

Child Health Programme

5.1 INTRODUCTION

The Reproductive and Child Health programme (RCH) II under the National Rural Health Mission (NRHM) comprehensively integrates interventions that improve child health and addresses factors contributing to Infant and under-five mortality. Reduction of infant and child mortality has been an important tenet of the health policy of the Government of India and it has tried to address the issue right from the early stages of planned development. The major components of child health programme are: i) Establishment of New Born Care facilities and Facility Based Integrated Management of Neonatal and Childhood Illnesses (F-IMNCI), ii) Navjaat Shishu Suraksha Karyakram, iii) Integrated Management of Neonatal and Childhood Illnesses (IMNCI) and Pre-Service IMNCI iv) Home Based Care of Newborns, v) Universal Immunization vi) Early detection and appropriate management of Acute Respiratory Infections, Diarrhoea and other infections, vii) Infant and young child feeding including promotion of breast feeding, viii) Management of children with malnutrition, ix) Vitamin A supplementation and Iron and Folic Acid supplementation.

The National Population Policy (NPP) 2000, the National Health Policy 2002 and the Eleventh Five Year Plan (2007-12) and National Rural Health Mission (NRHM - 2005 – 2012) have laid down the goals for child health.

Child Health Goal under RCH II/NRHM

Child Health Indicator	Current status (per 1000 live births)	RCH II/ NRHM 2010/2012	MDG 2015
IMR (Infant Mortality Rate)	47	<30	28
Neonatal Mortality Rate	33	<20	—
Under 5 Mortality Rate	59	—	<38

Source: Sample Registration System (SRS) 2010 & 2011

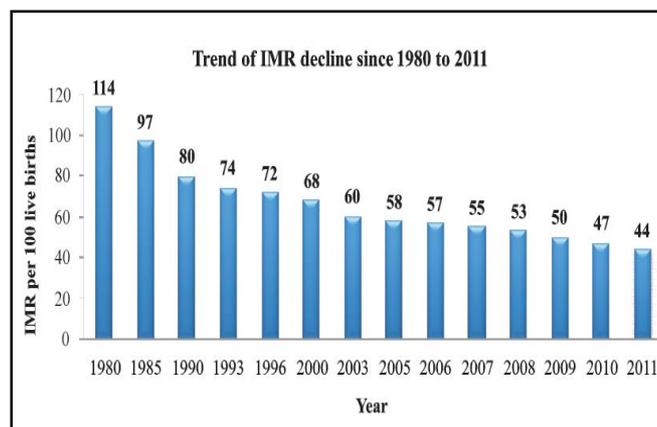
The strategies for child health intervention focus on improving skills of the health care workers, strengthening

the health care infrastructure and involvement of the community through behavior change communication.

5.2 TRENDS OF CHILD HEALTH INDICATORS

5.2.1 Infant Mortality Rate

Infant mortality is defined as the probability of dying before the first birthday. As per the Sample Registration System 2011, the Infant Mortality Rate (IMR) for the country is 44 per 1000 live births.



Source: Office of the Registrar General of India 2011

5.2.2 Causes of Infant Deaths

The medical causes of infant deaths in India 2001-03 as given by the Registrar General of India, Ministry of Home Affairs, are perinatal conditions (46%), respiratory infections (22%), diarrhoeal disease (10%), other infectious and parasitic diseases (8%), and congenital anomalies (3.1%).

5.2.3 Under-five Mortality Rate (U5MR)

Under five mortality is defined as the probability of dying before the fifth birthday. Under Five Mortality Rate (U5MR) at national level has declined during the last decade. It has come down from 109 per thousand (NFHS I- 1992-93) to 74 per thousand during the period (NFHS III-2005-06). As per the Sample Registration System 2010, the under five-mortality rate is 59 per thousand live births.

