

Success of Polio Eradication Campaign in India: A Comparative Study of Rational and Emotional Appeals Before and After 2002-2003

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Abstract

Polio eradication Campaign was one of the most successful Health Communication Campaign in India. The WHO in 2012 had announced India as Polio free Nation. Success of this campaign lies deep rooted in villages where mass media as well as personnel efforts of vaccinators had contributed towards its success. Before 2002-2003, Polio cases were reported on large scale in India, but suddenly decreased after the year 2003 and then finally counted to zero in 2012. This paper aims in evaluating the Polio eradication campaign in India before and after 2002-2003 on the basis of rational and emotions appeal of the campaigns, which made the campaign successful especially after 2003.

Key Words: vaccinators, rational and emotional appeals, Larson-s model

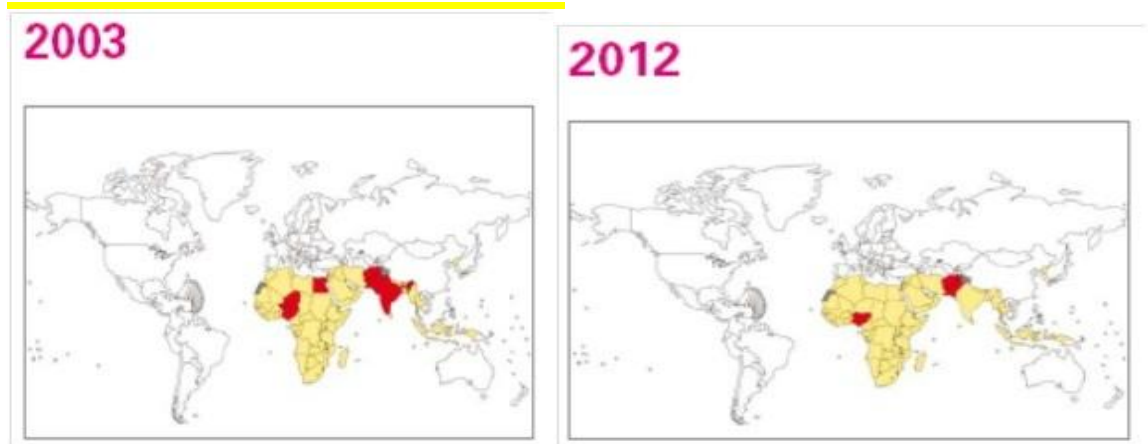
Introduction

Pulse polio immunization programme was launched in 1995 in India as a result of World Health Organization Global Polio eradication initiative. In 1985, WHO reported cases were 28,757 which comprised of 74.4% of total cases reported in the world. WHO started Global Polio Eradication Initiative in 1988 backed by a

total investment of US \$ 3 billion and launched in 200 countries with 20 million volunteers. At that time polio was endemic in India. However after the launch of Immunization programme in 1995 the share of reported polio cases reduced to 46.4% of the world's share. Since 1995 India has made great leaps of advancement in reducing cases of polio and it was declared polio free country by World Health Organization in 2012.

Figure 1 Countries with polio cases in the world over years





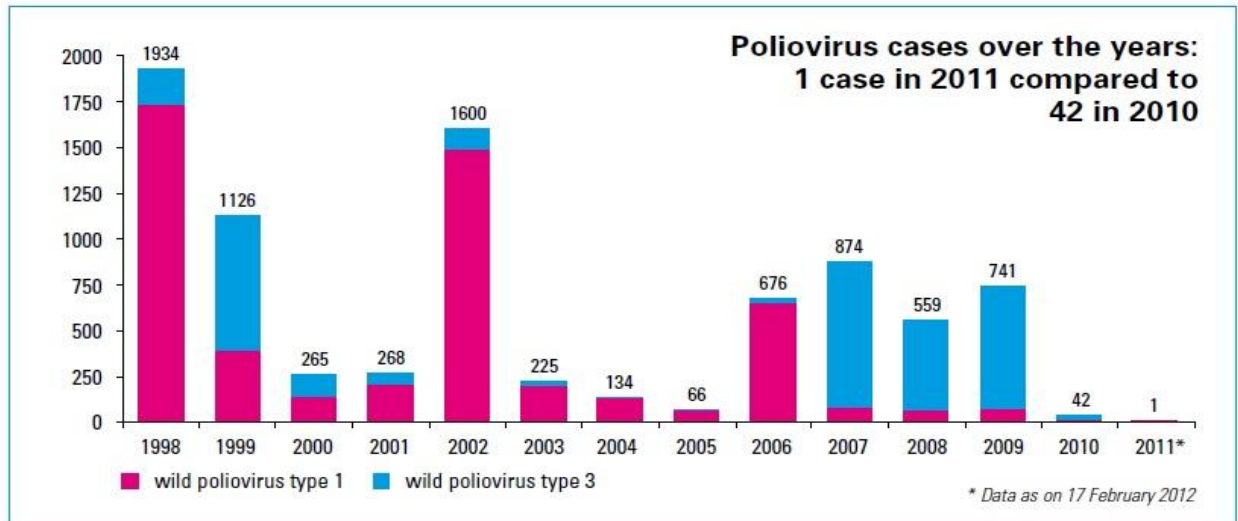
Source: Polio Booklet 2012, World Health Organization

Scenario of Polio in India

Compared to other Asian and African countries, India took longer to eradicate polio. The major reasons are non acceptance of polio vaccination by the people and lack of coverage in states of Uttar Pradesh and Bihar. After 2002 outbreak of polio in India, major

initiatives were taken to increase coverage. The initiatives included mass awareness programmes, involvement of local level NGO's and community leaders, use of social media, carrying out surveys at local level taking district as a unit to identify high risk areas etc.

