



REVIEW ARTICLE

Mission Indradhanush (MI) and Intensified Mission Indradhanush (IMI): The Immunization Programmes in India – A Brief Review

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Mission Indradhanush (MI):

Mission Indradhanush (MI) is a health initiative of the Government of India (GoI). It was launched by honourable Union Health Minister Mr. J. P. Nadda on 25 December 2014. As a strategic endeavor, the Ministry of Health & Family Welfare (MoHFW), GoI, launched Mission Indradhanush to achieve more than 90% full immunization coverage in the country. This initiative will eventually close immunity gaps and strengthen immunization coverage.

The Government of India (GoI) is committed to reduce child mortality and morbidity in the country by improving full immunization coverage through Universal Immunization Programme (UIP) and introducing new and efficacious vaccines for Vaccine Preventable Diseases (VPDs). India's immunization programme, launched in 1985, is one of the largest health programmes of its kind in the world catering to a birth cohort of 2.7 crore children annually. The programme provides vaccination (BCG, OPV, IPV, Pentavalent, DPT, Measles, Rotavirus, JE Vaccines) against seven life-threatening diseases (diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B) in the entire country. In addition, for vaccination against Haemophilus influenzae type B (Hib), the Hib vaccine included in the pentavalent vaccine (diphtheria, pertussis, tetanus, HBV, Hib). The Japanese Encephalitis (JE) is provided in selected districts/states of the country. The Government of India has recommended the introduced the *Rotavirus vaccine* in the country and the *Rotavirus vaccine* is now the part of the Universal Immunization Programme (UIP) of the country. A *fractional dose IPV* (fIPV), also administered intradermally, in routine immunization programmes. A *fractional dose of IPV* is a smaller dose of the same vaccine, equal to 1/5 of a standard dose. Studies show that 2 doses of *fractional dose IPV* administered by intradermal injection produce an even stronger immunity.

The mission focuses on interventions to improve full immunization coverage in India from 65% in 2014 to at least 90% children in the next five years. This will be done through special catch-up drives. It aims to immunize all children under the age of 2 years, as well as all pregnant

women, against seven vaccine preventable diseases. The diseases being targeted are diphtheria, whooping cough, tetanus, poliomyelitis, tuberculosis, measles, and Hepatitis B, Haemophilus influenzae type B. In addition to these, vaccine for Japanese Encephalitis is 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. Additionally, zinc tablets for 15 days, vitamin A solution (9 doses), ORS sachets are also provided according to the certain schedule in the Universal Immunization Programme.

The National Immunization Programme has been operational for more than 30 years and only 65% children in India receive all vaccines during their first year of life before the launch of Mission Indradhanush. It was estimated that annually, more than 89 lakh children in the country did not receive all vaccines that are available under the Universal Immunization Programme (UIP) and it was the highest number compared with any other country in the world.

Evidence shows that unimmunized and partially immunized children are most susceptible to childhood diseases and disability, and run a 3–6 times higher risk of death as compared with fully immunized children. There are wide variations in the proportion of partially immunized and unimmunized children within states and districts. Recent evaluations have indicated that the major reasons for inability to reach with all vaccines to children in the country are lack of awareness among parents about the benefits of vaccination, fear of adverse events following immunization and operational reasons such as non-availability of vaccines or vaccinators during vaccination sessions. It is critical to identify the unvaccinated or partially vaccinated children and address these issues with focused

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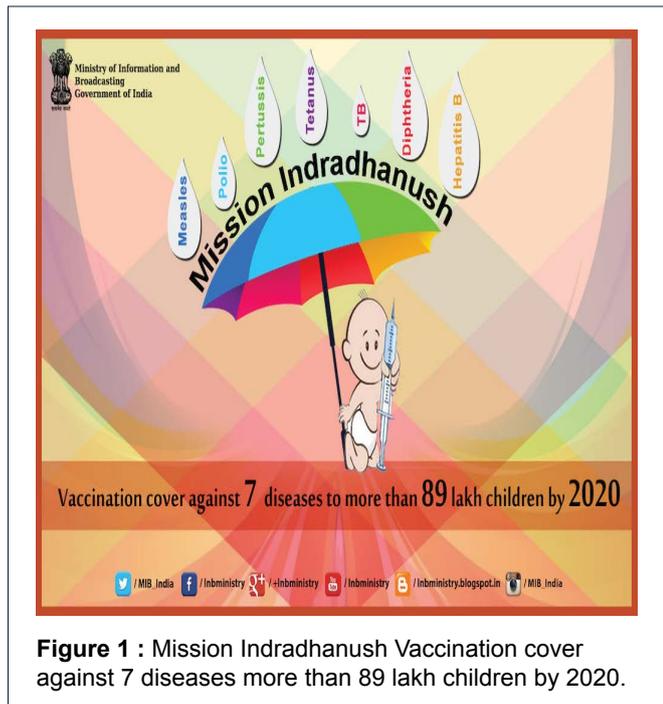


Figure 1 : Mission Indradhanush Vaccination cover against 7 diseases more than 89 lakh children by 2020.

microplanning, provision of additional financial resources and systematic immunization drives to reach these children with all available life-saving vaccines.