5.2.4 Causes of under 5 Mortality

As per WHO estimates, the causes of Child Mortality in the age group 0-5 years in India are as below:

- (a) Neonatal causes (52%)
- (b) Pneumonia (15%)
- (c) Diarrhoeal disease (11%)
- (d) Measles (3%)
- (e) Injuries (4%)
- (f) Others (15%)

5.3 CHILD HEALTH INTERVENTIONS

The progress of various components of child health programme are given as follows:

5.3.1 Facility Based Newborn and Child Care

Neonatal mortality is one of the major contributors (2/3) to the Infant Mortality. To address the issues of higher neonatal and early neonatal mortality, facility based newborn care services at health facilities have been emphasized. Setting up of facilities for care of Sick Newborn such as Special New Born Care Units (SNCUs), New Born Stabilization Units (NBSUs) and New Born Baby Corners (NBCCs) at different levels is a thrust area under NRHM.

a) Special Newborn Care Units (SNCUs)

States have been asked to set up at least one SNCU in each district. SNCU is 12-20 bedded unit and requires 4 trained doctors and 10-12 nurses for round the clock services. So far, 388 SNCUs are now functioning in the country. State-wise details of SNCUs established is given in Appendix-I.

b) Newborn Stabilization Units (NBSUs)

NBSUs are established at Community Health centres /FRUs. These are 4 bedded units with trained doctors and nurses for stabilization of sick newborns. There are at present 1542 NBSUs in the country.

c) New Born Care Corners (NBCCs)

These are 1 bedded facility attached to the labour room and Operation Theatre (OT) for provision of essential newborn care. NBCC at each facility where deliveries are taking place should be established. There are 11458-functional NBCC in the country so far.

A comprehensive “Facility Based Newborn Care Operational Guide- 2011, a guideline for planning and Implementation” have been published and disseminated in 2011 by Child Health Division, MoHFW, GoI to act as reference tool for the states to take necessary steps in implementation of same.

5.3.2 Facility Based Integrated Management of Neonatal and Childhood Illness (F- IMNCI)

F-IMNCI is the integration of the Facility based Care package with the IMNCI package, to empower the Health personnel with the skills to manage new born and childhood illness at the community level as well as at the facility. Facility based IMNCI focuses on providing appropriate skills for inpatient management of major causes of Neonatal and Childhood mortality such as asphyxia, sepsis, low birth weight and pneumonia, diarrhoea, malaria, meningitis, severe malnutrition in children. This training is being imparted to Medical Officers, Staff Nurses and ANMs at CHC/FRUs and 24x7 PHCs where deliveries are taking place. The training is for 11 days. A total of 9219 medical personnel have been trained in F-IMNCI till September 2012.

5.3.3 Integrated Management of Neonatal & Childhood Illnesses (IMNCI) which includes Pre-service and In-service training of providers, improving health systems (e.g. facility up-gradation, availability of logistics, referral systems), Community and Family level care. IMNCI is being implemented in 457 districts across the country and 533999 health personnel have been trained in IMNCI up to September, 2012 .

5.3.4 Home Based New Born Care (HBNC): A new scheme has been launched to incentivize ASHA for providing Home Based Newborn Care. ASHA will make visits to all newborns according to specified schedule up to 42 days of life. The proposed incentive is Rs. 50 per home visit of around one hour duration, amounting to a total of Rs. 250 for five visits. This would be paid at one time after 45 days of delivery, subject to the following:

- a. recording of weight of the newborn in MCP card
- b. ensuring BCG , 1st dose of OPV and DPT vaccination
- c. both the mother and the newborn are safe till 42 days of the delivery, and
- d. registration of birth has been done.

A comprehensive “**Home Based Newborn Care Operational Guideline- 2011**” has been developed, published and disseminated in 2011 by Child Health Division, MoHFW, GoI to provide framework and guidance to enable a coherent home based new born care strategy and act a reference tool for the states to plan necessary interventions.

5.4 NAVJAT SHISHU SURAKSHA KARYAKRAM (NSSK)

NSSK is a programme aimed to train health personnel in basic newborn care and resuscitation, has been launched to address care at birth issues i.e. Prevention of Hypothermia, Prevention of Infection, Early initiation of Breast feeding and Basic Newborn Resuscitation. Newborn care and resuscitation is an important starting-point for any neonatal program and is required to ensure the best possible start in life. The objective of this new initiative is to have a trained health personnel in Basic newborn care and resuscitation at every delivery point. The training is for 2 days and is expected to reduce neonatal mortality significantly in the country. A total of 69,514 health personnel have been trained in NSSK. State wise details of NSSK trained health personnel is given in Appendix-II.