Figure 2 Polio cases in India over years



Source: Polio Booklet 2012, World Health Organization

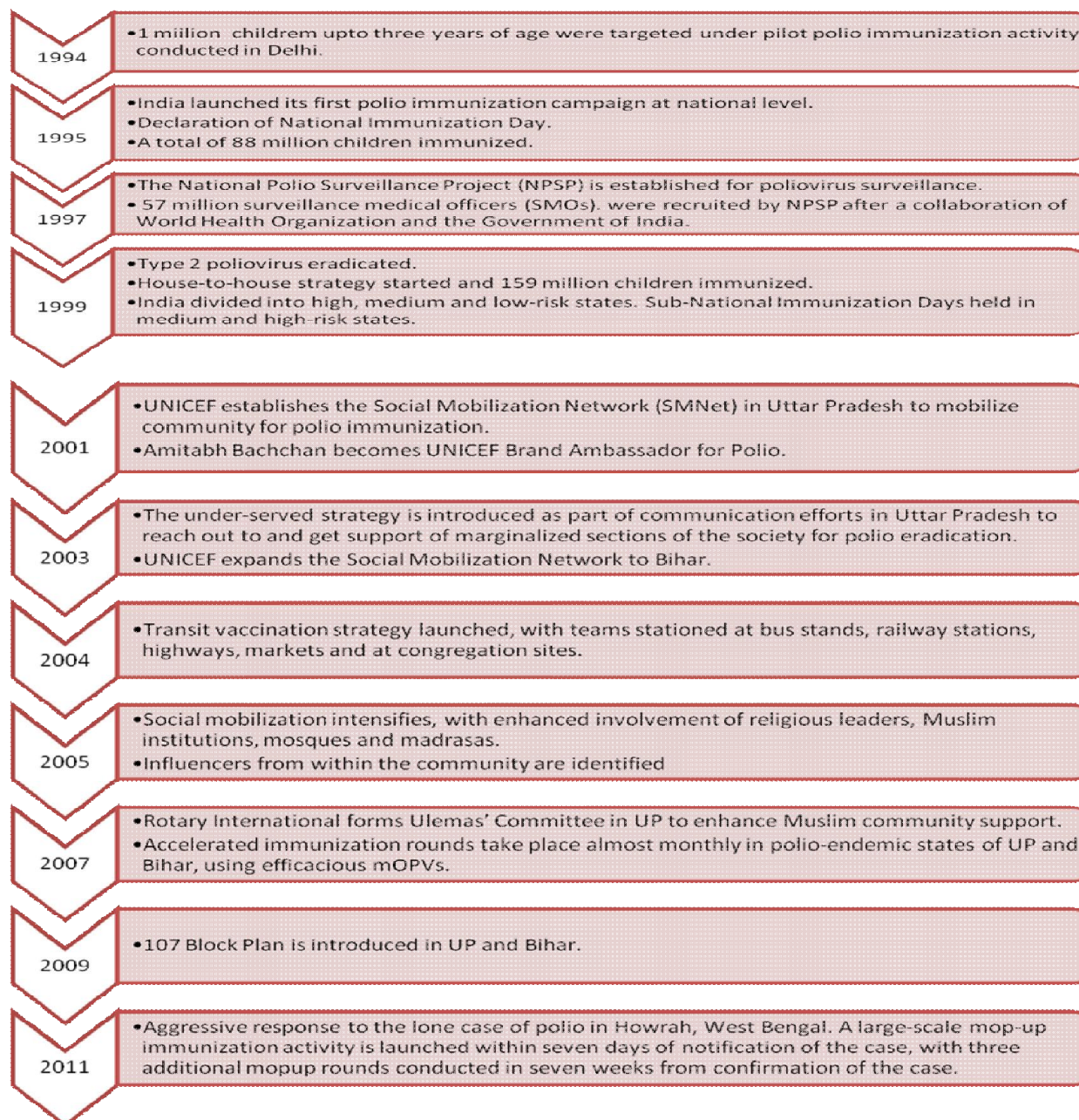
After 2003 initiative, the cases of polio show a decreasing trend and it reduced to 66. However, there is an increase in number of polio cases after 2006. Moradabad and five neighbouring districts of Uttar Pradesh accounted for 70% of India's cases. The reasons are: Routine vaccination coverage in Uttar

Pradesh was as low as 54% which was among the lowest in the country. Spread of virus was rampant due to missed cases which lead to germination of virus afterwards. Missed cases occurred due to lack of faith and resistance against polio vaccination among Muslims in Uttar Pradesh. In 2007, Bihar saw an increase of 724.5% (61 in 2006 and 503 in 2007, source: Indian National Polio plus Committee) of polio cases. This

increase in number of cases in 2008 and 2009 can be attributed to increase in water borne diseases as an after affect of flood in Kosi river in Bihar. This also limited the accessibility to remote area of Bihar which resulted in

increased share of missed cases. However, campaign for polio vaccination picked up its pace after 2009 and lead to reduction of 94.4% of cases.

