

# A Study on Mission Indradhanush Programme under Reproductive & Child Health Among Rural Population of Tikamgarh District of Madhya Pradesh

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**Abstract**— Immunization programs are one of the most well-recognized and successful public health programs across the world. The immunization programs have achieved significant successes in a number of countries; however, the coverage with available vaccines remains sub-optimal in many low- and middle-income countries (LMICs). Lahariya(2015) described under Mission Indradhanush, the Government has identified 201 high focus districts across the country. Nearly 50% of all unvaccinated or partially vaccinated children in India are in these 201 districts. Mission Indradhanush aims to strengthen key functional areas of immunization programme for ensuring high coverage throughout the country, with special attention to 201 identified high focus districts. Objectives: To determine the factors responsible for not availing vaccination in community. Material and Methods: It was a descriptive research study conducted during March to April 2018. The random sampling technique was adopted to select the district and block. The data was collected using interview schedule. Results: This article, based upon extensive review of literature and using implementation of Mission Indradhanush Programme under universal immunization program (UIP) in India as a case study, summarizes the latest developments and initiatives in the area of vaccination and immunization in the last few months. The article analyzes initiatives under UIP in India from the “health system approach” and argues that it is possible to increase coverage with available vaccines and overall program performance by focused attention on various functions of health systems. It also discusses the emerging evidence that health systems could be strengthened prior to the introduction of new interventions (vaccines included) and the introduction of new interventions (including vaccines) could be planned in a way to strengthen the health systems. Conclusion: It concludes that Mission Indradhanush program under UIP could be one of the entry points for strengthening health systems in the countries and lessons from vaccine introduction could pave pathway for scaling up other health interventions and therefore, could contribute to advancing Universal Health Coverage (UHC).

**Key words:** Reproductive Health, Awareness Level, Practice

## I. INTRODUCTION

Universal Immunization Programme is a vaccination program launched by the Government of India in 1985. It became a part of Child Survival and Safe Motherhood Programme in 1992 and is currently one of the key areas under National Rural Health Mission (NRHM) since 2005. The program now consists of vaccination for 12 diseases- tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, Hepatitis B, Diarrhoea, Japanese Encephalitis, rubella, Pneumonia (Haemophilus Influenza

Type B) and Pneumococcal diseases (Pneumococcal Pneumonia and Meningitis). Vaccination is a proven and one of the most cost-effective child survival interventions. All countries in the world have an immunization programme to deliver selected vaccines to the targeted beneficiaries, specially focusing on pregnant women, infants and children, who are at a high risk of diseases preventable by vaccines. As per the recent nation-wide survey data, of the targeted annual cohort of 26 million infants in India, only 61 per cent had received all due vaccines. PATRA (2012).

In continuation with Routine Immunization Programme, Mission Indradhanush had been launched by Government of India to improve vaccination coverage. Mission Indradhanush is a health mission of the government of India. It was launched by Union Health Minister J. P. Nadda on 25 December 2014. It aims to immunize all children under the age of 2 years, as well as all pregnant women, against seven vaccine preventable diseases. Vaccination is being provided against prevent eight vaccine preventable diseases nationally, i.e. Diphtheria, Pertussis, Tetanus, Polio, Measles, severe form of Childhood Tuberculosis and Hepatitis B and meningitis & pneumonia caused by Haemophilus influenza type B; and against Rotavirus Diarrhea and Japanese Encephalitis in selected states and districts respectively. During each phase of Mission Indradhanush, four intensified drives of 7 days each were held every month to cover left-out and missed-out children in the high focus districts. During the three phases of Mission Indradhanush, 497 districts across 35 states/UTs were covered. 4<sup>th</sup> phase of Mission Indradhanush commenced on 7<sup>th</sup> February’ 2017 in 8 North eastern states and will commence from 7<sup>th</sup> April in rest of the country. The diseases being targeted are diphtheria, whooping cough, tetanus, poliomyelitis, tuberculosis, measles and Hepatitis B. In addition to these, vaccines for Japanese Encephalitis and Haemophilus influenzae type B are also being provided in selected states. In 2016, four new additions have been made namely Rubella, Japanese Encephalitis, Injectable Polio Vaccine Bivalent and Rotavirus. In 2017, pneumonia was added to the Mission by incorporating Pneumococcal conjugate vaccine under Universal Immunization Programme. India Today (2014)

## II. OBJECTIVE

The study was conducted to determine the factors responsible for not availing vaccination in community

### III. MATERIALS & METHODS

#### A. Study Type

The community-based, descriptive research was conducted in the rural area of Tikamgarh, Madhya Pradesh during a 2-month period from March to April 2018.

