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Health and Population:  
Perspectives and Issues



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राष्ट्रीय स्वास्थ्य एवं परिवार कल्याण संस्थान

The National Institute of Health and Family Welfare

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**HEALTH AND POPULATION: PERSPECTIVES AND ISSUES**  
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**HEALTH AND POPULATION: PERSPECTIVES AND ISSUES**  
**VOLUME: 46, NUMBER 2, April - June 2023**

**CONTENTS**

|    |  |         |
|----|--|---------|
|    | <i>Forward</i>   | 50      |
| 1. | <b>Mission Indradhanush and Intensified Mission Indradhanush:<br/>Role of <i>Mann Ki Baat</i> in Bridging the Immunization Gap<br/>by Furthering India's Universal Immunization Programme</b><br>Immunisation Division, Ministry of Health and Family Welfare, Govt. of India            | 51-62   |
| 2. | <b>Progress of India's Quest to Eradicate TB:<br/>Impact of Prime Minister of India's Address in <i>Maan ki Baat</i> on AIR</b><br>Raghuram Rao, Kirankumar W. Rade, Bhavin Vadera, Venkatesh Roddawar, Amar N. Shah, Bhavesh Modi, Malik M. Parmar, Rajendra P Joshi and Arun K. Jha    | 63-72   |
| 3. | <b>PM's Call in <i>Mann ki Baat</i> on Vaccine Hesitancy during COVID-19 Pandemic:<br/>Review of Literature and Vaccine Uptake Analysis</b><br>Immunisation Division, Ministry of Health and Family Welfare, Govt. of India  | 73-87   |
| 4. | <b>Impact of 99<sup>th</sup> Edition of <i>Mann Ki Baat</i> on Organ Donation and Transplantation<br/>by Prime Minister, Modi: A Cross-sectional Survey in India</b><br>Vivek B Kute, Krishan Kumar, Archana Kumari, Harishankar Meshram,<br>Vineet Mishra, Rajneesh Sahai and Atul Goel | 88-102  |
| 5. | <b>Hon'ble PM's <i>Mann Ki Baat</i> Propels India to the Point of Achieving Kala-azar<br/>Elimination: Impact Assessment of the Key Strategies<br/>to Overcome the Last Mile Challenges</b><br>Adhikam Jagadeep  | 103-106 |



## Foreword

**Dear readers,**

It is with a great pleasure and deep sense of reverence, we welcome you to this edition of the Health and Population: *Perspectives and Issues* journal dedicated to the profound and cherished Indian radio programme- *Mann ki Baat*. Over the years, this iconic platform has not only captured the essence of India's collective consciousness but has also acted as a beacon of unity, empathy and progressive thinking.

*Mann ki Baat* is not just a radio broadcast; it is an intimate conversation that transcends boundaries; and resonates with millions of hearts across the length and breadth of this diverse nation. Spearheaded by the visionary leadership of the Prime Minister, Shri Narendra Modi, this programme has emerged as a powerful medium to connect with the Indian citizens, allowing their voices to be heard, acknowledged and amplified.

In the pages of this issue, you will find a rich tapestry of perspectives, reflections and insights inspired by the profound conversations sparked by *Mann ki Baat* focused on the health sector. Our contributors, drawn from diverse backgrounds and experiences, have poured their hearts and minds into exploring the themes: *Kala-azar elimination, COVID-19 Vaccine Hesitancy during the Pandemic, Tuberculosis Eradication, Bridging the Immunization Gap, Organ Donation and Transplantation, Mass Media Campaigning in Pandemic Response* and other messages that have touched them deeply. They take you on a journey of the transformative power of ideas, the strength of unity, and the potential for change that lies within each one of us.

We extend our heartfelt gratitude to the Hon'ble Prime Minister, Shri Narendra Modi for his visionary leadership and unwavering commitment to listening to the voices of the people. We also express my deepest appreciation to the contributors whose words grace the pages of this journal, as well as the countless individuals who have engaged with the *Mann ki Baat* series; and made it a remarkable platform for change.

May this journal be a celebration of the indomitable spirit of India, a reminder of our shared aspirations, and a call to act for each one of us to embrace our own *Mann ki Baat*; and contribute in building a prosperous, inclusive and harmonious society.

Editorial Team  
HPPI

**\*Mission Indradhanush and Intensified Mission Indradhanush:  
Role of *Mann Ki Baat* in Bridging the Immunization Gap  
by Furthering India's Universal Immunization Programme**

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\*Immunisation Division, Ministry of Health & Family Welfare, Government of India.

**Abstract**

*Child immunization is crucial for reducing the morbidity and mortality associated with vaccine-preventable diseases (VPDs). India, being the second-most populous country in the world, has a significant burden of VPDs. Universal Immunization Programme (UIP) was launched in India in 1985, with the aim of providing free vaccination to all children and pregnant women. The programme grew over the years, however, progress towards full immunization coverage (FIC) remained slow, with only 44 per cent of the children fully immunized in 1992-1993, and 62 per cent in 2015-2016, as reported in the National Family Health Survey. To address this challenge, the Government of India launched the Routine Immunization intensification drive- Mission Indradhanush (MI) in 2014, with the aim of achieving 90 per cent FIC. Under this drive, emphasis is given on pockets of low immunization coverage and hard-to-reach areas where the proportion of unvaccinated and partially vaccinated children is the highest. The success of MI led to the launch of the Intensified Mission Indradhanush (IMI) in 2017, with more intensive planning, monitoring, review, and inter-sectoral partnerships.*

*The impact of MI and IMI on immunization coverage in India has been significant. According to the NFHS-5 data, FIC has increased to 76.4 per cent, with only 3.6 per cent of children left unvaccinated. The proportion of partially vaccinated children has decreased from 32% in NFHS-4 to 20 per cent in NFHS-5. In conclusion, Government of India's efforts to increase FIC and reduce the number of partially immunized children has yielded significant results in the last decade.*

**Key words:** Mission Indradhanush (MI), Intensified Mission Indradhanush (IMI), Routine Immunization, Vaccine-preventable diseases

**Introduction**

Immunization protects children from vaccine-preventable diseases (VPDs), which are responsible for a significant proportion of child deaths globally. The benefits of vaccination are not only limited to improvement in health and life expectancy but also have a social and economic impact at both the community and national levels<sup>1-2</sup>. The Government of India formally introduced the Expanded Programme on Immunization (EPI) throughout the country in 1978 which was later expanded to the Universal Immunization Programme (UIP) in 1985<sup>3</sup>. India's Universal

Immunization Programme (UIP) is one of the largest public health programmes in the world<sup>4</sup> which annually targets around 26.6 million infants and 30 million pregnant women. Approximately twelve million sessions are held every year to deliver free-of-cost vaccines to the target population<sup>5</sup>.

The Government of India, through various initiatives, has been making continuous efforts to achieve the target of 90 per cent Full Immunization Coverage (FIC). Since 2014, India's immunization programme has received a significant boost with the introduction of new vaccines viz. Tetanus and adult Diphtheria (Td), Inactivated Poliovirus Vaccine (IPV), Measles-Rubella vaccine (MR), Rotavirus vaccine, and Pneumococcal Conjugate Vaccine (PCV) at the national level and Japanese Encephalitis vaccine (JE) for adults at the subnational level<sup>6</sup>. Presently, UIP provides protection against twelve vaccine-preventable diseases including a severe form of childhood tuberculosis, polio, diphtheria, pertussis, tetanus, Hepatitis B, Meningitis & Pneumonia caused by Hemophilus Influenza Type B, rotavirus diarrhoea, JE (in endemic districts), measles, rubella, and pneumococcal pneumonia<sup>7</sup>.

India, having committed to the Sustainable Development Goals (SDGs), is dedicated to ensuring universal immunization coverage by 2030 and has taken several measures to strengthen the immunization programme including the introduction of new vaccines, improving supply chain management, enhancing the cold chain infrastructure, and increasing awareness about the importance of immunization among the general public. The goal is to achieve universal immunization coverage and eliminate vaccine-preventable diseases from the country by 2030<sup>1</sup>.

### **Rationale for MI/IMI**

Despite the availability of effective vaccines, many children in developing countries, including India, remain unvaccinated or partially vaccinated, leading to preventable deaths and disabilities<sup>2</sup>. Although the Universal Immunization Programme (UIP) had been in operation for over 40 years, the programme had only been able to fully immunize 62 per cent of children in their first year of life till 2015-16. An estimated 38 per cent of the children failed to receive all the basic vaccines in the first year of life in 2015-16<sup>5</sup>. The factors limiting vaccination coverage included large, mobile, and isolated populations that are difficult to reach, low demand from under-informed or misinformed populations, and fear of side effects after vaccination. In order to address low childhood immunization coverage, Mission Indradhanush was launched in December 2014<sup>8</sup>. The mission targeted immunizing all children under the age of two years and pregnant women. The drive focussed on unvaccinated and partially vaccinated children missed from Routine Immunization, particularly those in remote and underserved areas. This focused and systematic immunization drive was implemented as a “catch-up” campaign to cover all the children who had been inadvertently left out earlier from the umbrella of immunization<sup>9-11</sup>. Under each phase of Mission Indradhanush, three to four special vaccination rounds of around 7 working days each are conducted.

Hon'ble Prime Minister, Shri Narendra Modi captured the essence of Mission Indradhanush in his *Mann ki Baat* on 30 October 2016 highlighting the significance of vaccination of every child and lauded that the Mission Indradhanush programme is striving to vaccinate every left-out child with the vaccine doses missed during routine immunization<sup>12</sup>. Never before a Prime Minister had

given a clarion call to ensure that no child suffers from Vaccine Preventable Disease (VPD). The visibility of the programme advocated by the topmost leadership through *Mann ki Baat*, not only created awareness among the population about the vaccination programme and its health benefits but also stamped the credibility of Universal Immunization Programme.

**Hon'ble Prime Minister, Shri Narendra Modi acknowledged the impact of MI in vastly enhancing the immunization coverage over the PRAGATI platform and emphasized on the necessity for intensified and sustained efforts. In October 2017, the PM launched the Intensified Mission Indradhanush (IMI), an ambitious campaign to expedite the progress of RI. Speaking on the occasion, the Prime Minister stated that the Government has made immunization a people's and a social movement; and made a strong appeal to all the country men and women to own the programme in order to make all efforts to reduce maternal and child mortality. This visionary political commitment at the highest level greatly boosted the immunization programme.**

MI was also launched as one of the seven flagship schemes of the Gol under the *Gram Swaraj Abhiyan* (GSA), an intensified multi-sectoral outreach programme to deliver the social welfare schemes in selected villages. The GSA campaign was further extended to villages of the aspirational districts under the extended *Gram Swaraj Abhiyan* (eGSA).

The rationale behind studying the impact of Mission Indradhanush and Intensified Mission Indradhanush is to evaluate and review the effectiveness of these immunization campaigns in increasing immunization coverage in India. These campaigns were launched with the aim of improving immunization coverage rates, especially in underserved and hard-to-reach areas. By studying their impact, we can determine whether these programmes are meeting their goals and identify areas for improvement in the delivery of immunization services. Additionally, the findings of the study can help inform future policies and strategies for improving immunization coverage and reducing the burden of vaccine-preventable diseases in India<sup>13</sup>.

## Methodology

A mixed-method approach was used, subsuming review of the literature and secondary data analysis to achieve the desired objectives. The systematic desk review of core policy and research documents on MI and IMI campaigns was followed by the secondary data analysis of existing research articles and MI coverage reports. A Technical Advisory Group (TAG) comprised representatives from the Immunization Technical Support Unit, immunization partners (WHO, UNICEF, UNDP), a health economics expert, and two senior researchers. Data reports from the National Family Health Surveys, WHO and UNICEF National Immunization Coverage (WUENIC) estimates were used for assessing the immunization coverage. To get a holistic perspective, the analysis was conducted across three thematic areas:

- A. Immunization Coverage improvement
- B. Impact on the burden of infectious diseases
- C. Impact on systems strengthening

## Methodology



## Data Sources

Data for this study were obtained from multiple sources, including National Family Health Survey NFHS-4 and NFHS-5 reports. This dataset provided information on the FIC in different districts. We used the district-wise data to calculate the FIC and to compare it between the two surveys. Coverage reports of the different rounds of MI & Intensified Mission Indradhanush (IMI) portal data: This dataset provided information on the number of children vaccinated in each round conducted in different districts. We used this data to determine the effectiveness of the immunization program in improving FIC. WUENIC data: This dataset provided information on the number of cases of VPD from 2014 to 2021. We used this data to determine the occurrence of VPD and to evaluate the impact of the immunization program on VPD occurrence. Data from concurrent monitoring were also analysed to understand the impact of MI/IMI drives on key systems strengthening Indicators.

## Data Analysis

We used descriptive statistics to analyze district-wise FIC using the NFHS 4 and NFHS 5 data. We also calculated the percentage change in FIC between the two surveys. To evaluate the effectiveness of the immunization program in improving FIC, we compared the number of children vaccinated in each round conducted in different districts using the Coverage reports of the different rounds of MI and IMI portal data. We also calculated the percentage increase in vaccination coverage between different rounds. Finally, we analysed the WUENIC data to determine the occurrence of VPD and to evaluate the impact of the immunization program on VPD occurrence. We used a time series analysis to determine the trend in VPD prevalence from 2014 to 2021.

## Findings

### Immunization Coverage Improvement

#### Achievements of MI/IMI

The table-1 shows till date, a total of 701 districts have been covered and 4.45 crore children and 1.12 crore pregnant women have been vaccinated across all 11 phases of MI/IMI. The phase-wise details of the districts covered and the number of children and pregnant women vaccinated.

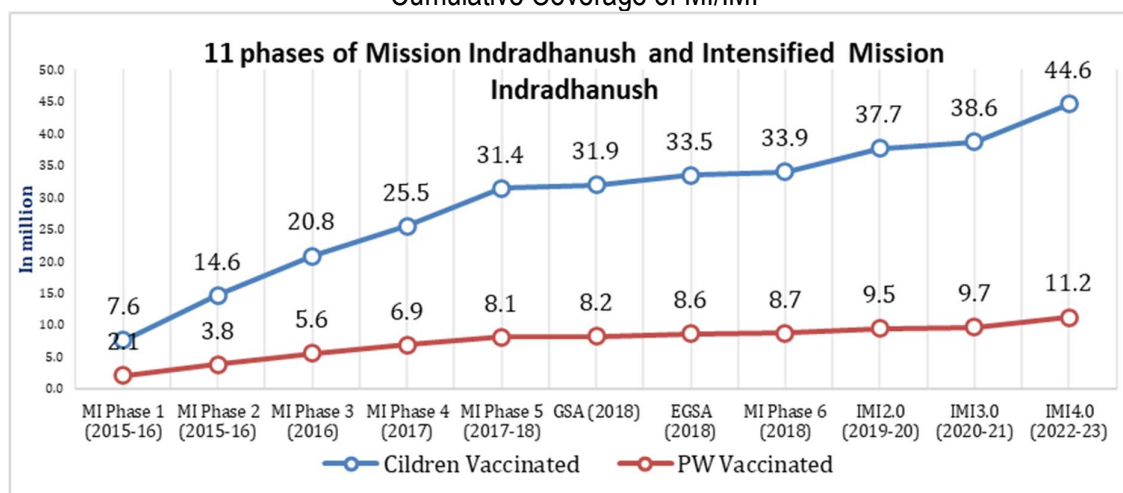
**Table 1**  
Phase-wise Coverage of MI/IMI

| Phase      | Time period   | No. of District covered | No. of eligible children Vaccinated | No. of eligible Pregnant Women Vaccinated |
|------------|---------------|-------------------------|-------------------------------------|---|
| MI Phase 1 | Apr'15-Jul'15 | 201                     | 75,75,377                           | 20,94,656                                 |
| MI Phase 2 | Oct'15-Jan'16 | 352                     | 70,29,542                           | 16,82,807                                 |
| MI Phase 3 | Apr'16-Jul'16 | 216                     | 62,07,943                           | 17,82,557                                 |
| MI Phase 4 | Feb'17-Jul'17 | 254                     | 46,64,872                           | 13,18,442                                 |

|                        |                    |            |                    |                    |
|------------------------|--------------------|------------|--------------------|--------------------|
| <b>IMI</b>             | Oct'17-Jan'18      | 190        | 59,49,483          | 11,85,668          |
| <b>MI- GSA</b>         | Apr'18-Jun'18      | 550        | 5,01,938           | 1,13,325           |
| <b>MI-Extended GSA</b> | July'18-Sep'18     | 139        | 15,25,985          | 4,28,582           |
| <b>MI Phase 6</b>      | Oct'18-Dec'18      | 75         | 4,93,899           | 1,12,904           |
| <b>IMI 2.0</b>         | Dec'19-Mar'20      | 380        | 36,92,381          | 7,39,162           |
| <b>IMI 3.0</b>         | Feb'21-Mar'21      | 236        | 9,58,343           | 2,24,885           |
| <b>IMI 4.0</b>         | Feb'22-<br>May'22* | 416        | 59,99,158          | 15,31,468          |
| <b>Total</b>           |                    | <b>701</b> | <b>4,45,98,921</b> | <b>1,12,14,456</b> |

\*Special adaption made considering COVID-19 surge: Some states opted for Feb-April drive and other states opted for March to May drive

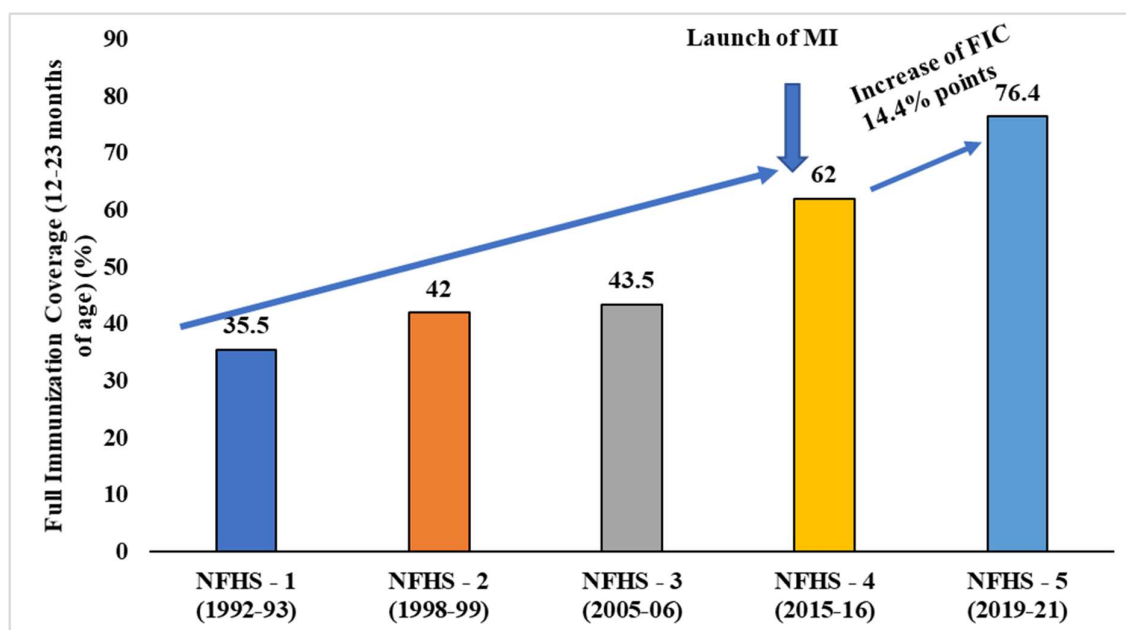
**Figure 1**  
Cumulative Coverage of MI/IMI



**Figure-1** shows the trend line of cumulative numbers of children & Pregnant women vaccinated. It shows in every round on average 6 million children 0.5 million pregnant women have been vaccinated.

