

INTRODUCTION OF MEASLES-RUBELLA VACCINE (CAMPAIGN AND ROUTINE IMMUNIZATION)



National Operational Guidelines 2017



Ministry of Health
& Family Welfare
Government of India



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National Operational Guidelines 2017





सी.के.मिश्रा
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Government of India
Department of Health and Family Welfare
Ministry of Health & Family Welfare

MESSAGE



India is committed to the goal of measles elimination and control of rubella/ CRS (congenital rubella syndrome) by 2020. To achieve this goal, Measles-Rubella (MR) campaign is being launched in the country covering all children of 9 months to below 15 years of age group.

This campaign will be the largest ever measles-rubella campaign launched in the world. About 41 crore children will be covered under this campaign and it will be a truly massive effort which will require partnership at all the levels.

The determined efforts of the various Ministries, State Governments, partners, health managers and health personnel would guarantee safety and the success of this public health activity.

The rubella vaccine, which is being introduced for the first time in India as Measles-Rubella (MR), prevents children being infected with the rubella virus. If women become infected during early pregnancy, they risk giving birth to babies with Congenital Rubella Syndrome (CRS), thus, with introduction of MR vaccine we will be protecting the future generation of the country too.

The MR campaign marks the end of several months of careful planning by the Immunization Division under the Ministry of Health and Family Welfare. In Routine Immunization, MR vaccine will replace measles vaccine and will be given as two doses schedule.

These guidelines are developed for program managers at each level based on lessons learned from earlier measles catch-up campaigns conducted in selected states. This practical guide will enable program managers and medical officers to plan and implement high quality measles-rubella vaccination campaigns with safety including simultaneous switch form measles to measles-rubella vaccine.

My best wishes for a successful measles-rubella campaign.

(C.K. Mishra)

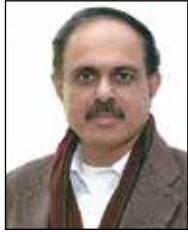


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GOVERNMENT OF INDIA
MINISTRY OF HEALTH & FAMILY WELFARE
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MESSAGE

Measles is a highly infectious disease that continues to kill many of our infants and young children. Rubella Infection in pregnant women disables a child for life with congenital rubella syndrome (CRS) that may result in deafness, blindness and heart defects. Measles and rubella can, however, be prevented with a safe and effective measles-rubella (MR) vaccine that gives long term immunity. Measles immunization directly contributes to the reduction of under-five child deaths and with combination of rubella vaccine will control rubella and prevent CRS in country population, thereby reducing the disabilities.

Government of India (GoI) introduced measles vaccine in its Universal Immunization Programme in 1985. Since then the disease burden due to measles in India has reduced significantly. The reduction was further accelerated by providing a second opportunity for measles vaccination since 2010 in the country.

Based on recommendations from expert committees, the measles-rubella vaccine is being introduced in our country through a phased MR vaccination campaign in all the states covering 9 month to <15 year old children and simultaneous introduction of MR vaccine in the national immunization schedule through Universal Immunization Programme in all the states across the country. A massive public health initiative, the MR vaccination campaign will target over 400 million children in 36 states and UTs in next two years.

MR vaccination campaign guidelines have been developed to assist national, state and district level programme managers to successfully plan and implement the MR vaccination campaigns. The guidelines are extremely practical and have listed in detail the tasks and responsibilities to be completed by functionaries at all levels during the different stages of the MR vaccination campaigns. GoI gratefully acknowledges the technical support provided by WHO, UNICEF and other agencies in developing these guidelines.

This campaign will be a major step towards reducing measles burden in the country and controlling Rubella/CRS.

I wish this endeavour all success.

(Dr. Arun K. Panda)

Healthy Village, Healthy Nation



वन्दना गुरानानी, भा.प्र.से.
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Foreword



India, along with other WHO-SEAR countries, in September 2013, resolved to eliminate measles and control rubella/congenital rubella syndrome (CRS) by 2020. In that direction, Ministry of Health & Family Welfare is introducing Rubella vaccine in its Universal Immunization Programme (UIP) as Measles-Rubella (MR) vaccine.

The vaccine will be introduced as Measles-Rubella campaign, targeting children from 9 months to below 15 years, in a phased manner over a period of two to three years.

This will be followed by provision of MR vaccine in routine immunization, replacing the currently given measles vaccine, at 9-12 months and 16-24 months of age. This wide age range campaign, as recommended by NTAGI, will rapidly build up immunity for both measles and rubella and reduce measles and rubella transmission in the community.

The Measles-Rubella campaign is one of the massive public health undertakings targeting nearly 41 crore children across the country over a period of two to three years. The vaccination will be provided through sites at schools and outreach session sites. This will be a major step towards reducing measles mortality burden in the country and reducing disabilities among children due to (CRS) congenital rubella syndrome.

These guidelines have been developed to help national, state, district and block level programme managers to successfully implement the planned measles-rubella vaccination campaigns followed by immediate switching to measles-rubella vaccine in their routine immunization program so that a high population coverage is achieved to eliminate measles and rubella virus transmission in the country.

It is gratifying to note that these guidelines are truly practical and have been developed based on country's experience from the past measles catch-up campaigns. This has in detail the tasks that the functionaries at various levels need to do in the measles-rubella catch-up campaign, in order to achieve high coverage with safety.

I wish this campaign every success.

A handwritten signature in black ink, appearing to read "V.G." or "Vandana Gurnani".

(Vandana Gurnani)



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Preface



Measles is a highly infectious disease and causes a lot of childhood morbidity and mortality among under five children. Rubella infection, although mild, can lead to foetal death, spontaneous abortion and a set of serious birth defects known as congenital rubella syndrome (CRS) when an unimmunized woman is infected during early pregnancy, resulting in huge health burden to the family and the society. Both these diseases can be prevented by highly effective vaccines.

Government of India expanded measles vaccine across the country in 1985 under the Universal Immunization Programme (UIP). In 2010, second dose of measles was introduced at 16-24 months of age of child, which led to significant reduction in the measles disease burden in the country.

As recommended by the National Technical Advisory Group on Immunization (NTAGI), rubella vaccine is in the process of introduction, as combination of Measles-Rubella (MR) vaccine, under UIP. The vaccine will be introduced as MR campaign in a phased manner across the country, targeting children in the age group of 9 months to below 15 years to knock out the susceptible cohort. This will be followed by introduction of the vaccine in routine immunization, replacing the measles vaccine. While adding one more vaccine as rubella, the number of injections per child and other logistics will not increase.

The MR campaign targets around 41 crore children across the country, the largest ever in any campaign. Vaccination will be provided through schools and outreach sites. The Operational Guidelines are meant to enhance the capacity of the Immunization programme managers at the state, district and sub-district levels on planning and implementation of the campaign and subsequent introduction of MR vaccine in routine immunization. I sincerely appreciate the contribution of all partners in development of the operational guidelines.

This campaign will be an important step towards reducing measles and rubella morbidity and mortality in the country, and also outlines the country's efforts to its commitment to eliminate measles and control rubella & congenital rubella syndrome by 2020.

(Dr. Pradeep Haldar)



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ACRONYMS

ADS	auto-disable syringe
AEFI	adverse events following immunization
AFP	acute flaccid paralysis
ANM	auxiliary nurse midwife
ASHA	accredited social health activist
AV	audio-visual
AVD	alternate vaccine delivery
AWW	<i>anganwadi</i> worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy
BDO	block development officer
BEE	block extension educator
BHM	block health manager
BMO	block medical officer
BPHC	block primary health center
CDO	chief development officer
CES	coverage evaluation survey
CFR	case fatality ratio
CDPO	child development project officer
CHC	community health center
CMO	chief medical officer
cMYP	comprehensive Multi-Year Plan
COG	central operations group
CPCB	Central Pollution Control Board
CRS	congenital rubella syndrome
CS	civil surgeon
DAVP	Directorate of Advertising and Visual Publicity
DC	district collector
DEO	district education officer
DF	deep freezer
DHR	Department of Health Research
DIO	district immunization officer
DLHS	district level household survey
DM	district magistrate
DPM	district program manager



DPO	district program officer
DTF	district task force
DTFI	district task force for immunization
DUDA	District Urban Development Authority
EPI	Expanded Programme on Immunization
EVM	effective vaccine management
FAQ	frequently asked question
GAVI	Global Alliance for Vaccines and Immunization
GoI	Government of India
GVAP	Global Vaccine Action Plan
HA	health assistant
HI	health inspector
HIV	human immunodeficiency virus
HRA / P	high-risk area / population
HW	health worker
IAP	Indian Academy of Pediatrics
IAPSM	Indian Association of Preventive and Social Medicine
ICDS	Integrated Child Development Scheme
IDSP	Integrated Disease Surveillance Project
ILR	ice-lined refrigerator
IM	intramuscular
IV	intravenous
IMA	Indian Medical Association
IPC	interpersonal communication
IPHA	Indian Public Health Association
ITSU	Immunization Technical Support Unit
JRF	joint reporting format
LHV	lady health visitor
M&E	monitoring and evaluation
MCV1	measles-containing vaccine first dose
MCV2	measles-containing vaccine second dose
MD	mission director
MDG	Millennium Development Goal
MMR	measles, mumps and rubella
MO	medical officer
MO I / C	medical officer in-charge (block PHC / PHC)
MoHFW	Ministry of Health and Family Welfare
MR	measles-rubella
MRCV	measles- and rubella-containing vaccine
NCC	National Cadet Corps

NCDC	National Centre for Disease Control
NGO	non-governmental organization
NHM	National Health Mission
NSC	National Steering Committee
NSS	National Service Scheme
NTAGI	National Technical Advisory Group on Immunization
NYK	Nehru Yuva Kendra
PHC	primary health center
PHN	public health nurse
PRI	<i>panchayati raj</i> institution
RCA	rapid convenience assessment
RCH	reproductive and child health
RCM	rapid convenience monitoring
RCV	rubella-containing vaccine
RI	routine immunization
RMNCH+A	Reproductive, Maternal, Newborn, Child and Adolescent Health
SAGE	Strategic Advisory Group of Experts
SBCC	social and behavior change communication
SEARO	South-East Asia Regional Office (WHO)
SEPIO	State Expanded Programme Immunization Officer
SIA	supplementary immunization activity
SIO	state immunization officer
SM	social mobilization
SMO	surveillance medical officer
SOG	state operations group
SSC	state steering committee
STFI	state task force for immunization
ToT	training of trainer
TSS	toxic shock syndrome
UIP	Universal Immunization Programme
UNICEF	United Nations Children's Fund
VHND	village health and nutrition day
VHSNC	Village Health Sanitation & Nutrition Committee
VPD	vaccine-preventable disease
VVM	vaccine vial monitor
WCD	women and child development
WHO	World Health Organization
WIC	walk-in cooler
WMF	wastage multiplication factor





GLOSSARY

High-risk areas / populations

These refer to the following types of areas:

- **Hard-to-reach areas** due to difficult geographical locations, e.g., forests, tribal, far-flung isolated pockets, tea estates, riverine-islands;
- **Unserved or underserved areas** or areas with shortage / prolonged vacancy of health workers;
- **Some parts of urban areas** especially unauthorized slums, railway / bus stations, make-shift huts, brothels, floating populations such as street children;
- **Migratory populations or internally displaced populations** including nomads, temporary harvesters, rice mill / brick kiln workers, daily wage laborers at large construction sites;

Security compromised areas.

Measles-Rubella vaccine introduction campaign

A MR campaign refers to a mass vaccination campaign organized to introduce a MR vaccine. MR vaccination campaign targets a wide age group of children (9 months to <15 years). The target age group depends on the susceptibility profile of the population. During the introduction campaign, all children in the target age group receive an additional dose of the vaccine, regardless of previous vaccination status or history of illness.

Measles-Rubella follow-up campaign

A follow-up campaign refers to a mass vaccination campaign organized as a periodic event (every 3–5 years, depending on the accumulation of susceptible cohorts) guided by country-specific surveillance data. The periodicity depends on the routine immunization (RI) coverage, existence of pockets of unprotected children and considering vaccine efficacy. These follow-up campaigns target children born after the last campaign to achieve and sustain a high level of population immunity. The target age group for immunization in these campaigns includes all children aged above 9 months who were born after the previous MR vaccination campaign.

Generic epidemiology – definitions

Disease control: Reduction of disease incidence, prevalence, morbidity or mortality to a locally acceptable level where it is a much reduced public health burden; continued intervention is still required.

Disease elimination: Reduction of the incidence of infection (disease) caused by a specific agent to zero in a defined geographical area, ideally in a World Health Organization (WHO) region (with no endemic transmission persisting); continued measures to prevent re-establishment of transmission is required.



Disease eradication: Permanent reduction of the worldwide incidence of infection caused by a specific agent to zero; intervention measures are no longer required.

Disease extinction: The specific infectious agent no longer exists in nature or in laboratory.

Programmatic definitions (ref.)

Measles elimination: The absence of endemic measles transmission in a defined geographical area (region or country) for ≥12 months in the presence of a well-performing surveillance system.

Rubella elimination: The absence of endemic rubella virus transmission in a defined geographical area (e.g., region or country) for >12 months, as well as the absence of congenital rubella syndrome (CRS) cases associated with endemic transmission in the presence of a well-performing surveillance system.

Rubella and CRS control: A 95% reduction of rubella and CRS as compared with the 2008 baseline nationally and for the Region.

Measles / rubella eradication: Worldwide interruption of measles or rubella virus transmission in the presence of a well-performing surveillance system.

Routine immunization: Regular provision of immunization services to successive cohorts of infants through vaccination at outreach and fixed sites.

Supplementary immunization activity (SIA): Mass vaccination campaigns targeting all children in a defined age group, with the objective of reaching a high proportion of susceptible individuals.

¹ South-East Asia Regional Office of WHO. Strategic Plan for Measles Elimination and Rubella and Congenital Rubella Syndrome Control in the South-East Asia Region 2014–2020. New Delhi: WHO SEAR. 2014

EXECUTIVE SUMMARY

India has attained impressive milestones through immunization and continues with its efforts to achieve comprehensive immunization coverage for a birth cohort of 27 million children through the Universal Immunization Programme (UIP). Immunization is one of the most effective public health interventions for protection of children, especially under 5 years of age, from life-threatening conditions which are preventable. Despite high vaccination coverage levels for individual vaccines, India's full immunization coverage has plateaued around 65% (RSOC 2013-14) in the last few years with slow progress, thus contributing to continued high burden of morbidity and mortality in children from vaccine-preventable diseases (VPDs).

Measles is one of the most common vaccine-preventable diseases among the under-five children in India, for which the country has been providing vaccination under UIP, since 1985 across all states.

As per the administrative reported coverage in Health Management Information System (HMIS), the country-wide coverage of measles-containing vaccine first dose (MCV1) stands at ~90%. The 2014 Joint Reporting Format (JRF) data from India reported 83% MCV1 coverage at the national level as against the current global target of 95% at the national level as well as state-district. Although it has been more than 2 years post introduction of measles-containing vaccine second dose (MCV2) across the country, the HMIS administrative reported national average for MCV2 is ~66% (in 2014), whereas routine immunization monitoring data shows the MCV2 coverage to be ~40%, which is far below the expected 95% in an elimination setting.

Most measles-related deaths are caused by serious complications including blindness, encephalitis, severe diarrhoea and related dehydration, ear infections, or severe respiratory infections such as pneumonia. In addition, rubella transmission is highly prevalent across the country, which can affect susceptible pregnant mothers in communities and may lead to CRS in children. CRS is a complex of congenital anomalies that can affect multiple organ systems, causing spontaneous abortions and still-births as well as lifelong disabilities in a child. Although there is no specific treatment for both measles and rubella, these diseases can be very well prevented by immunization with the available highly efficacious and cost-effective MR vaccine.

Following the South-East Asia (SEA) Regional Committee resolution in September 2013, setting the goal for measles elimination and rubella / congenital rubella syndrome (CRS) control by 2020, India has geared up and accelerated its key elimination strategies.

The National Technical Advisory Group on Immunization (NTAGI) in June, 2014, had recommended the introduction of measles-rubella vaccine in routine immunization program, following a nation-wide MR campaign. Both doses of measles vaccine provided at 9-12 months and 16-24 months, will be replaced by MR vaccine under routine immunization, immediately after the campaign.

MR vaccine introduction campaign is being rolled out in a phased manner, targeting children aged 9 months to <15 years irrespective of their previous vaccination status with MCV or history of illness. The phased MR campaigns will target to vaccinate approximately 410 million (41 crores) children across the country and will be a massive public health undertaking.

This wide age-range campaign as recommended by the NTAGI will provide a second opportunity for those children who were left out due to either vaccine failure or failure to vaccinate. Further, follow-up



campaigns may be required to sustain high population immunity against both measles and rubella besides maintaining high routine immunization coverage for both the antigens. The interval and need for follow-up campaigns will be determined based on routine immunization coverage and quality of MR campaigns, and must be guided by laboratory-supported MR surveillance data including epidemiology from across the states.

WHO SOUTH-EAST ASIA REGIONAL STRATEGIC PLAN 2014–2020

GOAL

Elimination of measles and control rubella / CRS by 2020.

