

A Communication for Development Approach to Eradicating Polio: India Succeeds. Research-Driven Outreach, Extension & Interpersonal Strategy

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Abstract

Communication for development (C4D), has been identified as a major factor in eradication of Polio in India. India has been hailed as a success as it saw innovative use of epidemiological data and application of multiple communication channels, especially for the Polio eradication programme. It has also been perceived that communication for Polio eradication has mostly promoted Polio-vaccine drops whereas the main causal factors such as low rates of routine immunization, poor sanitation, lack of clean drinking water, and poor nutrition that are responsible for spread of Polio virus have not been promoted have not been promoted as the behavior-change content. The research was

held in sub-urban clusters around the capital city of Delhi inhabited by migrants from two Indian states. The research documented that the knowledge and perceptions of large number of communities are very low with regard to recalling any causal factors which lead to Polio transmission. Research concludes, for behaviours to change, that cultural taboos, societal norms and structural inequalities need to be taken into consideration, including special emphasis on migrant settlers. Communication strategies have to be cognizant of and in tune with the policy and legislative environment and also linked to the service delivery aspects for the most vulnerable and socially-excluded.

Keywords: Polio eradication, Immunization, Child survival, Risk factors, C4D (Communication for Development), Strategic communication, SBCC, India.

Uma Abordagem de Comunicação para o Desenvolvimento na Erradicação da Poliomielite: a Índia como um Caso de Sucesso. Divulgação, extensão e estratégia interpessoal

Sumário

A comunicação para o desenvolvimento (C4D) foi identificada como um fator importante na erradicação da poliomielite na Índia. A Índia foi aclamada como um caso de sucesso, pois conheceu a utilização inovadora de dados epidemiológicos e a aplicação de múltiplos canais de comunicação, especialmente para o programa de erradicação da poliomielite. Também se percebeu que a comunicação para a erradicação da poliomielite promoveu principalmente a queda da vacina contra a poliomielite, enquanto os principais fatores causais, como baixas taxas de imunização de rotina, falta de saneamento básico, falta de água potável e nutrição inadequada, responsáveis pela disseminação do vírus da poliomielite, não têm sido promovidos, enquanto conteúdo da mudança de comportamento. A pesquisa

foi realizada em aglomerados suburbanos em torno da capital Delhi, habitada por migrantes de dois estados indianos. A pesquisa documentou que o conhecimento e as percepções de um grande número de comunidades são muito baixos, em relação à recuperação de quaisquer fatores causais que levam à transmissão da poliomielite. A investigação concluiu que, para que os comportamentos mudem, é necessário ter em conta tabus culturais, normas sociais e desigualdades estruturais, incluindo uma ênfase especial nos colonos migrantes. As estratégias de comunicação devem estar cientes e sintonizadas com o ambiente político e legislativo e também vinculadas aos aspectos de prestação de serviços para os mais vulneráveis e excluídos socialmente.

Palavras Chave: Erradicação da Poliomielite, Sobrevivência infantil, Fatores de risco, Comunicação para o Desenvolvimento (C4D), SBCC, Índia.

1. CONTEXT

Effective Communication is one of the most powerful ‘vaccines’ that prevents communities from various dreaded diseases, including Polio. Strategic use of communication has been recognized as a major factor in eradication of Polio in India (Gupta & Bansal, 2014). This is more so as it has been realized that the planned communication strategy was instrumental in following and implementing sustainable

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steps to eradicate Polio in India. The country has been particularly hailed as a success as it saw innovative use of epidemiological data and application of multiple communication channels, both, the known and the newly innovated, especially for the Polio eradication programme. However, it has also been perceived that communication for Polio eradication has mostly promoted Polio-vaccine drops whereas the main causal factors such as low rates of routine immunization, poor sanitation, lack of clean drinking water, poor nutrition etc. responsible for spread of Polio virus have not been promoted as behavior-change content. Hence, the knowledge and perceptions of large number of communities, even those who are regularly administering the Polio vaccine drops, are very low with regard to recalling any causal factors which lead to Polio transmission. The primary message of the current Polio Communication strategy is 'promotional' in nature that markets the use of Polio vaccination, without imparting ample knowledge to communities on various causes of Polio spread among children.

