction, with minimal audience participation and limited influence on human behaviour. Examples include classroom lectures, television, and radio broadcasts.

b. Socratic method: This method involves two-way Communication in which the audience actively participates by asking questions and sharing opinions. This democratic process of learning is highly likely to influence human behaviour—examples: focus groups and panel discussions.

iii. Nature of message:

a. Verbal: This involves the transmission of messages through spoken words, offering an effective means of conveying ideas, emotions, and suggestions. However, it proves inefficient when addressing larger audiences and becomes impractical when the communicator and receiver are geographically distant from each other. Examples include face–to–face interactions, telephonic conversations, and focus group discussions.

b. Nonverbal: It can be expressed through writing, gestures, or images. Within a formal organization, written Communication is paramount in conveying ideas and information. It offers permanence, tangibility, and verifiability, as records are maintained and accessible to both the sender and receiver for clarification. However, it can be time-consuming.

Gestural Communication adds depth and nuance to spoken messages, reflecting the speaker's knowledge and experiences. Co-speech gestures naturally accompany spoken language, enhancing its meaning. Sign language, a rich visual language comprising hand gestures, facial expressions, and body movements, serves as a primary mode of Communication for the deaf and hard-of-hearing community and those who engage with them. When the message takes the form of visual elements such as images, infographics, and icons, it becomes visual Communication. Visual Communication may involve using universally recognized symbols, such as an icon of a person in a wheelchair, to represent toilets for differently-abled individuals. In health data presentations, charts, graphs, and

diagrams illustrate trends, statistics, and other medical information for ease of understanding.

iv. Based on relationship

a. Formal communication channels are utilized for transmitting official messages within or outside the organization, following the established line of authority.

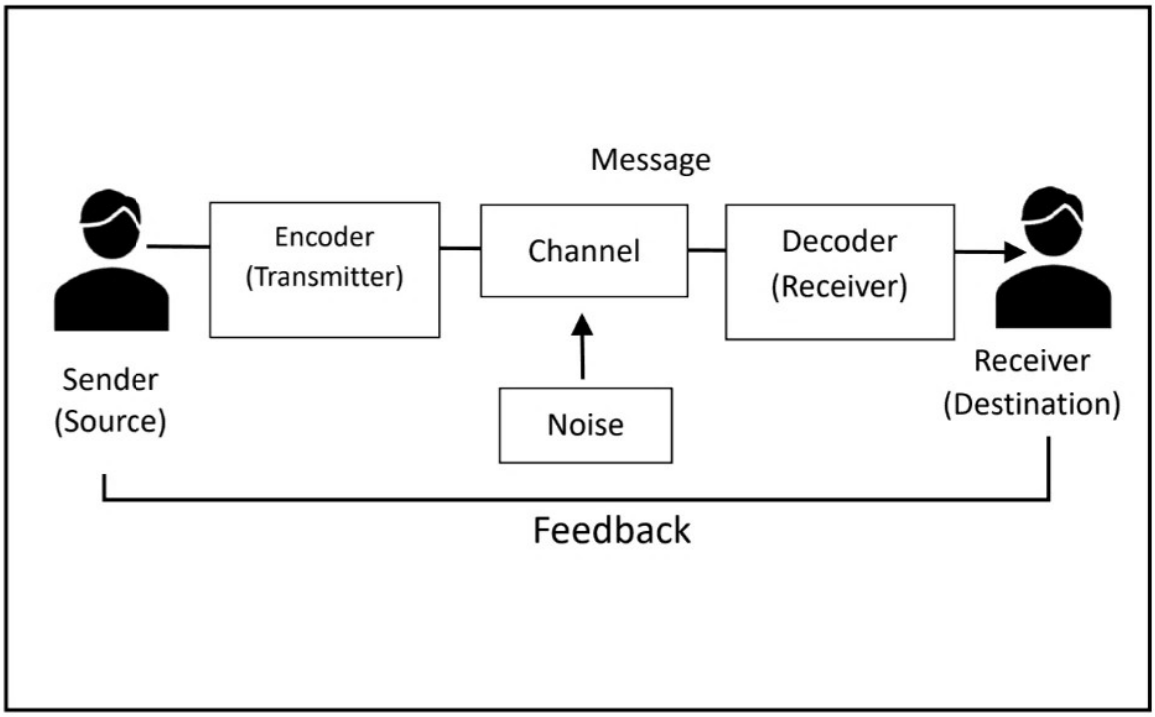
b. Informal: This type of Communication typically does not adhere to official channels and structures. It encompasses informal interactions and may involve grapevine communication, which spreads information unofficially through informal networks.