Figure 3 Chronological sequences of events for eradication of polio



Source: Polio Booklet 2012, World Health Organization

Review of Literature

Aristotle (1932) claimed that there are three primary means of persuasion: ethos, logos and pathos. Ethos refers to the character of the speaker, logos refer to the logic or rationality and pathos refers to the emotions in the message.

Gronbeck (2001) defined persuasive communication campaigns as 'organised sustained

attempts at influencing groups or masses of people through a series of messages'.

Binder (1971) gave a five stage model of political campaigns. Larson (2001) found that five stage model of Binder occurs in all Communication Campaigns, though the number and nature of these stages likely depends on the type of Campaign.

Table 1 Stage of Persuasive Communication Campaigns (Larson, 2000)

Stage	Also Known As	Description
Identification	Awareness	Themes, Groups
Legitimacy	Recognition	Endorsements, Potential efficacy
Participation	Behaviour	Activities
Penetration	Momentum	Violating expectations, Building 'Share'
Distribution	Perpetuation	Institutionalized, Maintenance

Reynolds and Reynolds (2002) claims that in order to influence the attitude change of recipients, recipients must cognitively process the information.

Petty and Cacioppo (1981, 1986) explained Elaboration Likelihood Model (ELM) of persuasion as a general framework for organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive communications. According to the ELM model of persuasion there are two routes of persuasion- central route and peripheral route. Central route is the route where person carefully and thoughtfully consider the true merits of the information presented in support of an advocacy. Peripheral route is the route where a person changes attitude as a result of some simple cue in the persuasion context (e.g., an attractive source) without necessitating scrutiny of the true merits of the information presented. Petty and Cacioppo (1981,1986) while giving ELM model proposed that when individuals are highly involved with message topic (when topic is associated with their own lives) then evidence in support of persuasive communication will influence their attitude change more as compared to when they are relatively uninvolved.

Janis and Frick (1943) speculated that people are likely to let their preferences about the argument conclusion affect their judgement concerning the logical validity of the evidence.

Allen and Colleagues (1990) conducted studies on one sided and two sided rational appeals and found that two sided refutational messages were more persuasive than one sided messages, and the two sided non refutational messages were less persuasive than the one sided counterparts.

Guerrero et al. (1998) argued that emotional appeal has two components –positive and negative component. If the change is evaluated as being positive

for us, the affective reaction will be positive, however if the change is evaluated as being bad for us, the affective reaction will be negative.

Dillard & Meijnders (2002) argued that the primary function of emotion is to guide behaviour, which ultimately create a behavioural response.

Witte (1992) claimed that fear appeals has three component – fear (negative valenced emotion), perceived threat (external stimulus that create the perception of negative situation) and perceived efficacy (message recommendations will reduce the threat depicted in message). Fear appeals having perceived efficacy with threat will influence the attitude of recipients.

Janis & Feshbach (1953) while describing drive model of fear appeal argued that the messages which arouse moderate level of fear will be more effective than those that arouse very low or extremely high levels of fear.

Witte & Allen (2000) analysed the EPPM (Elaborated parallel processing model) of persuasion and argued that high threat- high efficacy condition will produce strong level of attitude and behavioural change. The other combinations of threat and efficacy will produce no change or little change.

Jasper (2003) while analysing two books 'Strong Feelings: Emotion, Addiction, and Human Behaviour' (1999) and 'Alchemies of the Mind: Rationality and the Emotions' (1999) claimed that excess of any one will not produce desired results. A successful attitude change will occur if proper mixes of both appeals appear in message. He argued that emotions should be rational and should add up in total rationality of a decision

Research methodology

This explorative comparative study was done on the basis of secondary data available in forms of Governments reports, UNICEF reports, WHO reports and Rotary International reports. This study had used Larson’s model of communication (2001) campaign and McGuire Input-Output matrix of evaluating communication campaigns (1989). Other comparisons are made on the basis of posters, pamphlets and advertisements of Polio eradication campaign in India.

Analysis

Evaluation of Polio Eradication Campaign before and after 2002-2003 using Larson’s Model

Identification

Intensive Pulse Polio Immunisation (IPPI) was started in India from 1995, when all children under five years of age, irrespective of their immunisation status, were given additional doses of Oral Polio Vaccine (OPV) on National Immunisation Days (NIDs) and Sub National Immunisation Days (SNID). But awareness was low before 2002-2003 because mass media channels were used which could not be accessed by marginalised and undeserved communities of villages, especially of U.P. and Bihar. After 2002-2003 there was an increase in awareness as mass media channels were equipped with inter personnel rational and emotional appeals in more personalised manner. The following table explains the steps taken which increased the awareness after 2003.

Table 2 Steps taken which increased the awareness after 2003

Year	Step Taken
2003	Focus on marginalised sector of villages
2004	Transit vaccination strategy launched, with teams stationed at bus stands, railway stations, highways, markets and at congregation sites
2005	Intensification of social mobilization with involvement of religious leaders, Muslim institutions, mosques and madrasas
2006	Enumeration, vaccination and tracking of newborns began in UP and Bihar.
2007	Rotary International and Accelerated immunization rounds were involved
2008	WHO-NPSP further expanded – 333 surveillance medical officers on the ground covered all parts of India.
2009	107 Block Plan was introduced in UP and Bihar
2010	The Government of India, through the India Expert Advisory Group on polio eradication, recommended that each case of polio should be responded as a public health emergency.
2011	All States and Union Territories prepared Emergency Preparedness and Response Plans (EPRPs) to respond to any case of wild Poliovirus .