### Improvement in Immunization Coverage

MI provided the much-needed impetus to the UIP. As a result of regular catch-up campaigns to cover the left-out and drop-out eligible beneficiaries, the Full Immunization Coverage (FIC) as per National Family Health Survey (NFHS) reported an increase of 14.4 per cent points from 62 per cent in NFHS-4 (2015-16) to 76.4 per cent NFHS-5 (2019-21)<sup>8</sup>.



**Table 2**  
District-wise Analysis of Average Increase in FIC and Number of IMI Rounds

| Number of IMI Rounds | Number of Districts | Average Increase in FIC NFHS-4 to NFHS-5 (%Points) |
|----------------------|---------------------|--|
| 0                    | 104                 | 5.1  |
| 1-2                  | 192                 | 13.4   |
| 3-4                  | 200                 | 19.7   |
| 5+                   | 161                 | 20.6   |


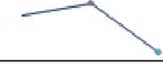
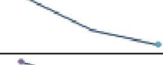



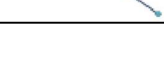
Table 2 displays the percentage increase in FIC from NFHS-4 to NFHS-5, indicating a correlation between the number of MI and IMI rounds conducted and an increase in FIC percentage in districts. Notably, districts that conducted five or more IMI rounds experienced a maximum increase of 20.6 per cent in FIC. The districts where MI/IMI rounds were conducted regularly clearly shows a considerable improvement in immunization coverage, as depicted in Table 2. Post-MI and IMI campaigns, the coverage evaluation surveys too showed a remarkable improvement in FIC. As per the results of INCHIS, the first two phases of Mission Indradhanush resulted in 6.7 per cent increase in full immunization coverage in a year<sup>14</sup>. Additionally, a Coverage Evaluation Survey carried out in 190 districts covered in Intensified Mission Indradhanush shows 18.5 per cent points increase in full immunization coverage as compared to NFHS-4 survey carried out in 2015-16<sup>15</sup>.

Concurrent monitoring data also shows that percent unimmunized children significantly decline from 6 per cent to 1 per cent from 2014 to 2021. The maximum decline was in first two years when MI targeted a large number of districts. There is a significant decline in partially immunized children also from 27 per cent in 2014 to 13 per cent in 2021<sup>16</sup>.

## Impact on burden of infectious diseases

The improvement in immunization coverage is also reflected by the decreasing trend of Vaccine-Preventable Disease (VPD) burden (Data source: WUENIC). The same is reflected in the table 3 below:

**Table 3**  
Trend of Vaccine Preventable Diseases

| VPD                   | 2014  | 2017  | 2021 | Trend   | % Decrease in VPD cases |
|-----------------------|-------|-------|------|---|-------------------------|
| Diphtheria            | 6094  | 5293  | 1768 |   | 71.0                    |
| Japanese encephalitis | 1657  | 2043  | 489  |   | 70.5                    |
| Measles               | 26530 | 12032 | 5700 |   | 78.5                    |
| Neonatal tetanus      | 492   | 295   | 81   |   | 83.5                    |
| Pertussis             | 46706 | 23766 | 593  |   | 98.7                    |
| Rubella               | 4870  | 2748  | 1675 |   | 65.6                    |
| Total tetanus         | 5017  | 4946  | 1240 |  | 75.3                    |

(Data source: WUENIC)

The WHO's VPD Surveillance data indicated that a large number of morbidity & mortality has been prevented against VPDs during 2014 to 2021 due to several immunization initiatives including MI. Around 321,847 VPD cases were prevented in comparison to 2014 and around 4002 deaths were prevented due to Mission Indradhanush and other Immunization initiatives during this period (Table 4). For calculation purposes, it is to be noted that WHO's VPD Surveillance data is available only for five diseases – Diphtheria, Measles, Pertussis, Rubella and Neonatal Tetanus.

**Table 4**  
VPD Morbidity and Mortality Prevented

| VPD              | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021 | Cumulative Disease Reduction from 2014 to 2021 | Disease Mortality Rate / CFR  | No. of Deaths Prevented |
|------------------|-------|-------|-------|-------|-------|-------|-------|------|--|-------------------------------|-------------------------|
| Diphtheria       | 6094  | 2365  | 3380  | 5293  | 8788  | 9622  | 3485  | 1768 | 14179  | (5-10%)<br>7.50% <sup>1</sup> | 1063                    |
| Measles          | 26530 | 30168 | 17250 | 12032 | 19474 | 10430 | 5604  | 5700 | 88690  | 2.20% <sup>2</sup>            | 1951                    |
| Neonatal Tetanus | 492   | 491   | 227   | 295   | 129   | 35    | 162   | 81   | 2024   | 40.00% <sup>3</sup>           | 854                     |
| Pertussis        | 46706 | 25206 | 37274 | 23766 | 13208 | 11875 | 12566 | 593  | 202454   | 0.01% <sup>4</sup>            | 20                      |
| Rubella          | 4870  | 3252  | 8274  | 2748  | 2328  | 3404  | 1313  | 1675 | 14500  | 0.78% <sup>5</sup>            | 113                     |
| <b>Total</b>     |       |       |       |       |       |       |       |      | <b>321847</b>                                  |                               | <b>4002</b>             |

Data Source: WUENIC

## Immunisation System Strengthening through Mission Indradhanush

MI and IMI paved the way for immunization system strengthening interventions to boost routine immunization and sustain it thereafter. Efforts and innovations implemented during MI - evidence-based microplanning, cross sectoral convergence, generating awareness and vaccine confidence through strategic communication, intensifying immunization campaigns in low performing areas, intensive monitoring and strong political commitment - are integrated in routine immunization to strengthen the Universal Immunization Programme (UIP)<sup>17</sup>.

**HIGH RISK AREAS**  
No of Immunization and Polio High Risk & Underserved Areas included in Routine Immunization microplans (Source: WHO Polio & Immunization High Risk area data)

|                     |         |
|---------------------|---------|
| Slums –             | 78,291  |
| Brick kilns –       | 70,029  |
| Construction site – | 38,239  |
| Nomads –            | 30,115  |
| Others –            | 39,139  |
| Settled HRAs –      | 165,998 |

### Reaching the Unreached

The focus on bringing equity in identified high-risk populations in traditionally low-coverage and underserved areas was one of the unique strategies which resulted in overall gains from these initiatives. Due to geographic, demographic, ethnic and other operational variations, a tailored, evidence-driven and people-centric service delivery strategy designed for reaching the children in the identified HRAs, not only during MI campaigns but also through routine immunization system.

More than 420,000 such High Risk and Underserved areas were included in these campaigns as well as in routine immunization microplans to sustain the gains. Around 70,000 brick kilns and 38,000 construction sites were included in routine immunization programme to focus on migratory population, who are either unimmunized earlier or partially vaccinated. Around 30,000 nomadic populations are also tracked through informers and reached for providing immunization services.

MI/IMI also helped in reaching the urban slum population with life-saving vaccines and also ensured that routine immunisation services reached the migratory community. The intensified efforts in the urban population are reflected in the NFHS reports wherein the FIC in the urban areas improved by 11.6 percentage points between NFHS-4 and NFHS-5. The gain in FIC in the urban areas was only 6.3 percentage between NFHS-3 and NFHS-4.<sup>8</sup>

### Strengthening Routine Immunisation Micro-plans

#### Improving Routine Immunization Demand

The slow progress of the immunization coverage prior to the launch of MI was majorly attributed to the varied behaviour of communities and levels of acceptance of vaccines among the diverse population. Field observation findings have recognized fear of AEFI, lack of knowledge of immunization, its benefits and information regarding accessibility of vaccination as barriers to immunization.

To address these communication challenges, MI enhanced the focus on equity through advocacy and social mobilization activities. Local stakeholders played a key role in mobilizing families and communities for vaccination sessions. A range of measures were adopted to provide information, mobilize communities for vaccination, and to discredit myths or rumors about vaccinations. These

included utilizing social media platforms, and enhanced engagement of ration dealers, elected community and religious leaders. As the programme evolved, the concept of Vaccination on Demand was also incorporated into the drive. Under this initiative, the community leaders were empowered to demand for vaccination sessions at a time and place of their community's convenience and in return, they were responsible for ensuring that every child or pregnant woman due for vaccination in their community is vaccinated.

These communication interventions resulted in remarkable improvement in demand-side indicators for MI and for routine immunization in the country. Concurrent monitoring data show that as an outcome of these efforts, around 62 per cent (127/202) of the districts have a complete communication plan in place in 2021 as compared to 48 per cent districts in 2017. Visibility of IEC materials at the session site has also increased from 26 per cent in 2016 to 77 per cent in 2021. More than 65 per cent ANMs trained on BRIDGE communication training and community awareness has shown significant improvement due to communication efforts done during the MI and IMI<sup>19</sup>.

### **Synergizing Inter-Sectoral Coordination**

Advocacy of the MI/IMI by the Prime Minister himself, was pivotal in effective inter-sectoral partnerships and coordinated activities. Various departments of the Health Ministry as well as other Ministries were engaged with defined roles and responsibilities. 12 Ministries were involved viz. Ministry of Women and Child Development, Panchayati Raj, Minority Affairs, Human Resource Development, Information and Broadcasting, Housing and Urban Affairs, Ministries of Defence, Home Affairs, Sports and Youth Affairs, Rural Development, Railways, and Labour and Employment. They supported specific activities, such as expanding service delivery points, transportation of supplies to the last mile, community awareness, and social mobilization.

Clarity on the role of every department percolated to the last service delivery point. Since the inter-sectoral partnerships were successful, this effective collaborative way of functioning has been institutionalized through regular governance mechanisms of the UIP i.e. State Steering Committee, State Task Forces for Immunization (STFI) and District Task Forces for Immunization (DTFI). This institutionalization of the inter-sectoral collaboration is bound to have a sustainable impact.

### **Other Immunization System Strengthening Initiatives Under MI/IMI**

**Cold Chain and Vaccine Logistics Management:** In addition to a remarkable improvement in overall immunization coverage, IMI led to an improvement in overall immunization systems, including cold chain and vaccine management. Adequate availability of vaccines across the immunization session sites has led to this improvement. As per the Concurrent Monitoring Data, there has been a significant rise from 67 per cent to 81 per cent between 2014 and 2018, in number of session sites where all vaccines and diluents are available.

**Improving Data quality:** Regular reviews of coverage data resulted in improvement of data quality and data usage. The data captured in real-time through IMI Portal further supported the stakeholders to take evidence-based timely corrective measures. The regular feedback

mechanism established with external partner engagement for monitoring also enhanced the technical capacities of the programme.

**Reporting of AEFI cases and management:** The national AEFI surveillance improved by intensive capacity building of the health workers and professionals (including medical officers and district immunization officers) on AEFI reporting and undertaking investigations of serious and severe AEFIs.

## Discussion

Analysis undertaken in this study shows that India's Periodic Intensification of Routine Immunization rounds- Mission Indradhanush and Intensified Mission Indradhanush have been successful in achieving their objective of reaching each and every child with vaccines under UIP. Similar findings suggesting the success of the MI/ IMI drives have been shown by Sumann et al<sup>14</sup>.

Success of Mission Indradhanush is evident from the substantial improvement in FIC between the fourth and fifth rounds of National Family Health Survey (NFHS). In NFHS-4 (2015-2016), the FIC was 62.0 per cent which increased to 76.4 per cent in NFHS-5, representing an increase of 14.4 per cent points. The findings of this study are consistent with the existing literature, which suggests that immunization programmes and interventions like MI and IMI can significantly improve FIC and reduce the burden of VPDs.

The programme uses a multi-pronged approach to increase the immunization coverage, focusing on high-risk districts identified based on low immunization coverage and high dropout rates, as well as urban slums and under-served areas. The success of Mission Indradhanush can be attributed to several factors. One of the major factors responsible for success of the programme was ownership by topmost leadership of the country. Advocacy by the Prime Minister not only emphasized on the importance of the vaccination programme but also made other leaders of the country accountable for the Intensified Programme. This helped in ensuring effective inter-sectoral coordination and partnerships. Gurnani et al states that 'close involvement and supervision by the Prime Minister of India was important for generating and sustaining political will for IMI. It ensured the commitment of non-health government and non-government staff at all levels and promoted cross-sectoral involvement<sup>6</sup>.

MI/IMI being the flagship programme of the PM, was under regular review by the Office of Prime Minister. This had a cascading impact and resulted in regular and robust reviews at the state, district and block levels. The constructive feedbacks led to relevant action points that resulted in immediate and effective redressal of issues and bottlenecks. Gurnani et al states that during the vaccination rounds, daily supervisor meetings reviewed the available data and discussed problems and solutions. External supervision was provided by the national, state, and partner monitors who met to review progress and provide feedback to all.

The study shows that MI/IMI have contributed in improving immunization demand and communication planning. Clearly, MI/IMI have been able to meet its objective as stated by Gurnani et al that IMI was an effort to shift routine immunisation into a *Jan Andolan*, meaning

people's movement in English. It aimed at mobilising communities and simultaneously deal with the barriers to seeking vaccines. The improved vaccination uptake and its evolution to incorporate people-empowering initiatives like Vaccination on Demand is proof that the programme is indeed people's movement<sup>6</sup>.

**Limitation:** Improvement in full immunization coverage and decrease in vaccine-preventable disease occurrence is a result of Routine Immunization strengthening as well as RI intensification drives viz. Mission Indradhanush and Intensified MI. Assessing the exclusive impact of MI/IMI on Immunization coverage and VPDs needs a more detailed modelling and data analysis.

## Conclusion

India has made significant progress in achieving the full immunization coverage in the last decade through implementation of the Universal Immunization Programme and periodic immunization intensification drives of Mission Indradhanush and Intensified Mission Indradhanush. Efforts of the government, including the involvement of multiple sectors, have led to an increase in the percentage of fully immunized children. Overall, the success of India's immunization programme demonstrates the importance of sustained government efforts, technical advancements, and increased community awareness to achieve the goal of universal immunization coverage. Continued investment and innovation in this area will be critical in ensuring the sustained progress and protection of future generations. Continuous monitoring of the programme by the leader of the country ensured sincere supervision of the activities for effective implementation. India's achievements from MI set a global example of strong political will and robust operational and demand generation strategies to be replicated or adapted to eliminate life-threatening vaccine-preventable diseases, even in the most challenging areas of the world.

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## Progress of India's Quest to Eradicate TB: Impact of Prime Minister of India's Address in 'Maan ki Baat' on AIR

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### Abstract

*Mann Ki Baat* is a monthly radio programme through the State Broadcaster- the All India Radio (AIR), where the Prime Minister addresses the nation on the last Sunday morning of every month; and shares thoughts and ideas on various social, cultural and developmental issues. The Hon'ble Prime Minister in his talk in *Maan ki Baat* talked on TB-related issues three times on 25 March 2018, 25 September and 25 December 2022. Considering the importance and potential reach of *Maan ki Baat* on AIR, this study was undertaken to ascertain the impact and effects of his quotes. Retrospective analysis was conducted using various data sources including the National TB Elimination Programme (NTEP) on the coverage of various services for TB patient care and mobilization of community. Information was also collected from social media and citizen engagement platforms including twitter, facebook, Instagram, TB *aarogya saathi* application on people's reach and engagement.

*The first time, the Prime Minister addressed TB in March 2018 in which he reiterated his clarion call to end TB in India by 2025, five years ahead of the global target of SDG. Successively, the Government introduced various initiatives for TB patient care. Since then, Rs.2291 Crores were transferred directly to 79 lakh TB patients for nutrition support. 30 lakh TB patients were notified from the private sector; 30,000 TB vijeyeta engaged for peer support to TB patients; 300 corporates were engaged; TB preventive treatment for contacts of TB patients was initiated; impactful citizen awareness campaigns were run; and a call centre was established. These efforts culminated in an increase of average annual TB notification to 21 lakh in the last 5 years through the Pradhan Mantri TB Mukh Bharat Abhiyan (PMTBMBA), an initiative for community support to TB patients was launched in September 2022. His subsequent quotes in Maan ki Baat led to motivate over 75,000 people to register as Ni-kshay Mitra to provide nutrition support to 10.2 lakh TB patients in the country. In monetary terms, the community contributed USD 3.9 million in a span of 7 months for TB patients. Engagement of citizens on various platforms of the NTEP has been increased substantially.*

*Political and administrative commitment is the most important factor for success of any public health programme like one for ending tuberculosis. The Prime Minister of India addressing citizens of the country through Maan ki Baat is an effective mode to communicate the statement of intent for ending TB. His ability to connect with the masses has led to an augmentation of efforts by the health system, motivated people and communities to participate with increased awareness in public. Overall, Maan ki Baat is a super effective medium for mass movement efforts to end TB in the country.*

**Key words:** Tuberculosis, *Maan ki Baat*, PMTBMBA

## **Background**

*Mann Ki Baat* (Hindi: मन की बात, transl. Inner Thoughts) is an Indian radio programme hosted by the Hon'ble Prime Minister of India, Shri Narendra Modi in which he addresses the people of the nation on All India Radio, DD National and DD News<sup>1-3</sup>. He addresses the nation on the last Sunday morning of every month on All India Radio (AIR- the State Broadcaster). Since the first episode on 3 October 2014, there have been more than 100 episodes hitherto<sup>1</sup>. The 99th episode was aired on 26 March 2023<sup>1</sup>. The main purpose of the programme is to establish a dialogue with the citizens on issues of day-to-day governance, according to a statement by the Information and Broadcasting Minister in the Rajya Sabha in July 2021<sup>1,2</sup>. The programme is India's 'first visually enriched radio programme<sup>1</sup>. Since television connection is still not available everywhere in India, especially in the isolated, rural and lesser developed regions, radio was chosen to be the medium for the programme, owing to its wider reach. An estimated 90 per cent of the Indian population is reachable over this medium<sup>1</sup>. Doordarshan's Direct to Home (DTH) service free dish relays feed of the 20-minute-long episodes to television and radio channels<sup>1</sup>.

India has the highest tuberculosis (TB) burden in the world and the country has been implementing a National TB Programme since 1962. Overall coverage and quality of the programme is ever increasing. In March 2018, the Prime Minister gave a clarion call to end TB in India by 2025; five years ahead of the global target; thereby becoming the only country committing to ambitiously pre-pone its SDG targets related to TB. The Prime Minister in his speech in *Maan ki Baat* addressed Tuberculosis three times- on 25 March 2018, 25 September and 25 December 2022. Considering the importance and the potential reach of *Maan ki Baat*, it is equally important to assess the impact of his quotes, for which this study is undertaken.

## **Objective**

The basic objective of this study is to assess the potential impact of the PM's quotes on TB through his radio talk titled *Man ki Baat*, to create awareness; and a call to citizens to join the social movement to end TB in India; in terms of coverage and actions by the citizens.

## **Methodology**

Retrospective analysis was conducted using various data sources. Data were collected from the National TB Elimination Programme (NTEP) on *Pradhan Mantri TB Mukta Bharat Abhiyan* (PMTBMBA) and TB patients under care using NTEP records using online TB surveillance

system of India called Ni-kshay. The researchers also collected information from the social media platforms including Twitter, Facebook, Instagram on number of posts, tweets and searches on and about TB. The authors also reviewed the trends of TB-related searches on daily basis during the last one year. Data were also collected from TB *aarogya Saathi*, the citizen-centric mobile application of the NTEP.

## Findings and Discussion

### Quote 1: 25 March 2018<sup>1</sup>

*“A target has been fixed to make the country TB-free by 2025. This is an enormous task. Your cooperation is needed to create public awareness. All of us will need to make united efforts to become TB-free.”*

**Impact:** As a result of this first quote, the National TB Elimination Programme (NTEP- the nodal agency responsible for TB control in India) under the Ministry of Health and Family Welfare developed an ambitious National Strategic Plan to End TB in India by 2025.