Models of Communication

(Shannon and Weaver 1963; Berlo 1960; Lunenburg 2010)

Aristotle's communication model, dating back to 300 BC, highlights three crucial elements of Communication: the speaker, the speech, and the audience. Like Aristotle's model, the mathematical communication theory developed by Shannon and Weaver was introduced in the late 1940s. The Shannon-Weaver model originally consisted of five elements: an information source, a transmitter, a transmission channel, a receiver, and a destination. With the source analogous to the speaker, the signal representing the speech, and the destination representing the listener, the Shannon-Weaver model introduces two components additional to Aristotle's model: a transmitter, responsible for disseminating the source's message, and a receiver, tasked with receiving the message on behalf of the destination. The model also introduces the concept of 'noise' accounting for differences between messages as sent and received, attributed to interference affecting the channels. Initially focused on electronic communication, the linear model was widely accepted by behavioural researchers. Later, it was updated to include feedback.

Fig.1: Communication process based on the Shannon-Weaver model



The S-M-C-R model of Communication is a linear model built upon the Shanon-Weaver model. It was first defined by David Berlo in his 1960 book, 'The Process of Communication'.

Elements of Communication:

i. **S**ource-encoder/ Sender: The individual or organization who has a message to impart. The sender has to decide how to communicate the message, which channel to select for the message, and what type of strategies should be planned so that the message elicits the desired response. The encoder converts the source's purpose into a message. In interpersonal Communication, the sender and the encoder are typically the same entity. However, within organizational structures, a secretary may serve as the encoder, drafting a letter to convey the intentions of a manager.

ii. **M**essage: A message is the translation of ideas, purposes, and intentions into a systematic set of symbols or codes. Essentially, it represents the content exchanged between the sender and receiver. Messages can take various forms, such as ink on paper, sound waves in the air, electronic impulses, gestures, or signals like waving a hand or raising a flag—each capable of meaningful interpretation.

iii. **C**hannel: The medium through which a message is conveyed from sender to receiver. It could be spoken or printed words, electronic media, or non-verbal cues like signs, gestures, or facial expressions. In contemporary Communication, 'channel' often refers to mass media like newspapers, radio, television, telephone, computers, and the Internet. Choosing the right channel is essential for effective Communication.

iv. **R**eceiver-decoder: The intended recipient of the message who interprets it to derive meaning. Successful Communication depends on the receiver decoding the message as intended by the sender. In interpersonal Communication, the receiver typically shares a close relationship with the sender, which may diminish in group and mass communication contexts. In intrapersonal Communication, the source and the receiver are the same.

Example:

Let's consider a one-on-one consultation between a healthcare provider (HCP) and a patient discussing lifestyle changes for managing hypertension.

Source-encoder/Sender: The HCP initiates the Communication. She aims to educate the patient about lifestyle modifications that can help manage hypertension. She uses clear and empathetic language to tailor the advice to the patient's needs. Her speech mechanism, as an encoder, produces the following message: *"Mr. R, you need to decrease your salt consumption, and you need to be physically active 30 minutes daily."*

Message: The core message involves recommendations for dietary changes and physical activity tailored to the patient's condition.