5.5 INFANT AND YOUNG CHILD FEEDING

Promotion of early initiation of breast feeding (within one hour of delivery) and exclusive breast feeding till 6 months and timely complementary feeding with continued breast feeding is emphasized under the infant and young child feeding programme.

- Early and exclusive breast feeding for the six months of age and timely complementary feeding with continued breast feeding for 2 yrs is the single most preventive intervention for child survival.

Infant and young child feeding advocates the following:-

- Early initiation (within one hour of birth) and exclusive breast feeding till 6 months.
- Timely complementary feeding after 6 months with continued breast feeding till the age of 2 yrs.

Comparison of indicators of child feeding practices:

Indicators	CES (2009)	DLHS-III (2007-08)	NFHS-III (2005-06)
Children under three years breastfed within an hour of birth	33.5%	40.2%	24.5%
Children 0-5 months exclusively breastfed	56.8%	46.4%	46.3%
Children age 6-35 months breastfed for at least 6 months	—	24.9%	—

5.6 NUTRITIONAL REHABILITATION CENTRES (NRC) (treat severe acute malnutrition amongst children)

Severe Acute Malnutrition is an important contributing factor for most deaths amongst children suffering from common childhood illness, such as diarrhoea and pneumonia. Deaths amongst SAM children are preventable, provided timely and appropriate actions are taken.

- Nutritional Rehabilitation Centres (NRCs) are being set up in the health facilities for inpatient management of severely malnourished children, with counselling of mothers for proper feeding and once they are on the road to recovery, they are sent back home with regular follow up.
- For treatment and management of SAM children, under RCH II/NRHM programme, of about 650 Nutrition Rehabilitation Centers planned in 14 states 577 Nutrition Rehabilitation Centers have been operationalized in the country till September 2012.

An “Operational Guidelines on Facility Based Management of Children with Severe Acute Malnutrition-2011” is being developed and published in 2011 by Child Health Division, MoHFW.

5.7 REDUCTION IN MORBIDITY AND MORTALITY DUE TO ACUTE RESPIRATORY INFECTIONS (ARI) AND DIARRHOEAL DISEASES

Promotion of Zinc and ORS supplies is ensured.

a) Childhood Diarrhoea

In order to control Diarrhoeal diseases Government of India has adopted the WHO guidelines on Diarrhoea management.

- India introduced the low osmolarity Oral Rehydration Solution (ORS), as recommended by WHO for the management of diarrhoea.
- Zinc has been approved as an adjunct to ORS for the management of diarrhoea. Addition of Zinc would result in reduction of the number and severity of episodes and the duration of diarrhoea.
- New guidelines on management of diarrhoea have been modified based on the latest available scientific evidence.

b) Acute Respiratory Infections

- Acute Respiratory Infections forms 19 % of all under five mortalities in India (WHO 2007 report) and along with Diarrhoea are two major killers of under five children.
- India leads the world in the number of pneumonia cases with nearly 44, 00, 000 cases yearly. Early diagnosis and appropriate case management by rational use of antibiotics remains one of the most effective interventions to prevent deaths due to pneumonia. The ARI guidelines are being revised with the inclusion of the latest available global evidence.

5.8 SUPPLEMENTATION WITH MICRONUTRIENTS

Through supplies of Vitamin A & iron supplements.

a) Vitamin – A

- The policy has been revised with the objective of decreasing the prevalence of Vitamin A deficiency to levels below 0.5%, the strategy being implemented is:
 - 1,00,000 IU dose of Vitamin A is being given at nine months
 - Vitamin A dose of 2,00,000 IU (after 9 months) at six monthly intervals up to five years of age
 - All cases of severe malnutrition to be given one additional dose of Vitamin A.