- TB FREE India communication campaign was launched in 2018.
- Nikshay Poshan Yojana (NPY), a new Direct Benefit Transfer (DBT) scheme was launched in April 2018, to provide Rs.500/- per month to all the notified TB patients for nutritional support. Since then, Rs. 2291 crores have been transferred to the bank accounts of over 78 lakh (TB) beneficiaries.
- To generate mass awareness, ‘TB *Harega Desh Jitega*’ campaign was launched in 2019.
- To extend FREE diagnosis and treatment for all TB patients in the country, private sector Engagement was scaled-up by involving over 3 lakh health facilities providing standardized TB care to more than 30 lakh additional TB patients seeking care in the private sector.
- TB Preventive Treatment (TPT) intervention was scaled up to cover all household contacts across the country.
- National Call center with a TOLL-FREE number 1800-11-6666, called Ni-kshay Sampark was established in 2018 to address queries of citizens (including grievance redressal mechanism), provide tele-support to TB patients and public and private providers.
- Multi-sectoral engagement was initiated in 2019 to seek more support and ensure coordination between different ministries in the government for extending care and support and promoting TB FREE Workplace and TB FREE workplace policy.
- Innovative sub-national certification mechanism was established in 2020 to create a healthy competition by scientifically measuring and rewarding States & Districts for achieving graded milestones towards progress made against SDG targets related to TB
- Community engagement was scaled-up since 2019, empowering over 30,000 TB survivors to TB *Vijeyetas* who act as a volunteers for peer support to other TB patients and advocates for TB in the community.

### Quote 2: 25 September 2022<sup>1</sup>

*“My dear countrymen, it is said in our scriptures – ‘Parhit Saris Dharam Nahi Bhai.’ That is, there is no other *Dharma* like doing good to others, serving others, doing charity. Recently, in the country, another glimpse of this spirit of social service was seen. You must have*

also seen that people are coming forward and are adopting one TB patient or the other, taking the lead in ensuring a nutritious diet. Actually, it is a part of the TB Free India campaign, whose basis is public participation; a sense of duty. It is possible to cure TB with the right nutrition, with the right medicines at the right time. I believe that with this power of public participation, India will definitely be free from TB by the year 2025.”

“Friends, I have also come to know such an example from the Union Territories of Dadra-Nagar Haveli and Daman-Diu, which touches the heart. Jinu Rawatiya ji, who lives in a tribal area here, has written that under the ongoing village adoption programme, students of the medical college have adopted 50 villages. It also includes the village of Jinu Ji. These medical students make the people of the village aware to avoid illness, also help in the recuperation, and also impart information about the schemes of the government. This spirit of philanthropy has brought new joy in the lives of the people living in the villages. I congratulate all the students of the medical college for this endeavour.”

### **Quote 3: 25 December 2022<sup>2</sup>**

“In this spirit of *Sab ka Prayas* (endeavours by all), we are also working towards eradication of T.B. in India by 2025. You must have seen, in the recent past, when the T.B. *Mukt Bharat* campaign started, thousands of people came forward to help the T.B. patients. These people, as *Nikshay Mitras*, are taking care of the patients, helping them financially. This power of public service and public participation achieves every difficult goal with certainty.”

### **Impact of Quotes 2 and 3**

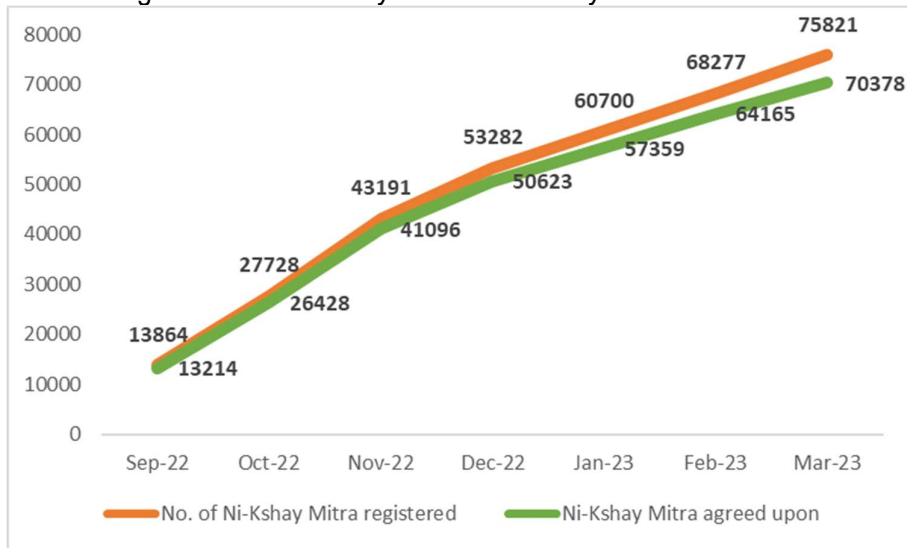
To accelerate the progress of TB elimination, the Government of India launched one of the largest community participation programmes - *Pradhan Mantri TB Mukt Bharat Abhiyan* (PMTBMBA). The initiative was launched by the Hon'ble President of India in September 2022<sup>1</sup>. Since then, enormous participation from all the States/UTs has been seen with Individuals, political parties, elected representatives, NGOs, cooperatives, corporates coming forward and actively participating and providing support to persons with TB.

Since September 2022, a nationwide drive was undertaken by the NTEP to take consent of the TB patients for availing of community support under the PMTBMBA initiative. The NTEP obtained consent from 10.2 lakh TB patients out of 13 lakh patients registered for treatment till March 2023<sup>1</sup>.

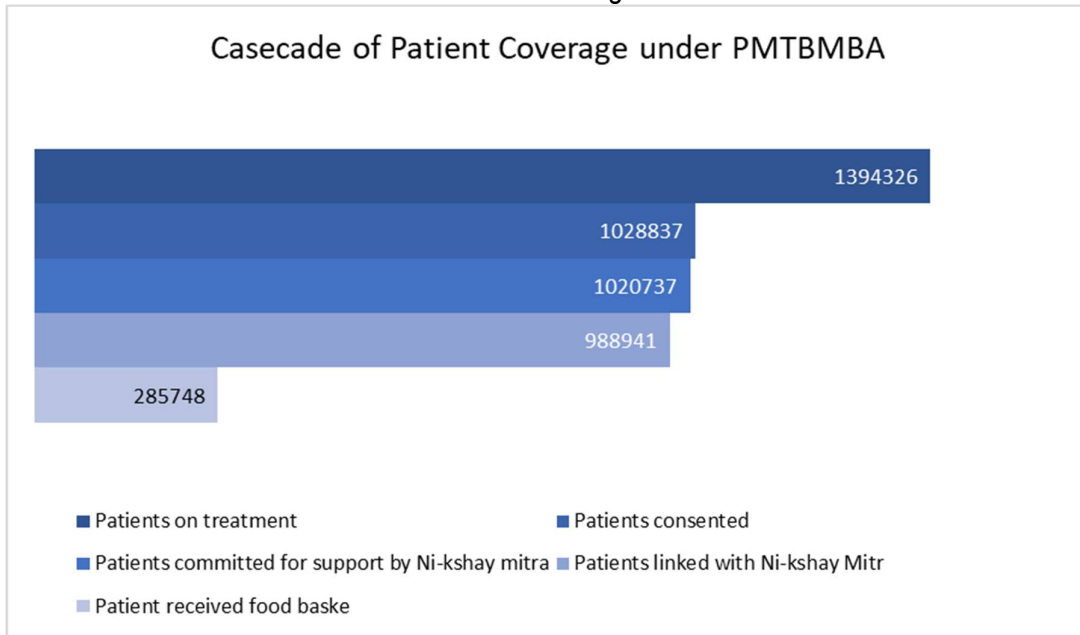
The Government used multiple channels of community mobilization and outreach efforts to mobilize people to support TB patients. Immediately after the launch, the Prime Minister addressed the nation during *Mann Ki Baat* to motivate citizens of the country to come forward and reiterated the same again in December 2022.

In September 2022, 13,864 Ni-kshay Mitras registered on the online platform of PMTBMBA. These numbers increased to 46,863 by December 2022 and reached to more than 75,000 by March 2023.

**Figure 1**  
Registration of *Ni-Kshay Mitras* in *Nikshay* under PMTBMBA

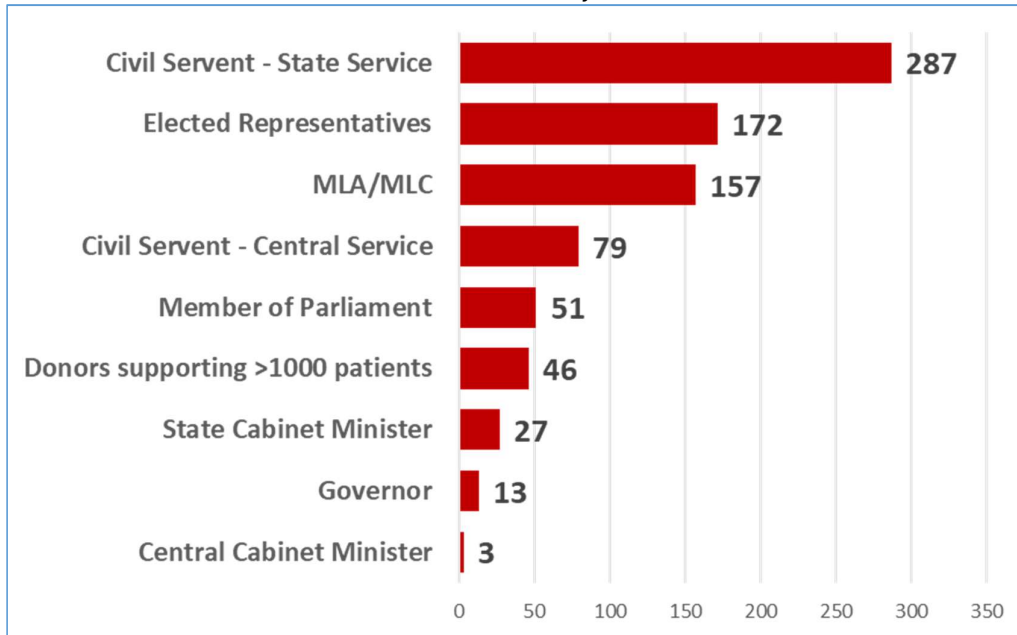


**Figure 2**  
Cascade of Patient Coverage under PMTBMBA



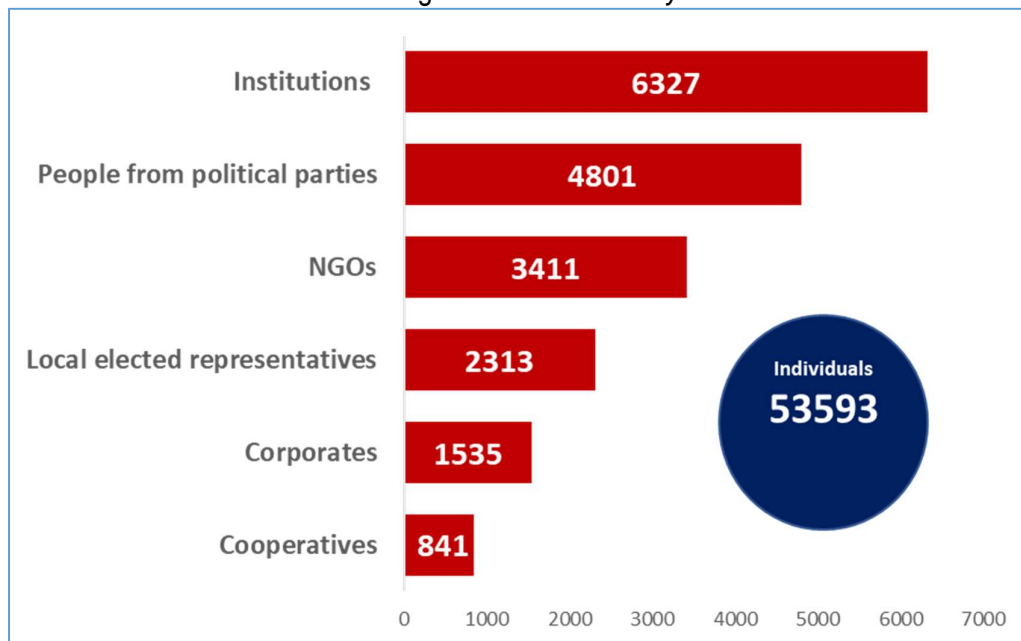
Of the 10.2 lakh patients who are committed for support by the Ni-kshay Mitras, 8.8 lakh TB patients have been linked and 2.85 lakh patients have received food baskets. Moreover, overall monthly distribution of food baskets increased from less than 10,000 in Oct 2022 to almost 90,000 by March 2023.

**Figure 3**  
Prominent *Ni-Kshay Mitras*



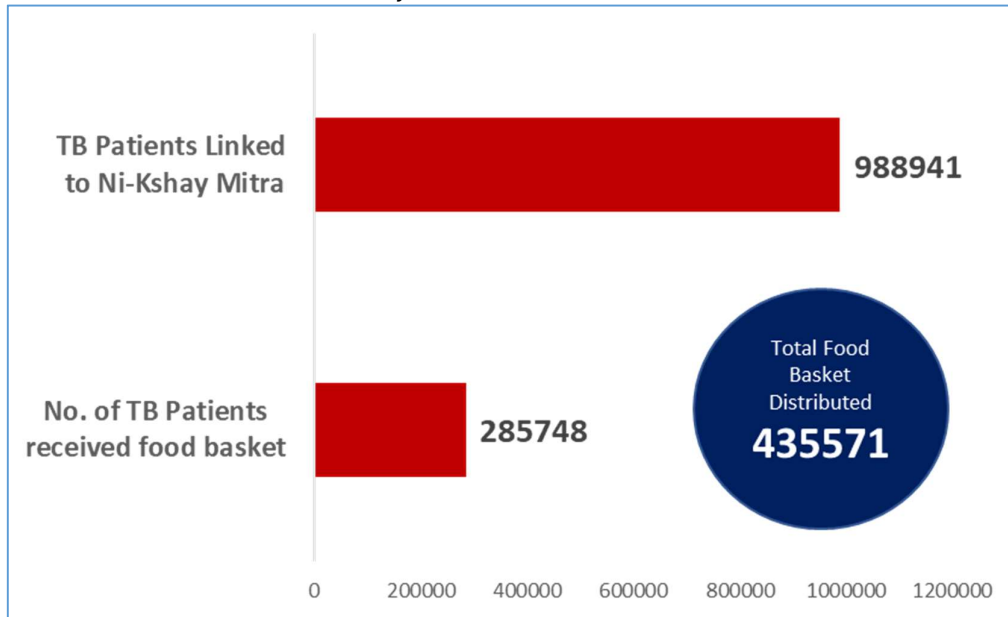
Many eminent persons came forward to support PMTBMBA initiative between September 2022 to March 2023. This led to a true social momentum to support TB-infected people in India.

**Figure 4**  
Broad Categorization of *Ni-Kshay Mitras*



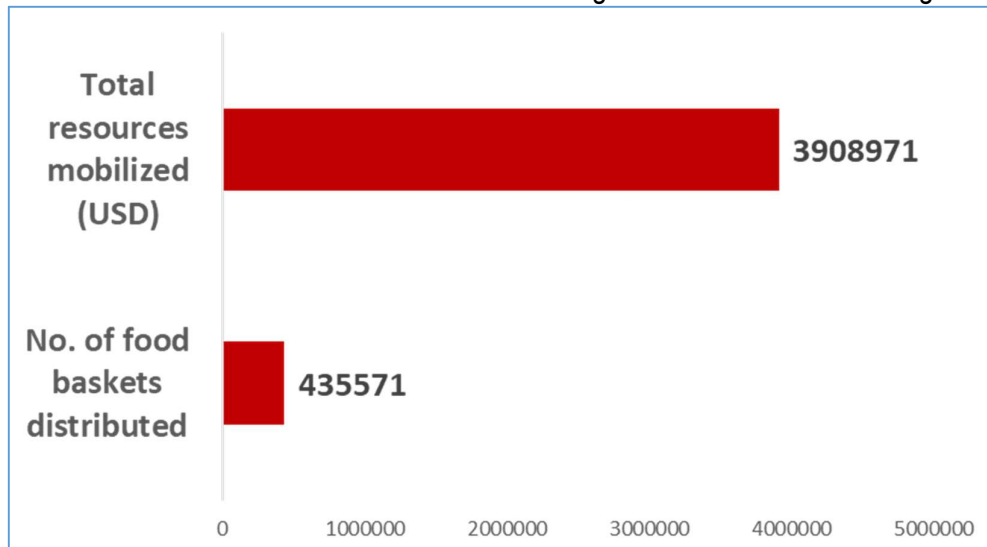
People from all walks of life came forward to support PMTBMBA initiative between September 2022 to March 2023. Most prominently, a large number of individual Ni-Kshay Mitras have come forward to support the TB patients.

**Figure 5**  
TB Patient Linked to *Ni-Kshay Mitra* Vs No. of Patients Received Food Basket



Around 435K food baskets were distributed to 285K TB patients from September 2022 to March 2023. Within 6 months, around 30 per cent of the Ni-Kshay Mitra linked TB patients received the food basket.

**Figure 6**  
Total Resources Mobilized through PMTBMBA Crowdfunding







The average price per food basket ranges from Rs. 500 (6 USD) to Rs. 1000 (13 USD) across States. For purpose of calculations, the authors used INR 700 (9 USD) per food basket. Around



3.9 million USD mobilized to distribute 435K food baskets. Top 5 States contributors include Uttar Pradesh, Gujarat, Karnataka, Maharashtra and Odisha.

**Figure 7**  
Examples out of Total 180 Testimonials Received and Uploaded in Ni-kshay Website

|  |   |
|--|---|
|   | <p>Dr Anju Singh, President (N.G.O), Thakurbari Mahila Vikash Kalyan Samiti (NGO) Sadhanapuri Chapra   <b>Individual</b>   BIHAR</p> <p><b>Motivation to become a Ni- Kshay Mitra:</b> By Verbal Meeting with District T.B Chapra N.T.E.P Staff.</p> <p><b>After becoming an Ni-Kshay Mitra feels:</b> Very Good</p> <p><b>Steps that need to be taken to make our nation TB free:</b> Try to more T.B awareness programmes for the citizens of all the City/State</p>  |
|   | <p>Humanity Welfare Organization Helpline, Social Worker   <b>Individual</b>   Jammu &amp; Kashmir</p> <p><b>Motivation to become a Ni- Kshay Mitra:</b> Almost there is no acceptance for people having communicable and non communicable diseases but everyone of is human and have duty to accept humans in odd conditions</p> <p><b>After becoming an Ni-Kshay Mitra feels:</b> I feel humbled and have been honored if TB affected people will accept me as their friend. I can counsel them as well and they can share whatever</p> <p><b>Steps that need to be taken to make our nation TB free:</b> Awareness in communities and timely medication to affected persons.</p> |
|   | <p>Jyoti Kaur, Receptionist, Raj Bhavan, UP   <b>Individual</b>   Uttar Pradesh</p> <p><b>Motivation to become a Ni- Kshay Mitra:</b> Humanity motivated me to become a Ni-kshay mitra.</p> <p><b>After becoming an N- Kshay Mitra feels:</b> I feel good and worthy</p> <p><b>Steps that need to be taken to make our nation TB free:</b> Awareness of disease keep save people</p>  |
|  | <p>Max Healthcare Institute limited Head CSR Department   <b>Organization</b>   Punjab</p> <p><b>Motivation to become a Ni- Kshay Mitra:</b> State TB health society approached us and told us how our help to TB patients in providing them Nutritional support can change their lives and improve the outcome of treatment. Taking it as our social responsibility we decided to become Nikshay Mitra</p> <p><b>After becoming an N- Kshay Mitra:</b> t gives us immense satisfaction as we are helping the patients</p> <p><b>Steps that need to be taken to make our nation TB free:</b> More involvement of society in such health programs</p>                                |

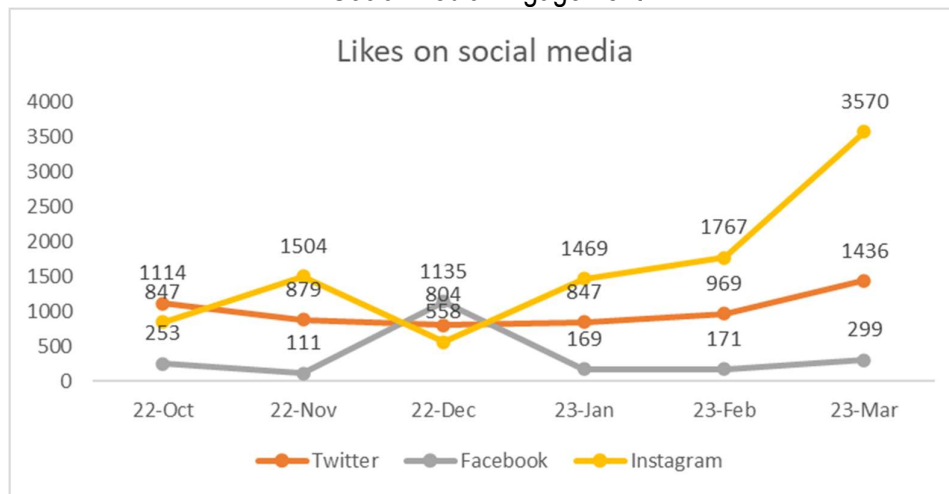
<https://docs.google.com/document/d/1WLFUeKFP52QsNti8hJ0S4qKnz1koEXhd/edit>

PMTMBA platform has a provision for Ni-kshay Mitras to give feedback and testimonials. 180 such engagements have been occurred since September 2022. Maximum testimonials were received during September – December 2022.