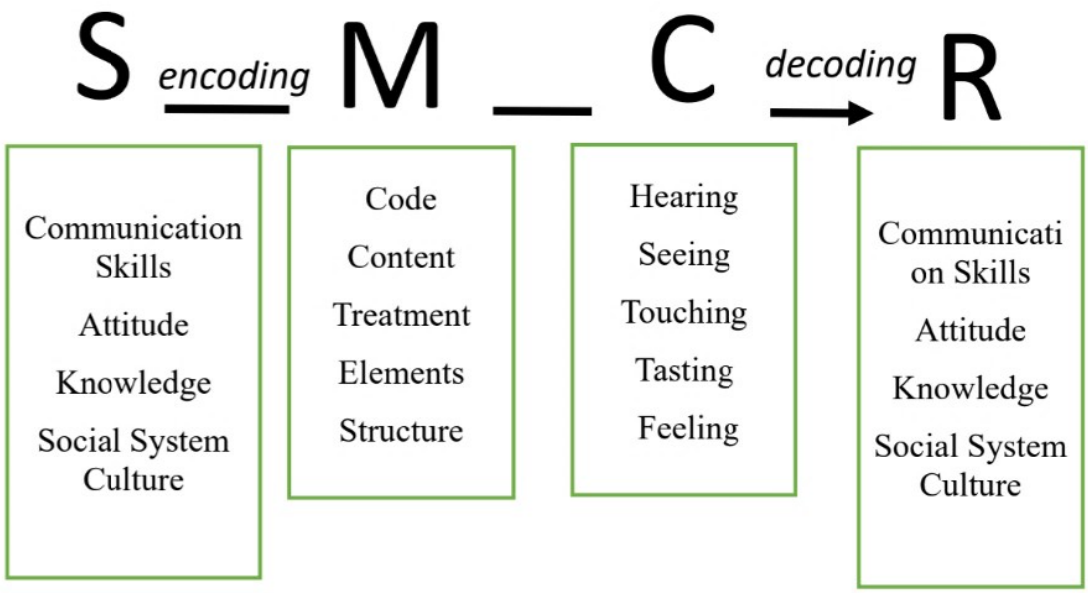
Channel: The message is transmitted via sound waves through air in a face-to-face communication

Receiver: The patient's hearing mechanism serves as a decoder. She hears the message, decodes it into a nervous impulse, and sends it to her central nervous system. The patient is the receiver, and after decoding the message, she asks, *"Okay, Dr., how many spoons of salt can I have daily?"* The feedback could be given immediately since it was face-to-face and interpersonal Communication.

Here, we could have an additional component of noise, such as other patients talking in the background or a public announcement. These

distractions may hinder the patient's understanding of the message clearly, thereby decreasing communication effectiveness.

Fig.2: Communication process based on Berlo's SMCR model



Factors Affecting Effective Communication

(Indira Gandhi National Open University 2017; Lunenburg 2010; Bernhardt 2004; McGuire 1984)

"The greatest problem with communication is that we do not listen to understand. We listen to reply."

a. Language/Semantic Barrier: Effective Csommunication requires precise and easily understood messages. However, lack of clarity or complexity in the sender's information delivery can impede comprehension. The language used may pose challenges due to difficulty interpreting words or lack of clarity in expression. Individuals with diverse educational and cultural backgrounds and intellectual abilities may struggle to understand messages containing sender-specific jargon. In such cases, the same word may carry different meanings for the sender and receiver. Furthermore, using technical terminology without ensuring the receiver's familiarity with such terms can hinder understanding. Frequently, meanings can be lost in translation, a challenge commonly encountered in qualitative research.

b. Hierarchy: Status differences lead to withholding or distorting information. Subordinates often withhold information to avoid displeasing their superiors or distorting it to appease them. Similarly, superiors may avoid communicating information that could negatively reflect on their abilities or judgment. In upward and downward Communication, messages may become distorted as they pass through intermediate levels, a phenomenon known as the 'filtering' of the message.

c. Physical Barrier: Analogous to Shannon-Weaver's concept of noise, physical communication barriers encompass factors that distort signal quality. These barriers arise from issues such as background noise, interruption, or technological barriers like faulty equipment and poor connectivity. These hindrances can distort information transmission from sender to receiver, leading to improper Communication. Additionally, geographical distance can create barriers, preventing people from communicating effectively due to physical distances.

d. Psychological barrier: We often perceive information based on emotional inclinations guided by personal needs and interests. This filtering process can lead us to focus on specific aspects of a message while ignoring others, impacting effective Communication. Similar to physical distance, psychological distance can create barriers between individuals. For example, if two colleagues harbour resentment towards each other, it can impede their communication ability. Similarly, fear of judgment or adverse reactions can also hinder effective Communication.

e. Social and cultural barriers refer to obstacles stemming from cultural and social factors. These barriers include individuals' backgrounds, perceptions, and values, which influence how messages are understood and interpreted. In certain societies, communication styles tend to be less vocal, while others are known for their assertive or vocal behaviour. Communication becomes challenging when there is little overlap between the sender's and receiver's fields of experience.