#### B. Study Population

The population under study was drawn from selected places of Tikamgarh, Madhya Pradesh. Data was collected by face to face interview with respondents. 1 Village out of 218 villages purposively selected named as Kannapur of Tikamgarh.

#### C. Sampling

The sample size was calculated using the formula [10]  $N = \frac{Z^2 Pq}{d^2}$ , A study had reported of 83.7% of full immunization.[11] The sample size for this study was 204 children of age up to 24 months. These children selected from a village Kannapur of Tikamgarh District of Madhya Pradesh

#### D. Data Collection Tools & Techniques

- Interview schedule was prepared after pre-testing.
- A pre-structure questionnaire was used to obtain the data from the respondents.

#### E. Data Analysis

The collected data was compiled, coded and analyzed by IBM SPSS (Version 20; SPSS Inc., Chicago).

#### F. Ethical Considerations

The study participants were explained about the purpose of the study and informed consent was taken.

### IV. RESULTS

#### A. Demographic Profile of Subjects

Variables	n (%)
Age of the Respondents	
0-6	58(28.4%)
6-12	65(31.9%)
12-18	60(29.4%)
18-24	21(10.3%)
Sex of Respondents	
Male	107(50.5%)
Female	97(47.5%)
Mother's Education	
Illiterate	40(19.6%)
Primary	129(63.2%)
Senior Secondary	32(15.7%)
Graduate	3(1.5%)
Father's Education	
Illiterate	42(20.6%)
Primary	129(63.2%)
Senior Secondary	26(12.7%)
Graduate	7(3.4%)
Mother's Occupation	
Housewife	79(38.7%)
Job	1(.5%)
Business	38(18.6%)
Farmer	62(30.4%)

Labour	24(11.8%)
Father's Occupation	
Job	3(1.5%)
Business	21(10.3%)
Farmer	132(64.7%)
Labour	48(23.5%)
Monthly income of Family	
Up To 5000	185(90.7%)
5000 To 20000	15(7.4%)
More Than 20000	4(2%)
Religion of Respondents	
Hindu	197(96.6%)
Muslim	5(2%)
Jain	2(1%)

Table 1:

Table no.1 shows total of 204 subjects were taken in the study of which 107(52.50%) were male and 97 (47.50%) were female consisting of age group from birth to six month 58(28.40%) and maximum in age group of 06-12 month 65(31.90%). On the criteria of mother's education maximum of 129(69.20%) were educated up to their primary level and their father's education maximum 129(63.20%) educated up to their primary education. Occupation of mother showed maximum of 79(38.70%) were belongs to housewife and father's occupation showed maximum of 132(64.20%) belongs to agriculture profession. Monthly income of family described maximum of 185(90.80%) had income up to 5,000 rupees. Religion of subjects demonstrated majority of 197(96.60%) belongs to Hindu religion.

#### B. Status of Immunization

Variables	n(%)
Status of Immunization	
Fully Immunised	114(55.9%)
Complete Immunised	72(35.3%)
Partial	18(8.8%)
Respondent's perception regarding not having immunization till date	
Adverse effect	103(50.50%)
Diseases	5(2.50%)
Resistant Family	2(1%)
Fear of Injection	94(46.10%)
Reported deaths due to VPDs in village	
Measles	5(2.50%)
Pneumonia	20(9.80%)
No death	179(87.70%)
Myths about vaccination in community	
Impotency	18(8.80%)
Disease	3(1.50%)
Death	6(2.90%)
No myth	177(86.80%)
Behaviour of health worker toward respondents	
Friendly	174(85.30%)
Normal	24(11.80%)
Indifference	6(2.90%)

Table 2:

Table 2.0 shows the details regarding status of immunization that majority of respondent were found fully immunized

114(55.9%) and completely immunized were 72(35.3%). Respondent's perception regarding not having immunization till date were maximum due to adverse effect 103(50.50%). Reported deaths due to vaccine preventable diseases showed maximum 179(87.70%) denied of any death and myths about vaccination showed majority of respondents 177(86.80%) rejected of any myth in vaccination. Behaviour of health worker toward respondents of which majority 174(85.30%) showed friendly behaviour.