Legitimacy

Effectiveness of recommended behaviour (polio drops) were not established before 2002-2003 due to following reasons

a) 80% of rural population in India did not have toilet at home, therefore the polio virus prevailed through sewage and open faeces. Thus, the Ministry of Health and Family Welfare recommended eight to ten doses for each child in 4-5 visits. It created suspicion among

villagers.

b) Rumours started that OPV was a contraceptive designed to control fertility in children

c) Failure of polio vaccines in several cases eliminated faith of villagers because many children died of polio though they were vaccinated. Following table shows the degree of unawareness and rumours that lead to eradication of legitimacy of Polio Campaign before 2003.

Table 3 Degree of unawareness about Polio Campaign before 2003

Year	% lack of knowledge			% lack of motivation			% fear		
	Unaware of date, time and place	Unaware of need for additional doses	Unaware of the program	Out of town	Child too young	Child was sick	No one taking child to booth	Vaccinators did not show up at my house	Rumours/ OPV causes polio
1999-2000	21.8	10.1	Not asked	Not asked	9.5	5.5	4.8	2.6	43.4
2000-2001	27.9	5.3	4.5	19.6	16.2	8.6	8	6.8	4.3
2001-2002	23.4	5.8	9.3	5.3	16.8	4.7	25	28.3	11.6

Source: Coverage evaluation survey 1999-2002, Ministry of health & family welfare, GOI & UNICEF

Legitimacy was increased after 2002-2003 by following activities

a) A series of five Sub-National Immunization Days (SNID) were launched with intensive vaccination of children in eight states where cases of paralytic polio were reported: Assam, Bihar, Gujarat, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal

b) Aganwadi vaccinators were involved to persuade the villagers about benefits of Polio drops by going door to door and showing them successful cases.

c) A judicious mix of mass media and

interpersonal communication approaches was adopted.

Participation

Participation and cooperation of masses in Polio Campaign was less due to low awareness and legitimacy before 2002-2003. After 2003, following steps were taken to increase participation of masses.

Figure 4 Poor sanitation and outside faecal waste



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Figure 5 Parents hiding their children behind tree in (U.P.)



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

After 2003, following steps (Table 4) drastically increased the participation of villagers in Polio Campaigns.

Table 4 Mass communication efforts which drastically increased the participation of villagers in Polio Campaigns

Newspaper and door to door strategy	Thematic film	TV advertisements	Radio advertisements	Credibility and emotional appeal
Satisfied the doubts related (i) Why the need for NIDs again? (ii) Why the need for repeated doses? (iii) The concern – my child is too young to be immunized, and there might be side effect. (iv) The concern – my child has already received all doses under routine immunization and during earlier NIDs, so no need to get more doses. (v) Misconceptions that polio drops would cause impotency/sterility in children, and (vi) Rumour that poor quality vaccine was administered to minority groups	One-minute film clip, describing achievement of IPPI for all Indian children, and the challenges that remained before reaching the final goal of polio eradication.	The Parvez spot, the Pediatrician spot and the Paro spot ads of polio erased the doubts related polio Campaign	Five radio spots, highlighting the same issues as the TV spots and film, were produced and broadcast on 184 stations throughout India about 15 days prior to NIDs and Sub-NIDs	Amitabh Bacchan became the Brand Ambassador of program, various emotional and action oriented ads of celebrities were broadcasted.

Penetration

reasons of low penetration and high penetration, before and after 2003 respectively.

Penetration before 2002-2003 was low and increased rapidly after 2003. Table 5 summarises the

Table 5 Reasons of low penetration and high penetration, before and after 2003

Low penetration before 2003	High penetration after 2003
Muslim and other minor communities were left aside from campaigns in U.P and Bihar which comprised more than 95 % of total cases.	Muslim and other minorities' opinion leaders were made a part of campaign.
People were asked to report Polio booths and only Polio booth attendance was maintained. Door to door strategy was employed at very few places.	Door to Door strategy was mass scaled. Specials aganwadi wokers teams were organised for going to each and every house. Both booth as well as 'door to door strategy' attendance was maintained
Mass media channels were mainly engaged	Mass media channels were equipped with personal rational and emotional appeals. Various Celebrities like Amitabh Bachchan, A.R. Rahman made appeals. Organisation like Rotary International also joined the campaign
No systematic tracking system was used, which created confusion among vaccinators whether a child has given polio drops or not. Cases where polio drops were failed to prevent polio were reported.	Proper tracking system with door marking and child finger marking was adopted. Proper availability and effectiveness of polio drops was maintained.
Social mobilisation was low	Numerous posters, campaigns, exhibitions, village seminars were organised with special focus on health camps (swasthya mela), kala jatha, wall paintings, folk drama and community meetings.

Distribution

Before 2002-2003 mostly booth attendance were made and door to door strategy was adopted in few villages. During distribution, vaccinators were making following marks on doors of the targets-

'X' - symbolises that there was no one in house when vaccinators visited

'P'- Pass! Children were already vaccinated

'P0' - there was no targeted children in the house

'XR' - Obvert resistance to vaccination

But this system was not executed properly and often misinterpreted by vaccinators and thus routine

immunization coverage had remained unacceptably low in UP and Bihar as a whole, at 22.3% and 11.6% respectively and 13 – 17% of houses were repeatedly missed during house-to-house vaccinations. There had been many reports of vaccinators chalk-marking P on houses, taking whatever parents said as true, without probing or checking. There were also incidents when X marked house remained locked whenever the team arrived, and no one bothered to check or ascertain whether children were hidden inside. Therefore the distribution system suffered heavily. The following table summarises the extent of reach and polio cases left up to 2003.