Coverage with Vitamin A	CES (2009)	DLHS-III (2007-08)	NFHS-III (2005-06)
Children 9 months and above who have received at least one dose of Vitamin A	65.4 %	55.0%	24.8%

b) Iron and Folic Acid supplementation

- To manage the widespread prevalence of anaemia in the country, the policy has been revised.
- Infants from the age of 6 months onwards up to the age of five years shall receive iron supplements in liquid formulation in doses of 20mg elemental iron and 100mcg folic acid per day per child for 100 days in a year.
- Children 6-10 years of age shall receive iron in the dosage of 30 mg elemental iron and 250mcg folic acid for 100 days in a year.
- Children above this age group would receive iron supplements in the adult dose.

5.9 NEW INITIATIVES

5.9.1 Janani Shishu Suraksha Karyakram(JSSK)

- Janani Shishu Suraksha Karyakram (JSSK) was launched on 1st June 2011 and has provision for both pregnant women and sick new born till 30 days after birth as follows :
 - ✓ Free and zero expense treatment
 - ✓ Free drugs and consumables
 - ✓ Free diagnostics
 - ✓ Free provision of blood
 - ✓ Free transport from home to health institutions
 - ✓ Free transport between facilities in case of referral
 - ✓ Drop back from institutions to home
 - ✓ Exemption from all kinds of user charges.
- More than Rs. 1437 crores have been allocated to the States for the year 2011-12 for providing free entitlements under JSSK. While Rs 2059.78 crores have been approved for FY 2012-13.
- The initiative would further promote institutional delivery, eliminate out of pocket expenses which act as a barrier to seeking institutional care for

mothers and sick new borns and facilitate prompt referral through free transport.

5.9.2 Mother and Child Tracking System

A name based Mother and Child Tracking System has been put in place which is web based to ensure registration and tracking of all pregnant women and new born babies so that provision of regular and complete services to them can be ensured.

5.10 SCHOOL HEALTH PROGRAMME (SHP)

Keeping children free from physical and mental health concerns is the focus of the School Health Programme. The programme targets school going children and adolescents in 6-18 years age group in the Government and Government aided schools. The programme entails biannual health screening and early management of disease, disability and common deficiency and linkages with secondary and tertiary health facilities as required.



State-wise status of Sick Newborn Care Units (SNCUs) (as on September 2012)

STATES	No. of SNCUs
Bihar	11
Chhattisgarh	2
Himachal Pradesh	2
Jammu & Kashmir	8
Jharkhand	2
Madhya Pradesh	39
Odisha	21
Rajasthan	36
Uttar Pradesh	7
Uttarakhand	2
Arunachal Pradesh	2
Assam	17
Manipur	0
Meghalaya	4
Mizoram	1
Nagaland	1
Sikkim	2
Tripura	0
Andhra Pradesh	19
Goa	3
Gujarat	31
Haryana	12
Karnataka	33
Kerala	17
Maharashtra	34
Punjab	0
Tamil Nadu	44
West Bengal	21
Andaman & Nicobar	1
Chandigarh	2
Dadra & Nagar Haveli	1
Daman & Diu	1
Delhi	10
Lakshadweep	0
Puducherry	4
Total	388

State-wise progress of NSSK trained health personnels in India (as on September, 2012)

Sr. No	States/UTs India	No. of health personnel trained in NSSK 69514
A. Non-NE High Focus States		
1	Bihar	3106
2	Chhattisgarh	3530
3	Himachal Pradesh	398
4	Jammu & Kashmir	512
5	Jharkhand	2708
6	Madhya Pradesh	4655
7	Odisha	3490
8	Rajasthan	2297
9	Uttar Pradesh	2085
10	Uttarakhand	1213
Sub Total		23994
B. NE States		
11	Arunachal Pradesh	375
12	Assam	2489
13	Manipur	168
14	Meghalaya	957
15	Mizoram	195
16	Nagaland	168
17	Sikkim	194
18	Tripura	101
Sub Total		4647
C. Non High Focus States		
19	Andhra Pradesh	2807
20	Goa	18
21	Gujarat	6744
22	Haryana	6286
23	Karnataka	2990