- achieve and maintain at least 95% population immunity with two doses against measles and rubella within each district of each country in the Region through routine and / or supplementary immunization;
- develop and sustain a sensitive and timely case-based measles, rubella and CRS surveillance system in each country in the Region that fulfils recommended surveillance performance indicators; Develop and maintain an accredited measles and rubella laboratory network that supports every country or area in the Region;
- strengthen support and linkages to achieve the above three strategic objectives.

INDIA

As per specific strategies in terms of operationalization, India has to ensure the following:

- high coverage with MR vaccine first dose in routine immunization (to reach >95% population immunity);
- high coverage with MR vaccine second dose through either or both of the following:
 - routine second dose vaccination with MR vaccine (to reach >95% population immunity);
 - supplementary immunization activity (through campaign) with MR vaccine (>95% coverage);
- laboratory supported case-based MR surveillance system and sentinel site CRS surveillance system;
- case management with vitamin A, antibiotics and referral services integrated with outbreak response;
- research and studies to guide country strategies towards the elimination goal and develop linkages with other child health interventions.

Within the national guidelines, certain flexibilities will be permitted considering local geographical limitations and specific requirements to conduct quality immunization campaigns with safety.

STRATEGY FOR MR CAMPAIGNS

Based on the recommendations, India has developed these operational guidelines to ensure effective introduction of MR, with the following key strategies:

- MR vaccine will be introduced through a campaign in a phased manner across the country without sub-phasing within the states;

- MR vaccination will be given at fixed and outreach session sites. Mobile teams will be deployed to cover high-risk areas / populations (HRA / P) during the campaign;
- during the MR campaign, routine immunization activities will be continued for all other antigens as per schedule (Refer chapter 6);
- MR vaccine is being introduced through a campaign and will be immediately followed by introduction in the routine program by replacing two doses of measles vaccine currently administered under national immunization schedule;
- the changing over measles to MR vaccine in the routine schedule will be monitored by supervisors as well as external monitors at each level;
- guidelines and SOPs for the changing over measles to MR in the routine program is part of this operational guideline (Refer to chapter 6);
- the MR dose received during the campaign will be counted as the campaign dose and no MCV to be provided in the Routine Immunization sessions during campaign period;
- a communication plan should be prepared and strictly implemented at every level so that adequate visibility can be ensured before and during campaign. Social and behavioral change communication (SBCC) will be given priority for creating demand and achieve maximum coverage in the community;
- cold chain system will be strengthened to ensure vaccine potency and safety during the campaign;
- the duration of MR campaign will be for a minimum of 3-4 weeks, depending on injection load (@150 injections per vaccinator per day in outreach session sites and @ 200 injections per vaccinator per day in school session sites);
- the micro-plan of the district will determine the campaign duration which will vary according to number of vaccinators available in the district,
 - first week in educational institutes / school campaigns;
 - second and third week in existing health facilities and all other additional outreach and mobile sites;
 - the fourth week will be planned for sweeping activity to cover left out / suboptimal coverage areas.
- each vaccination team will comprise of four members: one vaccinator (ANM), one ASHA, one AWW and one local volunteer. Only trained and qualified vaccinators will be deployed for vaccination;
- for fixed, outreach and mobile sessions, ASHAs / AWWs / volunteers will mobilize the targeted children, help ANMs organize vaccination sessions and manage the crowd;
- for vaccination sessions in educational institutes / schools, institution authorities / school teachers and parents will play a key role in ensuring that targeted students are well informed and immunized during the campaign;
- stringent adverse events following immunization (AEFI) surveillance protocol will be followed to ensure prompt management and reporting of AEFI cases;



- Preparedness and implementation of the MR campaigns will be meticulously monitored at all levels for regular review and mid-course corrections. Post-implementation evaluation will also be undertaken.

Key points

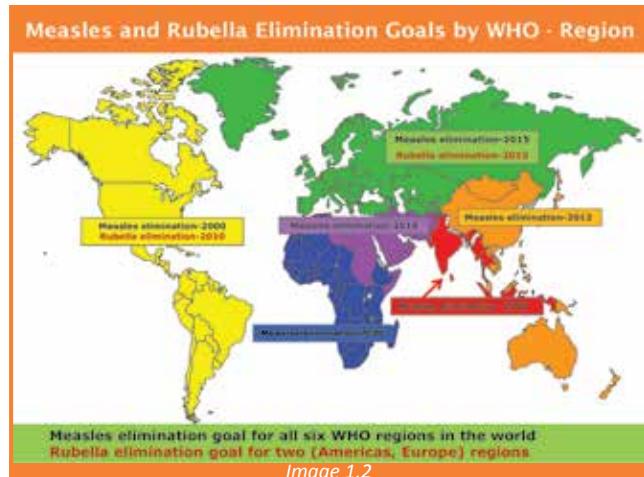
- Primary purpose of the MR campaign is to attain high levels of population immunity by reaching wide age group, including children missed under routine immunization program.
- High quality campaigns with at least 95% coverage (confirmed by coverage surveys) will ensure population immunity.
- Early planning and preparation is the key to a quality MR campaign.
- MR vaccine is being introduced through a campaign and will be simultaneously introduced in the routine program by replacing measles vaccine currently administered under national immunization
- Guidelines and SOPs for the changing over from measles to MR in the routine program are to be strictly followed (Refer to chapter 6).
- The last week of the campaign will be planned for sweeping / repeat activity to cover suboptimal coverage areas / schools based on administrative coverage and monitoring findings. This must ensure all missed children are identified and mobilized for immunization.

1

INTRODUCTION

Measles is highly infectious, potentially fatal and mostly affects children. In recently conducted case-fatality ratio (CFR) studies in Bihar, the measles CFR was observed to be around 1%. Even at this CFR, the mortality burden of measles is high because the un-immunized individuals form a cohort of susceptible for measles infection, that are often of a very young age.

Rubella transmission is widespread in the communities across India. Rubella disease is a mild viral infection affecting both children as well as adults in both the sexes. When rubella infection occurs during the first trimester of pregnancy, it affects the embryo *in utero* that can cause fetal death in the form of spontaneous abortions and stillbirth. A child can be born with serious congenital anomalies like congenital cataract, glaucoma, cardiac defects, deafness, hepatosplenomegaly, hematological disorder, microcephaly and mental retardation. This can lead to severe lifelong disabilities in the child known as CRS, causing a huge socioeconomic burden to the family in particular and the society in general.



The virus is transmitted via the respiratory route, and symptoms usually appear 2–3 weeks after exposure. In children, the disease is usually mild, with low-grade fever, nausea and a transient rash. Adults may develop lymphadenopathy and painful joints.

Deaths from measles occur mainly due to post-measles complications. Infants and young children, especially those who are malnourished, are at the highest risk of dying. With the introduction of measles vaccine in the national programme under

UIP since 1985, that was administered at 9 to 12 months of age, the disease burden had reduced and this reduction is being further accelerated by improving the coverage of the first dose of measles that stands at 83% as per the JRF 2014 data.

The country provided a second opportunity for measles vaccination through a mixed approach of both routine and supplementary immunization in the form of campaigns since 2010. The administrative coverage of second dose of measles vaccination at the national level stands at around 60% (HMIS 2015). A coverage level of more than 95% is required to achieve the measles elimination goal in the country and as such there is a need for urgent measures to raise the administrative coverage of measles containing vaccine second dose (MCV2).

In controlled studies, it has been found that measles vaccine efficacy is of the order of 89% when given at 9 months of age and approximately 99% when given at 12 months or more of age. Actual vaccine effectiveness under field conditions is usually lower. It is of the order of 85% when given at 9 months and 95% when given at 12 months or more of age. Rubella vaccine is even more efficacious, providing more than 95% seroconversion rates when administered at 9–12 months or more of age and more than 99% seroconversion when given beyond 12 months of age.

The current global goal under the Global Vaccine Action Plan (GVAP) for Measles control as endorsed by World Health Assembly 2012 was to reduce measles deaths by 95% by the end of 2015 as compared to the estimated number in the year 2000. Global measles mortality has reduced from 546,800 in 2000 to 114,900 in 2014 (79% reduction). The Immunization Strategic Advisory Group of Experts (SAGE-2013) and WHO currently recommends two doses of measles vaccine or measles in combination with rubella or mumps as the gold standard for national immunization program around the world.

As of 2014, all 194 Member States of WHO provide two doses of measles vaccine in their national immunization program, including India. As per the comprehensive Multi Year Strategic Plan (cMYP, 2010–17) for immunization in India, the country targeted measles mortality reduction of 95% as compared to the year 2000 estimates.

The key immunization program strategies being followed to achieve the above goals are:

Improving and sustaining high RI coverage for two doses of MR vaccine;

Providing a second opportunity for MCV through MR vaccination campaigns and routine second dose, including follow-up immunization campaigns;

Intensifying sensitive laboratory supported MR surveillance system;

Appropriate case management, including administration of vitamin A, integrated into the MR surveillance system;

Sentinel site CRS surveillance in selected sites in states to assess immunization impact.

Second dose measles vaccine introduction strategy in India

Based on NTAGI recommendations for the country, 14 states introduced MCV2 through phased measles catch-up campaigns starting in 2010, followed by introduction of second dose measles vaccine in their RI schedule. Twenty-two states had introduced MCV2 directly in their respective RI schedules

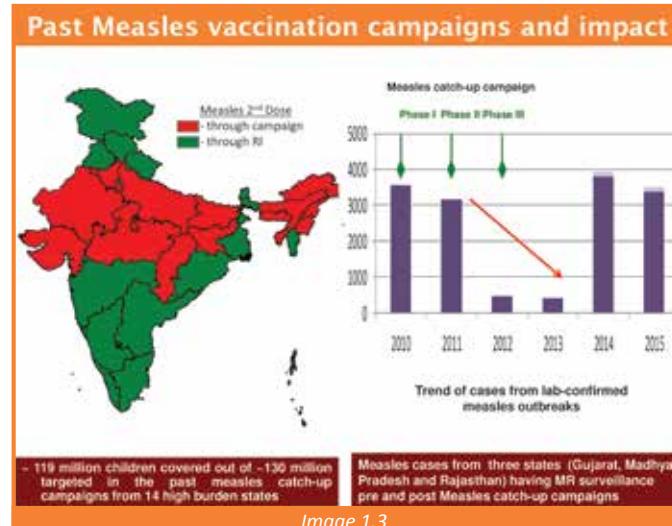


Image 1.3

with a second dose of measles vaccine being given to all children at 16–24 months of age. The 14 measles catch-up campaign states had a clear evidence of reduction in measles transmission following campaigns. The campaign impact on population immunity has waned over a period of 3 years and measles transmission is back as shown in the surveillance data, where the same states are now eligible once again for another wide age-range follow-up campaign to prevent measles outbreaks.

In 2014, NTAGI further recommended rubella-containing vaccine introduction across the country. As per the NTAGI recommendation, there will be a phased MR vaccination campaign targeting all children aged 9 months to <15 years, this will be immediately followed by changing over from measles to MR vaccine in the national immunization schedule in across the state.

The combined MR vaccine will then replace both the current doses of MCV (MCV1 and MCV2) given at 9–12 months and 16–24 months, respectively. Although the MR campaign will be phased out at the national level, it will not be phased within each state.

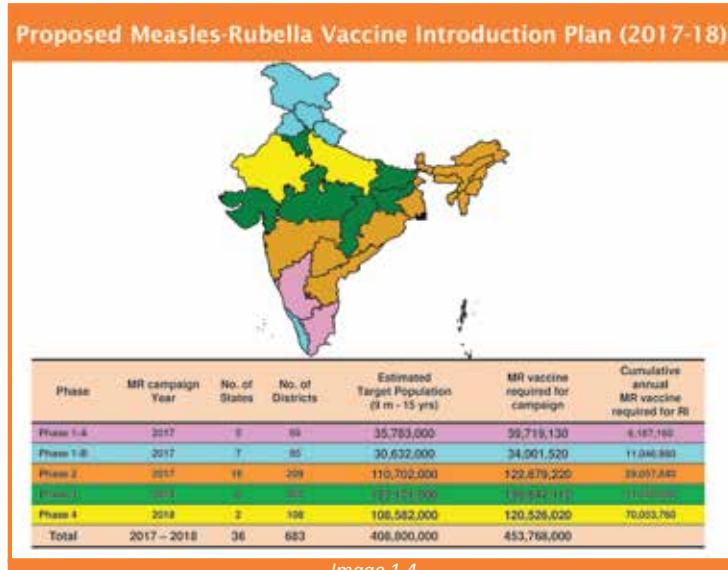


Image 1.4

Introduction of this new MR vaccine requires changing over from measles to MR vaccine in the states immediately after the campaign. MR vaccine introduction will be completed over a period of 2–3 years across the country. Good quality training of vaccinators and health-link workers, sensitization of the community through proper social mobilization and communication measures including appropriate SBCC (IEC / IPC etc.) prior to the changing over will be critical. MR vaccine introduction into RI will be a key component of the planning and training workshops conducted for the MR campaign.

This “Operational Guidelines for MR Campaign” describes in detail all the different operational components that need to be planned for and need meticulous preparation to successfully implement the MR campaign across all states including changing over to MR vaccine in the RI Program in India.

Key points

- immunization against measles contributes to reducing under-five mortality and morbidity;
- vaccine effectiveness of one dose of measles vaccine at 9 months of age is around 85%. vaccine effectiveness goes up to 95% and above when given at >12 months of age;
- GoI has set the goal of measles elimination and rubella/CRS control by 2020;
- MR vaccine will be introduced in all states through a wide age range MR vaccination campaign targeting children in the age group of 9 months to <15 years;
- MR vaccine will be introduced in UIP, replacing the current two doses of measles vaccine in the national immunization schedule for all children between 9 –12 months and 16–24 months of age immediately after the MR campaign.



2

MEASLES AND RUBELLA DISEASE AND VACCINE

2.1 Measles disease

The measles virus is one of the most contagious agents ever known that causes human disease. The virus is an exclusive human pathogen and has no animal reservoirs or vectors. Transmission is by respiratory droplets or direct contact. When the measles virus is introduced into a non-immune population, nearly 100% of individuals become infected and develop a clinical illness. In areas with tropical climates, most cases of measles occur during the dry season and in areas with temperate climates, the peak occurs during late winter and early spring.

The average interval from exposure to onset of rash is 14 days (range 7–18 days). Patients are contagious from 4 days before the onset of rash till 4 days after the onset of the rash. Following inhalation of virus-containing droplets, measles virus infects the nasopharyngeal epithelium and

soon spreads. Five to 7 days after exposure, the infection is spread through the bloodstream to the skin, conjunctivae and respiratory tract. Towards the end of the incubation period, patients develop the prodromal symptoms of high fever, cough, coryza and conjunctivitis. The typical maculopapular rash appears 3–4 days after the prodrome with a high fever peaking at 39–40°C. The rash spreads from the face and neck to the trunk and extremities, fading after about 3 days. Patients normally improve by the third day of rash and recover fully 7–10 days from the onset of the disease.

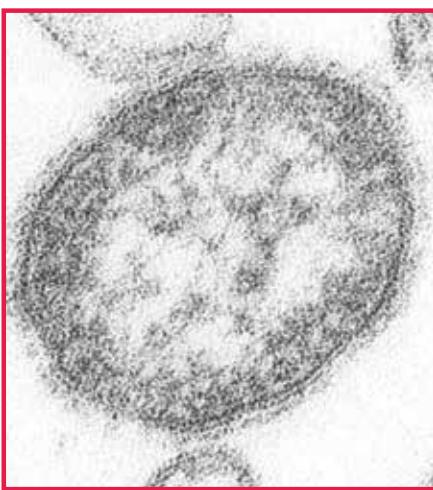


Image 2.2



Image 2.1

Most persons recover from measles without sequelae. Complications associated with measles particularly in children less than 5 years of age may result in death. Case fatality from measles infection can form a significant and preventable proportion of the under-5 mortality burden. Complications include otitis media (5–15%) and pneumonia (5–10%). In impoverished areas, persistent diarrhoea with protein-losing enteropathy may ensue, particularly in young infants.

2.2 Rubella disease

Rubella disease is caused by infection by a Toga virus (RNA virus) with maculopapular rash and fever as the primary symptoms, where the prodromal phase is less symptomatic as compared to measles, but with the same average incubation period of ~14 days. The virus is transmitted via the respiratory route, and symptoms usually appear 2–3 weeks after exposure. In children, the disease is usually mild, with low fever, nausea and a transient rash. Adults may develop arthritis, lymphadenitis and pain in the joints. Although the clinical manifestations are less severe than measles, characteristic lymphadenopathy and arthritis / arthralgia that is more pronounced in adults are the hallmarks of rubella disease. The infectious period in the natural history of illness is 7 days before to 7 days after onset of rash, which disappears after 7–10 days. Infections in children are less severe and believed to provide lifelong immunity.

When rubella infection occurs during early pregnancy (first trimester), the virus during primary viraemia infects the placenta along with the fetus, causing fetal pathology due to tissue necrosis involving multiple organ systems at the developmental stage. This infection then can lead to congenital anomalies that may cause death or premature delivery of the fetus resulting in either spontaneous abortions or stillbirths. The post-rubella congenital anomalies are usually a complex set of multi-organ involvement known as congenital rubella syndrome (CRS). CRS usually manifests with congenital cataract, congenital glaucoma, congenital deafness, congenital cardiac defects like ventricular septal defects, atrial septal defects, patent ductus arteriosus, hepatosplenomegaly, microcephaly, haematological disorders like purpura and often having mental retardation due to suboptimal brain tissue development. There is no specific treatment for rubella and the disease can be only prevented through immunization.