Following PMTBMBA launch and *Mann Ki Baat*, community engagement for TB on social media gradually increased. The NTEP social media handles had 3403 followers on Twitter, 198 on Facebook and 15 on Instagram by the end of September 2022. These number of followers increased to 4637; 782; and 248 for these three platform handles of NTEP respectively by the end of March 2023. Engagement of TB *Arogya Sathi* application (NTEP application for citizens and patients for information) has increased from 3.54 lakh in September 2022 to 4.72 lakh in March 2023.

**Limitations:** While the current study attempts to measure the association and impact of MKB, quantitative segregated measurement of impact of the MKB is intricate, as it is one of the many initiatives that has been taken up by the government.

**Figure 8**  
Social Media Engagement



## Conclusion and Recommendations

The highest political will by the heads of the States has been envisioned in the DOTS strategy and WHO's End TB Strategy as a necessary pre-requisite for ending TB globally. This is effectively demonstrated by India. These quotes of the Prime Minister of India in *Maan ki Baat* is an effective statement of intent for ending TB and contribute to health and development of the country. His ability to connect with the masses results in more awareness in public. His appeal to work together and contribute to the causes motivates people to come forward and support the TB patients. Overall, it shows an effective public health model of mass movement generation for collaboration and cooperation for building a healthy Country.

Regarding the improvement in management of PMTB MBA, repeated follow-up is required for ensuring delivery of food baskets to the beneficiaries on monthly basis. Ni-kshay Mitra certificate is being issued at the time of registration. It is proposed to issue the certificate after completion of support to the beneficiary which might decrease the drop-out/defaulting by Ni-kshay Mitras. There is pendency in the follow-up and linkage of TB patients with the registered Ni-kshay Mitra by the District TB officer. Involvement of various Business Associations, Industry partners, Universities/colleges, CSR, etc. will be the key to success and sustainability.

In short, different models need to be developed and tried in different settings for identifying those who are ready to support the TB patients. The models should include optimal use of smart technology (for example e-RUPI), innovative logistics and distribution channels for timely delivery and coverage. On scientific grounds, we need to measure patient-level impact on weight gain and improvement in treatment outcomes of the patients who have received community support. Operationally, we need to assess quality of nutrition baskets being provided to the TB patients.

## Declaration

Conflict of Interest: None to declare

Financial support: Nil

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## **\*PM's Call in *Mann ki Baat* on Vaccine Hesitancy during COVID-19 Pandemic: Review of Literature and Vaccine Uptake Analysis**

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### **Abstract**

*Public health programmes rely on effective communication, advocacy, and social mobilization for their success. The COVID-19 pandemic created an unprecedented medical emergency globally, similar to the Spanish Flu outbreak a century ago. Initially, there seemed to be no solution in sight, and tens of thousands of people lost their lives to the virus in various countries. However, when the vaccine arrived, doubts about its efficacy and safety emerged. The Indian scenario was no different, as the government faced misperceptions and vaccine hesitancy when launching its vaccination campaign in January 2021. Hon'ble Prime Minister, Shri Narendra Modi discussed the issue through his various addresses to the nation on his signature programme Mann ki Baat (MKB) on All India Radio (AIR). This review paper examines the empirical research on Mann ki Baat's coverage of the COVID-19 pandemic with a specific focus on vaccine hesitancy. The paper analyzes all the episodes of the show aired during the pandemic and the subsequent state of vaccine uptake. Furthermore, the paper analyzes the media multiplier impact of MKB and people's engagement with various social media platforms.*

**Key words:** Public health, COVID-19, communication, Mass media, Advocacy, Radio, Audiences, MKB.

### **Introduction**

The COVID-19 pandemic has caused widespread disruption to the society, with people experiencing a range of challenges including illness, loss of loved ones, economic difficulties, and social isolation. As the world grappled with this unprecedented crisis, leaders were faced with the challenge of finding effective ways to communicate with the public about the virus, its transmission, and how to stay safe<sup>1</sup>. In India, Hon'ble Prime Minister, Shri Narendra Modi addressed the nation through his monthly radio programme *Mann ki Baat* to provide guidance, information and reassurance during these uncertain times. Since its launch in 2014, *Mann ki Baat* has been a platform for the Hon'ble Prime Minister to speak directly to the people of India on a range of issues, including social welfare, economic development, and national security<sup>2</sup>. However, during the COVID-19 pandemic, the programme took on a new significance as the Hon'ble Prime Minister used it to address the nation's concerns and provide guidance on how to tackle with virus. One of the most significant impacts of *Mann ki Baat* during the pandemic was its role in raising awareness about the virus and its transmission. In his episodes, the Hon'ble Prime Minister provided clear and concise information about COVID-19, how it spreads, and the

precautions people could take to protect themselves and their families<sup>3</sup>. This information was particularly important in the early days of the pandemic when there was still much uncertainty about the virus, and rumors and misinformation were spreading rapidly.

The Hon'ble Prime Minister also used *Mann ki Baat* to allay fears and anxiety about the pandemic. As people were forced to stay indoors, isolated from friends and family, and worried about their health and the future; his reassuring voice provided much-needed comfort and support<sup>4</sup>. His messages of hope and resilience helped people to stay positive and keep faith in the ability of the country to overcome the crisis. As the pandemic progressed, the focus of *Mann ki Baat* shifted towards the importance of vaccination and addressing vaccine hesitancy. In his episodes, he emphasized the importance of getting vaccinated, explaining the benefits of the vaccine and encouraging people to take it. He also addressed concerns and misconceptions about the vaccine, working to dispel rumors and promote confidence in its safety and efficacy<sup>5</sup>. *Mann ki Baat* proved to be a powerful tool in increasing vaccine uptake in India. Following the Hon'ble Prime Minister's episodes, there was a surge in vaccine demand, with millions of people booking appointments to get themselves vaccinated. The direct communication from the Hon'ble Prime Minister helped to build trust in the vaccine and motivated people to take action to protect themselves and their communities<sup>6</sup>. Given the significance of *Mann ki Baat* programme during the COVID-19 pandemic and its potential impact on public health and behaviour, there is a need for a comprehensive study that analyzes the content and delivery of the programme's messages. Such a study can provide valuable insights into the role of advocacy and effective communication in public health crisis management and help identify best practices for promoting vaccine uptake, addressing vaccine hesitancy, and improving public health literacy.

## **Public Health and Mass Media Discourse**

Mass media today is pervasive, influencing our attitudes, opinions, and mindsets. Mass media channels like newspapers, television, radio, and the internet, especially with its interactive capabilities, have changed the way people perceive things like never before. Mass media also provides a platform for various kinds of communication, including on public health. The internet has facilitated access to scientific information on diseases and their cures. In times of emergencies and pandemic situations, the internet has been a great source of information dissemination<sup>7</sup>. The Co-Win Portal in India facilitated immensely the operationalization of vaccinations, reaching out to millions of people who registered themselves for vaccination.

Public health and behaviour change communication, in a broader sense, are closely aligned. Many empirical studies suggest that a constant dialogue with communities through communication, including via media platforms, make a difference in people's perceptions about health issues, including immunization. Communication lies at the core of behaviour change, especially in the public health arena. In various behavioural change theories that gained momentum in the 1980s, interestingly it is found that in all of them, individual actions are seen as the locus of change<sup>8</sup>.

This paper has looked at two aspects broadly: the importance of communication in public health situations (COVID-19) and how a celebrity discourse, in this case, the Hon'ble Prime Minister of our country, took the issue head-on, not necessarily as a PM from the position of power, but as a 'senior member of the family,' exhorting people through persuasion to go for vaccination.

The PM's discourse had a media multiplier impact as the mainstream media covered every episode vigorously<sup>9</sup>. The *Mann ki Baat* (MKB) programme hosted by the PM is available on various social media platforms, including on the PM's website. Many people visit there and post their likes, dislikes, and comments. The paper has also investigated these voices in its VOX POP subsection of the paper after the June 2021 episode, which addressed the issue of vaccine hesitancy. The paper has looked at a cross-section of research studies undertaken on the subject which primarily deal with discourse analyses along with data on the state of vaccine hesitancy and uptake of vaccine demand post the programme.

## **COVID-19: The State of the Problem**

The COVID-19 pandemic brought to the surface the importance of medical emergency handling as it exposed a general lack of preparedness in dealing with it, even in the most developed countries, when thousands of people were gasping for breath or dying<sup>1</sup>. Like any other disaster, COVID-19 obstructed, derailed, and diluted developmental efforts of the past many years but unlike other disasters, this pandemic was embedded in unparalleled misery, anxiety, and uncertainty, the likes of which were not recalled in public memory.

One of the fallouts in a crisis, in general, is information overload or even spread of misinformation. In an interconnected world with seamless media reaching out to billions of people through one or the other platform, especially digital, it did not mean that people were well-informed. The excessive information overload on the subject, both in the classic and new media, created a trust deficit as correct news jostled with fake news, grapevine, misinformation, disinformation, and conspiracy theories that only added to anxiety and mistrust<sup>10</sup>. The COVID-19 pandemic has highlighted the importance of vaccination as a key tool in controlling the spread of the virus. India launched its COVID-19 vaccine campaign in January 2021 and has since then vaccinated millions of people across the country. However, vaccine hesitancy has been a challenge in India owing to misperceptions about its safety and efficacy with some sections of people<sup>11</sup>. During the COVID-19 pandemic, a new word, viz. "infodemic," surfaced, referring to the overload of unfiltered information from all around<sup>12</sup>. In a joint statement, several organizations, including WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC, issued a statement as follows: "The Coronavirus disease (COVID-19) is the first pandemic in history in which technology and social media are being used on a massive scale to keep people safe, informed, productive, and connected. At the same time, the technology we rely on to keep connected and informed is enabling and amplifying an infodemic that continues to undermine the global response and jeopardizes measures to control the pandemic."

If media wittingly or unwittingly contributes to a chaotic situation in a crisis, the media also is the only channel at the mass level that is required for reversing the situation and bringing confidence among people, who ordinarily make sense of the world around them through media stimuli<sup>13</sup>.

## **Research Question**

The research question for this paper is: What is the impact of PM Modi's *Mann ki Baat* on vaccine hesitancy and vaccine uptake in India? The paper has framed this question to investigate the

effectiveness of the government's campaign on vaccine hesitancy and the role of PM Modi's *Mann ki Baat* in changing public perception about COVID-19 and vaccines.

## **Methodology**

This is a review paper that analyzes the current research on Prime Minister Modi's signature radio programme *Mann ki Baat*, his discourse on COVID-19 in general, and especially the episode that dealt with vaccine hesitancy. Since the start of the pandemic, PM Modi has addressed the issue of COVID-19 and vaccination in his national addresses and in a number of MKB episodes. Specifically, he discussed vaccine hesitancy and the importance of vaccination in a detailed address in MKB on 27 June 2021. The literature review will identify relevant studies that have investigated the impact of government campaigns on vaccine hesitancy and uptake in India.

## **Data Sources**

The study has collected data on vaccine coverage before and after Hon'ble Prime Minister's *Mann ki Baat* on vaccine hesitancy. Data have been collected from the government reports, news articles, research papers, and surveys to gather perspectives on vaccine hesitancy and the impact of the government's campaign. The review has included questions related to vaccine hesitancy, perceptions on vaccine safety and efficacy, and the impact of PM Modi's *Mann ki Baat* on changing attitudes towards vaccines.

## **Data Analysis**

The study analyzed the data from the CoWIN portal to identify the trends or patterns in vaccine coverage before and after the *Mann ki Baat* address to make correlations, if any. Statistical analysis has been undertaken to identify the pattern of vaccine coverage over a timeline. The study has also done content analysis of PM Modi's *Mann ki Baat* address to identify key messages and themes related to vaccine hesitancy. The literature review has focused on the existing studies that have examined the content in MKB from various perspectives.

The paper has drawn conclusions on the impact of PM Modi's *Mann ki Baat* on vaccine hesitancy and uptake and discussed the implications of the findings for future government campaigns on vaccine hesitancy in India.

## **Findings**

### **PM's Signature Programme**

*Mann ki Baat* or MKB as popularly known is a half an hour programme hosted by the Hon'ble Prime Minister, Shri. Narendra Modi since October 2014. The programme is broadcast on the last Sunday morning of every month. MKB is broadcast in 21 regional languages, 31 local dialects and 16 foreign languages on 326 channels of the State Broadcaster, AIR (All India Radio) Network on MW, SW, FM and DRM besides 24x7 live, live streaming on News On Air App and the YouTube channel of AIR. It is simultaneously broadcast on Radio, TV and Digital Platforms

of Prasar Bharati. The aim behind the programme is to "establish a dialogue with the citizens on issues of day-to-day governance", according to I&B Ministry's statement, calling the audio-based program as the India's "first visually enriched radio programme"<sup>14</sup>. The PM's website invites people to give suggestions or ideas for the upcoming episodes as "Send us your suggestions on the themes or issues you want the Prime Minister to speak about in the upcoming *Mann Ki Baat* episode". When *Mann ki Baat* completed its 50<sup>th</sup> episode, a book, *Mann ki Baat - A Social Revolution on Radio* was released by the late Shri Arun Jaitley<sup>7,15</sup>.

The AIR is a huge network, which almost reach the majority of India's population. It has over the years, lost listenership substantially owing to many factors. Besides being a popular show that attracts listeners, *Mann ki Baat* has also become a lucrative source of revenue for the organization, as evidenced by the advertising revenues generated after each episode. Media reported that from 2014 to 2022, AIR has earned over 30 crores in advertisement revenue from this programme, with the highest of over Rs. 10.64 crore earned in 2017 to 18<sup>16,17</sup>. This was shared in a reply to a question in Rajya Sabha. In a written reply in the Lok Sabha, the Minister of I&B informed that the "BARC data of Television viewership show that the viewership of *Mann Ki Baat* on the DD Network increased from 100 million viewers between June 2018 to December 2018 to 132 million between June 2019 to December 2019.

### **Communication Theories and COVID-19 Discussion in Various Episodes of *Mann ki Baat***

The COVID-19 pandemic has been one of the most challenging public health crises in recent history, with countries around the world struggling to contain its spread and mitigate its impact on people's lives. In India, the Hon'ble Prime Minister has been using his monthly radio talk, *Mann Ki Baat*, to address the various issues related to the pandemic; and provide guidance and support to the people of the country. Through these talks, Hon'ble PM has emphasized the importance of following COVID-19 appropriate behaviour, addressing vaccine hesitancy, supporting frontline workers, and improving the pandemic management<sup>18</sup>.

**Health Belief Model (HBM):** One of the key theories that can be applied to PM Modi's communication strategy during the pandemic is the Health Belief Model (HBM). The Health Belief Model suggests that individual health behaviour is influenced by perceived susceptibility, severity, benefits, and barriers. According to the HBM, an individual's health-related behaviour is influenced by their perceived susceptibility to a particular health problem, the perceived severity of the problem, the perceived benefits and barriers of taking preventive action, and cues to action (such as messages from health authorities or social norms). PM Modi's speeches have often focused on increasing awareness of the severity of COVID-19 and emphasizing the benefits of following preventive measures such as wearing masks and maintaining social distance<sup>19</sup>.

**Social Cognitive Theory:** In the episode aired on 29 March 2020, PM, Modi highlighted the role of frontline workers (FLWs) in fighting the pandemic and emphasized the importance of COVID-19 testing and management. This is in line with the Social Cognitive Theory (SCT), which emphasizes the role of social and environmental factors in shaping individual behaviour. By acknowledging and thanking FLWs, PM Modi was sending a message that their efforts were appreciated and valued which could motivate them to continue their work<sup>20</sup>.



**Diffusion of Innovations Theory:** In the episode aired on 25 April 2021, PM, Modi brought in experts on COVID-19 management, HCWs and FLWs to discuss various aspects of pandemic management. This helped in building trust and confidence in the health care system and in the efficacy of the measures being taken to manage the pandemic. This can be seen as an example of the Diffusion of Innovations Theory which suggests that new ideas and practices spread through social networks over time. By bringing together experts from different fields, PM Modi was creating a platform for the exchange of ideas and knowledge, which could lead to better management of the pandemic<sup>21</sup>.

**Trans-theoretical Model:** In the episode aired on 30 May 2022, PM, Modi discussed the role of testing, FLWs, and oxygen in pandemic management. This is in line with the Trans-theoretical Model (TTM), which suggests that behaviour change occurs in stages with individuals moving from pre-contemplation to contemplation, preparation, action, and maintenance. By discussing various aspects of pandemic management, PM, Modi provided information and support to individuals at different stages of behaviour change<sup>22</sup>.

**Social Ecological Model:** In the episode aired on 27 June 2021, PM, Modi highlighted the role of the villagers and forest-dwellers in setting up quarantine centers and following COVID-19 protocols. This can be seen as an example of the Social Ecological Model (SEM) which suggests that individual behaviour is influenced by multiple levels of factors, including individual, interpersonal, community, and societal factors. By acknowledging the efforts of rural communities in fighting the pandemic; PM, Modi was sending a message that individual behaviour change can be facilitated by community-level support and involvement<sup>8</sup>.

**Health Communication Model:** In the episode aired on 24 October 2021, PM Modi discussed the use of drones in COVID-19 vaccine delivery, highlighting the role of technology in pandemic management. This is in line with the Health Communication Model which suggests that effective communication can lead to behaviour change and improved health outcomes. By emphasizing the role of technology in pandemic management, PM Modi was sending a message that innovation and creativity can be powerful tools in fighting the pandemic<sup>23</sup>.

**Extended Parallel Process Model:** In the episode aired on 24 April 2022, PM Modi discussed the importance of celebrating festivals with restraint. The Extended Parallel Process Model suggests that threat and efficacy perceptions influence behaviour. The Prime Minister has effectively communicated the potential threat posed by COVID-19 and the efficacy of health measures in combating the virus. In the 25 April 2021 episode, the Prime Minister spoke with the doctors and frontline workers to understand their experience in managing COVID-19<sup>24</sup>.