24	Kerala	2448
25	Maharashtra	6720
26	Punjab	2259
27	Tamil Nadu	8231
28	West Bengal	1946
Sub Total		40449
D. Union Territories		
29	A & N Islands	163
30	Chandigarh	27
31	Dadra & Nagar Haveli	28
32	Daman & Diu	20
33	Delhi	46
34	Lakshadweep	0
35	Puducherry	140
Sub Total		424

5.11 UNIVERSAL IMMUNIZATION PROGRAMME

Immunization Programme is one of the key interventions for protection of children from life threatening conditions, which are preventable. Immunization Programme in India was introduced in 1978 as Expanded Programme of Immunization. This gained momentum in 1985 as Universal Immunization Programme (UIP) and implemented in phased manner to cover all districts in the country by 1989-90. UIP become a part of Child

Survival and Safe Motherhood Programme in 1992. Since, 1997, immunization activities have been an important component of National Reproductive and Child Health Programme. Immunization is one of the key areas under National Rural Health Mission (NRHM) launched in 2005.

Under the Universal Immunization Programme, Government of India is providing vaccination to prevent seven vaccine preventable diseases i.e. Diphtheria, Pertussis, Tetanus, Polio, Measles, severe form of Childhood Tuberculosis and Hepatitis B.

Immunization Schedule

S.No.	Vaccine	Protection	Number of doses	Vaccination Schedule
1	BCG (Bacillus Calmette Guerin)	Tuberculosis	1	at birth (upto 1 year if not given earlier)
2	OPV (Oral Polio Vaccine)	Polio	5	Birth dose for institutional deliveries within 15 days, Primary three doses at 6, 10 & 14 week and one booster dose at 16-24 month of age. Given orally
3	Hepatitis B	Hepatitis	4	Birth dose for institutional deliveries within 24 hour, Primary three doses at 6, 10 14 week
4	DPT (Diphtheria, Pertussis and Tetanus Toxoid)	Diphtheria, Pertussis and Tetanus	5	Three doses at 6, 10 & 14 week and two booster dose at 16-24 month and 5 years of age
5	Measles	Measles	2	9-12 months of age and 2 nd dose at 16-24 months. The 14 SIA States has/ will introduce 2 nd dose after 6 months of campaign.
6	TT (Tetanus Toxoid)	Tetanus	2 2	Children: 10 years and 16 years of age Pregnant woman: Two doses given(one dose, if previously vaccinated within 3 Year)
7	JE vaccination (in selected 113 JE endemic districts in 15 states)	Japanese Encephalitis (Brain disease)	1	16-24 month of age in JE endemic districts after 6 months of campaign
8	Hib containing Pentavalent vaccine (Hib+DPT+Hep B) Presently in two state (Tamil Nadu and Kerala)	Diphtheria, Pertussis, Tetanus, Hepatitis B and Haemophilus influenzae type B associated Pneumonia meningitis	3	6, 10 & 14 week of age

5.11.1 Status of Universal Immunization Programme

The achievements in terms of immunization coverage is improving over the years however there is

further need for improvement especially in DPT3 & OPV3 coverage and reducing drop outs. Table outlines achievements as per evaluated coverage.

(Figures are in %)

Source	Coverage Evaluation Survey (CES)		District Level Household Survey (DLHS)	
	2006	2009	DLHS II (2002-04)	DLHSIII (2007-08)
Full Immunization	62.4	61.0	45.9	53.5
BCG	87.4	86.9	75.0	86.7
OPV3	67.5	70.4	57.3	65.6
DPT3	68.4	71.5	58.3	63.4
Measles	70.9	74.1	56.1	69.1
No Immunization	-	7.6	19.8	4.6

The recent Annual Health Survey (AHS 2011) conducted in 9 states documented improvement in immunization coverage in all states except Odisha. The Full Immunization was highest in Uttarakhand at 75.4% while was lowest in Uttar Pradesh at 45.3.