Emerging from the roots of Expanded Programme on Immunization (EPI), the Polio Eradication Programme had a series of mixed lessons in vaccination, surveillance and communication. In view of severe lack of substantial cadre of field-mobilizers and committed Polio vaccinators in the initial years, the Polio programme engaged in a massive exercise of developing such trained human resource and mobilized partnerships to support it. It remained a challenge particularly in the two large endemic States in the northern India, i.e. Uttar Pradesh and Bihar. Nevertheless, the migrants from the endemic areas who mostly settle in the urban clusters of many major metro cities, such as NCR of Delhi, continue to serve as major risk-factors for Polio transmission.

A micro study was planned to ascertain whether the current communication and social mobilization interventions were designed based on specific-community needs and existing risk-factors. It was also felt worthwhile to examine whether the current communication content and approach covered all the major risk-factors in polio virus transmission or was it limited to 'product marketing' approach for OPV. Such an analysis was aimed to contribute to the overall communication planning so that the country continues to be vigilant and renews her strategy and energies in implementation of its Polio programme.

2. AN OVERVIEW OF THE POLIO VIRUS IN INDIA

In the 20th century India, Polio threatened children across cities, towns and villages; no state was free of the crippling disease. The gravity of the problem was reflected in the astonishing figures of 1978 when 150,000 Polio cases were reported from across the country (Gupta & Khera, 2010). By 2008/2009 India saw a sharp 99% decline in Polio cases; however, the last mile journey was tough to make the country 100% Polio free. The last wPV₁ (Wild Polio Virus-1) case was detected in Howrah/ West Bengal in January 2011 and thus, in March 2014, WHO certified India as a Polio-Free nation. Despite attaining the certification of a polio-free nation, the high-risk continued not only because of the risk of importations from neighbouring countries, especially Pakistan and Afghanistan, but also as the 'enabling risk factors' like poor routine immunization, poor sanitation, high incidences of diarrhea and poor nutrition among children below 5 years still continue to pose a major threat in India.

Vaccination against Polio started in 1978 and it was integrated with the Expanded Program in Immunization (EPI). By 1984, it was successful in covering around 40% of all infants, giving 3 doses of OPV to each child through tPV (trivalent polio vaccination). In 1985, the Universal Immunization Program (UIP) was launched to cover all the districts of the country, which too had polio vaccination integral to it. UIP became a part of child survival and safe motherhood program (CSSM) in 1992 and Reproductive and Child Health Program (RCH) in 1997. In 1995, following the Global Polio Eradication Initiative of World Health Organization (1988), India launched a full-fledged Pulse Polio Immunization Program along with the Universal Immunization Program which aimed at 100% coverage and subsequently it achieved 95% coverage (Brooks & Khan, 2007). The number of reported cases of polio also declined from 28,757 during 1987 to 3,265 in 1995 and less than 200 (wPV₁ & wPV₃) in the year 2009 (Jacob, Shah, & Thacker, 2009). With just one case in 2011 and none after it, India has been free of Polio cases since then.

3. POLIO COMMUNICATION STRATEGY

A large number of studies have revealed that communication and social mobilization are imperative for the success of a development project (Gupta, et al., 2018). Health communication for Polio campaigns encompass strategies for producing ef-

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fects on the knowledge, attitudes, and behavior of large populations across a variety of domains, including political, social, environmental, and health outcomes. Public health communication campaigns can be broadly defined as purposive attempts to inform, persuade, or motivate behavior changes in a relatively well-defined and large audience. This is generally for non-commercial benefits to the individuals and/or society at large, typically within a given time period. It is through means of organized communication activities involving mass and online/interactive media, and often complemented by interpersonal support.

During late nineties and the beginning of 2001, the path ahead for this communication effort hinged on whether knowledge, attitude and behaviours were given a place they deserved in an initiative dominated largely by epidemiological variables for the disease eradication. The underserved communities – putting aside a resistant attitude and factors that shaped it – were by their economic and social conditions, a group that fell on one end of the normal distribution curve. In the context of Diffusion Theory, they belonged to the laggards in a chained development of behavioral adoption, where no amount of general media outreach, publicity efforts, could induce adoption of a new practice unless extraordinary efforts were made. The Social-Mobilization Network (SMNet), through an aggressive interpersonal communication approach, had demonstrated that such behaviour-practice changes were after all possible.