**Analysis of PM's Talk on COVID-19, Especially Vaccine Hesitancy (78<sup>th</sup> Episode, 27 June 2021)**

The importance of trust in vaccines cannot be overstated, as it relies heavily on the government's capacity in being transparent and effective in communicating the benefits against risk of vaccines and to ensure the safe and efficient delivery of vaccines. Governments play a crucial role in fostering trust in the efficacy and safety of vaccines by communicating effectively and building confidence in their ability to efficiently and equitably procure and distribute them. It is imperative

to establish trust not only in vaccines but also in the institutions responsible for their administration. Instances of health systems and public institutions failing to effectively serve specific population groups in the past have contributed to the reluctance of some individuals to receive vaccinations. Trust in institutions is crucial for the effective operation of society and the acceptance of the public policy, especially during times of crisis<sup>9</sup>.

PM, Modi has in general taken up the COVID-19 crisis in a number of MKB episodes but after the government started vaccination in a campaign mode from January 2021, even though the start was slow, it picked up in a few months as the coverage included all adults over 18 years of age. But a better demand generation was needed in an environment of complacency and hesitancy, when the PM took it up in *Mann ki Baat* in June 2021.

In the 78<sup>th</sup> episode of *Mann ki Baat*, the PM began with the hot topic of the then ensuing Tokyo Olympic that was to start on 23 July 2021. He exhorted the listeners to participate in the *Road to Tokyo Quiz* and win awards. He spoke of the Olympian, Milkha Singh who lost his life to COVID-19. He shared that he spoke with him when he was hospitalized and, on his request, Milkha Singh sent his Goodluck message to Indian participants. He referred many other participants by name including Parveen Jadav, Deepika Kumari, Neha Goel, Bhavani Devi, Shivpal Singh, Manish Kaushik, Chirag Shetty and Satvik who had suffered from Corona a year before. He spoke about the struggle of all these players and the sacrifices of their family members in contributing to their careers despite economic hardships. While he spoke, one could see on the audio-visual platforms that also run MKB, videos of various players in action in their respective fields including visuals of late Milkha Singh.

He called upon the 'countrymen' not to pressurise the participants on social media but cheer for them at #Cheer for India hashtag to motivate all the players who were participating in the then Tokyo Olympics.

From the Tokyo Olympics narrative, he shifted focus by saying "Corona ke khilaf jang jaari hai (the war against Corona is continuing); with 86,00,000 dozes administered in June 2021. He then asked if he could speak to someone, when he was connected with Rajesh Harave, from Betul, Madhya Pradesh. The PM started by asking what was the state of corona in his village? He asked him about the number of people in the village, Rajesh replied saying 462 Men and 332 women. Incidentally there was no mention about children. When he was asked if he had taken the vaccine, he said he had not because the WhatsApp had been spreading information that the vaccine was not safe as people were falling sick and dying.

PM responded saying, "Aapko daar hai toh nikal dijiye, 31 crore ne teeka lagva diya hai. Bukhar mamuli hota hai". (If you have any fear, take it away from your mind as 31 crore people have already taken vaccine) further assuring that no vaccine can be dangerous to him, his family and his village. He encouraged him to tell everyone in his village that the vaccine was free for everyone aged 18 years and above.

He then shared that there were villages where 100 per cent people had been vaccinated, referring to Bandipura in J&K and three villages in Nagaland where it again was cent per cent. PM appreciated the role of many including the civil society organizations (CSOs) that made it happen.

Telling Rajesh that even if he had misgivings about vaccine, he needed to vaccinate (*Bhram ho toh bhi teeka lagana zaroori hai*) and set example. Kishorilal Dubey was another person he spoke with from the same village gram panchayat Jhularia, “*Aapne bhi aisa suna hai afwah? Kahte kya hei?*” (Have you also heard these rumours, what do they say?) asked PM.

He replied in affirmative, stating that the rumor had it that people died after vaccine, adding that he came from a tribal village, where people easily believed in the grapevine. PM emphasised that Corona was still there and the only way to safeguard oneself was to follow Corona protocol of wearing mask, maintaining social distance and cleaning hands time and again. He invoked people to believe in scientists who worked day and night in bringing us vaccines. Those who were spreading misinformation, he said confront them by telling them that crores have been vaccinated.

Ending his discourse, he said “Good wishes to your village. *Jab bhi aapka number aye aapna teeka lagvaye*” (when your number comes, do get vaccinated). He asked them to write to him when the entire village would get vaccinated and he shall wait for their letter (“*Jab aapke gaon mein pura teekakaran ho jaye mujhe chitti likhye mein intzaar karoonga*”). Here we see the PM as a programme host was not speaking from a pedestal but at the same level and with empathy as one would do with one’s family. The discursive way of discourse is later discussed in one of the current research on the subject.

### **Current Research on *Mann ki Baat***

The programme *Mann ki Baat* interestingly drew some academics and research scholars from some universities coming from trans-disciplinary fields, such as media, communication, linguistics, technology, computer sciences to undertake research on the programme which has provided interesting findings and insights.

An insightful research paper, (Samaraju 2022) has discussed the discursive practices of PM Modi during COVID-19, examining how his various address to the nation and the MKB, the PM managed to deal with various COVID-19 related concerns<sup>6</sup>. Drawing on theoretical perspective and various discursive research studies and rhetorical practices, the researcher has analysed the discourse of the PM on COVID-19, using the Discourse Analysis Approach. He has deconstructed broadcast speeches, dividing the discourse in two forms, viz., PM’s broadcast to the Nation on the national and other TV networks and PM Modi’s monthly episodes on radio. The timeline of his research was between 1 March 2020 to 31 August 2021 which included 35 speeches and 18 *Mann ki Baat* episodes. He used the techniques of constructionists discourse analysis (Billing, 1991, Condor et al, 2013, McKinlay and McVittie, 2008) as relevant to the mediated political discourse<sup>25</sup>. His findings make for an interesting discussion. PM, Modi; it says developed a relation between himself and the audience in ways that could not be seen as instructions but requests for service. When he said, “whenever, I asked anything of you, my countrymen have never disappointed me”, deducing that the use of pronouns ‘I’ and ‘You’ meant that the matters under discussion put Modi as an individual and the audiences as the recipients of his request. Similarly, the researcher has worked on various “extracts” from the discourse to draw conclusions. Persuasion, he cites was a core aspect of the PM’s discourse; audiences here were not construed as mere audience or citizens but as ‘fellow audiences’, who normatively would

admit service, duty and care. The findings reflect how PM Modi framed instructions and possibilities for complying with them in terms of 'expected national service'. The Researcher concludes that compliance with COVID-19 appropriate behaviours and government instructions were "embedded in the grammar of social relations grounded in duty and service"<sup>13</sup>". Another research paper (Kanika Garg, 2019) has offered Sentiment Analysis of Indian PM's *Mann ki Baat* radio programme discussing how it has a multiplier impact as people sharing their views and ideas on different platforms such as NarendraModiApp, my Gov App, Twitter, Facebook et al. The scholar collected 2000 tweets with #MannkiBaat to analyse the sentiment content<sup>5</sup>.

Researchers Mounika Kandukuri and VV Haragopal (2020) undertook the textual mining for evaluating *Mann ki Baat* by using Topic Modelling Technique. The data and method utilized unstructured data of the episodes for three months in 2020 using a popular modelling based on LDA (Latent Dirichlet Allocation) to find the 'most likely topics and themes discussed in each month that left an impact on people in raising their awareness. The findings reflect that PM's *Mann ki Baat* programme brought to the fore various initiatives and topics including social life, public life, lifestyle, cleanliness, COVID-19 and environmental concerns<sup>15</sup>.

Kaur and Mishra (2022) used multi-thematic methodological path for content-analysing MKB. The authors comment that *Mann ki Baat* "induced a new lease of life" to public broadcasting through this programme. The researchers chose 24 episodes of 2014-2020 through constructed and continuous sampling method. Among the various themes, COVID-19 was also selected for analysis. In their analysis of the PM's COVID-19 discourse on MKB, they conclude that despite criticism from the opposition for giving a 'political tinge' to what the party in harness did, there was no denying the fact that "Mr. Modi addressed the unfortunate pandemic in a very human and humane manner". They refer to masses responding to PM's call of ringing bells or utensils to boost the morale of corona warriors across states and spectrum. As a programme host, the researchers posit that PM shows "diligence in disseminating news, information and letting people know about various critical measures taken by the government"<sup>25</sup>.

In an exploratory primary research, researchers Gandhi and Balamurgan investigated people's expectations from *Mann ki Baat*, taking a sample of 100 respondents across various age categories, the youth comprising the largest segment. The findings of the study include responses such as making the MKB interactive, giving chance to people to select topics for MKB, the host to share the "work progress they have made in various fields so far since the last episode", etc.<sup>26</sup>

### **Media Multiplier Impact**

The expression 'media-multiplier' impact drawn from the advertising lexicon suggests multiple effectiveness synergised when advertising appears simultaneously in two or more media platforms, such as print and television. Development scholars also study how an issue can be synergised at various media platforms to receive a campaign like effect<sup>14</sup>. When we study *Mann ki Baat* month after month, it is found that it has become a talking point on various other media platforms also, like online, television and print. A study of some mainstream media headlines after the 78<sup>th</sup> episode of the MKB on vaccine hesitancy, makes for an interesting understanding of the multiplier impact. Here are some glimpses:

The Indian Express: *I have taken vaccine, so has my mother; don't believe rumours: PM Modi*  
 The Print: *"Trust Science": PM Modi urges people to shed vaccine hesitancy on Mann ki Baat*  
 Mumbai Mirror: *'Mann ki Baat': PM Modi urges people to overcome vaccine hesitancy*  
 The Hindustan Times: *PM Narendra Modi addresses vaccine hesitancy in Mann ki Baat*  
 India Today: *Mann ki Baat: PM Modi urges people to shed vaccine hesitancy, says mother almost 100 years old, yet inoculated.*  
 India TV: *Mann ki Baat guided by views of youth of India; a medium of positivity, sensitivity: PM Modi*  
 The Hindu: *Mann ki Baat: PM Modi urges people to shed vaccine hesitancy. Trust science and scientists, not rumours, to combat the threat of COVID-19, he says in the monthly broadcast.*  
 The Deccan Herald: *On 'Mann Ki Baat', PM urges people to shed vaccine hesitancy*  
 Business Standard: *COVID-19 vaccine hesitancy can be dangerous; ignore rumours: PM Modi*

The above provides only a small glimpse. India has over one lakh publications, including over 17000 newspapers, hundreds of news channels and millions of websites. Therefore, the multiplier impact, even if the issue was covered by a fraction of print media, television, radio and online media; it would be tremendous in terms of dissemination and creating an echo system about the issue. There is enough empirical research to suggest that when an issue reaches people's homes and work places through mediated communication via the mass media, families, friends and peers discuss it and opinions are formed. It is believed that media often sets the agenda, but at the same time it also reinforces attitudes and opinions that are already established.

## **Vox Pop**

A Latin phrase, *Vox Populi, Vox Dei* or the Voice of the People is the voice of God in a way posits that public opinion is the ultimate determinator in a polity. The programme that attracted millions of people month after month, thus influencing their mindsets, drew them to express their views, concerns, fears and aspirations about the vaccine. The 78<sup>th</sup> episode of *Mann ki Baat*, had a few hundred specific responses on various social media platforms including Facebook, You tube and @PMOIndia. After analysing all of them, five major sub categories have been created for analysis, which include both positive and negative tweets under the following categories, viz., *Government efforts, Trust in vaccine, Mobilization for vaccination, Hesitancy and off the subject/others.*

Some are reflected below in verbatim:

### *Government efforts*

- Sir, please start vaccination drive for students before holding any offline exam or offline class. This is the need of the hour.
- *Har ghar vaccine lagu kijiye (please start vaccination for every household).* Then only we will see greater participation of people. Don't limit it to specific hospitals.
- If vaccines were administered earlier, many deaths could have been avoided (translated from Hindi)

### *Trust on vaccines*

- They are forcing us to appear (in examinations) without vaccination. Please help us before it is too late.
- Trust in matters of science is not sought on twitter, sir, it is sought by transparency by showing data, research, peer reviewed articles. I hope you and your cabinet stands by science this way.

### *Mobilization of vaccines*

- Appreciate this message sir. I also tell people who are afraid of vaccine that even Modi ji prime minister has taken vaccine so why should u worry?
- Encouraging my known also to get vaccinated

### *Hesitancy*

- I am not vaccinated nor I wish to take the vaccine
- It should be made optional not compulsory
- What about facts which are coming on (sic) newspapers and electronics media?
- Stop “forced vaccination”. “My body My right” you will have to except (sic) this reality...

### *Others*

- It is often seen that some people share their ‘other’ grievances or put irrelevant posts either out of ignorance or in a belief that any platform is good enough. The issues raised were, government employee DA, examinations, physiotherapist recognition, Assam paper mill issue, revive pension, rehabilitation of slums, ration for poor families et al.

From the various tweets, here we see strong opinions both positive and negative that in a way are pointers to what the public opinion was in the midst of the dreaded pandemic, i.e., belief, trust, hesitancy and lack of faith among varying people for various reasons. As vaccination was voluntary, a huge uptake over a period of six months or so reflects how from a ‘No Relevance’ or ‘Scepticism’, the demand for vaccine changed to be ‘Aspirational’ and of ‘Urgency’ among people at large as the graph on vaccine uptake also reflects.

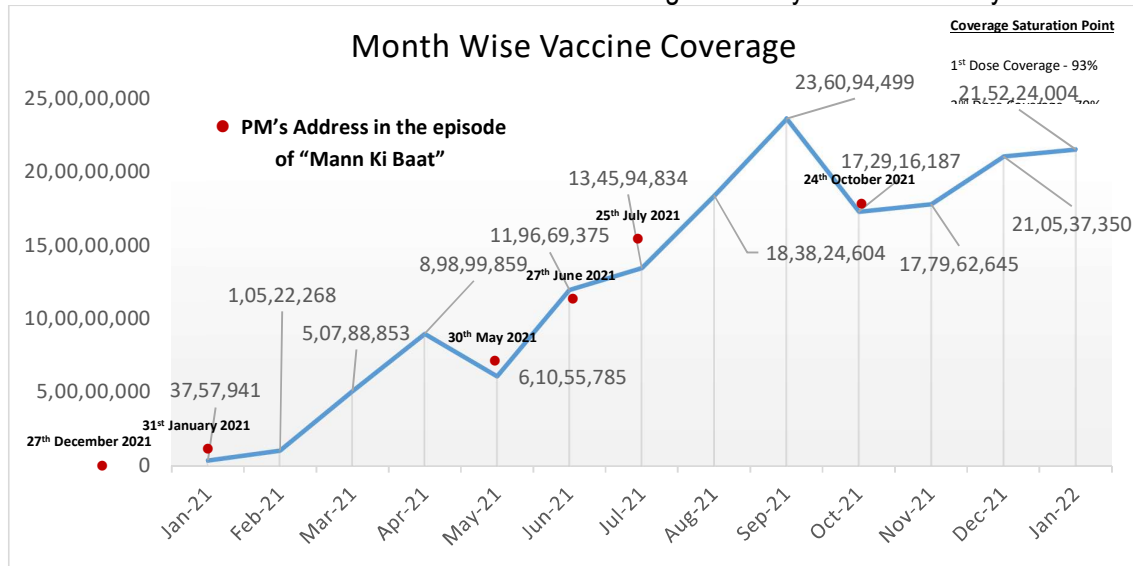
## **State of Vaccine Use and its Uptake in 2021-22 in India**

The vaccination drive in a campaign mode keeping in view the age cohorts began from January 2021. The following graph reflects the state of vaccination for 18 months i.e., January 2021 to June 2022. PM specifically addressed the issue of vaccine hesitancy in MKB in June 2021 which had a huge multiplier impact in both classic and digital media platforms. A robust institutional back up and opening of vaccination centres amidst localities including schools, etc. supported a humongous demand generation.

The graph in Figure-1 shows the number of COVID-19 vaccine doses administered each month from January 2021 to January 2022 in India. Along with the timeline, the graph also indicates the various episodes of PM Modi's *Mann ki Baat* where he addressed various issues related to the pandemic. The initial rollout of the vaccine in January 2021 was slow, with only a few million doses administered. However, as PM Modi spoke about the importance of vaccination and the need for mass vaccination drives in the February and March 2021 episodes of *Mann ki Baat*, the number of doses administered saw a sharp increase. In April 2021, there was a significant rise in the number of vaccine doses administered due to the increasing spread of the virus and the urgent need for vaccination. However, in May 2021, there was a dip in the coverage, which was

partially attributed to vaccine hesitancy. To tackle this issue, PM Modi addressed the issue of vaccine hesitancy in the June 2021 episode of *Mann ki Baat* and urged people to get vaccinated as soon as possible. This led to an increase in the number of vaccine doses administered in the following months, with a peak in September 2021, when over 200 million doses were administered. In total, by the end of January 2022, 93.0 per cent coverage of 1<sup>st</sup> dose and 70.3 per cent coverage of 2<sup>nd</sup> dose achieved of age eligible population (15+ age group).

**Figure 1**  
Trend Line of All India COVID-19 Vaccine Coverage: January 2021 to January 2022



## Discussion

The COVID-19 pandemic has created an unprecedented global health crisis, leading to a significant impact on economies and societies worldwide. In India, the situation was no different, and the government had to take several measures to tackle the crisis. One of the measures taken was the initiation of a radio programme, *Mann Ki Baat* by the Prime Minister of India, Shri Narendra Modi<sup>21</sup>. The programme aimed at providing direct communication between the Prime Minister and the citizens of the country, specifically regarding the COVID-19 pandemic.

A unique programme, *Mann Ki Baat*, hosted by the Prime Minister, Shri Modi, is probably the most talked-about discourse in the society, among common men and women, researchers, academics, and critics alike for various reasons. Establishing a dialogue with the masses can be seen as an expression of interactive democracy by some and publicity by others, depending on where the argument is coming from<sup>26</sup>. Without getting into the politics of the varying narratives, the review paper has a limited focus in inquiring into the impact of PM's persuasive skills in interacting with people in general and those who were vaccine hesitant in particular, to come forward and vaccinate themselves to save lives in the face of the dreaded pandemic.

In such an environment, where the effort of the government was to reach out to the last mile in covering various age categories in a campaign mode, there were many sections who were not

interested in vaccinating themselves or their families for various reasons, not necessarily based on reason and rational thinking<sup>3,27,28</sup>. Questions were asked, and doubts were raised by political opponents also on the efficacy of the vaccine. It was certainly not an easy task to reach out to the people and convince them to go for vaccination. Credibility is an important factor in the process of perception management<sup>29</sup>.

When the Prime Minister went for inoculation, the television channels covered it which can be deconstructed by people that when a PM could do, why wouldn't they also do. When he spoke about vaccine hesitancy in *Mann ki Baat*, he invoked his personal example and that of his late centenarian mother to convince an average vaccine-hesitant person to shun hesitancy, believe in scientists and avoid believing in rumour mongers. In issues of public health, it is not possible to force people to follow a diktat but convince them to see value in their own interest to change the existing behaviour and adopt a new one. Behaviour change communication, advocacy, social mobilisation, and constant hammering through persuasion, above all establishing a vaccine-positive ecosystem through various media platforms created a humongous demand generation, compared with the initial stage when the vaccine arrived on the scene, as the graphs on vaccine uptake point out.

By leveraging various theories of behaviour change and disaster management, Modi has been able to create a sense of urgency, foster community solidarity, address vaccine hesitancy, and emphasize the importance of disaster management<sup>19-24</sup>. His communication has helped build trust, empathy, and confidence among the citizens, leading to an increase in vaccine uptake and adherence to COVID-19 protocols. As India continues to navigate the challenges of the pandemic, Modi's communication strategy will remain a critical component of the country's response.

## **Conclusion**

In conclusion, Prime Minister Modi's *Mann Ki Baat* programme can be said to have played a crucial role in changing the mindsets of people in general, resulting in an increase in vaccine coverage in India. His direct appeal to the people helped build trust in the vaccine, which was critical in overcoming vaccine hesitancy. The success of the vaccination drive showcases the power of effective communication and leadership in overcoming public health challenges, especially during the times of crisis.