Image 2.3

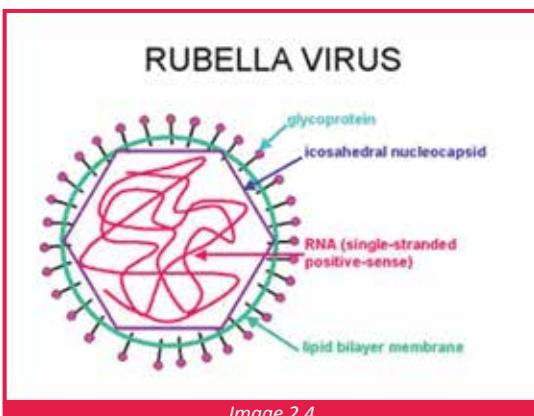


Image 2.4



Image 2.5

2.3 Measles–rubella (MR) vaccine

The Measles-rubella (MR) vaccine used in immunization programme is live attenuated vaccine and safe and effective. Measles vaccines are available either as single-antigen vaccines or in combination with either rubella (MR) or mumps and rubella (MMR) vaccines and with mumps, rubella and varicella (MMRV) vaccine. When MR / MMR / MMRV vaccines are used, the protective immune response to each of the components remains unchanged.

Most of the live, attenuated measles vaccines used now originate from the Edmonston strain of measles virus isolated by Enders and Peebles in 1954.

A number of rubella vaccines are available either as single component or combined with measles vaccine (MR) or measles and mumps vaccines (MMR) or measles, mumps and varicella (MMRV). Most of the currently licensed vaccines are based on the live, attenuated RA 27 / 3 strain of rubella virus propagated in human diploid cells. Other attenuated rubella vaccine strains include the Matsuba, DCRB19, Takahashi, Matsuura and TO-336 strains used primarily in Japan, and the BRD-2 strain used primarily in China. Vaccination results in high (>95%) seroconversion rates and protection is generally assumed to be lifelong, although rubella antibodies may fall below detectable levels.

2.3.1 Who should be vaccinated with MR vaccine

- in campaigns, all children in the target age group are vaccinated irrespective of previous immunization status or history of measles / rubella disease;
- in the routine program, MR vaccine will be administered in two doses, replacing the currently given measles vaccine- The first dose is given to children between 9 and 12 months of age and a second dose is given at 16-24 months of age;
- asymptomatic HIV infection not a contraindication for MR vaccination. Ideally, the vaccine should be offered as early as possible in the course of HIV infection;
- HIV-infected infants should receive measles vaccine at 6 months of age, followed by an additional dose of MR vaccine at 9 months, in case they are not severely immune-compromised.

2.3.2 MR vaccine characteristics

- MR vaccine (before reconstitution) is stable when stored between 2 °C to 8 °C;
- vaccine potency is dependent on the vial being stored at the recommended temperature. Following reconstitution, the vaccine must be stored at +2 to +8°C and used within 4 h. At the session site the reconstituted vaccine should be kept inside the well of icepack;
- the open vial policy is NOT applicable to reconstituted MR vaccine;
- the MR vaccine is very sensitive to sunlight. Hence it comes in colored glass vials;
- the vaccine induces both humoral and cellular immune responses, conferring long-term immunity for both measles as well as rubella.



Image 2.6

2.3.3 MR vaccine dosage, formulation and administration

- MR vaccine is lyophilized and reconstituted with diluent (provided by the manufacturer) immediately prior to administration by injection;
- diluent should be kept at 2–8°C at least 24 h before use and thus should be carried to session site at the same temperature as the vaccine (Inside vaccine carrier);
- each ampoule of diluent for 10-dose vials of MR vaccine contains more than 5ml diluent that is used to dilute a single vial of MR vaccine. The entire amount of diluent in each ampoule provided by the manufacturer should be used to reconstitute the vaccine;
- each MR dose is 0.5 ml and should be administered subcutaneously in the right upper arm. The site is important for standardization and survey purposes.

2.3.4 MR vaccine storage and supply

MR vaccine should be stored at 2–8 °C and never left at room temperature. When used in the field, it should be transported in vaccine carriers with four conditioned icepacks.

The MR vaccine is very sensitive and should always be protected from sunlight.

MR vaccine can be safely frozen without loss of potency. However, diluents should never be frozen. It is recommended to store MR vaccine at negative temperature (in deep freezer) only temporarily if storage capacity in the ILR is not sufficient at the health centre level

MR vaccine should always be reconstituted only with the diluent provided by the manufacturer. Before reconstitution, diluents need to be stored in the cold chain between 2 and 8 °C at least 24 h prior to reconstitution and also needs to be transported in the field at 2–8 °C (inside vaccine carriers / cold boxes).

Planning figures for storage purposes are as follows:

MR vaccination strategy	MR vaccine vials	Storage space needed per vaccine dose	Storage space needed per diluents dose	Vaccine / diluent doses stored per L (including secondary packing)
MR campaign and RI	10-dose vials of 0.5 ml / dose	2.6 cm ³	2.6 cm ³	384

Other live and inactivated bacterial and viral vaccines can be administered simultaneously on the same day along with MR vaccine, at different sites. They can also be injected at the same site, at least 2 cm apart without any problem.

2.3.5 Adverse reactions to MR vaccine

Adverse reactions following MR vaccination are generally mild and transient and can be as follows:

- slight pain and tenderness at the site of injection may occur within 24 h, sometimes followed by mild fever;
- about 7–12 days after vaccination, up to 5% of measles vaccine recipients may experience fever of at least 39.4°C for 1–2 days. The fever may occasionally (1 / 3000) induce febrile seizures;
- a transient rash may occur in about 2% of vaccinated children;

- thrombocytopenic purpura occurs in approximately 1 in 30 000 vaccinated individuals;
- one serious but extremely rare adverse effect is anaphylaxis due to measles vaccine. The risk is as low as to 1 in 1 million children vaccinated;
- arthralgia / joint pain can also occur when given in adolescent children or adults;
- adverse events, with the exception of anaphylactic reactions, are less likely to occur after receipt of a second dose of MR containing vaccine.

There is no evidence of an increased risk of encephalitis, permanent neurological sequelae or Guillain–Barré syndrome following MR vaccination.

The virtual disappearance of sub-acute sclerosing pan encephalitis (SSPE) and CRS in countries where measles and rubella have been eliminated strongly suggests that the vaccine protects against SSPE by preventing measles infection and CRS by preventing rubella infection during pregnancy.

There is no evidence to support reports that MR vaccination may be a risk factor for inflammatory bowel disease or for autism. MR vaccine does not exacerbate tuberculosis.

2.3.6 Contraindications to MR vaccine

- MR vaccinations should be avoided in any person having high fever ($>102^{\circ}\text{F}$ / $38\text{--}39^{\circ}\text{C}$) or serious disease or pregnancy;
- persons with a history of an anaphylactic reaction to neomycin, gelatin or other components of the MR vaccine should not be vaccinated;
- persons who are severely immune-compromised as a result of congenital disease, HIV infection (full blown AIDS), advanced leukemia or lymphoma, serious malignant disease, or treatment with high-dose steroids, alkylating agents or antimetabolites, or in persons who are receiving immunosuppressive therapeutic radiation should not be vaccinated;
- administration of immunoglobulins or other antibody-containing blood products may interfere with the immune response to the vaccine. Vaccination should be delayed for 3–11 months after administration of blood or blood products, depending on the dose of MR antibody. Following MR vaccination, administration of such blood products should be avoided for 2 weeks, if possible.

2.3.7 Following are not contraindications for MR vaccination

Malnutrition: In fact, malnutrition is an indication to immunize. Malnourished children should be referred to the nearest health centre for assessment and treatment after they have been immunized.

Minor illness: such as mild respiratory infection, diarrhoea and low-grade fever for less than 3 days without any hospitalization. These children should be referred to nearest health facility after they have been immunized.

Asymptomatic HIV-infected children.

2.3.8 Immunity to measles and rubella

In controlled studies, measles vaccine efficacy is 89% when given at 9 months and 99% when given at >12 months of age. Actual vaccine effectiveness under field conditions is usually lower. It is 85% when given at 9 months and 95% when given at >12 months of age.



Rubella vaccine is even more efficacious than measles, where the seroconversion rate is very high (<95% when given at 9 months and >99% when given after 1 year).

Both the development and the persistence of serum antibodies following MR vaccination are lower than, but parallel to, the response following natural measles / rubella infection.

The peak antibody response occurs 6 to 8 weeks after infection or vaccination. Immunity conferred by vaccination against MR has been shown to persist for at least 20 years and is generally thought to be lifelong for most individuals.

Key points

- measles is a highly infectious viral disease, which can cause complications and death;
- rubella is a mild viral infection, which in an unprotected pregnant woman during her first trimester of pregnancy can cause abortion, stillbirth or a set of serious birth defects known as congenital rubella syndrome (CRS);
- MR vaccine is a live attenuated vaccine for both measles and rubella. It is safe and effective and provides long-term immunity for both diseases (mostly lifelong);
- MR vaccine is heat sensitive, especially after reconstitution;
- MR vaccine should be always reconstituted with diluent supplied from the same manufacturer;
- reconstituted MR vaccine should be always kept at +2 to +8 °C, should be used within 4 h of reconstitution and must be discarded thereafter.

3

KEY LESSONS LEARNT FROM PAST MEASLES CATCH-UP CAMPAIGNS

Many lessons were learnt from the country's prior phased measles catch-up campaigns conducted across the 14 high-burden states spanning the years 2010–13. These lessons need to be carefully looked into as both challenges and solutions that have been factored in for addressing issues, wherever applicable and appropriate in the planned MR campaign, as described below.

Phasing of large campaigns considering geographical contiguity:

Lesson Learnt

Phasing campaigns within a state over large intervals spanning across years was not ideal in terms of having an impact and attaining herd immunity. Thus, the MR campaign will need to be integrated in a manner so as to cover maximum contiguous areas in the shortest possible time to avoid intermixing of immunized and un-immunized populations so that there is no dilution of herd immunity.

Recommendation

- it is advisable to take a state as a whole for the MR campaign for easy administration and smooth transitioning from measles to MR vaccine in RI. As each state is a political and administrative unit for uniformity of operationalization of MR vaccine introduction, it should be treated accordingly from programme implementation point of view.*

Interdepartmental coordination is the key to success:

Lesson Learnt

The three key departments of Health, Education and Women and Child Development (WCD) collectively must work in coordination and synergy to get good results in terms of campaign coverage, as was the experience consistently observed across the three phases exemplified in multiple states in the past measles campaigns.

Recommendation

- this interdepartmental coordination should be spearheaded by the respective health department teams, preferably by Health Secretary / MD-NHM at the state level and DM / CMO / DIO at the district level. Who must take a lead to ensure successful coordination during all future wide age-range campaigns involving schools, using district task forces (DTFs) as a common forum for convergence of all the key departments. Private schools must be part of the coordination structure.*



Partner coordination for successful campaign implementation

Lesson Learnt

Union and state government program managers, with support of WHO and UNICEF as the key operational partners at every level, with both organization working to their strengths was a successful endeavor as experienced from past measles catch up campaigns

Recommendation

- similar coordination among the key partners needs to be replicated in future MR campaigns for success at every level.*

Coordination with other public sector undertakings needed to ensure coverage in respective areas and townships

Lesson Learnt

Coordination with other corporate and public sector undertakings like Defence establishments (Army, Navy, Air force), Indian Railways, Paramilitary bases of ITBP, BSF, CISF, CRPF, RPF, etc., satellite townships of SAIL, NTPC, BHEL, BEL, IFCO, ONGC, and any other private limited companies / colonies need to be included in the campaign micro plan.

Recommendation

- these areas having their own schools requires establishing contacts with the concerned local authorities in advance, that will enable district health authorities to plan outreach MR campaign session sites in these townships and to conduct school vaccinations under their respective jurisdiction for compliance. Such Public & Private Satellite township having separate campus / colonies should be identified including schools for effective planning.*

Special task force at each level for inclusion in the micro plan

Lesson Learnt

Special task forces were established at national state and district level which acted as platforms for key coordination among multiple departments. This task forces helped to regularly review the campaign preparedness and progress.

Recommendation

- at national and state level: Steering committees at the national level and state task forces for immunization (STFIs) at state level including operational groups must be established well in advance. These strategic bodies must be actively involved in reviewing campaign preparedness & progress pre, during and post campaign;*
- at district level: Similarly, an efficient district task force for immunization (DTFI) chaired by the district magistrate should be used as the critical platform for effective intersectoral coordination. DTFI must be pivotal for the success of any future MR campaign. With a proactive district magistrate, campaigns are always a success as was evidenced from across multiple states.*

Training and micro-planning are pivotal exercises

Lesson Learnt

High quality cascading training workshops and effective micro-plans at every level helped in reaching higher levels of coverage on the ground. This needs to be optimized further in future MR campaigns.

Recommendation

- micro-planning activity needs to be initiated a minimum of one month in advance, as rushing with micro-planning activity led to missed areas and missed populations in many districts and states in the past measles catch-up campaigns. Special focus should be given to high-risk areas / populations.*

Sensitization of all key stakeholders and partners before the campaign

Lesson Learnt

It was observed in the past campaigns that private schools and leading private practitioners / paediatricians were resistance to vaccinate children during campaign.

Recommendation

- sensitizing leading pediatricians / practitioners, private school principals, local media representatives including IAP and IMA is an absolute requirement before launching campaigns at both the state and district level. This is essential to mitigate any risks of non-compliance and ensure community participation, vaccine avoidance behavior and risk communication for any AEFIs that can jeopardize the campaign, as was observed in a few states in the last campaign;*
- private school teachers / principals and private pediatricians need to be sensitized along with parents, much in advance in a planned manner. Special innovative communication measures like involving corporate hospitals, tagging and attaching schools with specific hospitals / private clinics, sharing names and numbers of multiple pediatricians and clinics with parents by school authorities as choices for parents to vaccinate their wards at their own choice of place, hospital and pediatrician are some such measures.*

Social mobilization through IPC was the most effective communication

Lesson Learnt

From past campaign monitoring, it was evidenced that communication and social mobilization in the form of SBCC (IEC / IPC etc.) with special emphasis on interpersonal communication (IPC) has paid rich dividends in terms of getting higher campaign coverage. Also, based on campaign monitoring, the reasons for most unimmunized children were mostly related to lack of communication and social mobilization, resulting in many caregivers not being aware of the campaign.

Recommendation

- a lot of emphasis and innovative efforts need to be focused on communication and social mobilization measures / methods to reach out to each and every family, whether living in remote rural villages or big cities. This is necessary to get the desired impact of maximum coverage with safety across every community / population group spread across every state in India. Special strategies and messages are to be developed to mobilize people in high-risk areas.*



Preparing for surge capacity for vaccine cold chain and logistics prior to the campaign is an essential step

Lesson Learnt

A pre-campaign cold chain assessment conducted across the states has helped states / districts to ensure adequate cold chain space and equipment for both electrical and non-electrical cold chain logistics. This assessment was done before the measles catch-up campaigns, including a crash repair and maintenance drive across the campaign states. Additional equipment was made available at every level to match the surge capacity required by the states including outsourcing of cold space like cold storage facilities as a contingency measure.

Recommendation

- for the MR campaign, it is mandatory to calculate available and required cold chain storage space and define the deficit in order to prepare an effective contingency plan.*
- it is advised that local health authorities must assess and explore assess and explore cold space and cold storage facilities to have a contingency plan in place prior to start of the campaign.*

Injection safety, AEFI surveillance and waste management are critical components

Lesson Learnt

Based on the experiences from the last measles catch-up campaign, safety and waste management needs serious attention as it is critical to implement standardized vaccination waste management protocols. Also important is an active AEFI surveillance and management network with trained medical officers (MOs) from both government and private sectors, equipped with standardized AEFI management kits having injection adrenaline and hydrocortisone, for uniform practice. This helps in preventing any death from serious anaphylaxis as was successfully demonstrated in the earlier measles catch-up campaigns across many states. This must be replicated for the MR campaigns as one of the crucial positive lessons from past campaigns.

Recommendation

- focus during training for MR campaign must be on cold chain and vaccine management, safe immunization / injection practices, waste management and management of AEFI and must be practiced through hands-on exercises and role-plays;*
- standardized AEFI management kits must be procured by the district health teams in advance for distribution to all the AEFI treatment centres before the start of the campaign, as per the micro-plan.*

Planning for big city campaigns are the greatest challenge to reaching high coverage

Lesson Learnt

As a consistent observation from the earlier campaigns across all 14 states, almost every large city had faced operational issues with regards to challenges in due listing, micro-planning, social mobilization, school campaigns and shortage of qualified / trained vaccinators. This needs to be looked into carefully as we go for further wide age-range campaigns across all the states in the country.