Keeping these factors in view, the Polio programme strategy evolved over the years and focused on the vulnerable populations. To immunize children on the move, transit vaccinators were positioned at bus stands, train stations, on trains, market places and important road intersections. At a given point in time, over 10 million children were immunized by the transit teams in each polio campaign, of them over 100,000 on trains. Focusing on the migrant population, the people on the move in search of livelihood who miss polio immunization in view of their transient nature, the programme covered 70,000 brick kilns and 38,000 construction sites (UNICEF KAP Study 2010/11).

It is evident that the health communication strategy for polio eradication has achieved a major milestone in a short-term perspective. It is noteworthy that the current health communication content, by and large, does not include primary causal risk-factors that actually enable Polio virus transmission; instead it emphasizes sustained practice of OPV. Synergistic communication activities integrating social mobilization, interpersonal communication, gender and culturally sensitive interventions,

mass/folk media and political advocacy have greatly contributed to the overall success of the Polio programme and have helped in accessing the unreached and vulnerable population groups in India, especially with a fluctuating, diverse and challenging socio-economic environment. Needless to mention, the strategic and innovative Polio communication can contribute to other public health programmes and initiatives including reaching out to the vulnerable, hard-to-reach and poor sections of society.

4. RATIONALE FOR THE CURRENT RESEARCH

The area of health communication research focuses primarily on the application of communication theory, concepts, and strategies for enhancing public health services, and in fostering better understanding on how such processes work. The approaches are numerous and represent significant scholarship across bio-psycho-social levels of analysis. Research can range from how individuals cognitively and emotionally process individual health-related messages to social and cultural contexts that influence how health campaigns are implemented. It can include targeted messaging through mass media or interpersonal communication between client/patient and health-care provider. In the last decade, health communication research on issues involving new-age media and technology has also emerged. In brief, health communication research represents efforts from two perspectives: (a) from the field of public health and (b) from the field of communication. Although both the specialized areas are interested in improving overall public health as a general goal, communication scholars emphasize appropriate theory and effective processes, while public health emphasizes health outcomes. Most recent advances in health communication are integrating these two approaches. This research was positioned in a manner, so as to contribute to the strategic communication framework wherein the National Polio Eradication programme could re-visit and strategize its communication efforts with critical emphasis on Polio-virus high-risk areas in the sub-urban clusters in India.

5. THEORETICAL AND CONCEPTUAL FRAMEWORK: HEALTH COMMUNICATION FOR POLIO ERADICATION

For the study, Communication for Development (C4D) framework was used that encompasses the Social & Behaviour Change Communication (SBCC) strategies. The communication interventions under the current programme, when technically studied at various stages of their evolution, were found employing three primary theoretical conceptual frameworks in strategic health communication, namely: **Theory of Diffusion of Innovations** (Rogers, 2004); **Theory of Planned Behaviour** (Ajzen, 1991); **Stages of Change Theory** (Prochaska & Norcross, 2001). And an overarching approach derived from the **Socio-Ecological Model** played a common denominator of communication design under the communication for Polio Eradication initiative. These conceptual models would serve as common denominators at various stages and levels of the intended health communication interventions under the Polio Programme.

6. RESEARCH DESIGN

The research was designed to make an assessment of the on-going polio eradication campaign, with specific focus on select clusters in NCT of Delhi as a high-risk population, within the context of communication to suggest appropriate communication strategies for Polio eradication. Hence, the field research was kept at both the levels, i.e. quantitative data and qualitative assessment, wherein the triangulation helped in analysis and conclusions.

7. OBJECTIVES OF RESEARCH

Within the context of the overarching goal of the study, specific objectives of the research were: (i) examine the on-going communication and vaccination efforts being made by the Govt. and the development partners in achieving the goal of Polio eradication from India; (ii) analyze the prevailing perceptions of communities ('at-risk/migrants' settlers) regarding acceptance of Oral Polio Vaccination (OPV) and the associated risk-factors responsible for Polio transmission and; (iii) identify appropriate communication content, platform, mode and frequency, so as to develop a strategic framework for communication.