Table 6 Extent of reach of Polio Campaign and polio cases left up to 2003

Year	% with at least 2 doses	% at booth only	% at home only	No. confirmed wild polioviral cases (U.P.)	No. confirmed wild polioviral cases (India)	U.P. as % of all India (WPV cases)
1998-99	91.8	99.9	0	881	1934	45
1999-2000	98	62.1	5.1	773	1126	68
2000-2001	96.6	62.5	16.1	179	265	68
2001-2002	97.3	64.3	23.9	216	268	80
2002-2003		34.6	65	1241	1599	77

Source: Coverage Evaluation Surveys 98 – 02, Ministry of Health & Family Welfare, GOI & UNICEF WHO/National Polio Surveillance Project Office

In 2003, UNICEF transferred management of the SM Network from New Delhi to its Lucknow state office. A full team of communication and technical staff was appointed to supervise and monitor the Network's activities, ensuring closer coordination at each level of the 25 districts which ensured proper marking of X, P0, XR and P symbols in houses, solved fake cases and maintained efficient distribution. They followed following

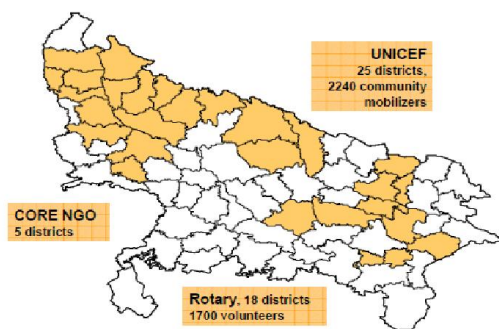
strategies which led institutionalization of polio campaign.

Door to door strategy - vaccinators visited each and every home and marked properly.

Social mobilisation strategy by arousing concern of villagers via posters and interpersonal persuasion

Caught at spot strategy - Vaccinators gave polio drops at trains, buses, autos, hospitals, meetings, seminars and other places.

Figure 6 Intensive social mobilization in UP (2003)



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Figure7 Booth attendances by marking on fingers of child



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Figure 8 P marked houses



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Figure 9 X marked houses



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Rational Appeals used in Polio Eradication Campaign before and after 2002-2003:

A rational appeal involves logical arguments and strong factual evidence to persuade target audience about the desirable consequences of the recommended adoption. It includes logical reasoning, quality arguments, compelling strategies, conclusive based on premises and Claims. Albarracin, D etal. (2003) while analyzing the effects of rational appeals has shown that the persuasive effectiveness of a rational message is a function of the individual's cognitive responses to the message.

The factors for analyzing rational appeal based on literature study are:

- Strategic actions to increase coverage to increase awareness
- Logical Reasoning: the logic behind the campaign
- Quality arguments: Arguments backed by logic to influence the mass
- Compelling: To force people to agree to a certain argument
- Conclusive based on premises: A premise is formed for drawing conclusions.
- Claim: To create awareness in a manner that people tend to identify themselves with the campaign.

Table 7 Summary of the Rational Appeals used in Polio Campaign in India

Before 2003	After 2003	Conclusions
Strategic actions to increase coverage to increase awareness		
Advertisement through radio 15 days prior to National Immunization day, dubbed in four regional languages	Amitabh Bachcahn was launched as brand ambassador and his ads were heard everywhere 10 days before the January and February rounds of Immunization	Before 2003, radio was the prime mode for raising awareness to the remotest of location. After 2003, the focus shifted to television based mode and celebrities were promoted as brand awareness to influence the mass.
Four advertisements, produced in 13 languages and published in all the major publications in India	The ads were carried on all major national dailies in 18 languages.	
	Announcement of Polio Ravivaar (one Sunday of every month) parents are at home	
Banners were mounted on strategic locations like bus stops and railway stations to enhance visibility	House to house approach to reach the remotest of population and Reminding of National Immunization Day by reaching the people to their houses	To increase coverage, adds were published in more regional languages (18) after 2003

<p>Special arrangement with India's national telecoms authority to replace the ring tone with a recorded message that reminded the public of the NID date whenever a call was dialled</p>	<p>Transit vaccination' strategy was launched, with teams stationed at bus stands, railway stations, highways, markets and at congregation sites and provided polio vaccine to eligible children.</p> <p>Higher incentives to the volunteers to cover house to house visits in large numbers and Salary for the volunteers was increased and their travel expenses were also covered</p> <p>For targeting higher strata of society, airport baggage tags which said 'End Polio Now' were popularized</p>	<p>The focus of the campaign after 2003 was to maximize the reach to children, so Transit vaccination strategy was used along with house to house approach.</p> <p>After 2003, to increase coverage among all strata of society, higher middle class was also targeted at airports etc.</p>
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Logical Reasoning