Strategies to Make Communication Effective

(Lunenburg 2010; Berlo 1960; McGuire 1984; Bernhardt 2004)

Each step in the communication process influences the effectiveness of Communication.

The Sender: Effective Communication begins with the sender, who needs to encode messages accurately. This requires good communication skills, a positive attitude towards the subject matter and the recipient, and self-confidence. Equally important is the sender's depth of knowledge on the topic.

Clarity of Message: The core of effective Communication lies in the clarity of the message. Ensuring the communication goal is well-defined and using simple, concise, and precise language is fundamental. Complex ideas should be expressed simply through short, coherent sentences. Avoiding excessive conjunctions can prevent complexity and enhance understanding. Techniques such as appropriate phrasing, punctuation, emphasis, and voice modulation can significantly improve message clarity. Introducing a degree of redundancy can aid comprehension, especially when replacing technical terms with simpler, everyday language. However, it is crucial to avoid making the message repetitive and monotonous.

Appropriate Channel: It is crucial to select the right channel based on the type of Communication and its objectives. Technological channels can bridge geographical gaps, but the choice of channel—especially more costly ones—should be justified by specific needs and the potential to achieve communication objectives. Sometimes, a simpler channel may be more effective than a more elaborate one.

Feedback: is a cornerstone of the communication process, providing a direct line to the receiver's needs and perspectives. Regular, appropriately levelled feedback can identify and close gaps in communication strategies, enhancing overall effectiveness.

The Receiver: The receiver's qualities mirror those of the sender. A good receiver is active, engaged, and attentive.

The points discussed above emphasize the key aspects of interpersonal Communication. Health Communication also deals with mass Communication, where messages on health promotion are sent to a mass population for behaviour change. While appropriate health content is a prerequisite, there are some other criteria that could increase or decrease the effectiveness and impact of health communication. (Centers for Disease Control and Prevention (CDC) 2018) They are:

Accuracy: It is vital that the content is valid and without errors of fact, interpretation, or judgment. This requires incorporating "you" Communication. It is important to visualize the message from the receiver's perspective, as the factually correct message could be ineffective if not interpreted correctly. For example, the message on promoting two-child norms may inadvertently convey that the contraceptive is to be used when the couple has achieved the desired family size.

Availability: The content (whether a targeted message or other information) is delivered or placed where the audience can access it. Placement varies according to the audience, message complexity, and purpose, ranging from interpersonal and social networks to billboards and mass transit signs, prime-time TV or radio, public kiosks (print or electronic), and the Internet. The message/product should be physically, socially, and financially available for the chosen audience. For example, promoting something in the newspaper to an audience who is illiterate or does not read newspapers is a useless decision. The decision to make condoms available at ration shops is an example of social availability.

Balance: Where appropriate, the content presents the benefits and risks of potential actions or recognizes different and valid perspectives on the issue. Non-recognition of possible side effects of any contraceptives or vaccines can harm its uptake as whenever people experience the side effects, non-sharing of side effects will be viewed as deliberate and will break the trust of the community; however, the possible side effect needs to be present in a balanced way so that people are not discouraged to opt-out. For example, no contraceptive provides 100% protection, ...but this information is shared in such a way that people do not get discouraged.

Consistency: The content should remain internally consistent over time and with information from other sources (the latter is a problem when other widely available content is not accurate or reliable). The message must be consistent, or else the audience will get confused. If the message is to be changed, there should be a rationale. For example, during the early days of COVID-19, when much was not known about how the virus spread, new information was added. However, it was always explained that the change is promoted considering new revelations about how the virus behaves. Another reason for providing the correct information with an explanation was to address infodemic- misinformation and disinformation, which created confusion in people's minds.