8. RESEARCH QUESTIONS

Keeping in view the objectives of the research, the following questions were posed to guide the study:

1. What was the media access and media utilization patterns of the respondents in the study area?
2. What were the sources of health related information of selected respondents?
3. What was their level of awareness, attitudes and practices on the associated health practices which are a key to prevention of Polio virus transmission: Routine Immunization, Exclusive Breastfeeding, Diarrhea Management, Water, Sanitation and Hygiene?
4. Was the communication-content of the Polio programme enabling the respondents in understanding the mode of virus transmission?
5. Was the level of awareness and attitude of the respondents leading them to practice continued Polio vaccination?

9. METHODOLOGY

The research methodology included both qualitative and quantitative methods of data collection from three sub-urban clusters of Delhi, India - largely inhabited by migrant population groups from polio-endemic States, i.e. Uttar Pradesh and Bihar. The quantitative data was collected on a structured interview schedule specifically designed for the purpose which was administered to the respondents in the study area. The qualitative data was collected through Focus Group Discussions spread over three FGDs and the findings were derived based on both the modes of data collection.

10. SAMPLE SELECTION

The respondents in the study were women at the household levels, who largely represented migratory settlers from the high-risk and Polio endemic States in India and who were caregivers to children under 5 years of age. Multistage sampling procedure was followed for drawing a sample of 200 women for administering the per-

sonal interview schedules. Stage -1: Selection of Urban Clusters in the NCT of Delhi; Stage-2: Selection of Households; Stage-3: Selection of Respondents.

11. PREPARATION OF RESEARCH INSTRUMENT

Keeping in view the objectives of the study and the key research questions, an interview schedule was designed to conduct personal interviews with a sample of the respondents in the selected three localities in Delhi. The set of questions were prepared to elicit responses on the following key variables:

- **Socio-demographic profile** (age, gender, religion, caste, educational level, occupation, area of residence, type of settlement, income level, etc.)
- **Media Access and Exposure** (reach and availability of radio, television, posters, print-media, usual media habits and media utilization patterns)
- **Sources of Health Polio related information** (Electronic media, newspapers, posters, Health Workers, Political Leaders, Religious heads etc.).
- **Awareness, Attitude and Practices on the following focal areas:**
 - Polio
 - Routine Immunization
 - Exclusive Breastfeeding
 - Diarrhea Management
 - Water, Sanitation and Hygiene

The interview schedule consisted of both closed and open ended questions spread over eight sections. The relevance and utility of each item was carefully assessed before inclusion in the schedule. The draft schedule was translated in Hindi and pre-tested on 10 women randomly selected in an urban resettlement area. Based upon the feedback received, the instrument was modified and the finalized interview schedule was administered subsequently.

12. FOCUS GROUP DISCUSSIONS (FGDS)

Under the current research, FGDs were used to find out how people respond in a group, how their feelings and opinions can be shaped by the experience of discuss-

ing the subject with others. The purpose of this discussion was to stimulate the participants reveal underlying opinions, beliefs, attitudes and reasons for their existing behaviour. Three FGDs comprising 12-14 respondents were conducted in the given three urban clusters of the NCT of Delhi. These FGDs were conducted subsequent to obtaining the primary findings through the quantitative survey and key protocols of conducting the FGDs were adhered to.

13. SCOPE OF THE RESEARCH STUDY

The scope of the study was limited to three settlements of sub-urban clusters of Delhi State in India (North West, South West and West of Delhi) and there may be region/area wise variations. Data was collected from women respondents who were caregivers of the young children of below the age of 5 years. The issues of Routine Immunization, Exclusive Breastfeeding, Diarrhoea Management, Water, Sanitation and Hygiene that have important bearings on success of Polio eradication campaign were included as key variables and other health issues were not covered. The research focus was, however, limited to the communication aspects only; health-logistics, epidemiology or public-health surveillance aspects were not included in the research study.

14. PRIMARY FINDINGS OF THE RESEARCH

Profile of the Respondents:

The respondents of the research were caregivers, i.e. mothers or grand-mothers. They were between 15 to 55 years of age categorized in three age groups; nearly 70% belonged to 26 to 35 years age group. 75% of them were Hindus; 20% Muslims and 5% belonging to other faiths. Majority of them (72%) were 'other backward classes', while 15% belonged to scheduled caste and schedule tribes. 76% worked outside homes as housemaids, business establishments, stuffing toys, bangle making etc. All lived in concrete houses, most comprised just one room inhabiting the entire family. Nearly 70% had at least one child in 0-5 year age group.