Annual Health Survey (2011)

States	BCG	OPV 3	DPT3	Measles FI	Polio (Birth dose)	No Immunization	
Uttarakhand	91.9	83.2	83	82.6	75.4	75.8	5.8
Chhattisgarh	96.8	82.3	81.6	87.9	74.1	86.1	2.3
Rajasthan	90.6	78.1	77.0	81.8	70.8	74.9	5.9
Bihar	93.9	79.9	78.7	75.7	64.5	62.7	2.9
Jharkhand	91.8	77.5	71.8	79	63.7	70.8	3.9
Assam	93.3	75.5	72.2	77.3	59	75.2	3.3
Odisha	97.5	74.7	72.9	86.7	55.0	76.9	0.9
Madhya Pradesh	94.2	69.4	66.6	80.7	54.9	83	4.3
Uttar Pradesh	83.4	58.5	55.9	60.5	45.3	65	8.6

All the States / UTs prepare their own State Programme Implementation Plan (PIP) for Immunization as part 'C' of NRHM PIP from the year 2005-06 to address specific needs.

5.11.2 Year 2012: Year of Intensification of Routine Immunization

Immunization coverage in India has been variable with areas of low coverage in both urban and rural areas. In

an effort to enhance the immunization profile in the country, *Government of India declared 2012 as "Year of Intensification of Routine Immunization" (IRI).*

Under IRI, every state is expected to review and come up with state and district wise realistic targets to improve the immunization coverage.

Various Strategies adopted for IRI are:

- Enhance political commitment and increase community demand for routine immunization
- Improve reach and quality of Immunization Services
- Strengthen institutional capacity for program management
- Strengthen partnership with all stakeholders
- Conduct Operational research.

The major issues and challenges are pockets of low RI coverage due to

- Hard to reach areas,
- High risk areas,
- Sub-centres with absent or no health workers.

Immunization Week (IW) is one of the strategies to improve Routine Immunization coverage in priority areas with low coverage. Immunization Weeks are proposed to be conducted in 16 low performing states including NE states (Assam, Manipur, Meghalaya, Nagaland, Tripura, Arunachal Pradesh, Mizoram and Sikkim, Uttar Pradesh, Bihar, Jharkhand, Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha and Gujarat), 239 low performing districts have been prioritized for intensification.

In addition, low coverage pockets in good performing states are also expected to conduct immunization weeks for low coverage pockets.

The objective of Immunization weeks is to increase the immunization coverage with all vaccines under the National Immunization Schedule and to reach the beneficiaries in left out and hard to reach areas for universal coverage.

Progress

- National and state level immunization reviews being undertaken.
- National Cold Chain management MIS system piloted in 2 states.
- Microplan being reviewed and strengthened.
- HR strengthening in weak areas.
- Monitoring and supervision plans being revisited for attention.

- ASHA incentives introduced for full and complete immunization.
- States are in process of reviewing and planning IW in low coverage pockets. 14 high focussed states have/or are conducting IW.
- States that have completed IW are Gujarat, Madhya Pradesh, Rajasthan, UP, Arunachal Pradesh, Manipur, Nagaland, Tripura.
- States that are ongoing with IW : Bihar, Chhattisgarh, Jharkhand, Odisha, Uttarakhand, Meghalaya.
- Other non-high focussed states that have planned IW in focussed areas as part of IRI are Karnataka, West Bengal, J&K, Haryana, Punjab, Himachal Pradesh, Assam, Kerala, Odisha, Mizoram.

BCG	5.08	Measles	6.46
DPT	19.74	JE	1.52
Hep B	14.25	TT	9.74
OPV	24.74		

5.11.3 Introduction of Pentavalent vaccine (DPT+Hep-B +Hib)

India introduced Pentavalent Vaccine containing DPT, Hepatitis-B and Hib vaccines in two states viz. Kerala and Tamil Nadu under routine immunization programme from December 2011. Under the programme, DPT and Hepatitis B were part of the immunization schedule and required 6 injections to deliver the primary doses. With the introduction of Pentavalent vaccine, a new antigen i.e. Hib has been added which protects against Haemophilus influenzae type B associated Pneumonia and meningitis and the number of injection have been reduced to 3. Till August 2012, more than 25 lakh children have been vaccinated with Pentavalent vaccine in the two states. The Pentavalent vaccine is being expanded to 6 more states i.e. Haryana, J&K, Gujarat, Karnataka, Goa and Puducherry in 2012-13.