Cultural Competence: Culture is an important determinant of norms and behaviour. Therefore, any health communication should consider culture to understand the behaviour and identify the change variables to develop something culturally relevant. The design, implementation, and evaluation process that accounts for special issues for select population groups (for example, ethnic, racial, and linguistic) and educational levels should resonate with the culture or be culturally competent to push for change. For example, sex education could not be integrated into the school curriculum of adolescents in India as all parents and teachers resisted it. However, due to the global emphasis on sex education, these same programs got some acceptance and approval under the parlance of Family Life Education (FLE).

Reliability: When we cite evidence, we must also be sure of the source's reliability from where the evidence is generated. It is of utmost importance that the source of the content is credible and up to date. Stale information discourages people's involvement and conveys the implementers' disinterest. For example, Government sourced information is often regarded as more trustworthy because of its recognized credibility. Similarly, there are more takers for any information that comes from credible organizations like WHO or the UN than any other private organization.

Repetition: It is often said that the audience's memory is short; hence, the message of health communication is to be repeated and continued over a relatively long period. This will not only enable the reinforcement of the message with the old audience but also reach the newer audience of a new generation. For HIV/AIDS, the massive focus on awareness programs about safe behaviour worked well in the 1990s and 2000 and helped that generation to be alarmed and practice safe behaviour. However, as the prevalence decreased due to some strategic decisions, the impetus for awareness of safe behaviour decreased. The fact remains that HIV/AIDS continues to be a dreaded disease that is untreatable. Therefore, a lack of repetition of messages about the threat of AIDS for this ever-new cohort could be a risk.

Case Studies and Examples

Now that you have understood the concept, theories, and methods of Public Health Communication, let us look at two cases that show how it may have to be customized to the community's needs to be more effective.

1. Case on Communication in National Vector Borne Diseases Programme

Neemkantha is a small village in Maharashtra with a population of around 6500 (about 1000 families). The district is poor, and the vast majority of people in the village depend upon dry millet farming and working as labourers in fields. For the last three years, many villagers have been suffering from fever (malaria), the incidence of which has been increasing every year. The villagers seem to regard this fever as a usual part of life. The Government established a unit of the National Vector Diseases Control Programme at the District Headquarters to combat the problem.

In July 2010, health workers reported 48 malaria cases in the previous month. The District Malaria Officer (DMO) immediately ordered a complete spraying of the village with Malathion insecticide and the distribution of chloroquine tablets. The treatment with chloroquine tablets was readily accepted by the people; however, spraying was not. In its several rounds, the spraying team could not spray more than 32 houses. The DMO could not understand why. He called a meeting with the spraying team, the health Worker and the Health Supervisor.

The leader of the spraying team expressed that every time they visited the village, they could spray only four or five houses. By the time this was done, the other houses were locked. They observed women silently locking their houses and walking away to the fields. The Health Worker said the villagers thought there was no need for spraying since everyone with a fever had been given tablets. Some also complained that the insecticide smelled terrible and made the house dirty. The Supervisor, too, seemed to think the women were the biggest obstacle to spraying. They did not want the spraying teams to enter because it meant much work for them. Everything had to be removed and rearranged, and the entire house had to be replastered with cow dung.

When the DMO enquired about the role of the ASHA (Accredited Social Health Activist), The Health Worker informed him that the ASHA was the first to alert them about the malaria outbreak by sending two smears that tested positive. All the workers praised the ASHA, saying she enjoyed the confidence and good opinion of the entire village. The villagers described her as sincere, considerate, sympathetic, and always helpful to the women. She worked very well with the visiting health staff.

work style, beliefs and values create a gulf between health providers and village communities. Only if health interventions are tailored more closely to the prevailing community beliefs and behaviour and to the demand expressed by local communities will it be possible to improve utilization rates and the overall effectiveness of health interventions. In a programme initiated and funded by the Government, the involvement of community members in decision-making and implementation is a significant means of achieving the necessary 'fit' between the health intervention and its intended beneficiaries. The ASHA, a community resident, maintains close ties with the health system and is uniquely suited to bring together the two systems.