## V. DISCUSSION

This study had been done to determine vaccination coverage during the months of Mission Indradhanush programme for the children from birth to 2 year of age at which they should take 1<sup>st</sup> booster of DPT vaccine. Study revealed that more than 90% of children were either completely immunized or fully immunize which were only 69% before Mission Indradhanush Programme. This demonstrated that Mission Indradhanush Program was successfully implemented to increase vaccination coverage. Similar study was carried out by Masood *et. al.* (2011) to assess the immunization status of children in the age group 12-23 months and to analyses the reasons for non-immunization of children in Allahabad District of Uttar Pradesh showed that only 55% of child completely or partially immunized meanwhile another study population by Kameshore *et. al.*(2017) consisted of mothers who had children aged 12-23 months under the coverage evaluation survey of the universal immunization program in North- Eastern India revealed that 91% of child were found fully immunized.

Respondents interviewed child of both sex of which 52.5% were male and 47.5% were female child. Both sex had equal opportunity for vaccination so that no any directly observation in term of gender found on behalf of vaccination coverage in the village. Another similar study on Gender inequity and age-appropriate immunization coverage in India from 1992 to 2006 by Corsi *et. al.* (2009) which showed that Girls were found to have significantly lower immunization coverage ( $p<0.001$ ) than boys for BCG, DPT, and measles meanwhile similar study on topic Intersectional inequalities in immunization in India, 1992–93 to 2005–06: a progress assessment by Joe (2014).

Status of immunization in the village showed that immunization coverage had been increased up to more than 90% of completely and fully immunized children and only 10% showed partially immunized. During first to fourth round of Mission Indradhanush Programme government had created a milestone in term of vaccination coverage in all district covered. Human resource, availability of vaccine and logistics, support from ICDS and other department, monitoring by higher authorities and IEC activities by health worker fulfils the performance indicators and done a great job in increasing vaccination coverage. Datta *et. al.* (2017) revealed by his study to find out the full immunization coverage of 12 to 23-month old children and areas of under-performance using IQAS technique in a rural area of Tripura which showed more than 90% of vaccination coverage. Kamanda (2010) analysed in their study was to describe immunization coverage for DPT, Polio and Measles among children of ages between 12 to 18 months in Kawempe

Division and to investigate factors associated with immunization coverage found that the immunization coverage levels were 95.8% for DPT (3 doses), 89.5% for Polio (3 doses) and 70.7% for Measles vaccine..

## VI. CONCLUSION

Vaccination coverage was 70% in Tikamgarh district in 2014; it has nearly reached up to 78% in first quarter (April-June) of 2018-19. (HMIS standard report 2018-19).

Problems determined in the vaccination were lack of awareness about VPDs, various myths about vaccination, lack of interest of villagers toward vaccination and absence of any meeting or gramsabha in village about vaccination.

Resistant families, fear of AEFI, migration of villagers and lack of proper IEC activities in village were the various factors responsible for not availing immunization. These all factors related to only minority of villagers but these might be responsible for not availing 100% vaccination coverage in village or district or state.

At last it had been concluded from the study that Mission Indradhanush Programme really played a great role in vaccination that increases the vaccination coverage in the village from 69% to more than 90% in children of age up to 24 months.

## VII. RECOMMENDATIONS

- People must be aware about vaccine preventable diseases and their prognosis. All vaccine preventable disease have high mortality rate like Measles, Hepatitis, TB etc. so if awareness about these diseases will increases people definitely feels the requirement of vaccines.
- ASHA should participate actively within the community encouraging them for full immunization timely. As ASHA are a frontline worker and key service provider in the community.
- Meticulous planning of campaigns/sessions at all levels. Planning of sessions/campaigns start from the beneficiaries (last point); hence it is known as micro planning. Health worker at village prepared the list of beneficiaries and plan number of session which circulate to the upper level at sector, block and district and at last at state.
- Effective communication and social mobilization efforts. IEC activities may be effective part of any programme. As the IEC activities are the effective the chances of successful of programme are increases.

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