The research studies analyzed, reflect a range of scholarship among our scholars and the coverage of inquiry through various trans-disciplinary perspectives, paving the way for future research with larger samples and a collaborative multi and trans-disciplinary focus on media, communication, linguistics, public discourse, and technology for a better understanding of the complex issues and the role and scope of communication in negotiating with them. The paper has also demonstrated how theories like the Health Belief Model, Social Learning Theory, Diffusion of Innovation Theory, and Social Cognitive Theory explain the effectiveness of *Mann Ki Baat* in promoting COVID-19-appropriate behaviour, reducing vaccine hesitancy, and ultimately increasing vaccine uptake. The paper suggests that PM Modi's use of radio as a platform for public communication during the COVID-19 pandemic has been a valuable tool in promoting public health and should be further studied for its potential in future public health crises.



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## **Impact of 99<sup>th</sup> Edition of *Mann Ki Baat* on Organ Donation and Transplantation by Prime Minister, Modi: A Cross-Sectional Survey in India**

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### **Abstract**

*On the 26 March 2023, the Honourable Prime Minister of India, Shri Narendra Modi addressed the Nation on Organ Donation and Transplantation in his 99<sup>th</sup> episode of Mann Ki Baat. There is no study on the impact of Mann Ki Baat on Organ Donation and Transplantation, and awareness about organ donation in different subgroups and populations of India. The authors conducted a cross-sectional study among five subgroups viz. dialysis and organ failure patients, transplanted patients, general population including relatives of patients, medical staff and medical doctors; to evaluate the knowledge and attitude towards organ donation and transplants and impact of the 99<sup>th</sup> edition of Mann Ki Baat on Organ Donation and transplantation by Prime Minister (PM) Modi. The attached survey Questions were circulated in Google Sheets in three languages during 5-12 April 2023.*

*A total of 1093, 689, and 67 responses were registered in English, Hindi, and Marathi language. The median age of survey participants was 50.9 years and nearly 60 per cent was male. Around 33 per cent of respondents had a rural background and most of the survey participants were graduates as per their educational level. Nearly 85 per cent of the participants said that the Mann Ki Baat episode increased not only their existing awareness but also their willingness to become organ donors themselves. Nearly three-quarters of the survey participants believed that they were ready and willing to discuss the possibility of organ donation among their families. On the question- "Do you agree that the government is actively working on the promotion of organ donation?", the majority of the responses was 'yes' with the highest frequency in Hindi responses followed by English and Marathi; and by percentages; these are 86.8 per cent, 76.9 per cent and 61.2 per cent respectively. This survey helps us in landscaping the current knowledge and attitude of diverse group of people right from patients to primary care providers to the medical fraternity. Significant knowledge gap exists, especially in rural settings, and measures are required to overcome this barrier. The researchers also noticed that Mann ki baat proved to be an effective way to create awareness and boost the existing knowledge about organ donation.*

**Key words:** Mann Ki Baat, Organ transplantation, Living donor, Deceased donor, Access

## Introduction

Organ transplantation is one of the most successful advances in modern medicine. Transplantation most often provides the only chance for survival for patients with end-stage disease.<sup>1</sup> Global Observatory on Donation and Transplantation<sup>2</sup> 2021 data reported 0.4 deceased donor transplants per million population (pmp) in India as compared to the global data of 6.37 pmp. More interestingly, no reporting of organ donation after cardiac death was done in India. This data also reported a total of 8.8 pmp organ transplants performed in India in comparison to 24.08 pmp globally. According to the International Registry in Organ Donation and Transplantation 2021 report,<sup>3</sup> India reported 0.4 pmp deceased donation rate and the nation was ranked at the bottom of the list, where US and Spain topped with 41,60 and 40,80 pmp donation rates. This data depict that our organ donation lags significantly as compared to the global figures when it comes to deceased organ donation and transplantation. A recent report<sup>4</sup> estimated the need of 175000 kidney, 40000-50000 liver, 50000 heart, 50000 lungs and 2500 pancreas transplantations in India. A large gap exists between the patients who require organ transplants and the available organ donors. There is a need to promote deceased organ donation.<sup>5</sup> This substantial supply and demand mismatch is concerning; and various measures are being implemented to overcome this gap. And hence, creating awareness among the general masses about organ donation remains a key concern.

The Prime Minister of India, has taken the initiative for reaching to the masses through a radio broadcast titled *Mann ki Baat*; and the first edition was aired on 3 October 2014. These episodes cover various public-oriented subjects. The 102nd episode of the radio talk was aired on 18 June 2023. On 26 March 2023, The Prime Minister of India in his *Mann ki Baat* emphasized on creating awareness for organ donation in the 99th edition. The episode was filled with information on organ donation and transplantation in a comprehensive and easily understandable manner. There has been a few knowledge, attitude and practice gap (KAP) studies about organ donation in India.<sup>6-10</sup> However, all had inherent limitations. Hence, the authors of this paper provide a comprehensive nationwide report in the survey about KAP of organ donation.

## Objective

The basic objective of this study is to assess the impact of the single edition i.e. the 99th episode of the Prime Minister's monthly radio talk *Mann ki Baat* on the National Broadcaster, the All India Radio on Organ Donation and Transplantation on 26 March 2023. The study also measures the impact of *Mann ki Baat* on the knowledge, awareness, and practices in organ donation among the medical masses. This study helps in understanding the problem statement which in turn, can help in expanding the deceased donation practices in India.

## Methodology

The study was exempted from ethical committee clearance; as de-identified data were used in this survey. The researchers abided with the declaration of Helsinki, and the declaration of Istanbul. The anonymity of the participants was respected, and only anonymized data were used for analysis. The authors also clearly stated in the survey form that the response recorded would be completely anonymized, and so, formal consent form was not required for conducting this study. The study participants included medical doctors, medical staffs, general population,

transplanted patients, dialysis and organ failure patients.

A cross-sectional survey of the impact of *Mann ki Baat* on organ donation was developed by one of the study investigators (SB) with input from the study steering committee (VK, SB, MB, HSM, and SC). There was no modification in the questionnaires for final distribution. The survey was plotted in three basic languages- Hindi, English and Marathi. The survey questionnaire was translated into Marathi by a professional translator with the Marathi version subsequently corrected by a Marathi-speaking transplant nephrologist (MB). The survey comprised an introductory line about the *Mann ki Baat* episode along with the Youtube link of the episode.

The survey questionnaire was first distributed among 25 medical staffs for measuring the validity and reliability, and the result of this pilot survey was also included in the final analysis. The survey was circulated in google form from 5 April 2023 to 10 April 2023. The data were locked on 10 April 2023 for analysis.

Invitations to participate were distributed to all the members of ISOT which comprises nephrologists, general surgeons, urologists, intensivists, transplant co-ordinators, medical students, and staffs through e-mail (a sample of convenience with single stage sampling technique). During the data collection period, one reminder email was sent out daily reminding invited individuals to please complete the survey if they had not yet done so. Snow ball sampling was also allowed. The set of questions used in the study questionnaire are given below; and the graphical presentation of the analysis is given in figures 1 - 20.

Statistical analysis was performed in STATA 16. A p-value of below 0.05 was considered statistically significant. No formal sample size calculation was planned in the survey. The data were reported as numbers, percentages. No continuous data were analysed, and all the categorical data were reported. Chi-square was used for comparison groups of English, Hindi, and Marathi wherever justified for comparison.

## Questionnaire

The 22-set questionnaire is given below:

1. Are you aware about organ donation and transplantation?
2. What is the cost of kidney transplant as per your knowledge?
3. Which is better and cost effective for kidney failure- dialysis or transplantation?
4. Have you heard of Prime Minister (PM) Modi Speaking on Organ Donation and Transplants recently in the 99th edition of *Mann ki Baat*?
5. Did the recent episode of *Mann Ki Baat* by the Prime Minister increase your awareness and/or willingness to become an organ donor?
6. Did you discuss with your family members about their wishes regarding organ donation after death after watching *Mann Ki Baat* by the Prime Minister?
7. Have you shared the awareness video of Organ Donation and transplants by PM Modi in *Mann Ki Baat*?
8. After hearing PM Modi's *Mann Ki Baat* on organ donation, are you more willing to donate organs and sign donor pledge Form No 7?
9. Do you agree that the government is actively working on promotion of organ donation?

10. Do you know the concept of brain death in organ donation?
11. Do you know the concept of donation after cardiac death (DCD) in organ donation?
12. How many organs one can donate after being declared brain dead?
13. Are you aware that it is possible to donate organs after death to help save someone else's life?
14. How many organs one can donate after being declared brain dead?
15. What was the age of the youngest deceased donor in India as mentioned by PM Modi in *Mann Ki Baat*?
16. Do you agree that One Nation One policy and no requirement of domicile certificate for Organ Donation as envisioned by the PM Office will change the scenario of organ donation?
17. Do you think that in death certificate, additional column of mandatory reporting of brain death (Yes/No) should be included?
18. What should the family of organ donors expect from Government in return of organ donation?
19. What should be the way forward for promoting organ donation awareness drive?
20. Should women/girls and children be given priority in deceased donor organ allocation process?
21. Do you think organ allocation process is transparent?
22. Is organ- tissue donation and body donation possible simultaneously?

Additional set of question corresponding to the medical staff only included:

- 1) Has there been an increase in the number of query on organ donation after *Mann Ki Baat* by PM Modi on organ donation?
- 2) Would PM Modi's *Mann ki Baat* on organ donation be useful as IEC activity for donor conversion in counselling?
- 3) Who can declare brain stem death?

## Findings

A total of 1093 responses in English, 689 in Hindi and 67 in Marathi language were registered. Figures 1 to 20 depicts the response of the study participants in the survey. In response to the question, "Did you discuss with your family members about their wishes regarding organ donation after death after watching *Mann Ki Baat* with the Prime Minister?", 71.7 per cent of the respondents said 'Yes' and 28.3 per cent declared 'No' which were registered in English. Hindi responses had similar distribution with 82.3 per cent and 17.7 per cent as 'Yes' and 'No' respectively. In contrast, responses in Marathi were 49.3 per cent 'Yes' and 50.7 per cent 'No', which were statistically significant as compared to other languages (p-value < 0.001). To the question, "Have you shared the awareness video of Organ Donation and Transplants by PM Modi in *Mann Ki Baat*?", Hindi responses had the highest number 'Yes' of 80.3 per cent as compared to 64.3 per cent and 35.8 per cent in English and Marathi respectively; this difference was statistically significant (p-value < 0.001). For the question, "After hearing PM Modi's *Mann Ki Baat* on organ donation, are you more willing to donate organs and sign donor pledge Form No 7?", 82.9 per cent recorded 'Yes' and 17.1 per cent 'No' for English responses, and 'Not sure' was not recorded. 'Not sure' response was 19.9 per cent and 49.3 per cent in Hindi and Marathi, and

this difference was statistically significant (p-value < 0.001).

To the question, “Do you agree that the government is actively working on promotion of organ donation?” Majority of the responses were ‘Yes’ with the highest percentage in Hindi (86.8%) followed by English (76.9%) and Marathi (61.2%). On the question, “Do you know the concept of brain death in organ donation?”, majority had an affirmative of ‘Yes’ with 91.9 per cent, 82.6 per cent and 65.7 per cent for English, Hindi and Marathi respectively. ‘Yes’ response was noted for the question, “Do you know the concept of donation after cardiac death (DCD) in organ donation?” in 82%, 73.7% and 53.7% in English, Hindi and Marathi responses respectively. To the question, “How many organs one can donate after being declared brain dead?”, low percentages have been recorded as 8 or more in 55.8 per cent, 26.2 per cent and 35.8 per cent in English, Hindi and Marathi respectively (Figure 9). To the question, “What was the age of the youngest deceased donor in India as mentioned by PM Modi in *Mann Ki Baat*?”, ‘No idea’ was reported in 40.9 per cent in English, 37.7 per cent in Hindi and 70.1 in Marathi respectively (Figure 10). To the question, “Do you have a person in your family who has organ failure and needs/needed organ transplant?”, 73.7 per cent recorded ‘Yes’ in English while 54.1 per cent and 35.8 per cent recorded in the affirmative in Hindi and Marathi respectively. Majority of the respondents in English group were medical staff (27.9%) and doctors (33.9%) while organ failure (46.3%) patients were more in the Marathi category. In all the languages, male participants outnumbered the females, with a ratio of 2:1.

As per the results, significant percentage of responses showed that they were aware about organ donation and transplantation, and they knew that it’s possible to donate organs after death to help someone else’s life (Figure 4 and 6). To the question of knowing about 99<sup>th</sup> edition of *Mann ki Baat*, only 50.7 per cent of the Marathi respondents were aware of this radio talk. To the question, “What should the family of organ donors expect from the Government in return of organ donation?”, majority of them in all the three languages stated that near relatives of the deceased donor should get the high priority in case of need of organ transplant in future.

To the question on what should be the way forward of promoting organ donation awareness drive, majority of them selected a holistic response of ‘all the above’ while 10 to 19.9 per cent of the respondents chose more episodes of *Mann Ki Baat*. Majority of them selected that women/girls should be prioritized for availing of donor transplantation of the deceased (Figure 15). One-fourth of the survey respondents are unsure about the transparency of current organ allocation practices (Figure 16). On the question, “Would PM Modi’s *Mann Ki Baat* on organ donation be useful as an IEC activity for donor conversion in counselling?”, most of the medical staff selected the ‘Yes’ option in English (71.2%) and Hindi (72.1%) language. 41.9 per cent to 77.4 per cent people selected a positive response to the question, “Has there been an increase number of query on organ donation after *Mann Ki Baat* by PM Modi on organ donation? (Figure 18).

## Discussion

On 26 March 2023, the Honorable Prime Minister of India Shri Narendra Modi addressed the nation in his 99<sup>th</sup> episode of ‘*Mann Ki Baat*’ in which he talked about the impact and power of organ donation that changes the course of lives for several people. According to the National

Organ Tissue and Transplantation Organization (NOTTO) 2022 data, of the 15,556 organ transplants that happened in India in 2022; only 2,765 organs came from the deceased donors despite efforts being made over the years to increase cadaver organ donations. Though the numbers have gone up from 837 cadaver donations in 2013 to 2,765 in 2022; lack of awareness, and social and religious beliefs remain the biggest impediments to organ donation from brain-dead patients who do not have any hopes of a revival. NOTTO estimates that less than one in every five organs transplanted in India comes from a deceased donor.

The researchers conducted this survey amongst nearly 2000 people. This heterogeneous group of people included the dialysis and pre and post-transplant patient population, the health care workers including the paramedical staff and doctors and the general population including relatives of the patients. The median age of the people who took part in this survey was 50.9 years and nearly 60 per cent of the respondents was male, 33 per cent of the respondents had a rural background and most of them were graduates by their educational level.

Nearly 96 per cent of the survey participants were aware of the concept of organ donation and transplantation. Most of the participants believed that organ transplants are expensive with out-of-pocket expenditures going up to 5-10 lakh rupees. It came as no surprise that nearly 44 per cent of the respondents was unaware of the cost-effectiveness of transplantation over a prolonged dialysis therapy. While most of the people who took the survey understood that the deceased organ donation exists and benefits people's lives. What came as an absolute surprise was that after the episode of the "*Mann ki Baat*" by the Honourable Prime Minister, nearly 85 per cent of them said that the episode increased not only their existing knowledge and awareness but also their willingness to become organ donors themselves. Nearly three-fourth of the survey participants believed that they were ready and willing to discuss the possibility of organ donation among their families. Check Brand, a Sentiment Analysis and Digital Ranking Firm conducted a study in the second quarter of 2020. Honourable Prime Minister of India Shri Narendra Modi was placed fourth overall in all relevant categories defined by Check Brand which features actors, politicians, brands, CEOs, CMs and cricketers. Given the PMs' staggering digital presence, it comes as no surprise that after the episode on organ donation, nearly 80 percent of the survey respondents were more willing to donate organs and sign the Donor Pledge Form 7. This begs the question that if one dedicated episode can have such a humungous impact on people's attitudes toward organ donation; what can constant social media engagement and digital campaigns by the PM centered around organ donation do?

It was gratifying to see that nearly 75 per cent of the survey respondents believed the present government is actively promoting the concept of organ donation. Awareness levels about the types of deceased organ donation have also increased; 92 per cent of the survey participants were aware of the concept of donation after brain death determination; and surprisingly, 82 per cent was actually aware of the fact that the donation of organs is not only plausible but also possible after cardiac death (DCD or donation after cardiac death). Nearly half of the respondents were not aware that after the declaration of brain death, 8 or more organs of the deceased can be harvested into the body of a needy individual; this figure is really disappointing. According to the Global Observatory on Donation and Transplantation (GODT) data, India has an organ donation rate of about 0.52 per million population (pmp) in comparison to the organ donation rate in Spain which has the highest rate in the world with 49.6 per million population. To achieve a



self-sufficiency in the field of organ donation, India needs an organ donation rate of 62 pmp. Going forward, it only makes sense to promote not only DBD donations but also DCD donations to meet this huge demand-supply gap of organs. Awareness campaigns should not only focus on the 'why's and 'how's of organ donation but also 'when' i.e. when can a person donate their organs. And the answer is both after brain death declaration and in some centers across India even after cardiac death determination under controlled settings.

Most of the survey participants believed that an incentive- financial or otherwise (health card for the family members, priority allocation of the deceased organ donor's family member on a waitlist, etc.) would boost the organ donation rates in the country. Keeping in mind that this survey was anonymous and included a geographically, socially and educationally heterogeneous group of people; the notion of incentivizing organ donation was stated by the majority. Although organ donation has traditionally been considered an act of nobility and altruism, non-financial incentives like honoring the donors' families and health cards for the family members may serve in the bigger interest of expanding the deceased organ donor pool. In turn, it may ultimately serve the nation well.

Women and children are amongst the most marginalized and socially disadvantaged groups in India. They are financially and socially dependent on others in the family. Organ transplantation is no exception. More than 75 per cent of all the organ donors in India are women whereas only about 25 per cent of the organ recipients are women. Keeping this in mind, the survey participants were asked whether women and children should get priority allocation points on the waitlist. While most of the respondents gave a resounding 'Yes' to the question, nearly 44 per cent of participants were either against this concept or were not sure about its utility. Seeing as women are at a triple disadvantage- access, wait-listing and sensitization; the concept of priority allocation really ensures equality of opportunity. The onus lies with the state and central health authorities; and the transplant coordinators to find subtle and nuanced ways to introduce the concept of priority allocation and explain the logic behind it to the pretransplant waitlisted population on dialysis.

According to the estimates drawn up by the Directorate General of Health Services, around 1.8 lakh persons suffer from renal failure every year. In 2022, the total number of kidney transplants stood at 11,423 of which 9,834 were from living donors. DGHS estimates that in India, about 2 lakh patients die of liver failure or liver cancer annually. In 2022, the total number of liver transplants done in India was 3718 of which of which 2957 was from living donors.