2. Case on the role of Public Health Communication in Polio eradication in India (United Nations International Children's Emergency Fund 2013)

Polio is one of the most dreaded diseases known to humanity. The morbidity and resulting disability have always been a significant public health challenge worldwide. India was a country where Polio was rampant despite a very effective vaccine. The Expanded Programme on Immunization (EPI) and Universal Immunization Programme (UIP) included the Polio vaccine, but prevalence remained very high. By the early 1990s, most of the developed world had either eradicated Polio or was on the verge of doing so. However, India, along with a few other countries, still had a significant burden of Polio and lagged in eradication efforts.

In 1995, the Government of India (GOI) launched the Pulse Polio Programme, emphasizing vaccination as a strategy for eradication and aligning it with the global strategy. This focus on Oral Polio Vaccine (OPV) aimed at increasing vaccination among children met with some initial success; however, many myths and misinformation campaigns that floated around hampered the programme. Traditionally, governmental initiatives focused on family planning, so the new focus on OPV led to myths that the vaccine was unsafe and could make male children impotent. This fear was expected, and health workers started facing resistance from specific communities and pockets. To counter this, GOI developed a strategy to boost the community's confidence. A massive Information Education Communication (IEC) drive was launched, and many celebrities, such as film stars and cricketers, were asked to help endorse the vaccination drive. IEC was done through hoardings, radio, television, print media, etc., and the effort was nationwide. The master stroke was roping in Mr. Amitabh Bachchan (the most celebrated and recognized face of the Indian film

industry) as a brand ambassador. His endorsement was a significant boost to the programme. The tagline 'Do Boond Zindagi ki' (two drops of life) resonated with the community. Slowly, the acceptance increased, and the incidence of Polio started coming down.

Based on the data, the areas/communities that were lagging behind were identified, and concerted efforts were started there. In 2002-2003, there was an outbreak of Polio in Uttar Pradesh (UP), India's largest state. After an in-depth analysis of the data, it was found that 59% of the cases were in the Muslim community, with many unvaccinated. This prompted the Government to rethink the Public Health Communication strategy.

Teams were deployed to understand why the community was not accepting the vaccine. Many causes of resistance were identified, but the major one was the fear that the vaccine would affect the potency of their male children. GOI, along with UNICEF, started working on a strategy to dispel these rumours and fears. The routine means of public health communication did not seem to be effective, and something new had to be considered if the program was to be successful.

After discussions with community groups, health workers and community leaders, it was realized that the community would be more willing to listen to their leaders. Now, the first step was to convince the religious and community leaders. With the help of UNICEF, GOI held several consultative meetings with the leaders and convinced them of the need to dispel the community's doubts. The safety of the OPV and its use worldwide was explained to them, and once the leaders agreed to help, a detailed strategy was developed. Prominent universities and organizations like Jamia Millia Islamia, Aligarh Muslim University, and Darul supported the programme. Since they had a broad reach in the Muslim community and were thought to be working for the good of the people, their voice/appeal was likely to be heard. These leaders declared the safety and importance of the vaccine and why the children needed to be vaccinated. Community-specific IEC material was developed for better understanding, and regular announcements were made from the Masjids regarding OPV and its safety. All these are aided by the social mobilization network (SMNET) of UNICEF (United Nations International Children's Emergency Fund 2013). These intensive efforts showed results, and the Pulse Polio Campaign grew momentum. India did not have a single case of polio after 2011 and was declared polio-free in 2014.

The takeaway is that Public Health Communication has to be moulded so that it reaches the desired target group and is accepted by them. 'One size fits all' is not something that is likely to work in Public Health Communication. TV advertising may not work where reach or access to TV is limited. Illiterates may not benefit from text messages, but pictorial messages will be much more effective. One major point we should not lose sight of is that Public Health Communication requires time and repetition. It cannot be done once, and then we wait to see the results. A well-thought-out strategy based on the target audience is a must for successful Public Health Communication.

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