Recommendation

- *lack of adequate infrastructure as well as trained vaccinators, supervisors and other health workers in the cities must be seriously considered while planning and alternative sources for vaccinator for HR must be identified in advance.*

Alternate pool of vaccinators

Lesson Learnt

This issue of lack of manpower was addressed successfully in many urban areas through alternative vaccinators from potential health institutions.

Recommendation

- *additional special sites need to be planned for targeting the high-risk groups scattered within urban areas identified in advance through field validation;*
- *vaccinators, identified from medical colleges, nursing colleges, ANM training schools, pharmacy colleges and private nurses need to be trained in advance on MR vaccination before the campaign by including them in the respective urban area micro-plans.*

Mobility support is crucial for campaign

Recommendation

- *transportation for alternate vaccinators from educational institutes and private hospitals requires special coordination and arrangement by the urban health team with the institutional heads. Special arrangements for drop and pickup from their respective institutions to / from session sites needs to be ensured in large urban areas on the campaign days.*

Monitoring and supervision to ensure quality

Lesson Learnt

Monitoring and supervision with real-time data feedback at every level helped in both coverage and safety of the campaigns, leading to improved coverage and overall success.

Recommendation

- *identify supportive supervisors and independent external monitors at all levels and make a plan for supervision and monitoring with emphasis on the high-risk areas / populations as part of the micro-plan.*

Delay in new vaccine introduction following the campaign is a loss of opportunity to boost RI coverage with the newly introduced vaccine

Lesson Learnt

Long and variable interval, as was recommended in the last measles catch-up campaign between closure of campaign and introduction of second dose of measles vaccine in the RI programme in the respective districts, proved dear in terms of attaining a high coverage in RI. The long and variable gap between campaign cessation and new vaccine introduction resulted in loss of momentum and inertia, leading to variable practice in the new vaccine introduction in the districts, which in turn lead to suboptimal MCV2 coverage in RI. The MCV2 introduction in RI was staggered over a large time span, leading to diffused supervision and monitoring.



Recommendation

- *it will be much more effective to use the MR campaign planning and training workshops and preparations as the launch platform in the states to introduce MR vaccine in RI after MR campaigns.*

Sweeping activity in the last week of the campaign should be a planned activity:**Lesson Learnt**

Sweeping / mopping activity were not part of a planned activity in many states / district after the four week campaign period, leading to random / adhoc outreach sessions planned that was mixed up with routine immunization session sites and were of little help. This unstructured staggering did not help in addressing the sub optimal coverage issues in these pockets / areas.

Recommendation

- *sweeping / Mopping-up activity will be part of the micro planning process and the staggering / repeat activity will be conducted in a meticulous planning, based on real-time RCM (Rapid Convenience Monitoring) data. This will help in to identify such selected areas having sub-optimal coverage that can be covered again with trained vaccinators and needs to be planned just following outreach activity.*

The subsequent chapters outline each of the operational components which are the pillars for any mass immunization campaign including MR vaccination campaign that are needed to be implemented following timely planning and quality preparation.

The objectives of the subsequent chapters are to:

- help health officials on different levels to plan, prepare and implement high quality MR campaigns;
- advocate to government, partner agencies and donors the importance of the campaign and the extraordinary measures required to achieve the goals;
- Inform government, partner agencies and donors of the operational aspects of the campaign in order to help them decide where they can best support and assist with clear and specific roles / responsibilities.

Key points

- a state as a whole will go for MR campaign at a time;
- special task forces to be established at national, state and district level for periodic review of campaign preparedness and progress including mid course corrective measures;
- task forces at each level should be used as inter departmental coordination (primarily between health - edcation - WCD);
- sensitization of private school principals and leading private practitioners / paediatricians must be done prior to the start of the campaign;
- urban areas with big cities should be priorities for supervision and oversite through identification of additional health man power including vaccinators and social mobilizers for addressing in-adequate health infrastructure;
- repeat / sweeping activity must be planned in the last week of campaign based on monitoring observations. This will help in identification of missed children for vaccination;
- identification of MR vaccine in RI should follow immediately after the campaign without any interval / time gap.





4

CORE OPERATIONAL COMPONENTS OF THE MR VACCINATION CAMPAIGN

The following are the different core operational components of an MR campaign. The guidelines given for each of the components has been taken from earlier measles catch-up campaigns including various technical handbooks for Expanded Programme on Immunization (EPI) in India, and is also the result of the lessons learnt from previous campaigns in the country which highlighted the key issues that define success of a campaign:

Subsequent sub-chapters (4.1 to 4.9) describe all the key operational components of MR campaign as follows:

- 4.1 Coordination and High Level Oversight (including Roles and Responsibilities)
- 4.2 Operational Planning (Macro Planning - Micro Planning)
- 4.3 Communication and Social Mobilization
- 4.4 Cold Chain and Vaccine Management
- 4.5 Safe Immunization Practices
- 4.6 Managing Adverse Events Following Immunization (AEFI)
- 4.7 Supervision – Monitoring and Evaluation
- 4.8 Recording and Reporting
- 4.9 Orientation - Training
- 4.10 Task List for Functionaries at Different Levels

4.1 COORDINATION AND HIGH LEVEL OVERSIGHT (INCLUDING ROLES AND RESPONSIBILITIES)

4.1.1 Overall strategy for MR campaign

The highest level of political and administrative ownership, commitment and support needs to be sustained for successfully implementing the MR Campaign. The Central Government, the State Governments and international and national development partners need to work together,



complementing and supplementing each other's strengths. The MR campaign coverage must be more than 95% in the target age group to have the desired impact on disease transmission and rapidly build up population immunity to prevent MR outbreaks.

In general, this target age group may be nearly a third of net population, that will vary from state to state. This target population will be based on the best estimate available.

The target age group for MR Campaigns will be all children in the age group of 9 months to <15 years (not reached their fifteenth birthday) irrespective of their prior vaccination status or history of Measles / Rubella illness.

The following approach will be used for the MR Campaign in India:

- during the campaign period, immunization activities for the campaign will be conducted on 4–5 working days of the week without disturbing the RI micro-plan / Village Health and Nutrition Days (VHNDs) planned during that week;
- to ensure safety, all children will be immunized at fixed posts / MR vaccination session sites (at schools, hospitals, outreach – rural villages / urban wards). Additional special / mobile sites will be planned for HRA / P wherever required in the micro plans;
- on an average, a district will be able to complete the campaign in around three to four weeks' time. Immunization session sites will operate in schools during the first week and at outreach and mobile sites in the community in the second and third weeks with local flexibility, depending on the district micro-plans that is determined by number of vaccinators available and injection load. The fourth week will be for sweeping / repeat activity. The micro-plan also needs to include that at least one vaccinator must be present for the duration of the campaign at the primary health centers (PHCs), community health centers (CHCs) and other hospitals / health institutions acting as fixed sites throughout the campaign;
- one village or an urban ward or a school should preferably be covered in a single day by the team / teams. If the target population of the village or urban ward is too large / spread over huge geographical area, then multiple teams will be deployed to cover the area. A vaccination team will return from conducting activities at two different session sites in a day under normal circumstances. However depending on scattered population, hamlets there may be exception to this but must be part of the micro plan and under supervision of a medical officer;
- several such vaccination teams will work simultaneously in a block or an urban municipality to complete the immunization activities in the shortest possible time without compromising on quality and safety of vaccination;
- in schools, the vaccinations need to be coordinated considering school timings and holidays. This needs to be reflected in the campaign micro-plans;
- an outreach site in a village / ward will operate from 8 AM to 2 PM or until the last child has been vaccinated. The ANM will do her scheduled work in that area for that day after 2 PM. This will also ensure that the ANM is available in the area for at least 1 h after the last injection to attend to any potential AEFI;
- special mobile sites / teams will be used for strengthening the outreach strategy to cover the HRAs / Ps. These are one or more of the following types of areas: hard-to-reach areas due to difficult geographic location; unserved or underserved areas or areas with shortage of HWs; urban areas, especially slums; migratory populations including temporary harvesters, brick-kiln

workers and construction laborers in large construction sites; and security compromised areas. These special mobile teams / sites will immunize children at a well-chosen fixed location in those HRAs / Ps and similar settlements. During the planning workshops, managers have to pay extra attention to these high-risk areas and plan for special innovative measures and strategies;

- these mobile teams will not go from house-to-house but will immunize children from a fixed strategic location in these HRAs / Ps and such settlements as per micro-plan;
- team supervisors (1 per 3 teams) will support the vaccinator teams on the day of activity and assess coverage on the day after the completion of activity using a standardized checklist;
- supervisors have to ensure that areas having less than 90% coverage are visited again by immunization teams to vaccinate the missed children. These “sweeping” activities should not compromise the daily activity plan for the vaccinator teams; rather, sweeping activity will be planned in the fourth week after school and outreach sessions are over.

Ensuring safe injection practices will be of paramount importance during the campaign and only trained vaccinators must be allowed to vaccinate children. Based on the experience of earlier measles campaigns, it is planned to vaccinate 100–150 children per vaccinator per day at an outreach site and 150–200 children per vaccinator in a school session site, with local variations.

4.1.2 Establishing MR campaign implementation committees

Establishing MR campaign implementation committees at national, state, district and sub-district levels for all aspects of the campaign are critical for success. MR campaigns need coordination and participation of other departments at all levels for successful implementation and the achievement of high coverage. Regular scheduled meetings should be held with clear objectives, agendas and reports of actions taken from previous meetings. This should include review of progress, problems encountered, proposed solutions and new action points with clearly defined responsibilities and deadlines. Minutes of the meetings and action points should be shared with all participants. The committees should ensure that activities are completed, adhering to guidelines and timelines.

National level

At the national level there will be two committees.

National Steering Committee (NSC)

Will be chaired by the Secretary (Health and Family Welfare), Government of India (GoI). The role of the Steering Committee is to:

- coordinate activities among government ministries/departments / institutions like National Institute of Health and Family Welfare (NIHFW), National Cold Chain & Vaccine Management Resource Centre (NCCVMRC), National Health Mission (NHM), National Centre for Disease Control (NCDC), Education, Women and Child Development (WCD), Social Welfare, Department of Health Research (DHR), AYUSH, Home Affairs, Defence, Youth Affairs, Urban Development, Railways, Civil Aviation, Shipping, Commerce, Labour, Panchayati Raj Institutions (PRIs), etc. to mobilize human and other resources;
- Partner coordination
 - With WHO India (NPSP), UNICEF, Indian Red Cross (IRC), UNDP, Bill & Melinda Gates Foundation, ITSU (Immunization Technical Support Unit) and other organizations;



Image 4.1

- Professional bodies like IMA, IAP, National professional bodies of public health, paediatrics, ophthalmology, ENT, obstetrics and gynecology, etc.;
- Civil society organizations like Rotary, Lions, GAVI-CSOs (Aii) etc.

Central Operations Group

A Central Operations Group (COG) will be established to coordinate the technical aspects of the activity. It will comprise officials from GoI, WHO-India (NPSP), UNICEF, IRC, B&MGF, ITSU, NIHFW and other partners at the national level chaired by the Joint Secretary (RCH) / DC-Immunization / DC-UIP, Ministry of Health and Family Welfare (MoHFW), GoI.

The role of the COG is to meet on a regular basis to:

- provide technical and logistic support to plan, implement, monitor and evaluate the MR campaign at national and state levels;
- provide oversight to ensure proper planning and implementation of changing over from measles to MR vaccine in the RI programme;
- ensure interdepartmental coordination with donor coordination division, vaccine procurement Division and SBCC (IEC / IPC etc.) division to;
- develop and finalize media management plan with timeline;
- monitor implementation of SBCC / social mobilization activities at national, state and district levels;
- coordinate with Directorate of Advertising and Visual Publicity (DAVP), Song and Drama Division, Doordarshan, AIR, Field Publicity, etc.;
- provide feedback to the Secretary and obtain timely approvals within the Government (Immunization Division in the Ministry);
- review supervision and monitoring reports and draft timely advisories for corrective measures to be disseminated by the National Steering Committee (NSC).

MR Campaign – National Control Room

A control room will be established at Immunization Division (ITSU) under MoHFW for planning, monitoring, coordination and implementation of activities during the MR campaign with members of the COG.

State level

At the state level there will be two committees as below.

State Steering Committee

At the state-level, the State Steering Committee (SSC) for the campaign will be established under the chairmanship of the State Chief Secretary. The role of the SSC is to mobilize human / other resources and coordinate planning and implementation of activities with other government departments and partner agencies.



Image 4.2

The SSC will coordinate campaign activities and decisions among:

- Government departments like Education, WCD, Social Welfare, NHM, Department of Health Research (DHR), NCDC, AYUSH, Home Affairs, Defence, Youth Affairs, Urban Development, Railways, Civil Aviation, Shipping, Commerce, Labour, PRI, etc. to mobilize human and other resources;
- partner coordination:
 - with WHO-India (NPSP), UNICEF, Red Cross ,UNDP, B&MGF, Immunization Technical Support Unit (ITSU), State Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) partners and other organizations;
 - professional bodies like IMA, IAP, national professional bodies of public health, paediatrics, ophthalmology, ENT, obstetrics and gynecology and representatives from medical colleges;
 - civil society organizations like Rotary, Lions, GAVI-CSOs, Alliance for Immunization initiative (Aii), etc.

State Operations Group / State Task Force for Immunization

The State Operations Group (SOG) / State Task Force for Immunization (STFI) will lead planning and implementation activities in the state. The Health Secretary / Mission Director / DG / Director Health & Family Welfare will chair the SOG. The State Immunization Officer (SIO / State Expanded Programme on Immunization Officer (SEPIO) will be the Member-Secretary. State level representatives of State Program management unit (NHM), State Programme Management Unit (SPMU) and other key departments such as Social Welfare, Education, private schools Association, Integrated Disease Surveillance Project (IDSP), Panchayati Raj Institutions (PRIs), WCD, Transport, Media and partners such as WHO-India (NPSP), UNICEF, Red Cross, Professional bodies like IMA, IAP, State RMNCH+A partners, religious leaders, etc. should be invited to attend the coordination committee and sub-committee meetings.

The role of the Committee is to:

- provide technical and logistic support to plan, implement, monitor and evaluate the MR campaigns at district level;
- provide oversight to ensure proper planning and implementation of changing over from measles to MR vaccine in the RI programme;
- ensure intersectoral coordination and full utilization of resources from government and partners;
- provide feedback to the State Secretary / MD-NHM and obtain timely approvals within the Government;
- develop a communication plan to:
 - utilize all available resources and channels for delivering simple and clear messages to the community, which will help to ensure full turnout of children on the days of MR campaign;
 - draw up state-specific SBCC (IEC / IPC etc.) plans for effective communication strategies;
 - monitor implementation of SBCC and social mobilization activities in the states;
 - respond appropriately to the media regarding programme implementation, progress, safety and AEFI;
- Coordinate national advisories with the districts and assure implementation.



MR Campaign – State Control Room

The control room will be set up in each state by the State EPI Officer. Following will be the members of the State Control Room: State EPI Officer, State Cold Chain Officer, WHO-India (NPSP), UNICEF, State RMNCH+A unit and representatives from other development partners. They will be involved in planning, monitoring, coordination and implementation of activities during the MR campaigns.

The role of the control room should be to monitor preparedness on a day-to-day basis, especially mobilization of human and other resources like transport, ensure intersectoral coordination and full utilization of resources from partners, government and nongovernment departments. It should also monitor implementation of the programme during the activity. The control room should provide feedback to the State Steering Committee and State Operations Group / STFI on progress being made and also on any obstacles being faced.

District level

District Task Force for Immunization

Already existing DTFIs should be sensitized and activated under the chairmanship of the District Collector / Magistrate in each district. The Chief Medical Officer (CMO) / District Immunization Officer (DIO) should be the Member-Secretary. District level officers from administration, health including District Programme Management Unit (DPMU) members, education, ICDS, media, police, transport, PRI, District Urban Development Authority (DUDA), local bodies like municipalities, councils, etc. professional bodies and partner organizations along with representatives from religious groups and opinion leaders should be the participating members of DTFI.

The role of the District Task Force is to support, supervise, monitor and ensure implementation of the highest quality MR campaigns in the district.

District Task Force Meetings

The District Task Force should start meeting intensively at least 4 weeks prior to the start of the MR campaign to start planning for all operational aspects of the campaign. From 1 month prior to the start of the campaign, the District Task Force should meet every week to review and correct preparations of all operational aspects of the campaign. Weekly meetings must also take place after the start of the campaign to review progress of the immunization activities, review administrative coverage, review supervision and monitoring reports and implement corrections where coverage is low, identify pockets of missed children and report problems concerning operational aspects of the campaign.

MR Campaign – District Control Room

A control room should be set up at the district level by the DIO to monitor preparedness of blocks / PHCs / urban areas on a day-to-day basis, monitor implementation of the programme during the activity and give feedback to the State Control Room. It will also collate, compile, analyses and report administrative coverage. The DIO will be in charge of the control room. Other members of the District Control Room will be District Program Officers, urban nodal officers and District Cold Chain Officer including partner representatives.