<p>Featuring of Muslim celebrities to remove misconception among minority that polio vaccination can cause infertility.</p>	<p>Involvement of Muslim celebrities and urban based Islamic institution were perceived with suspicion. To Remove the resistance against pulse polio movement, volunteers within the communities from Qureshis and Ansaris were involved.</p>	<p>Before 2003, help of Muslim celebrities was taken to promote the campaign among muslim in Uttar Pradesh but muslims considered celebrities as 'outsiders'. So, after 2002 outbreak more focus was put to identify local leaders who can effectively influence the masses and can restore the faith in them.</p>
<p>The Paediatrician spot in advertisement explained the meaning of polio eradication and why repeated doses were necessary for every child.</p>	<p>Rotary clubs advertised National Immunization Days by giving the statistics of number of vaccination booths, teams, homes visited and children immunised.</p>	
<p>Explaining why repeated doses were necessary through advertisement and volunteers/ workers.</p>	<p>Two types of surveys: Coverage Evaluation and Process Evaluation by UNICEF for fine tuning next round of immunization.</p> <p>Surveys were done by state, by religious group, caste, and campaign quality, including distance between booth and villages to strategize the campaign properly.</p>	<p>Surveys were done after rampant outbreak of polio in 2002 to identify high risk areas so that coverage on those areas can be maximized.</p>
	<p>80% of the targeted Community Mobilizes were women.</p> <p>Engagement of District Social Mobilization Coordinator who possess good understanding of various stakeholders, especially Health, ICDS, Panchayati Raj to ensure better implementation</p>	<p>Women Community Mobilizes can influence females of other households more effectively than males. Females were targeted because they were mainly responsible for taking the child to polio booths.</p>
	<p>Involving players of Kolkata Knight Riders to create mass awareness during IPL cricket season.</p>	

Quality arguments

<p>Credit for success of polio was given to the masses and it was argued that people should themselves take initiative.</p>	<p>Use of interpersonal communication approach and formation of special outreach team to interact with families to reduce resistance. Families were persuaded through logic, arguments and emotional appeal.</p>	<p>Through interpersonal communication, the volunteers personally persuaded the family members by giving them quality arguments and reasons for the need to vaccinate.</p>
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<p>Thematic films describing achievement of IPPI and the challenges that remained provided quality arguments for creating awareness among people.</p>	<p>Training of the workers to persuade local leaders of Panchayati Raj Institutions through arguments and reasons.</p>	<p>After 2003 the workers were given training to effectively peruse the local leaders because they have a greater impact on villagers rather than the volunteers.</p>
<p>Compelling</p>		
<p>Children were vaccinated forcefully by the house to house volunteers. However, afterwards it increased resistance among local people</p>	<p>People were compelled by emotional appeal of ads and posters but no forceful mechanism was used to vaccinate.</p>	<p>Before 2003, children were vaccinated forcefully by volunteers who created a negative image of Immunization programme. To overcome this, after 2003, emotional appeal was mostly used to provoke the mass along with use of interpersonal communication skills.</p>
<p>Conclusive based upon premises</p>		
	<p>Promotion of concept of health as a basic right and reinforcing the idea by distributing pamphlets outside hospitals</p>	<p>Conclusive based approach was used after 2003, premise was 'health as a basic right' from which people can conclude the need of vaccination. This methodology was used only after creating a certain level of awareness among masses.</p>
<p>Claim</p>		
	<p>People can claim 'health as a basic right' and they take initiative.</p>	<p>After 2003, maximization of coverage was also ensured by making the people feel responsible for themselves by promoting the idea of 'health as a basic right'</p>

Emotional Appeals used in Polio Eradication Campaign before and after 2002-2003

An emotional appeal is designed to arouse emotions of audience and use the emotions as bases for persuasion. Emotional appeal includes fear appeal (fear is generated among target audience by showing the undesirable consequences of adopting or non adopting a particular practice or technology), anger appeal (a person who is well recognized by target audience shows anger for inactivity of target audience for adopting a particular practice or technology), hope appeal (hope is generated among target audience by showing them the desirable consequences which can be achieved after adopting a particular practice or technology), trust and team spirit (power of team work is shown to evoke the emotional response of target audience), joy and happiness (happiness which target audience can achieve after adopting a particular practice or technology, is shown and positive emotions are aroused). Witte, K. and Allen, M. (2000) meta-analysis of

fear appeals has shown that fear appeals can increase the effectiveness of public health campaigns.

Before 2002-2003, Campaign did not focussed on emotional appeals as much, but after 2003 in order to make campaign effective and to persuade target villagers for their cooperation, various emotional appeals were utilised.

Fear Appeal

Before 2002-2003 target audience were mainly conveyed the consequences of not giving polio drops to their child. They received the information related to diseases related to malformation of body parts if they did not give polio drops to their child. But Campaign failed to supplement the generated fear with credible solutions. Therefore suspicion developed among villagers due to following reasons:

a) Only consequences of polio were focussed by Aganwadi members during door to door strategy. This created fear among target of campaigns.

b) Campaign failed to make polio drops credible, hence fear was not supplemented by solutions.

c) Solution came from opinion leaders who were less trusted by minorities. And thus villagers drew some misleading inferences like polio drops are given for creating infertility for population control.

After 2002-2003 Campaign posters, advertisements, pamphlets mainly focused on effect of polio drops in making child healthy. More positive message was communicated by minimizing the focus on consequences of not giving polio drops. Fear appeal after 2002-2003 showed positive responses due to following

reasons

a) Fear appeal was supplemented by positive consequences of giving polio drops.

b) Polio drops were popularised as 'two drops of life'.

c) Successful cases were focused by Aganwadi members and trustable opinion leaders were involved.

The following table compares fear appeal of campaign before and after 2003 on three components of fear as given by Witte, 19992.