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Media Access & Exposure:

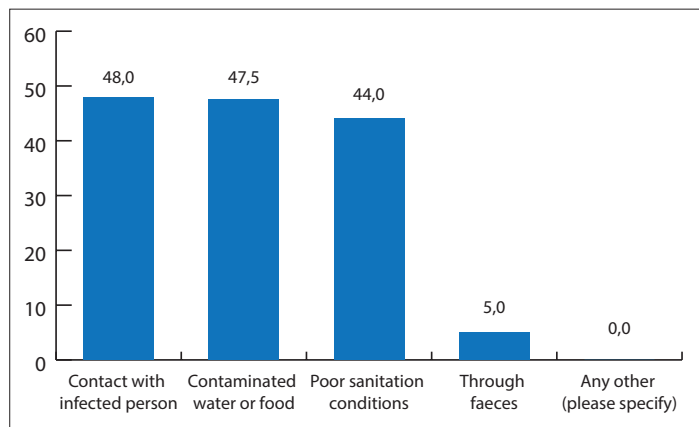
TV and Radio were found as the most accessible mediums. Most respondents admitted “seeing or hearing” about Polio on the electronic media. Only a quarter of respondents reported accessing Newspapers which on further probing implied that old copies of magazines and newspapers spread on their racks and tables were accorded as “access”, not essentially attributing to a regular reading habit. Daily exposure to radio was reported by 38.6% respondents and television by 68%; while once or twice a week exposure was reported by 61.3% (Radio) and 31.4 % (TV) respectively.

Awareness about Polio Virus

The study found 100% respondents aware of Polio as a disease among children. Among them, 73.2% reported getting Polio related information, specifically regarding ‘announcements of Polio vaccination rounds’ through media. However, some respondents, who ‘claimed’ to have known the causes and source of polio transmission had incomplete or incorrect knowledge (Fig. 1). It was perceived as a ‘communicable disease’ which spreads through person-to-person contact (48%) as is shown in figure 1. Barely 5% of respondents could recall the correct mode of polio virus transmission.

Figure 1

How is Polio Spread?



Sources of Polio related Information

Most respondents reported getting information on Television (88.7%) as the primary source of information on Polio. However, the information which they gathered

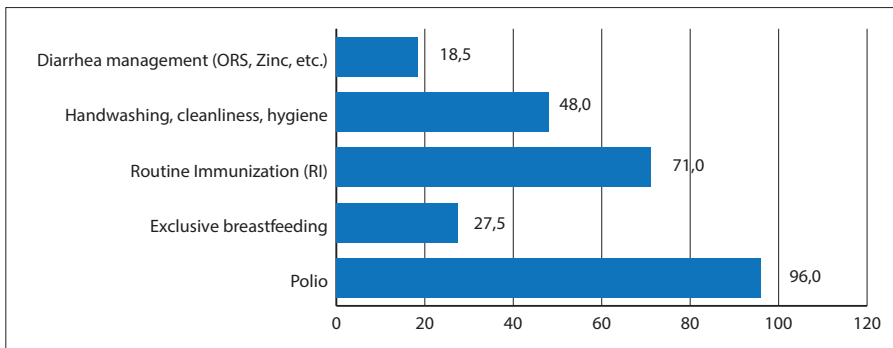
on Polio was largely (73%) about announcements on the NIDs, SNIDs and the mop-up rounds. It did not contain information on Polio prevention, sources of infection etc. Health workers, the second most popular source was reported by 61.5% of respondents.

Reliance for Health Information

In a multiple response question, 63.5% respondents reported reliance on visiting health workers/social cadre for health related messages, especially Polio vaccination, routine immunization, sanitation and nutrition while 54% respondents mentioned electronic media channels, Radio and TV, as their main source of knowledge about Polio programme.