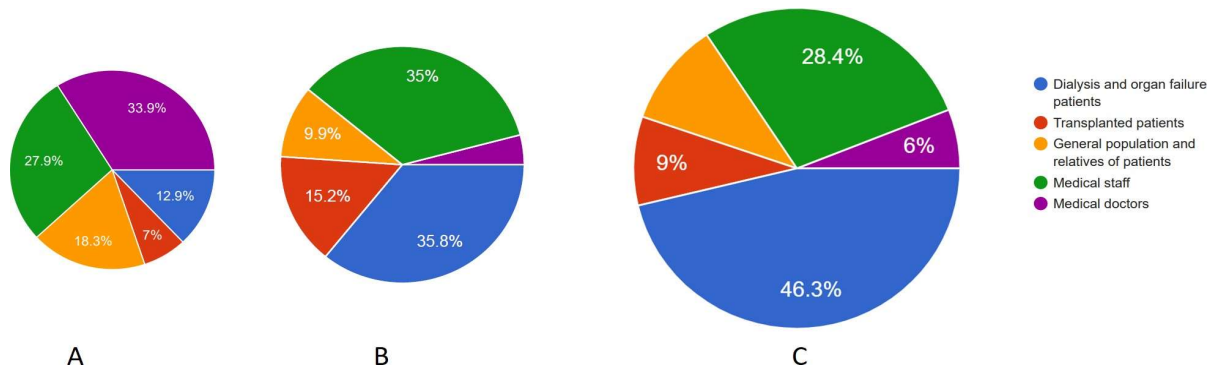
About 50000 people suffer from heart failure annually. In 2022, just 250 transplants have been done in the country. While these estimates are depressing, there is light at the end of the tunnel, it seems. Most of the survey participants want more information on organ donation, and believe that increased visibility on the social media platforms and media attention, more episodes by the PM on organ donation and engaging the young minds in schools and colleges can positively impact the organ donation rates. While the majority of the respondents were aware that a law exists to regulate organ and tissue donation in the country, nearly 40 per cent believed that the process of organ allocation was not transparent. One way to remove peoples' misconceptions and increase their trust in the organ allocation system is to make the policy for allocation uniform across the country- 'one nation one policy'. Increased utilization of transplant coordinators to

impart information to organ failure patients and educate their relatives about the process of waitlisting, allocation point systems and potential waiting time on the list, can help make a patient well-informed to make a decision, and trust the organ allocation system more.

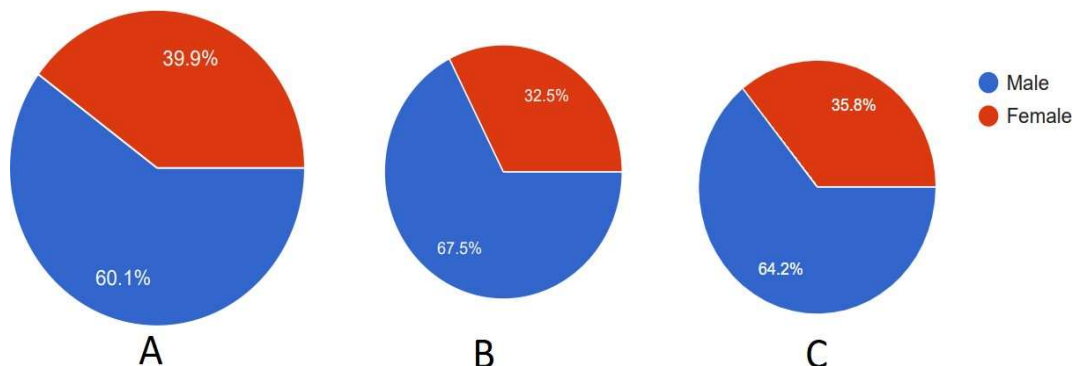
### Conclusion

This survey helps us in landscaping the current knowledge and attitude of a diverse group of people right from patients to primary health care providers to the medical fraternity. A significant knowledge gap exists, especially in rural settings, and measures are required to overcome this barrier. We also noticed that *Mann ki Baat* proved to be an effective way to create awareness and boost existing knowledge about organ donation.

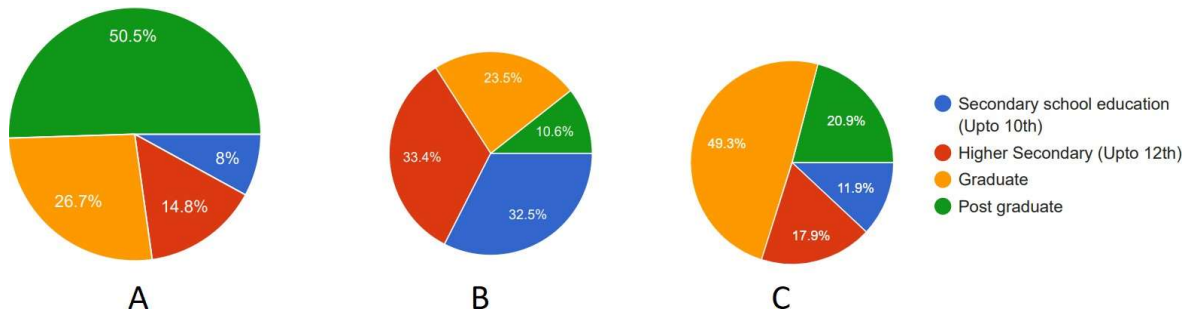
**Figure 1**  
Study Participants' Distribution (A: English, B: Hindi, C: Marathi response):



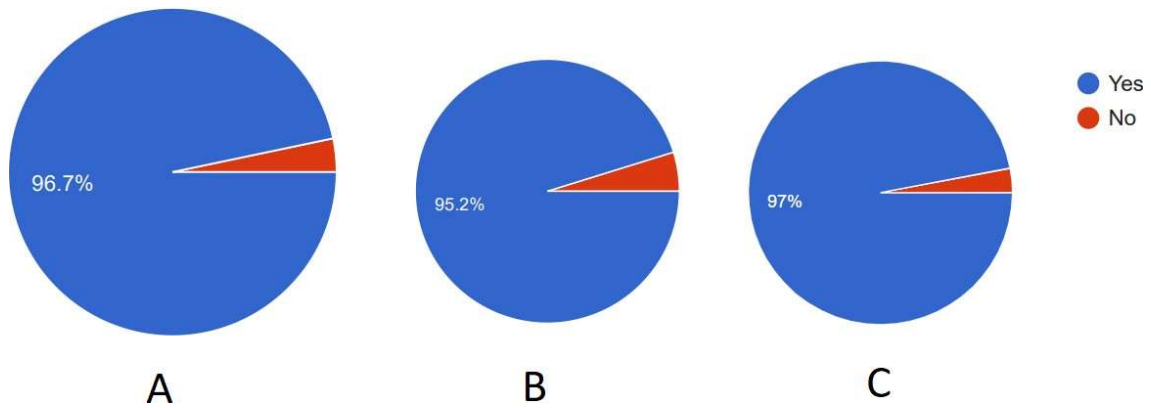
**Figure 2**  
Sex Distribution (A: English, B: Hindi, C: Marathi response)



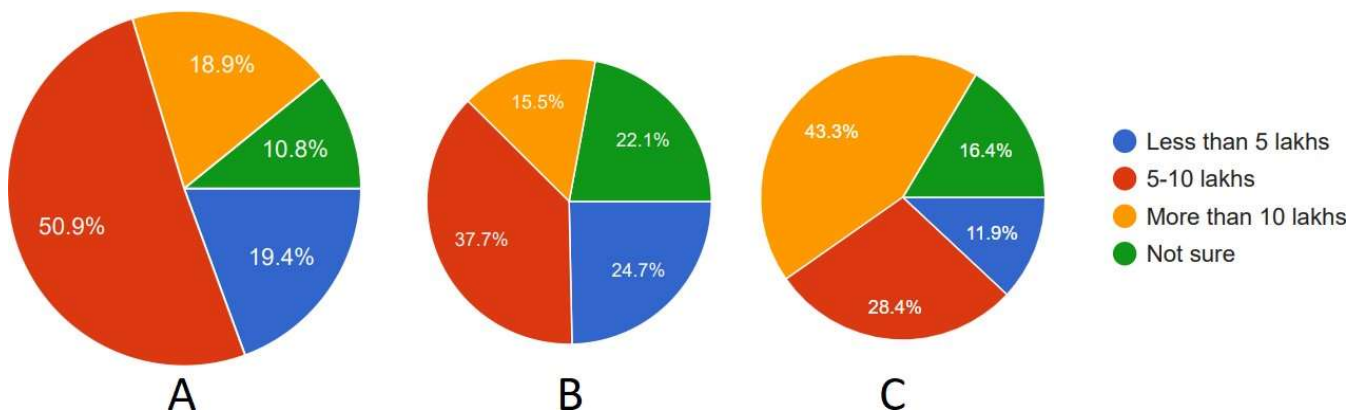
**Figure 3**  
Educational Status of the Study Participants (A: English, B: Hindi, C: Marathi response)



**Figure 4**  
Are You Aware of Organ Donation and Transplantation?

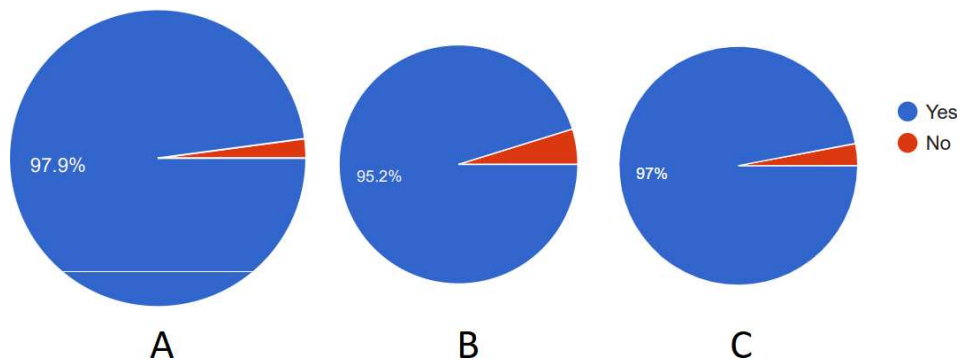


**Figure 5**  
What is the Cost of Kidney Transplant as per Your Knowledge?  
(A: English, B: Hindi, C: Marathi response)



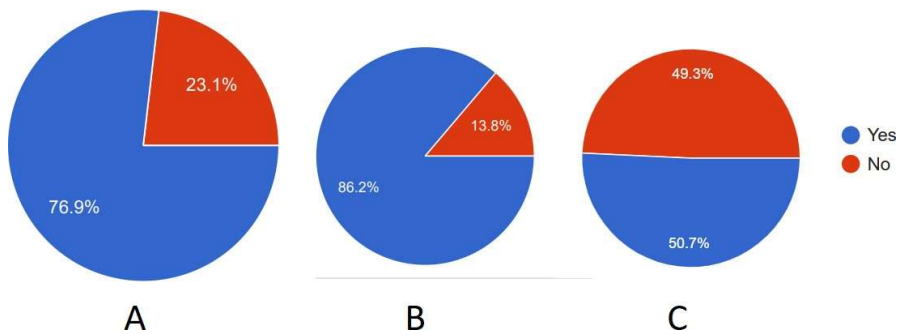
**Figure 6**

Are You Aware That It is Possible to Donate Organs after Death to Help Save Someone Else's Life?



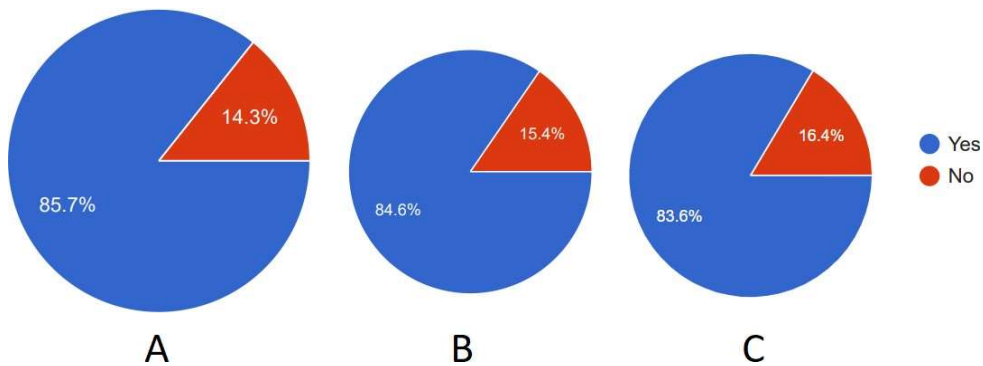
**Figure 7**

Have You Heard of Recently Prime Minister (PM) Modi Speaking on Organ Donation and Transplants in the 99th Edition of *Mann ki Baat*?

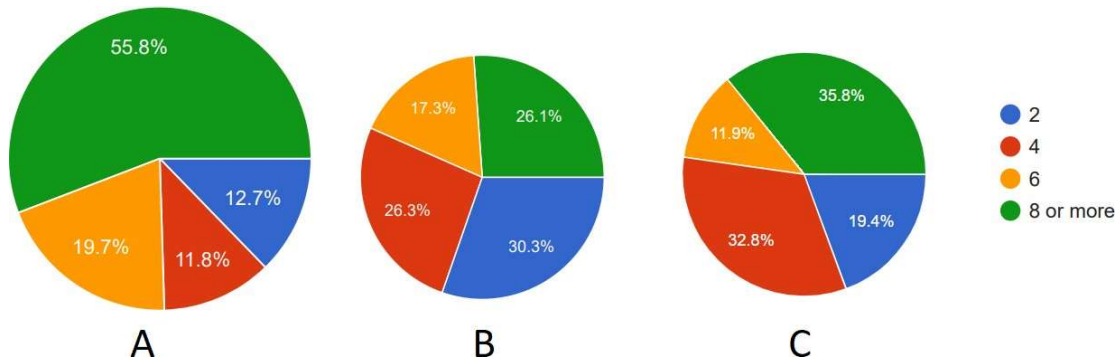


**Figure 8**

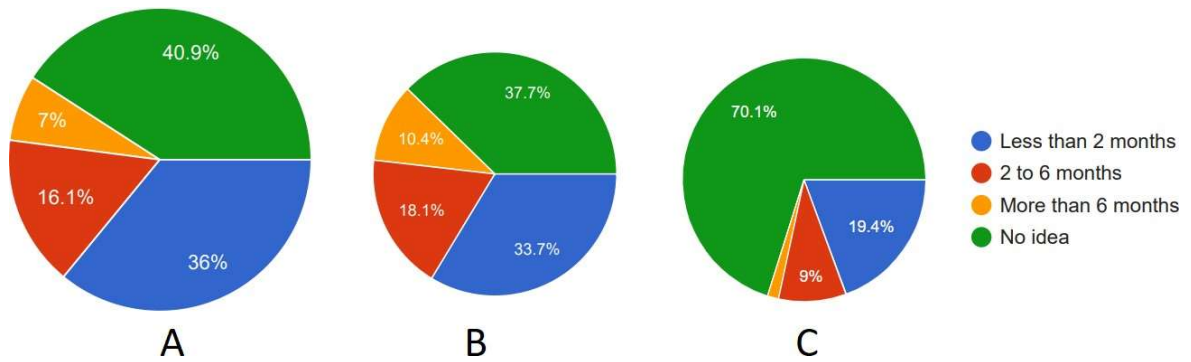
Did the Recent Episode of *Mann Ki Baat* by the Prime Minister Increase Your Awareness and/or Willingness to Become an Organ Donor?



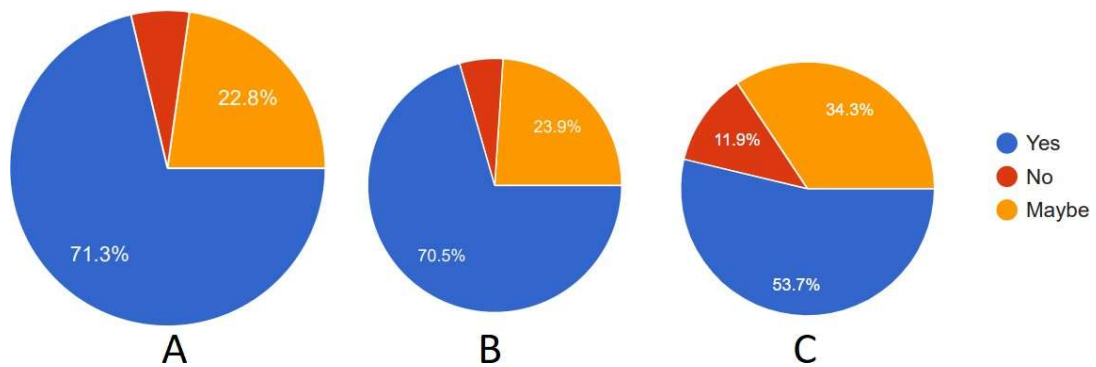
**Figure 9**  
How many organs one can donate after being declared brain dead?



**Figure 10**  
What Was the Age of the Youngest Deceased Donor in India as Mentioned by PM, Modi in *Mann Ki Baat*?

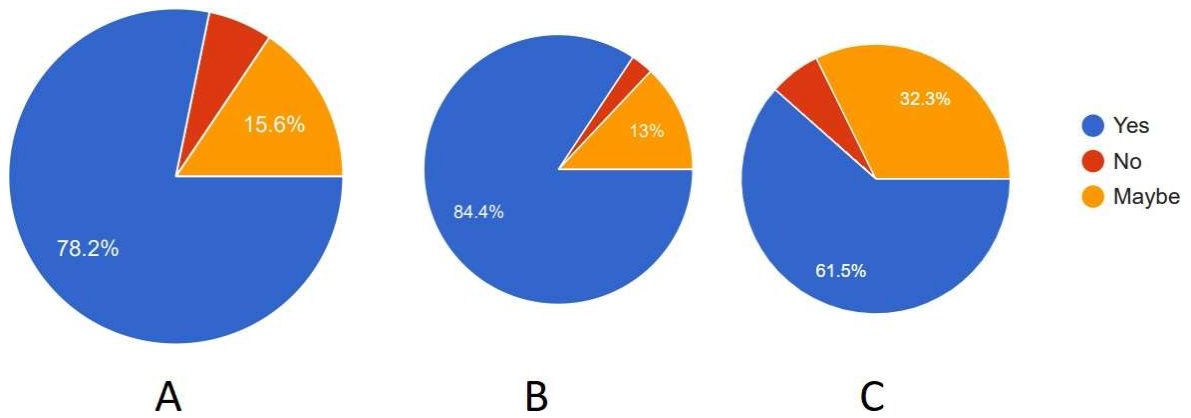


**Figure 11**  
Do You Agree That One Nation One policy and No Requirement of Domicile Certificate for Organ Donation as Envisioned by PM Office Will Change the Scenario of Organ Donation?



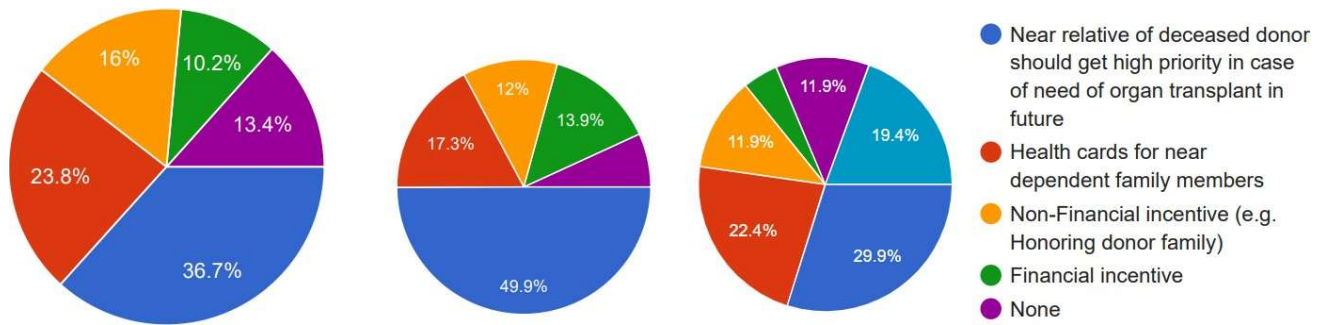
**Figure 12**

Do You Think That an Additional Column of Mandatory Reporting of Brain Dead (Yes/No) Should be Included in the Death Certificate?