Table 8 Compares fear appeal of campaign before and after 2003 on three components of fear as given by Witte, 1992

Components of fear	Before 2003	After 2003
Fear	High	Moderate
Perceived threat	High	Moderate
Perceived efficacy	Low	High

Figure 10 A mother in U.P. refuting polio drops with fear that during village polio drops will cause infertility in her child



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Anger

UNICEF brought Bollywood celebrity Amitabh Bachchan to impose anger appeal to those parents who have not yet taken their child to polio booth. His advertisement appeared in four TV spots, with a similar recording for four radio spots, duplicated into 13 languages. Anger appeal was shown as follows:

Spot 1: "Bring your children to the booth" showed the charismatic father figure walking up to a nearly empty booth. He asked the audience angrily: "Why have you stopped coming?"

Spot 2: "Why polio keeps coming back" – Amitabh Bachchan looked at a wall plastered with polio

Figure 11 A aganwadi worker with children camps with positive message about polio drops



Source: Polio Booklet 2012, World Health Organization

posters, and pointed to the audience disapprovingly. "Polio keeps coming back because you don't vaccinate your children anymore," and urged them to not listen to rumours.

Spot 3: "Pulse Polio Immunization is for everyone." – opened with Amitabh Bachchan reading a newspaper. He threw it away in disgust and talked to the camera: "The poliovirus knows no bounds, does not discriminate between caste, creed and race. It hurts a Hindi child as much as it hurts a Muslim child. No child should be excluded from polio vaccination; every child in India has the right to be protected from polio disease."

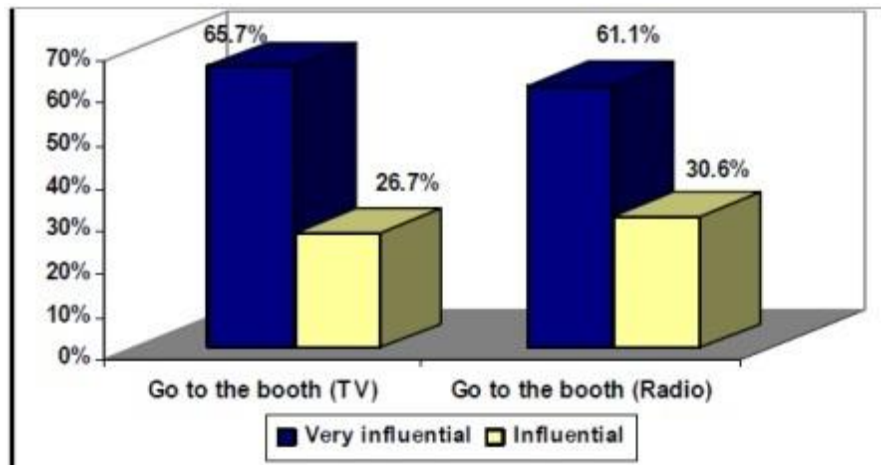
Spot 4: "Applauding the people who get their children immunized" – opened with the tall, bearded

Bachchan standing by a booth, facing the camera. “They are doing the right thing by coming back,” raising his hand to salute the crowd that was queuing up for polio drops.

Each ad ended with the star raising two fingers with the message: “Pulse Polio Immunization, two drops for life,” followed by the two dates recorded separately on sound. This anger appeal aroused parents because Amitabh Bachchan had high credibility among parents of

all age. It also increased trustworthiness of the campaign. TV spots were broadcasted four thousand times to over 80 million homes on Doordarshan and radio spots were transmitted another thousand times to 54 million homes, including 30 million in rural areas. Following graph shows Amitabh Bachchan media spots influence on decision for visit to OPV booth

Figure 12 Amitabh Bachchan media spots influence on decision for visit to OPV booth



Source: TNS Mode/Johns Hopkins University, for UNICEF India

Figure 13 Amitabh Bachchan asking people to go to polio



Source: UNICEF, Working Paper ‘A Critical Leap to Polio Eradication in India’ June 2003

Figure 14 Ashwarya Rai convincing people booth since parents are not taking their kids to polio booth



Source: UNICEF, Working Paper ‘A Critical Leap to Polio Eradication in India’ June 2003

Hope

Various ads were launched where hope and aspiration of parents were raised. In one famous and widespread ad Amitabh Bachchan recited a poem where he argued to parents that children are hope of their future and if parents were not going to polio booth then they are making their future handicapped. Various

posters of other famous celebrities were launched where appeal was – ‘now polio is going to end, we have to walk a little bit more’. The most widespread was Rotary ‘this close’ Campaign. These posters created hope and motivated parents to cooperate in campaign.

Figure 15 Rotary “this close” campaign, indicating that polio is just going to end



Source: Polio Booklet 2012, World Health Organization

Trust and team spirit

For building trust, Rotary and UNICEF have engaged a number of other celebrities, including Preity Zinta, Rani Mukherjee, Jaya Bachchan, Hema Malini, Aishwarya Rai, Shah Rukh Khan, Amir Khan, Soha Ali Khan. Popular national and regional celebrities such as Farooq Sheikh and an actor/singer from Bihar – Manoj Tiwari – visited and interacted with communities in the toughest refusal areas to garner support for the vaccination programme. For generating team spirit Thomson Social launched a puppet show, which was shown at village haats, market places, panchayat grounds, seminars and other public meetings. The puppet show was created around the conversation of four people: Jumman, a Muslim, Balwanta, a Sikh,

Ramprasad, a Hindu and Dr. Saab, a medical practitioner. Humour was woven into three segments of a continuous dialogue between the four, which served to educate and entertain on:

1. Why repeated doses even though everyone was tired of OPV
2. The “science of eradication”, which was akin to spraying insecticide on the entire potato field. Each child left unvaccinated would expose another child to the risk, and the same applied to one’s own children.
3. OPV would not cause sterility or make children grow a tail, the virus was spreading as fast as rumours, and it would indiscriminately attack children of any caste or creed, of any socio-economic status.