Intensified Mission Indradhanush (IMI):

The Union Ministry of Health and Family Welfare has launched Intensified Mission Indradhanush (IMI) on 8th October 2017, to accelerate full immunization coverage to more than 90% by December 2018. Through this programme, Government aims to reach each and every child less than two years of age and all those pregnant women who have been left uncovered under the routine immunisation programme and thus to reduce maternal and child mortality to achieve targets of Sustainable Development Goals (SDGs).

Only 201 districts will be covered in the first phase. Of these, 82 districts are in the states of Uttar Pradesh, Bihar, Rajasthan, and Madhya Pradesh. The 201 districts selected have nearly 50% of all unvaccinated children in the country. The mission follow planning and administration like PPI (Pulse Polio Immunization). Mission Indradhanush may be regarded as one of the key schemes of the National Democratic Alliance (NDA) government in India. India's target of at least 90 per cent vaccine coverage by the year 2020 has now been advanced to December 2018 with the launch of *Intensified Mission Indradhanush (IMI)*.

The *Intensified Mission Indradhanush (IMI)* devises convergence mechanism of ground level workers of various departments like ANMs, ASHAs, Anganwadi workers, Zila preraks under National Urban Livelihood Mission (NULM), self-help groups for better coordination and effective implementation of the programme. Moreover, it also has appreciation and awards mechanism to recognize districts reaching more than 90% coverage. The criteria under it,

include best practices and media management during crisis. Certificate of Appreciation will be given to acknowledge contribution of partners/Civil Society Organization (CSOs) and others. Implementation of IMI will be closely monitored at the district, state and central level at regular intervals. It would be reviewed by Cabinet Secretary at National level and will be monitored at highest level under a special initiative "Proactive Governance and Timely Implementation (PRAGATI)".

The key to effective implementation of targeted rapid interventions to improve the routine immunization coverage are;

- Inter-ministerial and inter-departmental coordination
- Action based review mechanism
- Intensive monitoring and accountability framework

IMI will focus on children up to 2 years of age and pregnant women who have missed out on routine immunization. However, vaccination on demand to children up to 5 years of age will be provided during IMI rounds.

Intensified Mission Indradhanush will primarily focus on:

- Areas with vacant sub centres-ANM not posted or absent for more than 3 months
- Unserved/low coverage pockets in sub-centre or urban areas, due to issues around vaccine hesitancy of program reach; sub centre/ANM catering to populations much higher than norms
- Villages/areas with three or more consecutive missed routine immunization sessions.
- High risk areas identified by the polio eradication program that are not having independent routine immunization sessions and clubbed with some other routine immunization sessions such as;
 - a. Urban slums with migratory population
 - b. Nomadic sites (brick kilns, construction sites, other migrant settlements-fisherman villages, riverine areas with shifting populations, underserved and hard-to-reach populations-forested and tribal populations, hilly areas, etc.)
 - c. Areas with low routine immunization coverage identified through measles outbreaks, cases of diphtheria and neonatal tetanus in the last two years.

The Intensified Mission Indradhanush (7 colours in rainbow), immunization drive will be spread over 7 working days starting from 7th of every month targeting mainly 7 diseases in 7 visits to immunization centre. These 7 days do not include holidays, Sundays and the routine immunization days planned in that week.

After the completion of proposed 4 rounds, the states are expected to undertake measures to sustain the gains from IMI through activities like inclusion of IMI sessions in routine immunization plans. The sustainability of IMI will be assessed through a survey, and the decision to conduct another phase of

IMI will be based on the findings of this survey. Assessment of phases of Intensified Mission Indradhanush is done under following indicators

1. Total no. of sessions held
2. Total no. of antigen administered
3. Total no of pregnant women immunized
4. Total no of pregnant women completely immunized
5. Total no of children immunized
6. Total no of children fully immunized
7. Total no. of Vit. A doses administered
8. Total no. of ORS packets distributed
9. Total no. of Zinc tablets distributed
10. Total no. of children vaccinated first time in life [1]

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