4.1.3 Roles and responsibilities of District Magistrate / Chief Medical Officer / District Immunization officer

- regularly monitor the preparedness, progress and implementation of MR campaign and ensure that timely corrective actions are taken;

- provide leadership to the programme and coordinate with other departments through the DTFI. He / she will also;
- deploy senior officials from the administration and other departments to supervise planning and implementation of the programme in various blocks and urban areas of the district;
- sensitize leading private practitioners and key paediatricians along with school principals in the district to get their cooperation in advance, so that they can give the right advice to parents for their children to receive the MR vaccine in their respective public and private schools;
- meet with religious and community / social leaders to advocate for the MR campaign and to seek assistance with communication, social mobilization and transportation as appropriate;
- chair the district media sensitization workshops and designate a media spokesperson (CMO / DIO) to represent the health department.

Chief Medical Officer / District Health Officer / Civil Surgeon / District Medical and Health Officer

- ensure the preparedness in the district to include micro-planning, training, supervision, communication, cold chain, interdepartmental coordination and AEFI management to conduct a quality campaign;
- make supportive supervision visits to sub-district levels to review preparedness and supervise implementation. Provide on the job training there where appropriate;
- release funds in time to the blocks;
- ensure organization of DTF and district media sensitization workshops.

District Immunization / RCH Officer

- ensure review and finalization of micro-plans including SBCC (IEC / IPC etc.) of all blocks and urban areas before the start of activity;
- ensure all vaccinators and supervisors have undergone training and orientation as required;
- forecast, indent and distribute vaccine and other logistics;
- make supportive supervisory visits to sub-district levels to review preparedness and monitor implementation. Provide on the job training there where appropriate;
- collect, compile and transmit administrative coverage data to state;
- analyze feedback data and present it to DTFI and at district review meetings for corrective actions.

4.1.4 Conducting pre-campaign meetings, training and workshops

To ensure that the micro-planning guidelines are followed, logistics and supplies properly arranged for and personnel involved at all operational levels clearly understand their roles and activities to be undertaken, training / meetings listed below must be conducted before the MR Campaign at each level. A meetings / training plan and timeline should be included in the micro-plan for each state, district and block.



National MR planning – training workshop for state level health functionaries and state level master trainers

- familiarize the participants with the MR Operational Guidelines and train all participants on all operational aspects;
- prepare the state level macro plan based on previous campaign experience and the information provided in the planning section of this Operational Guidelines (section 4.2);
- train a pool of trainers in training of trainers (TOTs) to enable them to conduct training at the state level.

State MR planning – training workshop for district level health functionaries and district level trainers

- familiarize the participants with the MR Operational Guidelines and train participants on all operational aspects;
- prepare the district-level macro plan based on previous campaign experience and the information provided in the planning section of this operational guideline (section 4.2);
- train a pool of trainers in TOTs to enable them to conduct training at the district level.

District (micro) planning – training workshop for block level MOs

- familiarize the participants with the MR Operational Guidelines and most relevant operational aspects;
- orient MOs in development of micro-plans based on local realistic data and situation with special emphasis on designing innovative measures to reach the high-risk areas / populations.

Micro-planning / training workshop at block and sub-block levels

These planning / training sessions will be utilized to develop the micro-plans as well as to train all vaccination teams, supervisors and volunteers on the operational aspects of the MR campaign at PHC level.

Urban area planning meeting

The objective of these meetings will be to train and sensitize the urban area MOs, other support staff and urban area planners on how to develop and implement micro-plans for their planning units for the upcoming MR Campaign. Special attention should be paid to developing area-specific SBCC (IEC / IPC etc.) strategies for problematic pockets, including areas having high-risk groups / populations.

District advocacy meetings

The objective of these meetings is to sensitize media (print and electronic), community and religious leaders, professional bodies' representatives like IMA,IAP, heads of relevant govt. departments, nongovernmental organizations (NGOs) and school principals as appropriate. These meetings should be conducted 2–3 weeks before the start of the Campaign. These sensitization meetings of the triad of media–paediatricians–school principals should be one of the priorities before the campaigns are launched in any district and state. A prototype of an advocacy letter and information sheet is also attached as annex 6.

4.1.5 Post MR campaign review

State / district review meetings

A meeting should be organized immediately after completion of the MR campaign activities to review the performance of the activities based on the feedback from monitors, state supervisors and district supervisors. Data analysis from the MR campaign should also be presented at these meetings.

Note: Specific tasks at different levels have been listed in section 4.10. The detailed roles and responsibilities of sub-district level functionaries and other key departments and stakeholders, (including a time line matrix) that have been provided in Annex 10.

4.1.6 Social and behavioral change communication

Given below are some minimal roles that each group is expected to play for SBCC.

Central level planning

The COG ensures the following:

- approves the communication and social mobilization operational framework within the Operational Plan for MR Introduction;
- provides states with clear and timely financial guidelines to ensure all communication activities are carried out as per plan;
- identifies and approves the estimated amount of budget needed for communication activities based on the plan provided by the states, and communicates its approval accordingly to the states;
- provides clarity between the roles and responsibilities of different partner organizations to avoid duplicity of interventions;
- carries out national-level activities as indicated in the communication operational framework such as:
 - national level launch
 - intersectoral advocacy
 - parliamentary advocacy
 - media advocacy
- coordinates with the Central AEFI Committee and ensures that the Committee members are well-oriented to respond to any unforeseen crisis situations related to communication;
- spokesperson(s) are in place and there is consistency in messaging at each level;
- the SSC and SOG are fully oriented to the importance of effective communication, the strategies, tools, and all related aspects so that they are enabled to operationalize communication for MR introduction at the state level;
- prepares a periodical information-seeking protocol with SOG on the preparedness and progress of the campaign.



State level planning

SOG, jointly with the DTFIs, will:

- carry out a situation analysis to prepare a communication plan by engaging the communication coordinators from the DTFIs based on the national communication framework, and oversee effective implementation;
- map and identify human resources at state, district, and block level and fill gaps, if any;
- ensure communication operationalization training is conducted and documented and that concerned officials participate in the training sessions. Officials are given timely clarity regarding the financial guidelines for replicating, translating, disseminating and printing the materials and tools;
- facilitate district-level supportive supervision mechanism for community mobilization
- ensure communication planning tools developed for the campaign are available well in time, reviewed, and adapted to meet state-specific needs;
- map and identify available development partners and Civil Society organization, support wherever required and put processes in place for their engagement;
- ensure that the necessary financial resources are available and accessible to each district based on the plans.

District level planning

The DTFI will ensure that:

- a district level mapping exercise has been carried out and staff responsible for communication are available at different levels and have the requisite skills and resources;
- training sessions related to communication are organized and district and block level staff participate in all training activities;
- a clearly laid out communication activity and monitoring plan is developed / available using planning tools provided in the annex 11 (Form-7);
- the communication activities plan is well communicated to various levels and among all the different layers at block and village level so that everyone engaged is well aware of their roles and responsibilities;
- communication tools and materials indicated in the plan are available and reach the concerned people in the desired quantity with proper guidelines on its use
- permissions required at different levels are taken;
- meetings related to planning, approvals and progress review are held as planned at different levels in districts, blocks and villages and the discussions are minuted, shared and action plans acted upon.

Key points

- high level coordination at national, state and districts levels must be established for effective cooperation and collaboration among the key departments of Health, Education and WCD;
- national-state steering committees and operational groups including STFI-DTFI must be used as key platforms for effective coordination;
- emphasis on the high-risk areas/populations need to reflect in the micro-plans at all levels;
- scale-up communication and coordination efforts with the education department and heads of schools is crucial to improve campaign coverage;
- emphasis on private schools is needed. Include heads of private schools in the planning meetings. Include teachers as supervisors/monitors;
- identify a large pool of supervisors and monitors with focus on the high-risk areas/populations;
- scale up the communication and social mobilization strategies and efforts as the most frequent reason for non-vaccination is “Did not know about the campaign”;
- it is crucial to engage with frontline health-link workers like AWWs and ASHAs for optimal social mobilization.



Table 4.1: Timeline for MR campaign activities

Sl.	Level of Action	Activity details	Responsibility	Time frame	Weeks before the start of MR campaign											X Weeks after start of MR		
					24	23	22	21	20	19	18	17	16	15	14	13	12	11
1	National	Develop action plan, incl. Logistics timeline & central operations group)	Central Ops. group	6 months prior														
2	National	Budget and operational costs for MR campaign estimated	Central Ops. group	6 months prior														
3	National	Logistics timeline / costs etc. For MR campaign finalized	Central Ops. group	6 months prior														
4	National	Procurement of vaccines and other logistics initiated	Central Ops. group	6 months prior														
5	National	Operational guidelines and vaccination hand book developed	GoI/WHO & other partners	3 months prior														
6	National	Communication package, branding for MR campaign including development of IEC/SBCC materials-methods completed	GoI/Unicef & ITNU	3 months prior														
7	National / state	Operational guidelines and IEC prototypes printed- distributed	GoI/WHO/ Unicef	2 months prior														
8	National/State	Disseminate financial guidelines to states	GoI, Imm. Division NHM PIP	Will be through														
9	National	National/Regional workshops conducted	GoI/NWHO/Unicef	2 months prior														
10	State / District	State workshops & trainings at district/sub-districts completed	Govt./WHO/Unicef	1.5 months prior														
11	District / Block	Micro plans prepared & reviewed	Govt. (DIO/BMO)	1 months prior														
12	District / Block	Training of vaccinations and ASHA/ AWW completed	(TOI) Trained MOs	1 months prior														
13	State / District / Block	Cold chain systems at district/sub-district levels reviewed and strengthened	State cold chain officer & Unicef	2-4 months prior														
14	National	National level coordination meetings conducted	Central Ops. group	2 months prior														
15	State	State level coordination meetings (STFI) initiated	STFI	2 months prior														
16	District	District level coordination meetings (DTFI) initiated	DTFI	1 months prior														
17	District / Block	Sensitization workshop/meeting for the private pediatricians and leading physicians in the district completed	CMO/DIO/Partners	two weeks prior														
18	District / Block	District level advocacy meetings with local government, community / religious leaders, NGO's, civil groups conducted	CMO/DIO/Partners	1 months prior														
19	District / Block	Sensitization meeting for the principals from all private and public schools completed	CMO/DIO/Partners	1 months prior														
20	District / Block	Information on target children form schools compiled	DIO/BMO	1 months prior														
21	District / Block	Teachers orientation by principals/Nodal points completed	Principals	2 weeks prior														
22	National/State/District	Community and social mobilization drive (IEC/IPC/SBCC) Initiated	Govt/IEC cell/ Bureau/ Unicef	2 months prior														
23	National / State	Distribution of vaccines and other logistics to state-districts completed	CMO/DIO	2-3 weeks prior														
24	District / Block	Reorientation/sensitization of all MOs (Govt and Pvt) on AEFI management completed	CMO/DIO/Partners	1 week prior														
25	State/District	Media sensitization workshop to be completed	Govt./Unicef	1 week prior														
26	National / State / District	Pre-campaign monitoring	Govt. and partners	1 months prior														
27	At all levels	Establishing MR campaign control -coordination center	Govt. nodal officers	2 weeks prior														
28	All levels	Starting of the MR campaign	(Govt. and partners As per state	As per state														
29	National / State / District	Intra-campaign monitoring	Govt. and partners	4 weeks duration														
30	National / State / District	Post campaign review at district and state level	STFI & DTFI	Immediately after campaign														
31	District	Sweeping activities based on campaign monitoring findings (post campaign)	CMO/DIO	Immediately after campaign														
32	National / State	Post-campaign review and proposed coverage evaluation survey planning/implementation	GOI & Partners	1-2 months post campaign														

4.2 OPERATIONAL PLANNING (MACROPLANNING AND MICRO-PLANNING)

4.2.1 Macro planning

A macro plan is to be prepared at the national, state and district levels and is needed for preliminary resource planning and other operational planning purposes. It is later to be adapted with precise and realistic data, through micro-planning, starting from the lowest level up, for the purpose of delivering vaccines, supplies and funds as expected and calculated by the lower levels. Therefore, micro-planning is always a bottom up approach.

Actions to be taken as part of the macro plans at various levels are discussed below.

National level

- develop an activity plan including a timeline, taking into account all the activities to be carried out at the national level;
- develop a plan for preliminary calculation of resources (vaccines, diluents, ancillary products, and funds) based on previous campaigns and in coordination with the states.(For detailed calculation of resources, see table with all components listed in the Micro-plan chapter 4.2.2;
- develop a plan for national / state meetings and planning workshops to conduct of training of trainers;
- develop a strategy and plan for advocacy and communication;
- develop prototypes for SBCC (IEC / IPC etc.) materials including key messages and FAQs;
- develop a logistics plan for timely distribution of resources to the state level (dissemination of guidelines and vaccinators' field handbooks, vaccines, diluents, ancillary products, SBCC materials, funds);
- develop a training curriculum, agenda and training materials;
- develop supervision and monitoring plan;
- other activities as part of the overall National Macro Plan development:
 - solicit high-level political commitment;
 - establish appropriate intersectoral sub-committees for operations and social mobilization;
 - establish a National Control Room with specific terms of reference for the persons posted. One or two contact numbers should be always accessible to facilitate fast and efficient communications with the states;
 - define roles of other departments and development partners;
 - identify national supervisors and external monitors.

State level

- develop an activity plan including a timeline taking into account all of the following activities to be conducted at the state level;
- develop a plan for preliminary calculation of resources (vaccines, diluents, ancillary products, and funds.) based on previous campaigns and communicate the same to the national level. (For



detailed calculation of resources, see table with all components listed in the Micro-plan chapter Section 4.2.2);

- develop a plan for state coordination meetings and planning workshops for conduct of training for the districts;
- develop a strategy and plan for advocacy and communication (in coordination with the national level);
- develop SBCC materials including key messages and FAQs, based on the prototypes received from the national level;
- develop an implementation plan taking into account the target age group, geographic areas and timing for the various activities;
- develop a logistics plan for timely distribution of resources to the district level (dissemination of guidelines and vaccinators' field handbooks, vaccines, diluents, ancillary products, SBCC materials, funds);
- develop the training curriculum, agenda and training materials, by suitable adaptation of the material disseminated by the national level;
- develop supervision and monitoring plan (for all stages of the campaign) including TORs for supervisors and monitors.
 - supervise and monitor district level preparedness (micro-plan, funds, logistics, training);
 - supervise and monitor implementation on a daily basis during the campaign and ensure midcourse corrections through State Control Room ;
 - assess and review performance and document lessons learnt from the campaigns.
- other activities as part of the overall State Macro Plan development:
 - solicit high-level political commitment;
 - establish appropriate intersectoral sub-committees for operations and social mobilization;
 - establish a State Control Room with specific TORs for the persons posted. One or two contact numbers should be always accessible to facilitate fast and efficient communications with the districts;
 - define roles of other departments and development partners;
 - identify state level supervisors and external monitors.

District level

- the district macro plan is created using a bottom-up approach on the basis of previous campaigns with the factual inputs from the planning workshops held at various levels. An activity plan including a timetable is generated. Inclusions in the activity plan are listed below;
- develop a plan for preliminary calculation of resources (vaccines, diluents, ancillary products, funds, HR, session sites, days of campaign) based on previous campaigns and communicate the same to the national level. (For detailed calculation of resources, see table with all components listed in the Micro-plan chapter Section 4.2.2);

- estimate availability and requirements of the following human resources and logistic items by block:
 - human resource by category – supervisors, vaccinators, ASHAs, AWWs, volunteers;
 - vaccine including diluents and syringes, etc.;
 - other logistics, e.g. ice-packs, indelible ink marker pens, vaccination cards, etc.;
 - count of session sites and days of activity;
 - logistic support for vaccine distribution;

(Format: District Vaccine, logistics and Human Resource plan)

- develop a plan for district coordination meetings and planning workshops and training for the sub-districts and blocks;
- develop a strategy and plan for advocacy and communication (in coordination with the state level);
- develop the SBCC (IEC / IPC etc.) and Media Management Plan (refer to Section 4.3);
- develop an implementation plan taking into account the target age group, geographic area and timing for the various activities;
- develop a logistics plan for timely distribution of resources to sub-district level (dissemination of guidelines and vaccinators' field handbooks, vaccines, diluents, ancillary products, SBCC materials, funds);
- develop an adaptation of the training curriculum, agenda and training materials disseminated from the state level;
- develop a supervision (monitoring and evaluation) plan for all stages of the campaign including TORs for supervisors and monitors, based on national guidelines;
 - supervise and monitor sub-district level preparedness (micro-plan, funds, logistics, training);
 - supervise and monitor implementation on a daily basis during the campaign and ensure midcourse corrections;
 - assess and review performance and document lessons learnt from the campaigns.
- other activities as part of the District Macro Plan development:
 - solicit high-level political commitment;
 - establish appropriate intersectoral sub-committees for operations and social mobilization;
 - establish a District Control Room with specific TORs for the persons posted. One or two contact numbers should be always accessible to facilitate fast and efficient communications with the sub districts and blocks;
 - define roles of other departments and development partners;
 - identify district level supervisors and external monitors;
 - identify available and required cold chain space (Section 4.4 / District cold chain plan format);



- data and information flow plan: In the preparatory phase, all information must be submitted to the district level (logistics requirement, training plans, etc.) according to the timeline indicated earlier. During the days of activity, coverage reports must be submitted daily from blocks to district by the same evening. District will send daily coverage reports to the state latest by next morning and the state will send the same to the Central level the same day. A consolidated coverage report mentioning that this is the final report must be submitted by district to state and from state to centre within 2 weeks of completion of activity. The coverage compilation formats for different levels are given in the annex 11.