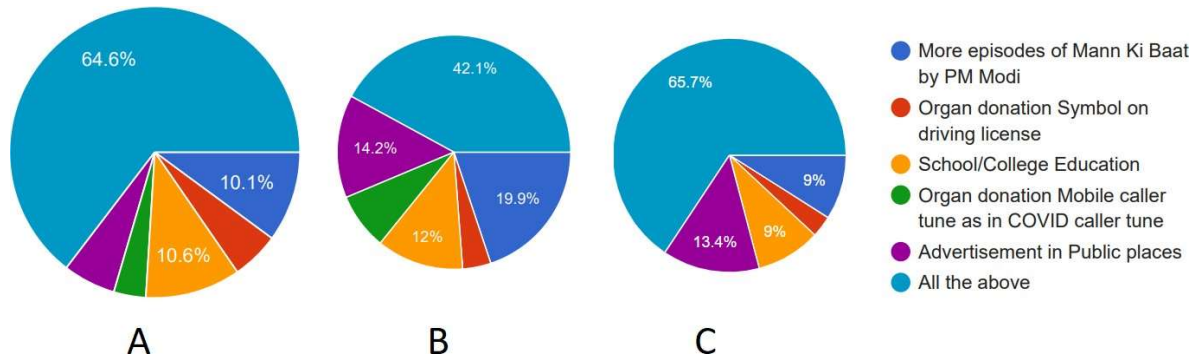
**Figure 13**

What Should the Family of Organ Donors Expect from the Government in Return for Organ Donation?

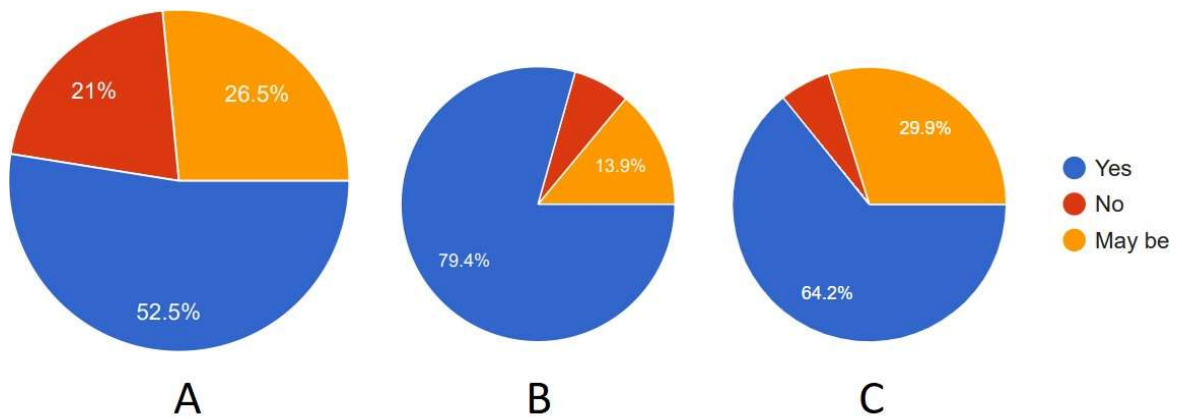


**Figure 14**

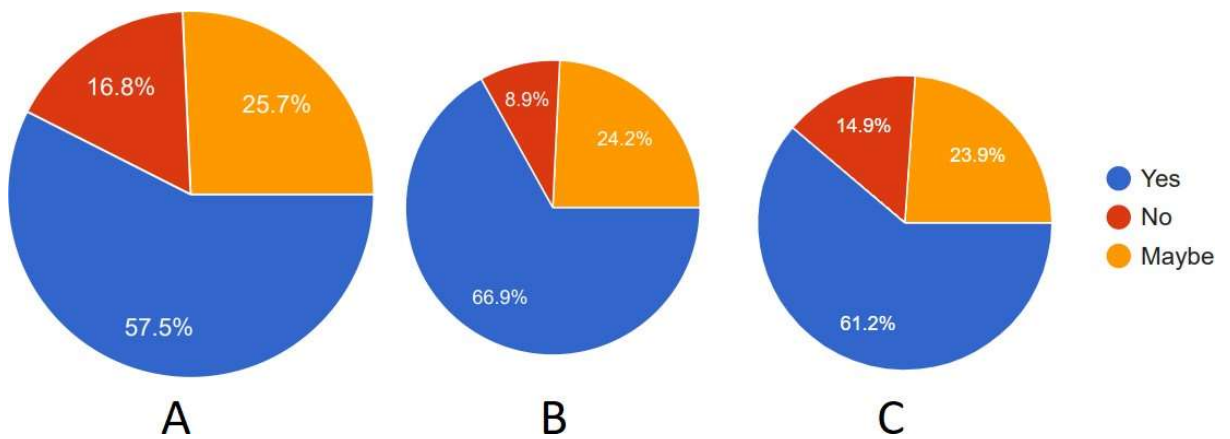
What Should be the Way Forward for Promoting Organ Donation Awareness Drive?



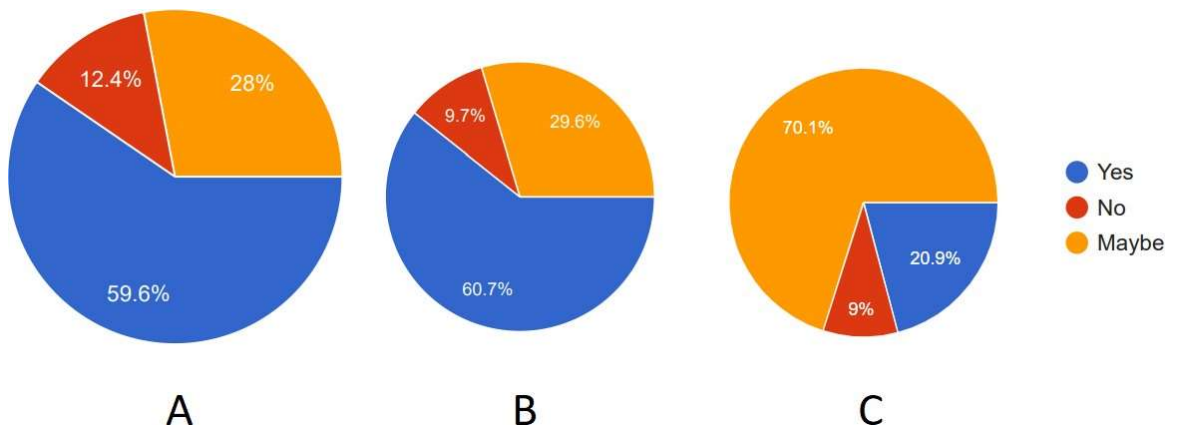
**Figure 15**  
Should Women/Girls and Children Be Given Priority in Deceased Donor Organ Allocation Process?



**Figure 16**  
Do You Think Organ Allocation Process is Transparent?



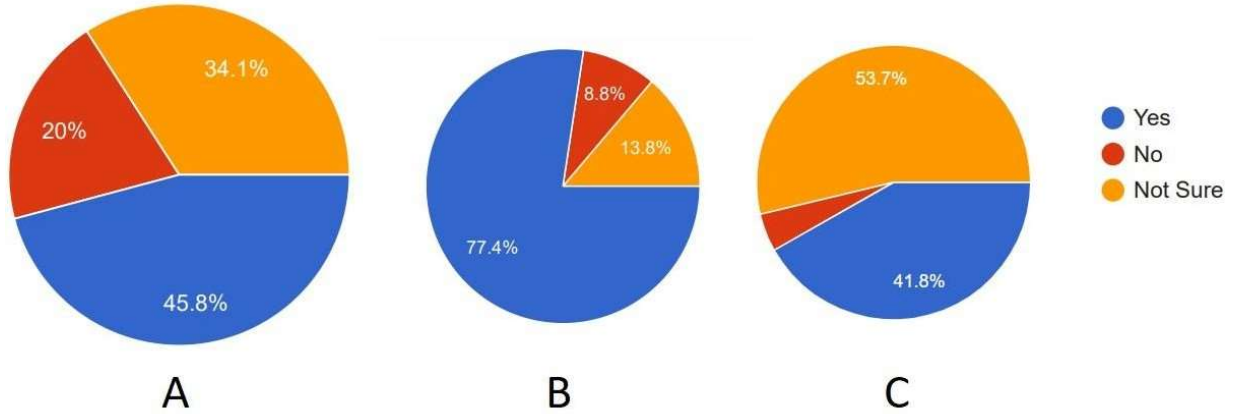
**Figure 17**  
Is Organ- Tissue Donation and Body Donation Is Possible Simultaneously?





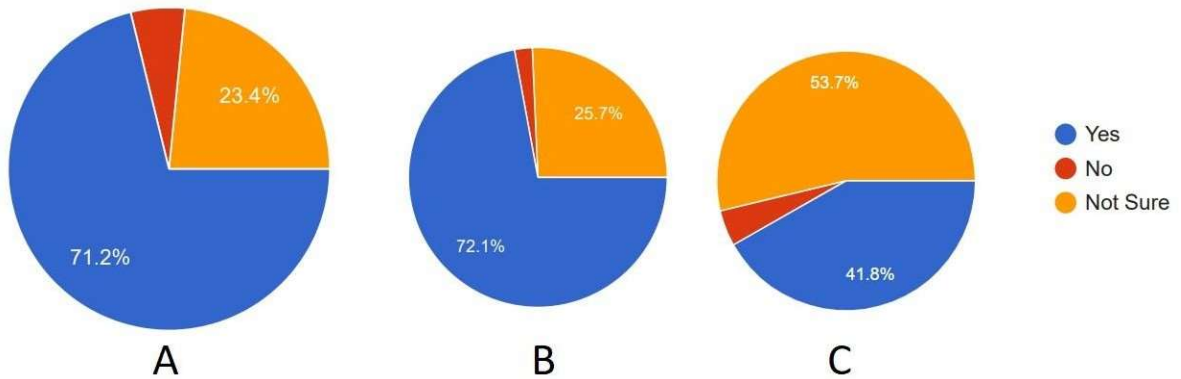
**Figure 18**

Has There Been an Increase in the Number of Queries on Organ Donation after *Mann Ki Baat* by PM Modi on Organ Donation?



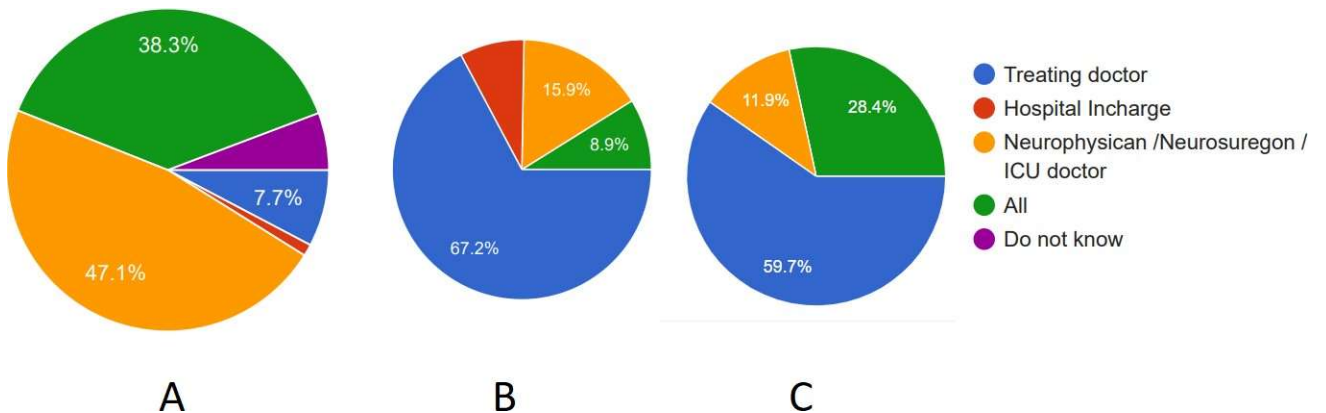
**Figure 19**

Would PM Modi's *Mann ki Baat* on Organ Donation Would Useful as an IEC Activity for Donor Conversion in Counselling?



**Figure 20**

Who Can Declare Brain Stem Death?





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## Hon'ble PM's *Mann Ki Baat* Propels India to the Point of Achieving Kala-azar Elimination: Impact Assessment of the Key Strategies to Overcome the Last Mile Challenges

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\*Medical Officer, Kala azar Division, National Centre for Vector-Borne Diseases Control

### Abstract

*Visceral leishmaniasis, also known as Kala-azar (KA), is a neglected tropical disease that poses a potential threat to life. It is transmitted when an infected female sandfly carrying the disease-causing agent, Leishmania donovani, bites a human. This disease is predominantly found among the most impoverished individuals, highlighting a strong connection between socio-economic status and its occurrence. In India, significant strides have been made in reducing the burden of Kala-azar, with a remarkable 91 per cent decline in reported cases from 2014 to 2022. The country has set a target to eliminate the disease by 2023. In December 2022, during the broadcast of the monthly radio programme called "Mann ki Baat," hosted by the esteemed Prime Minister of India, Shri Narendra Modi, the focus was centered on the elimination of Kala-azar. The Prime Minister emphasized the pivotal role of vector control measures and the active involvement of the population in early diagnosis and treatment as crucial steps toward achieving the goal of eliminating Kala-azar. The current study aims at assessing the impact of the monthly radio programme "Mann ki Baat" on Kala-azar through "Ratri Chaupal", an audio-visual aided campaign to educate the rural communities on Kala-azar which is being carried out in the high-endemic district of Pakur in Jharkhand. Primary data were collected on the awareness of Kala-azar brought about by "Mann ki Baat" through "Ratri Chaupal." Secondary data, in the form of KA incidence, were assessed and compared pre- and post-Mann ki Baat through revamped strategies. The community interview revealed a strong level of awareness and acceptance among the community due to the impact of "Mann ki Baat" on various aspects of KA including clinical symptoms, timely diagnosis, treatment, and efforts to control the disease-carrying vectors. Initiatives like "Ratri Chaupal" have significantly influenced people's views on effectively and scientifically addressing KA.*

**Key Words:** *Mann ki Baat*, Kala-azar elimination, Mass media, Advocacy, Radio audience.

### Introduction

Visceral leishmaniasis, also known as Kala-azar (KA), a neglected tropical disease is a potentially life-threatening disease transmitted by the bite of an infected female sandfly carrying the disease causative agent, *Leishmania donovani*. It is often seen among the poorest of the poor reflecting a strong correlation between the disease and the socio-economic status.<sup>1,2,3</sup>

India has made a tremendous progress in reducing the disease burden of Kala-azar, with a 91 per cent decline in Kala-azar cases from 2014 to 2022. A targeted has been set by the authorities to eliminate it by 2023 in India. With a strong political commitment and persistent efforts from NCVBDC with support from the states, 632 (99.8%) out of 633 blocks have achieved the elimination status in December 2022, i.e. achieving the target of an annual incidence of less than 1 case per 10,000 population at the block level.<sup>4,5</sup>

The monthly radio programme *Mann ki Baat* hosted by the Hon'ble Prime Minister of India Shri Narendra Modi broadcast in December 2022 focused on kala-azar elimination. The Prime Minister addressed the central role of vector control and people's participation in seeking early diagnosis and treatment as key activities to achieve kala-azar elimination.<sup>6</sup>

## Objectives

This study aims at assessing the impact of the monthly radio programme *Mann ki Baat* on Kala-azar through *Ratri Chaupal*, an audio-visual aided campaign to educate the rural communities on Kala-azar which is being carried out in the high-endemic district of Pakur in Jharkhand. Since its inception in December 2022, the campaign had covered 36 villages to date, achieving a reach of 5830 people in attendance, with an average of 150 audiences per show.

**Primary objective:** To analyze the awareness of Kala-azar among the communities brought about by *Mann ki Baat* among the various stakeholders.

**Secondary objectives:** To address the overall impact of *Mann ki Baat* on the Kala-azar elimination programme in terms of change in KA incidence through revamped strategies undertaken which are identified as follow:

- Clay-plastering for the mud thatched houses to close the crevices and cracks to cut down sand fly vector breeding (*Local solutions for local problem*)
- Usage of modern digital tools like WhatsApp groups for reporting compliance to the above activity daily and real-time resolution of any difficulty faced in the field by the workers in carrying out the same (*Every day counts*)
- Effective IRS monitoring and surveillance.
- Active participation of all levels of administration in the KA elimination programme: District Collectors, District Magistrates, and other cadres were actively involved in the disease elimination programme (*Sab ka Saath, Sab ka Prayaas, Sab ka vikas*).
- Intensified fever monitoring for early case detection and treatment of KA cases.

## Methodology

A quick field visit was planned to collect primary data on the awareness of Kala-azar brought about by *Mann ki Baat* through *Ratri Chaupal*. For the collection of data, the schedule of *Ratri Chaupal* was sought and accordingly, the principal investigator and team visited the village of Bindadih of Hiranpur Block, Pakur district, Jharkhand where the next *Ratri Chaupal* was scheduled. A total of 200 people attended the *Ratri Chaupal*. The study team then invited people to participate in a quick interview, out of which 33 participants turned up voluntarily from the audience in attendance. In addition to this, activities carried out by the programme managers,

healthcare officials, and health personnel were also reviewed in the context of additional information to their KA programme activities after *Mann ki baat*.

Secondary data, in the form of KA incidence, was assessed and compared pre- and post-*Mann ki Baat* through revamped strategies in place to reflect the overall impact of *Mann Ki Baat* on the Kala-azar Elimination Programme. Impact of the PM's talks on the non-endemic states not covered in the KA programme activities.

## Findings

### Primary Objective Assessment

- A total of 33 people from the village Bindadih agreed to participate in the interview. Their verbal consent was taken and assent in the case of minors.
- There were 24 adults (72.7 %) and 09 under 18 years individuals (27.3%).
- 91 per cent (30) of the study participants were aware of the disease symptoms and signs.
- As far as the vector is concerned, 76 per cent (25) of the study participants answered that it was the sandfly (baloo makhi) that caused Kala-azar, whereas 18 per cent (6) observed that it was a mosquito and 6 per cent (02) couldn't identify any vector in the transmission of KA.
- Control measures: 70 per cent (23) of the study participants mentioned both treatment and insecticide spray as control methods, whereas 15 per cent (05) mentioned only the spraying of insecticide and 3 per cent (01) mentioned only treatment as a control method. But 12 per cent (04) of the study participants did not mention either of the control measures.
- Accessibility and affordability of treatment for KA: 85 per cent (28) of the study participants were aware that the treatment for KA is offered in a government hospital (CHC) and it is free-of-cost. Whereas 15 per cent (05) was not aware of the treatment accessibility and affordability.
- IRS acceptance: 98 per cent (32) of the study populations were readily willing to get their houses sprayed with the insecticide. Only 2 per cent (01) was hesitant about the idea of the IRS.

### Secondary Objective Assessment

When data on the incidence of KA cases were assessed for reflecting the overall impact of *Mann ki Baat* on the Kala-azar elimination programme, and compared in terms of pre and post-*Mann ki Baat*; it was observed that there is an 83.88 per cent reduction in the number of KA cases from December 2022 (a total of 881 KA cases) to March 2023 (142 KA cases). It is also pertinent to mention that none of the endemic blocks reported an incidence of > 0.5 per 10000 population at the block level so far in 2023.

### Limitations

- A thorough in-depth interview could have been planned to substantiate evidence through qualitative research. Other methods of qualitative research can also be considered in future studies to address the gaps in understanding people's perceptions and behaviours.

- Operational research can be carried out in future to identify the gaps in Kala-azar Elimination Programme.
- Subjective assessment through interviews might have inserted subjective bias in the study.
- Since the kala-azar disease is seasonal, and the strategies were adopted in the lean period of transmission, a good impact is expected. The actual assessment of the success achieved would be most appropriate in the post-monsoon season when the sandflies' densities increase.

## Conclusion

This brief survey via an interview of the community reflected a high degree of awareness and acceptance of the community brought about by *Mann ki Baat* on the different facets of KA, be it clinical manifestations, prompt diagnosis and treatment, or vector control interventions. Programmatic interventions such as *Ratri Chaupal* have made inroads in people's perception of tackling KA most rationally and scientifically possible.

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