Figure 16 Thomson special puppet show poster for generating team spirit



Source: UNICEF, Working Paper 'A Critical Leap to Polio Eradication in India' June 2003

Figure 17 Celebrities from diverse field generating trust and creating awareness

Inzamam-ul-Haq and Rahul Dravid



Saurav Ganguly and Donna



Anil Kumble



M. S. Dhoni



Brett Lee



V. Sehwag and S. Raina



Yusuf Pathan



Harbhajan Singh



Source: Polio Booklet 2012, World Health Organization

Joy and happiness

As the campaign gradually moved towards success, various posters, ads and pamphlets were launched which showed that happiness and joy of those

parents who gave polio drops to their child. This institutionalized the campaign in minds of people, and parents accepted the arguments that polio drops are 'two drops of life'

Figure 18 Poster showing a mother taking her child home after giving polio drops



Source: Polio Booklet 2012, World Health Organization

Figure 19 Amitabh Bachchan Posters with Polio Campaign tag line 'Do boond Jindagi Ki'



Source: Polio Booklet 2012, World Health Organization

Figure 20 Promotion of Polio eradication campaign through buses



Source: Polio Booklet 2012, World Health Organization

Figure 21 Poster showing spread of happiness among children who received polio drops



Source: Polio Booklet 2012, World Health Organization

Results

On comparing the campaign on Larson's framework and on emotional and rational appeals we

can frame results on the basis of Input output matrix of communication campaigns (Mcguire 1989)

Table 9 Input Output matrix of Polio Campaign before 2002- 2003

INPUT OUTPUT	SOURCE	MESSAGE	CHANNEL	RECIEVER	DESTINATION
	Credibility attractiveness	Type of appeal Type of information	Context Reach Suitability	Personality traits Lifestyle Attitude, knowledge and skill	Overall impact /eradication
Exposure to communication	Moderate	Moderate	Moderate	Moderate	Low
Attending to it	Moderate	Low	Moderate	Moderate	Low
Liking and interested	Low	Low	Low	Low	Low
Comprehending it	Low	Low	Low	Low	-
Skill acquisition	-	-	-	-	-
Yielding to it (attitude change)	Low	Low	Low	Low	Low
Agreement	Low	Low	Low	Low	Low
information search and retrieval	low	Low	Low	Low	Low
Deciding on basis of retrieval	-	-	-	-	-
Behaving in accord with decision	-	-	-	-	-
Reinforcement of desired act	Low	Low	Low	Low	Low
Post behavioural consolidating	Low	Low	Low	Low	Low

(Adapted from: McGuire, W.J., 1989)

Table 10 Input Output matrix of Polio Campaign after 2002-2003

INPUT OUTPUT	SOURCE	MESSAGE	CHANNEL	RECIEVER	DESTINATION
	Credibility attractiveness	Type of appeal Type of information	Context Reach suitability	Personality traits Lifestyle Attitude, knowledge and skill	Overall impact /eradication
Exposure to communication	High	High	High	Moderate	High
Attending to it	High	High	High	Moderate	High
Liking and interested	High	High	High	Moderate	High
Comprehending it	High	High	High	Moderate	-
Skill acquisition	-	-	-	Moderate	-
Yielding to it (attitude change)	High	High	High	Moderate	High
Agreement	High	High	High	Moderate	High
information search and retrieval	High	High	High	Moderate	High
Deciding on basis of retrieval	-	-	-	-	-
Behaving in accord with decision	-	-	-	-	-
Reinforcement of desired act	High	High	High	High	High
Post behavioural consolidating	High	High	High	High	High

(Adapted from: McGuire, W.J., 1989)

Conclusion

The important conclusions of the study are as follows

a) Before 2003 Rational appeals were very low and after 2003 rational appeals were intensified under following heads Strategic actions, Logical Reasoning, Quality arguments, Compelling, Conclusive based on

premises and Claim. Mainly two sided rational appeals are used to make persuasion more effective. This finding aligns with the findings of Allen and Colleagues (1990) who argued that two sided rational messages were more persuasive than one sided messages.

b) Before 2003 Emotional appeals were very low and after 2003 emotional appeals were intensified under following heads- fear, anger, trust, joy, happiness and team spirit. Before 2003 fear was not well equipped with effective solution but after 2003 fear is aligned with effective solutions (perceived efficacy) which increased persuasion. This finding aligns with findings of Witte (1992) who claimed that fear appeals having perceived efficacy with threat will influence the attitude of recipients.

c) Proper mix of rational as well as emotional

appeals had made this campaign as a successful campaign and showed drastic positive results after 2002-2003. This conclusion aligns with arguments of Jasper (2003) who claimed that excess of any one appeal will not produce desired results and a successful attitude change will occur if proper mix of both appeals appears in message.

d) Before 2003 there was low identification and legitimacy which in turn resulted in low participation and penetration. But after 2003 identification and legitimacy were high which in turn created high participation and further high penetration. Thus we can conclude that Larson's five model stages are dependent on each other and each stage is important to reinforce the next one.

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