Key points

- a macro plan is the advanced preliminary resource calculation, which is later refined by micro-plan information, collected through bottom-up approach from the block level;
- apart from resource calculation (estimated numbers of human resources, logistics, SBCC materials, campaign forms, transportation to enable financial resource mobilization and in-time ordering of supplies), macro/micro-plans are also to contain plans for all other operational components including communication plan, cold chain contingency plan, logistic distribution plan, waste management plan and AEFI management plan;
- all levels need to make an inventory and estimate available cold chain space by type of equipment;
- cold chain plans need to consider space needed for all RI vaccines as per the new national immunization schedule (Refer National Immunization Schedule chapter 6);
- at the district level, explore all sources for personnel skilled in safe injection practices.

4.2.2 Micro-planning

The micro-plan is the basis for any operational and budgetary planning and is to be made at lower levels through a bottom-up approach. The micro-plan must contain (i) calculation of resources, using standard micro-plan templates; and (ii) other operational planning components, using standard templates and forms as outlined below.

Resource calculation

Each block / planning unit should fill-in the information available based on the actual ground situation. This information is to be prepared and compiled during district / urban area and block planning / training workshops.

Table 4.2 contains all planning components, necessary details and formulae to enable calculation of all necessary resources to complete the micro-plan templates.

Table 4.2: Compilation of micro-plan templates

Activity - Item	Details	Calculation Method
Target population for MR campaign		9 months - <15 years; The total number can vary between districts / states. Take the highest of the available estimates for planning based on national census / state statistics and other micro / macro plans available at the district and state level cross cutting program areas. Target children is nearly one third of the net population (calculated from best estimates)
Calculation of resources		
Vaccines		
	Wastage Multiplication Factor (WMF)	MR vaccine and AD syringes for MR campaigns = 1.11
	MR dose	target population (TP) X 1.11 as wastage multiplication factor (WMF)
	MR vials (10 doses)	Total MR doses / 10
Diluents	MR diluent (10 dose vial)	Total no of MR diluent vials = Total number of MR vaccine vials
Ancillary products	AD syringes	Target population for MR X 1.11 (WMF)
	5 ml mixing syringes	Number of MR vaccine vials X 1.11 WMF
	Hub cutters	One per vaccinator during the MR campaign
Vaccination teams	Facility based team	1 vaccinator team can vaccinate 150- 200 children / day
	Mobile / special site	1 vaccinator team / site can vaccinate 50-100 children / day in setting of markets, bus stations, factories, brick kilns, points of entry / exit, floating, migrating and unregistered population
	Outreach team	1 vaccinator team can vaccinate ~ 150 children per day in village setting, hard to reach areas
	School team	1 vaccinator can vaccinate~ 200 children in a day
Number of personnel	Supervisors	1 team supervisor covering 3 teams



Activity - Item	Details	Calculation Method
	Vaccination team composition	1-2 vaccinator (ANM / Male HWs / LHV / retired ANMs, s / pharmacists / nurses / doctors) 1 ASHA / Link worker or equivalent staff (for urban areas) 1 AWW 1 local volunteer
Other Team Supplies	Red plastic garbage bags	1 per 50 syringes
	Black plastic garbage bags	2 per session site per day
	Indelible markers	1 per approximately 500 target children
	AEFI kits	1 per every AEFI treatment / management center
Tools and guidelines	Operational guidelines for MR campaign	1 per MO / BMO / DIO / SEPIO / Key programme managers / Senior level supervisors / nodal officers and International external monitors at each level
For health-link workers	Training module and FAQ for Health link workers / vaccinators	1 per vaccinator / team supervisor / monitor
Tools / Formats	Tally sheets	1 per day per team
	Supervisory checklists pre-intra-post campaign	1 per supervisor per day X 10 days pre-campaign 1 per supervisor per day X 20 days intra-campaign
	Reporting form from session site to Block	Once a day intra campaign
	Reporting form from Block to district	Once a day intra campaign
	Reporting form from District to State	Once a week intra campaign
	Reporting form for State to National	Once a week intra campaign
	RCM forms	5 per day per monitor X 20 days intra campaign
	Monitoring checklist intra campaign	2 per monitor per day X 10 days pre-campaign 2 per monitor per day X 20 days intra-campaign
Cold chain storage requirements – total volume needed	MR vaccine 10 dose per vial	Approx. 384 doses of measles-rubella vaccine can be stored in 1 liter (based on 2.6 cm ³ per dose of MR vaccine)
(packed volume, secondary package)	Cold chain volume requirement for MR vaccine 10 dose vial	= (Total MR vaccines doses required / 384) in liters
	MR diluents for 10 dose MR vial	Calculation same as MR vaccine dose
Cold chain space	Cold chain volume requirement for MR diluent for 10 dose vial required for fully immunized child	Calculation same as MR vaccine dose (ideally diluent for one day should be stored 24 h prior to immunization session)
		69 cm ³ in national / regional / state vaccine stores And 90.8 cm ³ in PHCs / Peripheral stores
Cold chain equipment	ILR	Minimum 1 per PHC
	Deep Freezers	Minimum 1 per PHC
	Cold boxes	Variable based on requirement
	Vaccine carriers	Ideal 2 per vaccinator and 1 for team supervisor

Activity - Item	Details	Calculation Method
	Icepacks	4 per vaccine carrier (4 icepacks per carrier + 4 icepacks per day replacement = 8 icepacks per day) and 20 – 40 per cold box (depending the size)
Daily ice pack requirement		= (Number of vaccinators X 12) + (Requirement for supervisors and cold boxes)
Total ice pack requirement (including freezing cycle)		= Daily ice pack requirement X 3
ice pack requirement for MR campaign	Daily (including freezing cycle) X3	= (Number of vaccinators X 24) + (Number of team supervisors X 24) + (Number of cold boxes X 60 to 120)
SBCC (IEC / IPC etc.) materials team visibility and social mobilization	Information / Message sheets	On the basis of 5 per target population
	Posters	5 per session site
	Hoardings	5 per district and 1 per block
	Banners	2 per session site
	Advocacy letter	1 per school principle and 1 per medical practitioner
	street banners	variable and at the discretion of the state
	Team identity card	variable and at the discretion of the state based on local needs
	Radio and TV spots	variable and at the discretion of the state based on local needs
	Press ads.	For national and state level
	Internet and social media	variable and at the discretion of the state
Transport	to transport teams	Make transport plan and special plan for hard to reach areas / population
	to transport equipment	National level to deliver to State. State to deliver to district. District to deliver to sub-district, Sub-district to deliver to block, Block to deliver to sites
	to transport waste	To carry and dispose of at block level at PHC / CHC having a safety-pit for the purpose
	Mode of transport	Specify mode of transport per defined area inside the district if different from 1 area to another
Maps of the catchment areas	Maps at different levels	Mandatory for team supervisors and vaccinator teams on the ground
Estimated costs	For operations	Based on higher level Macro plans and lower level Micro Plans

Micro-planning process at the district level

The district micro-plans must be developed using a bottom-up approach and should take into account the ground realities in different blocks and urban areas.

The first step is to collect and compile the following background information. Please refer to the micro-planning formats provided in annex 11. In order to fill in the micro-plans for resource calculation, refer also to the calculation in Table 4.2:

- reliable estimates of target population (9 months to <15 years) by blocks / municipalities. Use the highest of the available estimates;



- estimate requirement of logistics – vaccine / diluents, auto disable (AD) syringes, etc. as per norms given in Table 4.2 by block and by PHC (block and PHC logistic format in annex 11);
- names and location of schools (Govt., Private, Madarsas, Kindergarten, Montessori schools, etc.) and number of students enrolled in each school who fall within the target age-group;
- block-wise counts of available human resources qualified to give safe injections. An indicative list is as following: ANMs, LHV; alternate vaccinators involved in RI; male health workers trained to give injections, pharmacists; nurses on clinical duty; trained personnel from the private sector available and willing to participate; staff from medical and nursing colleges. Explore support from different sectors for urban areas: municipal health departments, NGOs, etc.;
- block-wise list of NGOs, youth groups—Nehru Yuva Kendra (NYK), National Cadet Corps (NCC), National Service Scheme (NSS), youth clubs, etc.;
- estimate functioning cold chain space available at district, block / municipality and PHC levels separately and estimate cold chain space required for vaccine and diluents (refer to Section 4.4);
- available waste disposal facilities available in each block / PHC.

Micro-planning process at the block level

The basic unit of micro-planning will be the PHC / sub-centre area. The following will apply to the block micro-plan.

Human resource calculation

Resource calculation should be done according to Table 4.2. In addition, to be able to plan and calculate for the human resources take the following into consideration:

- vaccination team: Generally a vaccination team will have;
 - 1 vaccinator (ANM / male HW / LHV / retired ANM / pharmacist / nurse / doctor);
 - 1 ASHA / link worker or similar staff (for urban areas);
 - 1 AWW;
 - 1 volunteer.
- ASHA or AWW will work in her usual area of work. In case neither ASHA nor AWW has been appointed for a village, she can be substituted by an additional volunteer;
- number of teams needed to cover a school in one day = target population / 200;
- number of teams needed to cover a village / urban area in one day = target population / 150;
 - for larger villages, separate teams will be strategically placed in different areas of the village to maximize reach in the community. This will enable greater reach for both vaccinators as well as target children, to enhance coverage;
 - in some places, where the number of target beneficiaries is large (>150) but can



Image 4.3

be covered from one site, a vaccination team may have two vaccinators plus 2–3 support staff (ASHAs / AWWs / local area specific volunteers);

- plan to complete MR vaccination in one day in a village or an urban area (*mohalla* / hamlet) or in a school by one or more vaccinator teams as required;
- in order to ensure injection safety, no team will conduct sessions at two different sites in one day under normal circumstances. There may be exceptions to his practice, depending on the topography and scattering of the target population in certain areas. This has to be factored into the micro-plans to enable maximum coverage with safety.

Types of session sites



Image 4.4

Vaccines will be administered from four types of session sites during the MR campaign.

- session sites at educational institutes

All types of educational institutes where children below 15 years of age attend will be used as vaccination sites. These sites will be covered in the first week of the campaign.

Urban wards may need extra vaccinators since they have a higher number of schools. Temporary skilled vaccinators (nurses, intern doctors, private doctors, senior nursing students, etc.) may be assigned to complete the vaccination in a school in one day.

- outreach site (regular RI sites and additional sites in village / urban *mohalla*)

Children who do not go to school or those left out during the vaccination week in schools will be covered from regular RI / UIP sites during the second and third weeks. Vaccinators will provide RI services on two scheduled days of the week. During the remaining four / five days of the week, they will conduct campaign sessions.

- **Note:** In some schools, the target population may be less than 100 and there may also be an adjacent village with a very small target population. In such situations, the school and the village out-reach sessions can be combined together at the school, provided the total target children per vaccinator does not exceed 200. Wherever this is done, it should be clearly recorded in the session site micro-plan.



Image 4.5

Special mobile sites / teams placed in high-risk areas / population through (special) additional sites

- mobile teams, and to a certain extent outreach teams for hard-to-reach villages, will be used for covering high-risk areas / populations. These are one or more of the following types of areas:

- hard-to-reach areas due to difficult geographic location (periurban, forest, hillsides, fields, farms, far-flung isolated pockets, mountainous villages, tea estates, river-islands);
- unserved or underserved areas or areas with shortage of HWs;
- urban areas, especially unauthorized slums, railway / bus stations, ferry ghats, makeshift huts, brothels, children in prison, floating / street children;
- migratory populations or internally displaced persons including temporary harvester, rice mill and brick kiln workers and construction labourers in large construction sites;
- security compromised areas;
- special mobile sites / teams will immunize children from a fixed location in high-risk and hard-to-reach population settlements. During the planning workshops, managers have to pay extra attention to such high-risk areas and plan for special innovative measures and strategies;
- street children and other high-risk populations in urban areas may not attend school or community vaccination sites. These groups are most likely to have missed the routine dose in their infancy and may also miss the MR campaign dose if proper micro-planning is not done. Such groups require special approaches;
- places where these groups stay at night (e.g. railway station, bus stations, ferry ghats, unauthorized slums, construction sites, brick kilns, overnight temporary makeshift huts, brothels, etc.) should be identified in advance. Additional teams need to be assigned to reach them, and should work at unconventional times such as very early morning or at night. These operations to reach high-risk target children and remote populations need extraordinary planning and additional supervision and monitoring.

Facility based session site

All health facilities at PHC level and above will function as session sites throughout the campaign duration to immunize any children in the target age group coming to the health facility, for whom MR vaccine is indicated as per campaign guidelines.

Duration of session

- MR campaign sessions sites will run from 8.00 AM to 2.00 PM. The vaccinators and ASHAs / AWWs will then perform their routine activities until 4:00 PM at the site;
- sessions in educational institutes will run as per school timings and all immunizations will be completed in one day;
- mobile teams may have to work at unusual hours to reach high-risk areas / populations described above. The time of activity for each day and area should be specifically recorded on the micro-plan for such activity;
- parents / guardians of children who accompany the child to the vaccination centre will be requested to wait for at least half an hour after administering the vaccine to observe whether any serious AEFI happens, e.g. anaphylaxis;



Image 4.6

Additional operational planning as part of the local micro-plan

The following components are to be planned at block / PHC level in addition to the resource calculations. Details are given in relevant chapters:

- session site and human resource plan, with vaccine and logistic estimates by session sites;
- map showing location of session sites;
- supervisor map, vaccination team map;
- cold chain plan including ice pack freezing plan at block / PHC level;
- logistics distribution plan with route charts on map;
- waste management plan;
- training plan;
- communication / social mobilization plan;
- AEFI reporting and management plan;
- supervision and monitoring plan (pre-campaign and intra campaign);
- plan for covering missed children (plan for sweeping / repeat activity based on the intra campaign rapid convenience monitoring [RCM]);
- contingency plans for human resources, logistics and cold chain.

Session site and human resource plan

- based on the number of teams required, identify human resources by name, including support staff to be provided by the school and the date of activity in each school;
- based on the number of teams required, identify human resources (supervisors, vaccinators) by name and the date of activity for each outreach and mobile site;
- plan for extra mobile teams and resources to assure proper immunization coverage in the high-risk areas / populations;
- identify the location of the session site for each team on the map;
- take into account that nearly 70% of the target children may be vaccinated in school and rest of the target may be vaccinated at outreach / mobile sites. This should be adjusted upwards or downwards depending on local situations like school enrolment, coverage achieved in schools, etc.;
- block and district level planners should monitor the school coverage closely to fine tune the vaccine supplied to the outreach sessions.

(Formats: Block PHC logistics, outreach micro-plan, education facility, mobile sites micro-plan)

Mapping

A map needs to be made for each vaccination team. Each team supervisor should also have his / her own map. Maps should have the following features:

- village boundaries with target children in the catchment area within the block;



- major access routes / roads;
- educational institutes (including government and private schools, crèches, daycare centres, madarsas);
- health facilities (PHC / additional PHC) and current RI vaccination sites (both fixed and outreach);
- possible additional sites planned for the MR Campaign at school and outreach sites. These sites should be planned to reach all communities, including special mobile sites in the high-risk areas / populations, which will need special efforts;
- cold chain points and drop-off points for logistics;
- AEFI treatment / management sites (see below);
- indication of day-wise activities.

Cold chain plan (See Section 4.4 / cold chain and CC contingency formats)

- vaccine and diluents storage plan at state, district and sub-district levels based on calculation of available storage minus required storage which will give the availability of surplus storage to store diluents or indicate a shortage of storage space;
- calculate storage capacity, requirement and shortfall according to formulae provided in Section 4.4;
- contingency plan in case calculation of required storage space has indicated a shortage;
- ice pack freezing plan at sub-district (block / PHC) levels according to the numbers of ice packs needed as indicated in Section 4.4.

Logistics distribution plan (See Form – PHC vaccine distribution plan)

- estimation of vaccine and other logistics by session site, by vaccination team, by day and according to the estimated target population for that particular day;
- personnel movement plans including pick-up and drop-off points;
- mention dates of distribution in the plan;
- mention means of transport for the distribution.

Waste management plan (See Format waste management plan)

- identify where immunization waste will be collected;
- how it will be transported;
- how it will be disinfected and disposed off;
- who will be responsible for the different steps in the process of collection, transportation and disposal.

Training plan (Section 4.8)

- schedule for MR campaign planning – TOT workshop at national level for state level trainers;
- schedule for MR campaign planning – TOT workshop at state level for district level trainers;
- schedule for training of vaccinators and supervisors with date, time and venue at block / PHC / municipality level;

- schedule for training of volunteers / AWWs / ASHAs with date, time and venue at block / PHC / municipality level.

SBCC – Communication and social mobilization plan, and format for PHC / block / district communication plan (Section 4.3)

- identify all key partners available to assist in SBCC (IEC / IPC etc.);
- identify in the plan whom to inform / whom to educate / whom to communicate with;
- mentioning advocacy / information meetings with partners / local government / community leaders / minority leaders / religious leaders / women groups;
- identify all SBCC materials (see micro-plan table of calculations);
- identify social and religious events which can be used as a platform to advocate and mobilize the population;
- include key messages and disseminate them through partners, media and SBCC materials (general SBCC messages will be standardized from the Central level);
- identify media and make schedules for regular emissions and ads;
- develop special measures to reach the targets in the high-risk areas / populations;
- specify roles for health volunteers.