Figure 2

Purpose of Visit of Health Worker



Weak Interpersonal Linkages

Almost all the respondents claimed that the Health/Social workers visited their homes during the last one month and shared information on health related issues. As demonstrated in figure 2, mostly they talked about Polio (96%), routine immunization (71%), hand washing and cleanliness (48%). However, upon further analysis it was found that the health information given by the providers, largely the vaccinators, was weak in substance and did not encourage the community to practice adherence to routine immunization, exclusive breastfeeding or even maintaining good sanitation health behaviours. Most emphasized health message given by the visiting providers was on the need for continuous Polio vaccination, if and when announced by the

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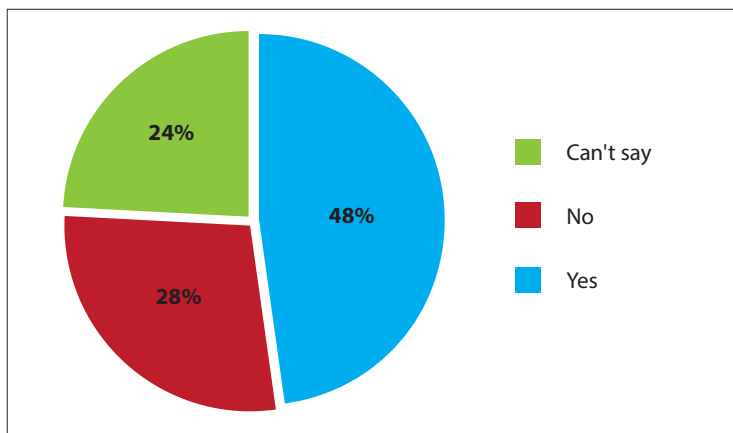
Government. They did not share knowledge on any risk-factors that lead to spread of polio virus among children, as the most vulnerable group.

Respondents' Perception on Curability of Polio

The respondents were further questioned whether or not Polio was curable and nearly half (48%) of them thought that Polio was curable (Figure 3). About 28% respondents correctly responded that it was incurable, another 24% were not sure whether or not Polio could be cured once a person was afflicted with it. Of those who were of the view that Polio could be cured thought that it could be cured through surgery (75%), medicine (42.7%) and Polio vaccination (41.7%). Further probing revealed that a large number of respondents in the study area were ignorant about the fact that once polio inflicted a person, the disease can not be cured by surgery or medicines. This may partly be due to their understanding that OPV was a 'medicine'.

Figure 3

Can Polio be Cured?



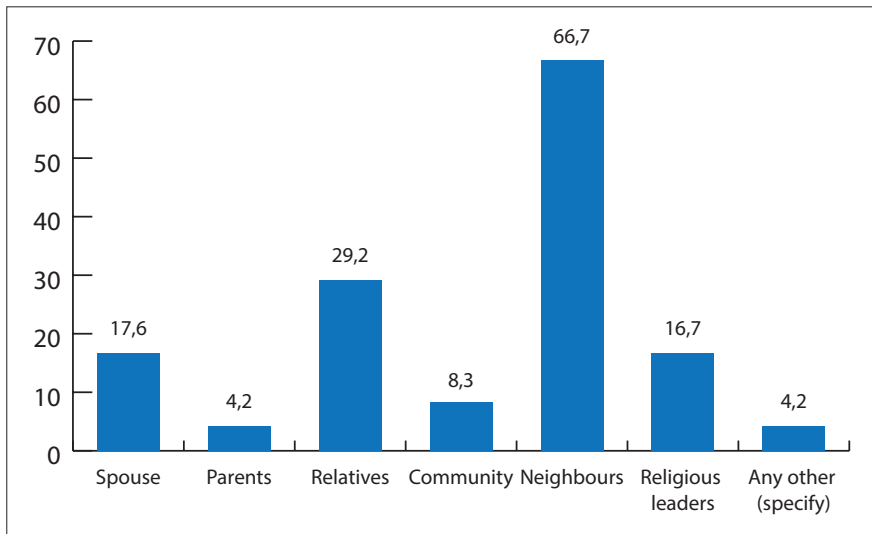
Respondents' 'Risk perceptions' about Children in Community

When questioned on whether Polio can affect children in their community, nearly half of the respondents (51%) were unsure, a third said that it can, while 16% said that Polio cannot affect the children in their community. Further probing and analysis showed that these responses were reflective of a poor understanding of Polio; its causes, spread, cure and the risk factors involved.

The findings stressed the need for clear, concise and appropriate communication on the threat perceptions of the Polio virus by using innovative and sustained IPC methods complemented with use of electronic media campaigns.