5.11.4 Introduction of Hepatitis B Vaccine

Government of India introduced Hepatitis B vaccine in the FY 2002-03, as a pilot in 33 districts and 15 cities. In 2011, Government of India universalized Hepatitis B vaccination to all States/UTs in the country. Monovalent Hepatitis B vaccine is given as intra-muscular (IM) injections to the infants at 6th, 10th and 14th week along

with primary series of DPT & Polio vaccines. Additional one dose of hepatitis B is given at birth for institutional deliveries within 24 hours of birth.

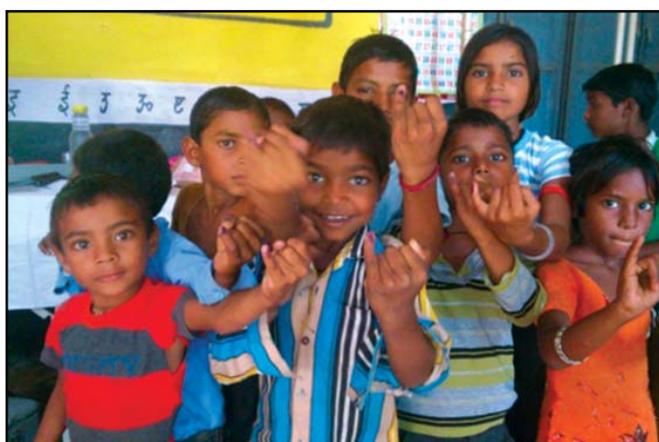
5.11.5 Introduction of Measles Second Dose

As per the latest Coverage Evaluation Survey (CES-2009), 74.1% children in India aged 12-24 months are vaccinated with measles vaccine. India has made considerable progress in addressing the issue of Measles vaccination by introducing the 2nd dose of Measles vaccination at the age of 16-24 months. This introduction is based on two prong strategy:

Measles immunization directly contributes to the reduction of under-five child mortality and hence to the achievement of Millennium Development Goal number 4. In order to accelerate the reduction of measles related morbidity and mortality second opportunity for measles vaccination is being implemented. The National Technical Advisory Group on Immunization (NTAGI) has recommended for introduction of another dose of measles vaccine through measles Supplementary Immunization Activity (SIA) for States where evaluated coverage for measles vaccine is less than 80% while for the remaining States where coverage is more than 80%, they recommended a second dose through routine immunization.

As per DLHS-III, conducted in 2007-08, there are 21 states viz. Andhra Pradesh, Andaman & Nicobar Islands, Chandigarh, Daman & Diu, Dadra & Nagar Haveli, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Lakshadweep, Maharashtra, Mizoram, Odisha, Puducherry, Punjab, Sikkim, Tamil Nadu, Uttarakhand and West Bengal are having more than 80% measles vaccine coverage where second dose of measles has been directly introduced at 16-24 months age under routine immunization. Of these 21 states, 4 states/UTs (Delhi, Goa, Puducherry and Sikkim) are using second dose of measles in their routine immunization programme (as mumps-measles-rubella vaccine) through state resources. In the remaining 14 states with measles coverage of less than or equal to 80%, viz. Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Rajasthan, Tripura and Uttar Pradesh Supplementary Immunization Activity (SIA) is being conducted in a phased manner to immunize all children between 9 months to 10 years age with one dose of measles vaccine followed by introduction of second dose at 16-24 months in routine immunization after 6 months of campaign.

During Phase I, 1.2 crore children were vaccinated with Measles vaccine in 45 districts in 13 states with 87.2% coverage. During Phase II, 3.6 crore children were vaccinated in 152 districts in 14 states. At the end of Phase II, 9 out of 14 states have completed the campaign in all their districts and have incorporated 2nd dose of Measles vaccine under Routine Immunization after 6 months of campaign. The Phase III of the campaign targeting 8.1 crore children in 167 districts in 5 states i.e. Madhya Pradesh, Uttar Pradesh, Gujarat, Rajasthan and Bihar is being currently implemented in 2012-13.