In this campaign, the day of immunization activity will vary from village to village. Specific plans must be made for communicating dates to the parents individually through interpersonal communication by ASHA and / or AWW staff on the ground.

- date of immunization activity for each village / urban area will be prominently displayed at block PHC / CHCs, PHC, health sub-centre and AWW centre;
- the micro-plan should enlist the names of the ASHA against the village / wards with day / dates;
- IPC through distribution of invitation cards by ASHA / AWW will be completed one week prior to campaign start date (refer to Section 4.3);
- supervisors / block level staff should conduct random visits to field for validation of the micro plan and to verify, if IPC has been conducted as per IPC plan by Health link workers.

AEFI management plan (Section 4.5)

- all government health facilities and centres participating in the national immunization programme (except sub-centres) will be AEFI management centres;
- all MOs (both government and private) will be trained in AEFI management;
- additional private clinics / hospitals should be identified as AEFI management centres as required. Medical personnel of these facilities should also be trained in AEFI management protocols;
- the contact details of the closest AEFI management centre should be available at every session site and mentioned clearly on the team's tally sheet;
- referral mechanisms (including transport support for referral).



Supervision and monitoring plan (Section 4.6)

- on an average, there will be one first-line supervisor per three teams. They should be identified by name in the micro-plan. Their tasks have been outlined in Section 4.6;
- available first line supervisors: Health Inspector (HI), Assistant Health Inspector (AHI), Sanitary Inspector (SI), NGO supervisors, if suitable;
- intensive supervision and monitoring needs to be conducted to identify areas with low coverage (< 95%) for corrective action;
- second line supportive supervisors from state and district level will be identified to supervise at least for 2 weeks pre-campaign and during the campaign;
- in the plan, add the dates, names of the supervisors and monitors including the locations of their activity, to avoid overlap;
- remember that supervisors are internal to the immunization programme and monitors are independent and external to the national immunization programme (monitors are ideally external to the local government immunization programme).

Plan for covering missed children (sweeping / repeat activity)

Supervisors and external monitors will monitor areas immediately on completion of activity and check at least 20 target age-group children from at least 20 houses. Block Medical Officer (BMO) should review supervisors' checklists and monitors' RCM forms and feedback on a daily basis to identify areas requiring action as below:

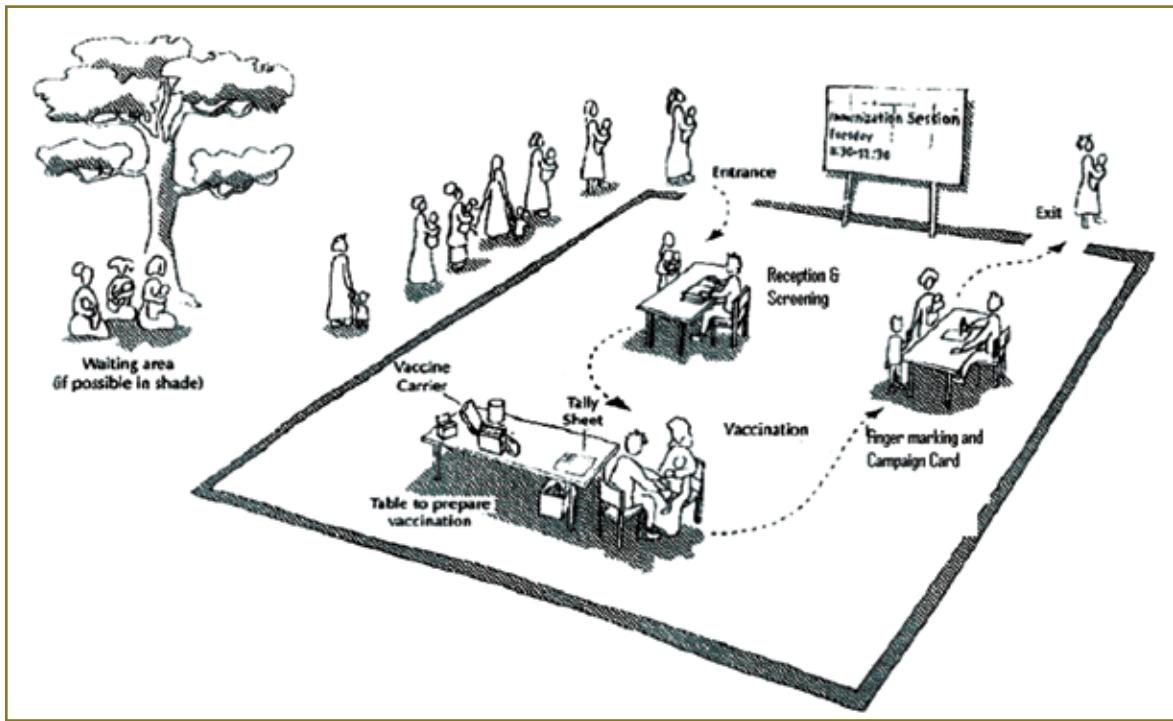
- if less than 4 children are found "missed" (un-immunized) out of 20 children checked / verified by any supervisor / monitor during campaign, then the missed children will be mobilized to the nearest campaign session site or hospital where campaign MR dose can be provided to them;
- if 4 or more children are found un-immunized, a vaccinator team should revisit or sweep the team area for repeat activity to immunize all the missed children (not just limited to the children identified in the samples, in fact, they will mobilize and vaccinate all missed children from the entire area as a sweeping activity in last week of campaign).

Sweeping activity: At the end of campaign activity, BMO and DIO should collate all data from coverage reports, supervisors' reports and monitors' feedback to identify areas with low coverage. These areas with low coverage must be targeted separately for sweeping activity to identify and immunize the missed children by mobilizing to the vaccine site. This sweeping activity is not limited to the children identified in the RCM samples. This activity must be properly planned and implemented and must be validated again by external monitors by the end of activity RCM / out of house spot check. Sweeping activity must be reviewed by the respective DTFI and STFI.

Contingency Plans for cold chain, logistics and human resources

Plans are to be prepared to describe how the blocks and PHCs will fill in the gaps identified in the micro-plans for cold chain storage, power failures, human resources needs, transportation means and eventual need for funding extraordinary measures to cover high-risk areas / populations.

Figure 4.2.1: Measles Rubella immunization at session site



Reaching the unreached

The main objective of MR campaigns are to vaccinate all target children in all areas of the country. In order to ultimately eliminate measles and control rubella, it is important to immunize children in the high-risk areas that are often missed by routine vaccination. Clearly, it is necessary to know who these children are, where they are and why they are missed, so that managers can be helped to develop effective strategies for reaching them along with reaching all other areas where the population has easier access to the immunization services. Those strategies should reflect in the micro-plans.

The high-risk areas / populations include:

- hard to reach areas due to difficult geographic location (forest, tribal, far flung isolated pockets, tea estates, riverine-islands);
- unserved or underserved areas or areas with shortage / prolonged vacancy of health worker;
- urban areas, especially unauthorized slums, railway / bus stations, makeshift huts, brothels, children in remand home, floating street children as well as peri-urban new settlements;
- migratory populations or internally displaced persons including temporary harvester, rice mills and brick kiln workers and construction labourers in large construction sites;
- security compromised areas.

Any community may contain population / area that fit more than one category.



Image 4.7

Key strategies for high-risk areas

- identifying and listing of areas and sites along with development of detailed maps to facilitate careful planning of the extra logistics and social mobilization needed to reach these populations; (see also guidelines for mapping out the catchment areas);
- detailed micro-planning with involvement of local, social and religious leaders;
- understanding and overcoming cultural, educational, logistical, political, linguistic, ethnic or religious barriers that prevent underserved populations from bringing their children for immunization;
- the use of mobile strategies adapted to the local situation and acceptance of the community involved:
 - locating extra posts at highly visible and / or highly convenient sites;
 - locating extra posts at strategic sites such as markets and major transit points in order to reach migratory populations;
- providing additional logistic support;
- deployment of extra monitors and conducting extra RCMs;
- housetohouse interpersonal communication with caregivers are critical while distributing invitation-cards and identifying HRA / Ps;



Image 4.8

Three to five days before the start of the MR campaign, first line supervisors, health-link workers volunteers and community and partner NGO workers should go to the most underserved areas in order to verify that mothers are aware of the impending activities and distribute the invitation card having the date and place of session sites. Before and during the MR campaign, the supervisors and monitors should actively and frequently oversee preparations and efforts aimed at reaching underserved populations along with preparations in all other areas.

Why the above populations are a risk for continuing measles transmission?

- children in geographically difficult-to-reach areas, dense urban areas and areas with migrants are not adequately protected, because they are often missed out on routine and supplementary immunization rounds;
- children, especially of densely populated urban areas and migrating children, are at greater risk of carrying and spreading the measles virus as they live in very close contact with each other or transit through areas with virus circulation;
- migrant children are likely to have sub-optimal immunization as compared to other children living in endemic areas and hence they dilute population immunity when they move into those areas.

Characteristics of migratory / mobile settlements

The following migratory settlements are commonly recognized:

- **slums with migration:** Settlements in urban / periurban areas or slums situated close to industrial areas including mining / stone crushing sites or agriculture fields. These settlements are typically found listed as slums with urban development or district authorities. These areas are densely populated with substandard housing and invariably have poor sanitation. Some of these areas are unauthorized and / or are not recognized by urban development authorities. The socio economic status of the residents in these areas is low;
- **construction sites:** Migrant families living in sites where construction is going on. Generally they live in *jhuggies* or brick sheds in and around the under-construction buildings. The number of families and children present in these sites vary according to the size of the construction site;
- **brick kilns:** Migrant labour camping in brick kilns and the “Pather” fields where raw bricks are prepared;
- **nomads:** Populations such as Mangtey, Kanjar, Fakirs, Natts, Banjara, Shah, Shahbali, Albi, Gadhia, Luhar, Ghumantu, etc. often move from place to place for livelihood, usually setting up “deras” wherever they stop. They are normally found in between or at the end of big colonies, railway stations, along rail tracks, open fields, market places and in urban / periurban slums.

Detailed key actions for improving coverage of migratory / mobile populations during the MR campaign

Identifying and listing all sites with migratory / mobile populations

- a district level meeting should be organized with participation of the MO in charge from urban area and PHCs catering to periurban areas. The meeting should be facilitated by CMO / Civil Surgeon (CS) / District RCH Officer. The meeting should discuss the steps to be taken at the urban health centres / PHCs for identification and coverage of migratory / mobile populations;
- all block PHCs / CHCs / urban health centres should identify and map pockets of migratory / mobile settlements in their area. MOs should list all migratory settlements as characterized above with the help of health / ICDS / sanitation workers such as ANMs, health supervisors, ASHAs, AWWs and sanitation workers. The workers must walk through their areas, particularly the urban and periurban areas to identify all pockets of migratory populations and estimate the number of households and target population. If the migratory areas are a part of the MR micro-plans, this data may also be collected from previous measles catch-up campaigns in the area;
- a template for identifying and listing areas with migrant / mobile populations (Planning Forms 1 and 4) should be used for identifying and listing of these populations.

Preparation of micro-plans for coverage of migratory populations

- the number of vaccinators and supervisors required to conduct the vaccination in each area may be higher than in normal areas and should be estimated using planning form;
- as in the other areas, each vaccination team should have four members and each team supervisor should supervise three teams. On an average, each vaccination team can vaccinate 100 to 150 children per day. The duration of activity will depend on the number of households in the area and availability of manpower;

- each team should have a well-defined area to cover each day with the number of children expected to be vaccinated. A micro-plan giving details of each team's work area for each day should be prepared on a planning form by the supervisors and MOs;
- in some instances, where the target population is floating / unregistered, then mobile teams should be operating through planned, temporary vaccination sites to cover such population. literally "mobile" there. Each mobile team should have independent mobility and should have a detailed daily activity plan.

Operation of a special / mobile vaccination team for covering Migratory population / HRA

"Each mobile and special team-site for high risk area population will be included in the micro-plan and must operate from a centrally located place in the community, where MR vaccine can be administered to children safely. All age eligible target children living around the area must be mobilized to this special-site through house visits by the support staff like ASHA / AWW / Volunteer. A special / mobile site under normal circumstances will not move from the planned fixed location, to a next site in a single day. At special geographical areas like deserts, forests, hilltops and farm land having extensive scattered population with minimal children spread over huge area, then they can move to the next location but only after waiting for an hour after the last child has been vaccinated. Moving to the next mobile-special site will be contingent upon strict monitoring by the supervisor / medical officer and the team must discard the vaccine vial at the last session site and will start with reconstituting a new / fresh MR vaccine vial at the subsequent session-site."

Reviewing preparedness: DTFI meeting

DTFI meetings should be organized in each district to identify issues and discuss actions to ensure high quality implementation of the programme in the high-risk areas / populations. The DTFI needs to meet on a regular basis.

Supervision and monitoring

State and district officials should prioritize the HRAs / Ps. They should visit these areas to assess preparedness and supervise implementation of the MR Campaign.

Independent external monitors should be assigned to known priority areas to conduct RCMs as much as possible to detect pockets of population left out of the MR campaign.

Key points

- all vaccination needs to be conducted by trained personnel from fixed vaccination sites (including by special mobile sites/teams (temporary vaccination sites) in the high-risk areas);
- ideally one village/urban ward to be covered in one day. No vaccinator will work at two session sites on the same day under normal circumstances although there will be some exceptions depending on the distribution of scattered population;
- ANM will conduct RI and other activities on scheduled days of the week as per RI micro plan;

Key points

- in case of very remote community with small population and school having <100 injection load, both school and outreach activity can be clubbed together in a single day;
- special innovative measures must be undertaken to reach the previously unreached, identified in the high-risk areas/populations, that must be part of the campaign micro plan;
- each beneficiary will wait for at least 30 mins after MR vaccination. Vaccinators must wait for at least 1 hour at the site after vaccinating the last child;
- accurate, complete and realistic micro-plans will be critical for success of the MR campaign and must be reviewed and validated before the start of the campaign;
- all injection waste materials must be disposed as per Central Pollution Control Board (CPCB) norms as described under UIP;
- sweeping/repeat activity must be planned in areas with a significant number of missed children found during monitoring;
- the last week will be planned for sweeping/repeat activity to cover left out and suboptimal coverage areas based on reported coverage and RCM monitoring findings, this needs to be reviewed by DTFI and STFI
- in a sub-centre area, there will be one ANM (trained vaccinator) for an average of 7500 population, this may vary from state to state;
- for example, number of vaccinator-days needed to cover the eligible population in one sub-centre area = $2250/150 = 15$ vaccinator days. Depending on the availability of trained vaccinators in a planning unit the number of campaign days will vary;
- a proportion of these children will be immunized in schools within the first week of the campaign and the rest through outreach or mobile or fixed session sites in the second and third week, depending on the area-specific micro-plans. Proportion of children immunized in schools will depend upon school enrollment and school attendance (nearly 70% of the net target population in schools);
- on an average a panning unit may require 15-20 working days (3-4 calendar weeks) to complete both school and outreach activity, while preparing micro plans for the campaign routine immunization days will be excluded;
- the last week will be planned for sweeping/repeat activity to cover left out/ suboptimal coverage areas, based on reported coverage and RCM monitoring, which should be reviewed by DTFI and STFI



4.3 Communication and Social Mobilization for Measles-Rubella Introduction

4.3.1 Communication Strategy and Plan

India is a signatory to South-East Asia regional goal to eliminate measles and control rubella / CRS by 2020. As key elimination strategies MoHFW plans to launch the MR campaign in February 2017.

Strategic communication is the program's steering wheel, guiding it towards its goals. A well-planned communication strategy has been developed to ensure that the launch of MR campaign is well accepted by the communities and achieves a high coverage of the target population.



Image 4.9

The objectives of the MR communication plan are:

1. Positive positioning of MR campaign among the stakeholders, partners, communities and media.
2. Strengthen capacity of health workers on interpersonal communication (IPC) skills to ensure effective mobilisation and facilitate acceptance of MR vaccination campaign.
3. Facilitate community acceptance of MR vaccination during the campaign.
4. Build an enabling environment through positive media reporting and involvement of key stakeholders and influencers.

The components of the communication strategy are:

1. Building an enabling environment for MR.
 - launch of MR at the state and district levels: Launch ceremony with participation from state government departments (Education, WCD, Railways, Transport etc.), professional bodies such as IAP, IMA, development partners, nongovernmental organizations (NGOs), CSOs, Rotary and Lions club, media and others;
 - media briefings through specialized MR-related media kit;
 - release of MR operational guidelines, SBCC (IEC / IPC etc.) materials, etc.
2. Advocacy with key stakeholders such as schools, public representatives, government, private medical networks and doctors, religious leaders, media, etc.
3. Social mobilization for MR by engaging panchayatiraj institutions, religious leaders, social and community groups, women's groups, self-help groups, milk cooperatives, agriculture produce committees, youth clubs, NGOs, community-based organizations (CBOs) and other network of polio influencers.