Figure 4

Sources of Discouragement



Discouragement to take OPV

A high majority (76%) of the respondents reported never been discouraged to give OPV to their children, while 24% of them mentioned that they were on some occasions discouraged and were advised not to go for OPV for their children.

Those who reportedly had been discouraged (Figure 4), attributed this to their neighbours (67%), relatives (29%), spouse (17%) or religious leaders (17%) as the main persons. Of those (67%) who were discouraged by neighbours in continuing with Polio vaccination drops; upon further analysis, it was found that only 2% adhered to such an advice. Hence, the rest of the 65% respondents continued with the Polio drops for their children under 5 years of age and the majority of those who discontinued Polio drops were found belonging to a particular community. This was largely because of the lack of proper communication at various levels for removing the misconceptions from the minds of people.

It is noteworthy that various KAP studies and Polio surveillance reports also cor-

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roborated that various myths, rumors and misconceptions about the Polio vaccination, such as pertaining to male impotency etc., mostly affected certain communities.

Looking from a broader perspective, these 2% may have a large impact on the number of ultimate refusals by further convincing their neighbours and family, while also increasing the risk to entire neighbouring populations through their unimmunised children.

Poor Handwashing Practices: Enabling Virus Transmission

As regards washing hands with soap and clean water, 61% of the respondents said that it was important; a significant percentage (31%) were not sure while 8% felt that it was not important. Of those who said it was important, 61% of the respondents said that it was important to wash hands after defecating, 32% said it was after washing a child's bottom while 18% said before eating and 12% observed before cooking in the kitchen respectively. From the perspective of Polio programme and Polio transmission, this is an alarming state of health-behaviour as such practices may lead to Polio virus back in circulation. This is more so as the Polio transmission route of oral-fecal is largely contained through sanitation and hand-washing practices and, a single 'missing-link' in the prevention cycle could lead to a major epidemic of virus spread again.

Lack of knowledge and inclination for Routine Immunization

A large majority (88%) of the respondents had an RI (routine immunization) card, out of them 40% had also used it in the past 2 months. However, the rest of the respondents had not used the card for a long time - only 10% of the respondents had used it between the last 2 months and 3 years period, while the rest of them had used it more than 3 years ago. This may indicate a high dropout rate, whereas these findings also partly explained the low rates of RI reported through the national data. The key observation that can be made from these responses was that while most people have had knowledge and the will to immunise their child, they were not practicing it - perhaps due to lack of access to acceptable RI centers and due to insufficient knowledge of RI schedules at their local centers.

Missed Polio Vaccination

None of the respondents knew the harmful effects of missing a round of the Polio drops. When questioned on what must be done if a child missed a dose, a majority of respondents (77%) said that one should take the dose from any nearest health

center, while a large majority (64%) said that one should do nothing as they would anyway get it in the next dose. This may be due to the high frequency of immunization rounds, which may have had led to the parents and caregivers believing that a few missed doses did not make a difference. These findings were reflective of the lack of clarity about how the Polio virus spreads and what could be done to prevent Polio transmission. Therefore, there is a strong need for focused communication population, particularly women, the, the caregivers of young children, about the correct causes of Polio and the steps necessary to prevent the spread of virus.

15. RESULTS FROM THE FOCUSED GROUP DISCUSSIONS

Radio and TV were found as the most accessible mediums to the respondents, wherein most members of the FGDs admitted “seeing or hearing” about Polio on the electronic media. However, most public-health promotion is done through the public-broadcaster (All India Radio), whereas the discussions found that most people largely access private FM stations. Similarly, the majority of respondents had access to Television but the public broadcaster (Doordarshan) was found as least watched, since all the respondents of the FGDs had full access to cable or dish TV connections. It stresses the need for a focus on Audio/Visual communication of messages on public-health issues, with emphasis on private channels in the urban settings. This is also relevant in the context of ‘non-literate’ populations, for whom AV communication can be the most effective method of communication.

It was found during discussions that the usage of words such as ‘*polio ki dawaa*’ i.e. the polio medicine in the national Polio eradication programme has led to widespread misconceptions regarding the vaccine, wherein people believe it ‘*capable of curing Polio*’ as opposed to merely playing a role in preventing Polio. When probed further on continued Polio vaccination for protecting children against the virus, most respondents in the group considered that OPV vaccination has a ‘medicinal’ effect on Polio ‘germs’ in the child’s body. Therefore, from the communication perspective, the campaign’s tag-line of *polio-ki-dawa-pilana* (*administering the polio medicine*) has managed to enhance knowledge about Polio vaccinations, but the lack of knowledge on virus’s transmission routes were found as primary gaps.