5.11.6 Introduction of Japanese Encephalitis (JE) Vaccine

Japanese Encephalitis (JE) is an acute viral illness with high case fatality and long term complications. JE vaccination was started in 2006 and covered 113 endemic districts in a phased targeting all children between 1 to 15 years of age with a single dose of JE vaccine (SA 14-14-2) manufactured by Chengdu, China. Currently JE endemic districts have introduced JE vaccine as a single dose at 16-24 months under routine immunization after 6 months of campaign. National Vector Borne Disease Control Programme (NVBDCP) has identified 62 new

JE endemic districts and JE vaccination campaign will be conducted in a phased manner to cover all the districts based on vaccine availability.

5.12 PULSE POLIO IMMUNIZATION

With the global initiative of eradication of polio in 1988 following World Health Assembly resolution in 1988, Pulse Polio Immunization programme was launched in India in 1995. Children in the age group of 0-5 years administered polio drops during National and Sub-national immunization rounds (in high risk areas) every year. About 172 million children are immunized during each National Immunization Day (NID).

Progress

1. The last polio case in the country was reported from Howrah district of West Bengal with date of onset 13th January 2011. Thereafter no polio case has been reported in the country (25th May 2012).
2. WHO on 24th February 2012 removed India from the list of countries with active endemic wild polio virus transmission.

Last Reported Polio Case

Polio Virus Type	Date of last case	Location
P1	13 January 2011	Howrah (Panchla), WB
P2	24 October 1999	Aligarh, UP
P3	22 October 2010	Pakur (Pakur), Jharkhand

3. There are 24 lakh vaccinators and 1.5 lakh supervisors involved in the successful implementation of the Pulse Polio Programme.
4. The total number of cases and number of affected districts during past 7 years is as below:

Year	Cases of Polio	Number of districts
2005	66	35
2006	676	114
2007	874	99
2008	559	90
2009	741	56
2010	42	17
2011	01	1
2012*	00	00

*upto 28th September 2012



Steps taken by the Government to achieve target of polio eradication

- All States and Union Territories in the country have developed a Rapid Response Team (RRT) to respond to any polio outbreak in the country. An Emergency Preparedness and Response Plan (EPRP) has also been developed by all States indicating steps to be undertaken in case of detection of a polio case.
- Special booths are established in areas bordering neighbouring countries like Wagah border and Attari train station in Punjab and Munabo train stations in Barmer district of Rajasthan, to ensure that all children under 5 years of age coming from across the border are given polio drops.
- An extremely high level of vigilance through surveillance across the country for any importation or circulation of poliovirus and Vaccine Derived Polio Virus (VDPV) is being maintained.
- Continuation of already existing environmental surveillance at four sites and establishment of two new sites in 2012.
- A rolling emergency stock of Oral Polio Vaccine (OPV) is being maintained to respond to any Wild Polio Vaccine (WPV) or Circulating Vaccine Derived Polio Virus (cVDPV) detection.
- An expert sub-group will be established to discuss issues related to Trivalent Oral Polio Vaccine (tOPV) to Bivalent Oral Polio Vaccine (bOPV) switch in routine immunization and possibility of Injectable Polio Vaccine (IPV) introduction in the country along with India specific timelines for these activities.
- Government of India has identified 107 High risk blocks for polio where a multi-pronged strategy is being implemented to ensure sanitation, hygiene and clean drinking water in addition to vaccinating each and every child Oral Polio Vaccine (OPV).
- Migratory populations from UP and Bihar are being identified in the States of Punjab, Haryana, Gujarat and West Bengal and these migratory children are being covered during the Sub National Immunization Day (SNID) in UP and Bihar.
- Social Mobilization activities are being intensified by involving the local influencers, community and religious leaders to improve community participation and acceptance of polio vaccine.
- In the States of UP and Bihar every new born child is being identified and vaccinated during the polio immunization campaigns and is being tracked for 8 subsequent rounds.
- In order to reach every eligible child during the pulse polio round, apart from the strategy of vaccinating children at fixed booths and house to house visit, efforts in vaccinating children in transit at railway stations, inside long distance trains, major bus stops, market places, religious congregations, major road crossings etc. throughout the country have been intensified.