The respondents argued that none of the messages on routine immunization and Polio vaccination were disseminated through Panchayat level leaders (locally elected

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leaders) or Municipal Councilors, though the National Programme has laid significant emphasis on this intervention. Hence, in these clusters the local leaders were not found serving as change-agents in this research inquiry.

Almost all the FGD participants had relatively high knowledge on issues of exclusive and early breastfeeding and diarrhea management/ORS, yet the FGDs recorded low levels of practices. Twice during the FGDs, women raised the issue of lack of access to clean water for drinking, hand-washing etc., resource crunch in accessing health services and even lack of 'voice' to register their complaints. Therefore, the vulnerability to diseases such as Polio could also be well corroborated to the state of poverty.

16. CONCLUSION

The current research was aimed to assess the communication-connect of the national polio campaign with the people, especially on the high-risk migrant settlers in the sub-urban clusters of national capital territory of Delhi. It examined, through a strategic mix of quantitative and qualitative methodologies, how the caregivers and/or mothers of children under 5 years of age perceive Polio vaccination, associated risks, and how correctly they knew about the actual prevention methods. The research concluded that the **Communication-content** under the Polio Eradication programme was exclusively promoting Polio vaccine, without inclusion of the risk-factors that lead to transmission of the virus. Therefore, the content should not be restricted to only OPV promotion in communities; in addition, it must also emphasize on other associated risk-factors that were responsible for polio transmission. The majority of respondents, who migrated from various adjoining States for livelihoods and lived in these select clusters, did not access government-owned broadcast media, i.e. Doordarshan (TV) and All India Radio. Instead, their media habits indicated frequent access to private FM radio stations and private satellite TV. Therefore, the government and polio programme partners **should not restrict health promotion strategies by largely using public-broadcasters**, rather such key messages should preferably be disseminated through private sector electronic media too, especially in Urban, Sub-Urban clusters and Metro cities across the high-risk areas.

In the selected urban clusters, a significant gap of IPC (interpersonal communication) was apparent between 'providers' and 'clients' under the Polio programme.

A more focused and **community-owned interpersonal communication** (including counseling) should be made integral to the strategic health communication. Similarly it was concluded that knowledge about the causal factors leading to Polio transmission was missing among the respondents in the urban clusters' communities, the 'health-seeking' behaviour (demand for OPV) was found weak. So was the weak 'supply' factor i.e. regular access to social-mobilizers and vaccinators. Hence, the demand-generation strategies (through strategic health communication) and the associated supply-chain services (quality, affordability, safety and accessibility) should be well matched by the programme managers, i.e. **Programme Convergence and Coordination in the field.**

The research also found existing gaps between the poor prevention practices (*preventive health*) largely prevalent among the migrants' communities and the prescribed prevention protocols fostered internationally by the health-lead organizations, such as WHO and CDC/USA. As a part of the SBCC interventions for vaccination promotion and other disease control measures, a more focused social-inclusion analysis is needed with regard to the migrant settlers.

It is established that the Polio Virus does not distinguish between the rich and the poor, yet the living conditions among poor foster enhanced risk for its transmission. Poverty perpetuates enabling conditions to the environmental bacteria and viruses in spreading its expanse. Thus, poverty, social-exclusion, vulnerability and gender disparity are some of the many socio-economic parameters that are responsible in making some communities 'high-risk' and 'at-risk' to Polio virus. To conclude, effective and results-based communication strategies use a variety of approaches ranging from psycho-social learning theories of role modeling communicated via the mass media to the use of advocacy and social mobilization. For behaviours to change, cultural taboos, societal norms and structural inequalities need to be taken into consideration. Effective communication plays a crucial role in the entire process. Hence communication strategies have to be cognizant of and in tune with the policy and legislative environment and also linked to the service delivery aspects, be it immunization booths under vaccination programmes or quality oral vaccines available at community-level for the most vulnerable and socially-excluded.

Dedication: Authors dedicated this work to the International Immunization Week observed in the last week of April.

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