Key Communication role

- inform and sensitize all stakeholders on the importance of MR vaccine and campaign;
- promote confidence in the vaccination schedule, its safety and effectiveness;
- address rumours and misinformation;
- influence decision making of communities to accept the MR vaccination for their children;
- enhance detection and reporting of possible AEFI.

4. Community mobilization to create awareness and demand for MR vaccine.
 - training of master trainers on MR introduction – ToTs at state / district levels;
 - cascade training of frontline workers on joint micro planning including communication and information related to MR vaccine & campaign;
 - micro planning and tracking of target children for MR vaccination;
 - holding mothers' meetings for MR introduction;
 - holding influencer meetings and announcements from mosque / religious institutions;
 - identifying and engaging the influencers for the campaign;
 - engagement with the institutions to facilitate the conduct of the campaign at their sites.
5. Maximizing the reach through mass media and ensuring visibility for MR introduction through an SBCC (IEC / IPC etc.) package.
 - newspaper advertisement;
 - tv / radio spots on MR campaign;
 - miking / announcements on MR campaign;
 - posters for MR introduction;
 - banners / hoardings;
 - leaflets for health workforce including, ASHA, AWW, Social Mobilization network, etc.
6. AEFI communication plan.

4.3.2 Launch of MR vaccination campaign

A successful launch of MR campaign will include effective communication components as well as capacity building of health workers on IPC skills in order to respond to queries posed by the community. Other related government departments, local media and NGOs should also be briefed and brought on board, so that they may also spread the message and motivate the community to benefit from the immunization programme.

A well-publicized launch ceremony should be planned for MR introduction to improve general awareness about UIP and specific knowledge related to MR vaccine introduction. The state and district task forces on immunization should steer the planning, coordination, implementation and monitoring of the programme.

The following steps should be undertaken for the launch events:

1. Preparatory phase
 - identify and brief key stakeholders, guests and invitees including public representatives, government, professional bodies, media, NGO partners, religious leaders, etc.;
 - identify suitable venue and date in consultation with officials concerned;
 - prepare materials for launch event;



- prepare talking points for key speakers;
 - prepare agenda for the event from the prototype provided;
 - identify photographer and equipment required for the launch.
2. Event
- check event venue prior to the event and ensure equipment is in working order;
 - ensure orderly and timely conduct of the event;
 - ensure folders with materials are available for all participants;
 - ensure release of SBCC (IEC / IPC etc.) materials for MR launch;
 - prepare press release based on the draft provided.

LAUNCH KIT: A standardized launch kit has been developed for the MR introduction. This launch kit, containing the following materials, will be provided to state governments:

1. **Prototypes for backdrop/banner/ key message leaflets**
2. **Draft agenda for event**
3. **PowerPoint slides/other materials for use**
4. **Operational guidelines for MR**
5. **Microplanning formats**
6. **Frequently asked questions on MR**
7. **Draft press release**

4.3.3 Briefing media

It is important to ensure that the media is well briefed about the MR launch and has access to the correct information so that wrong or incorrect reporting in mass media is minimized.

The following simple steps can be followed at the state and district level for media briefing:

1. Preparatory phase

- identify spokespersons at state and district levels. These can be the SIO / CMO / District Magistrate. Ensure spokespersons have the requisite media skills. Organize training on media skills for spokespersons, if necessary, on MR introduction-related facts;
- prepare list of state and district media staff covering health issues, with the latest contact numbers, emails and official addresses; editors of major newspapers and TV channels, radio; district-wise list of local cable operators;
- prepare key message sheets on immunization / MR and share with spokespersons;
- prepare a press release from the prototype press release that has been provided in the media kit.

2. Implementation phase

- organize media briefing with key reporters on MR introduction using PowerPoint slides and media kit that is provided;

- PRE LAUNCH PHASE: Hold media collaboration workshops, including state-level journalists. The workshops should be done at least 2 weeks in advance and not immediately before the launch. Else, the news value of the launch goes down. The messaging in the workshop should include RI messaging as well and not only on the new vaccine so as to give the journalists an overall perspective. There can also be formal / informal briefings with key media persons – both at the state and district level;
- hold media collaboration workshops, including state-level journalists;
- keep them regularly informed of all immunization-related developments through faxes and emails.

3. Monitoring and evaluation phase

- track reporting on MR introduction through media (newspapers, TV, radio) for tonality of reporting;
- in case of negative or incorrect reporting, ensure that the reporter has access to correct information. The reporters will have to be reached out to for the same;
- maintain news clippings of news reports by publication, date and placement.

Media toolkit: A standardized media kit has been developed for the MR introduction. This media toolkit, containing the following materials, will be provided to state governments for dissemination:

1. Background note on MR introduction
2. Key messages on MR
3. Draft press release
4. Format for maintaining media reports on MR

4.3.4 Advocacy

Advocacy is a well-defined process based on demonstrated evidence to influence decision-makers, stakeholders and audiences to support and / or implement policies or actions related to the advocacy goal. In case of MR introduction, advocacy should be done to ensure that MR campaign is smoothly executed and covers the vast target of children from 9months to <15 years of age group and is accepted well by the community.

Advocacy with these groups is important for promoting immunization and MR introduction.

1. Local public representatives (members of parliament, members of legislative assemblies, members of legislative councils, zilapanchayat chairman and members, ward members for urban areas)
2. Key officials of the government and medical fraternity at the state, district and block levels:
 - state level: Chief Secretary, Principal Secretary Health, Mission Director, National Health Mission, Directorate of Health and Family Welfare, State Immunization Officers, medical colleges, officials of department of Education, women and child development, railways, large public sector companies / townships, eminent private paediatricians / experts, medical institutions and networks (such as the IAP–Indian Academy of Paediatrics; IMA–Indian Medical Association; IAPSM – Indian Association of Preventive and Social Medicine);



- district and block level: District Magistrates, Chief Development Officers, Block Development Officers, Chief Medical Officers, District Immunization Officers, medical officers, private practitioners, etc.
3. Influencers such as religious leaders, teachers, self-help groups
 4. NGOs and CBOs
 5. Media
 6. Teachers and principals (especially for the private schools) have to be included in the group as they may influence the parents directly. FAQs for teachers and the principals should be developed and provided at the school so that they can deal with the queries of the parents.
 7. Parent teacher association (PTA) meetings should also be utilized for advocacy. Information should be given out to the parents before the vaccination round – which includes the date of the vaccination advocating for the children to not miss school on that day.
 8. Principal DIETs or groups, wherever established, could also be utilized for advocacy.

Prepare an advocacy plan to reach out to the relevant groups using tools and materials. Assess your existing resources and adapt them with MR-related messages. Document the proceedings with action points for the future. Keep IMA informed and prepare and share PowerPoint / SBCC (IEC / IPC etc.) materials on MR with IAP / IMA members.

Table: Indicative planning matrix for advocacy activities

Indicative planning matrix for advocacy activities				
S. No.	Audience	Desired Action	Modalities of engagement (activities)	Tools required
1	Policy makers (state / district / block)	<ul style="list-style-type: none"> review and support for MR introduction 	<ul style="list-style-type: none"> meetings / briefing sessions launch workshop debriefing on MR campaign 	<ul style="list-style-type: none"> briefs reports
2	Partnership with other Ministry / department (Education, Railways, Transport, WCD, Tribal affairs, urban development,) local elected members, Zila Parishad, Panchayati Raj leaders, etc.	<ul style="list-style-type: none"> support the MR campaign by engaging their workforce 	<ul style="list-style-type: none"> workshop meetings / briefing sessions 	<ul style="list-style-type: none"> background material on MR introduction advocacy letters message sheets / leaflets
3	Medical Officers, Institutions and professional bodies such as IMA, IAP and other private medical institutions.	<ul style="list-style-type: none"> orientation about MR introduction in the campaign 	<ul style="list-style-type: none"> workshop meetings / briefing sessions 	<ul style="list-style-type: none"> PowerPoint slides background material on MR introduction operational guidelines key messages for responding to any AEFI fact sheets advocacy letters
4	Public representatives Influencers: religious leaders, teachers, self-help groups, NGOs, CBOs	<ul style="list-style-type: none"> awareness about MR introduction in a campaign knowledge about benefits of MR vaccine advocacy with the community about full immunization, MR vaccine 	<ul style="list-style-type: none"> meetings / briefing sessions community meetings 	<ul style="list-style-type: none"> advocacy Letters fact sheets message sheets / leaflet
5	Media	<ul style="list-style-type: none"> awareness about MR introduction knowledge about benefits of MR vaccine positive reporting 	<ul style="list-style-type: none"> media briefings / workshop 	Media kit containing: <ul style="list-style-type: none"> press release background material on MR launch
6	Partnership with Education Department / Schools formal and informal, government, private and autonomous schools; State Madarsa board and institutions covering Madarsas	<ul style="list-style-type: none"> identifying where children are in non-formal education prepare plan for potential resistance by parents 	<ul style="list-style-type: none"> orientation of school staff / meetings 	<ul style="list-style-type: none"> letters fact sheets

4.3.5 Community engagement and social mobilization

Community engagement and social mobilization are critical activities for success of the MR introduction. This requires dynamic information flow with communities, answering their questions and clearing misconceptions / fears if any. Social mobilization utilizes the influencers within the community to convince and instil confidence move refusal or resistant communities / families towards behaviour change. Social mobilization can make a huge difference in reaching out to all the target children.



IPC with community



Using mid-media



Engaging religious leaders



Taking a pledge



Engaging school children



Briefing media

Image 4.10

The frontline workers play the pivotal role in community engagement and it is important to ensure that ANMs, ASHAs, AWWs and community volunteers are well trained before the MR launch. Health workers, if properly trained and informed, can motivate and generate community interest in the UIP and the MR vaccine campaign. They are the main source of information for the general public. It is, therefore, critical to ensure that all ANMs, ASHAs, AWWs and link workers are trained on key aspects of MR, including the four key messages.

Steps for community / social mobilization

1. Preparatory phase

- survey the community listing all educational institutions including government and private schools, crèches, daycare centers, Madarsa, etc.;
- prepare a micro plan including communication plan jointly with ANM / AWW / ASHAs for MR campaign.

2. Mobilization for the MR campaign

- influencer meetings on MR introduction before launch, to facilitate the campaigns in the areas;
- connect with the school authorities with the letter issued by the state / district authorities;
- be part of the orientation sessions for the teachers / influencers;
- make home visits and hand the MR campaign notice / information to the educational institutions;
- mothers' meetings for RI and discussion about MR introduction campaign and address misconceptions and fears;
- facilitate church / temple / mosque / other institution announcements and auto miking a few days prior to date of MR campaign in the place / village.

3. Service delivery

- provide information on the date and venue of the MR campaign
- mobilization of beneficiaries from 9 months till <15years of age for the MR campaign.
- coordinate with staff of the schools / institutions to organise and manage the beneficiaries at the campaign site.
- ensure updating of immunization card with MR vaccination.
- ensure delivery of the four key messages to the relevant beneficiaries after the immunization.

4.3.6 SBCC materials and resources for MR campaign

The following package of electronic and print materials have been developed for MR campaign:

Mass media

- tv / radio spot – 30 sec duration
- miking / mosque announcement
- press advertisement
- tv scroll / tickers



SBCC (IEC / IPC etc.) materials

- poster for the community and a poster for the school;
- banners / hoardings;
- invitation cards;
- a leaflet of key messages for frontline workers, teachers, caregivers, community and religious leaders etc.;
- appeal / request letters to schools, medical officials, professional bodies and to the influencers;
- handbook on MR campaign for the health and frontline workers.

Media

- media kit for training of media personnel
- press release
- leaflet for media

4.3.7 AEFI communication plan

- to effectively handle an AEFI, it is best to be prepared in advance and implement the AEFI protocol. Internal communication is most critical while dealing with any reports on AEFRs, especially in the media. Be ready to respond promptly and effectively in case of occurrence of any AEFI;
- set up a communication plan between the AEFI committee members and those working on the ground. Follow the AEFI media protocol;
 - all ANMs / ASHAs / AWWs and MOs must;
 - be sensitized to recognize and report AEFI promptly;
- know what to do in the event of an AEFI and the location of the nearest AEFI treatment centre;
- share single-page AEFI reference material for ANMs / ASHAs on what to do during an AEFI, whom to contact, etc.;
- organize infection prevention and control training for ANMs and ASHAs on what to say to parents about AEFI during vaccination sessions or during door-to-door IPC;
- ensure district AEFI committee is functional and involved;
- if an AEFI occurs, get information out as quickly as possible. The public needs to know that you share their concerns, that the situation is being investigated and that you will keep them informed;
- for media management, have a trusted spokesperson identified (refer to the media protocol) in advance to deliver messages;
- key messages and possible / draft AEFI responses will have to be developed and approved in advance – to be used by state and district level spokespersons. These will have to be used if and when the media queries arise. The key thing is to give out immediate response according to the timelines given in the AEFI media protocol;
- have a trusted spokesperson identified in advance to deliver messages during an AEFI. This spokesperson may not necessarily be the senior-most person in the district;

- ensure the spokesperson has been trained in media handling. If not, organize training on media-handling skills in advance;
- call partners' meetings and discuss how messaging must be communicated during an unfortunate AEFI;
- demand for information increases from many quarters – be prepared with information;
- coordination is crucial – take charge! Prepare a coordination plan. Constantly update it when people move out of the system and new people come in;
- workload increases – keep advance resources ready to quickly access the resources;
- it is important to publish positive articles on immunization, disease burden and need for vaccines in newspapers and magazines in the form of opinion articles. The state and district experts could be roped in for these;
- the opinion articles (esply on the disease burden) should start appearing well before the launch of the vaccine itself. This will create a positive environment in the media.

4.3.8. Media communication guidelines during AEFI

During an AEFI, the media likes a quick response, accuracy and simplicity, statistics with explanation, context (part of a wider picture), comments or explanation from the highest authority, and multiple sides of the story.

The AEFI committee / immunization programme managers may follow the guidelines given below for effective management of media during a crisis:

- prepare a media database of journalists (print and electronic media) and regularly update;
- identify in advance an appropriate spokesperson and share contact details of spokesperson(s) with all focal points concerned at the district, state and national levels. The spokesperson should have had the media training and should be articulate and technically competent to handle the questions that arise;
- an information package may contain the following documents both in hard copy and electronic files:
- fact sheet FAQs on MR; and
- contact addresses of spokespersons (experts) that media can talk to;
- media release: The draft media release must specifically answer who, what, when, where, why and what action is being taken;

Important AEFI Messages

- benefit of immunization in preventing disease is well proven;
- it is very risky not to immunize (risk of disease and complications);
- before the introduction of vaccines, vaccine-preventable diseases caused millions of death and/or disability. That situation would return without continued use of vaccines;
- AEFI surveillance is primarily child health surveillance. Reporting of AEFRs do not necessarily mean that the vaccine has caused it. AEFRs could occur due to multiple reasons and are investigated by the program thoroughly by various experts at the district, state and national level. Reactions to vaccines are very rare. Medical help is provided to the family immediately;
- we have well-established immunization safety surveillance in place. Immunization safety is very important, and any case which is reported is taken seriously and is investigated;
- all AEFRs are investigated thoroughly. Meanwhile, vaccination must continue to keep the population safe from diseases.



- mention the name and contact details of the spokesperson. The AEFI Committee may also support with information should the journalists have more questions (at the end).
- Note: Measles vaccine has been known to the community and the media but Rubella is a new vaccine. So specific advocacy should be done around it.**

Communications Plan template: MR Introduction					
<i>This communication plan template is intended to offer an outline of the communications activities that should be considered in preparing to introduce MR. The table below should be completed along with a descriptive communications plan as suggested in the accompanying guidance document. Not all types of activities are essential although recommended to support a successful introduction.</i>					
Category of activities	Activities (Examples)	Target audience	Budget for activity	Timeline	Person responsible
1.Coordination: This may include consultation and review meetings with Government and partners and formation of MR Communication Subgroup at the state / district levels.	1.1 Activate MR communication subgroups at state / district level national steering committee (NSC) at national level. 1.2 Organize consultation meetings with Government and partners 1.3 Organize Communication Plan review meetings	National and State level partners.			
2. Adapting materials from english prototypes of Posters and leaflets of key messages for health workers will be provided. States will need to ensure language translations and printing locally.	2.1 Print / adapt relevant communication materials - leaflets, posters, banners, hoardings	Target audience -caregivers / Mothers, -Mothers-in-law, -Grandmothers -Fathers, - Community leaders -Religious leaders -Health workers - Teachers - Media			
3. Issues management (crisis communications) protocol.	3.1 Designate spokespersons for AEFI / Issues Management	Designated spokesperson			
	3.2 Develop standard operating procedures for AEFI / Issues Management				
	3.3 Organize media training for spokesperson				
	3.4 Develop FAQs and Key Message briefs for spokesperson			1 month before launch	

4. Media planning: This section may include a mass media plan, activities and the development of materials (e.g. press release, statement) to effectively deliver key messages through forms of media. This may also include training activities for local journalists to build an understanding and support for immunization.	4.1 Develop Press Release for MR launch introduction	Media		1 month before launch	
	4.2 Adapt the press ad given as part of the package and use to give advertisement in the news paper	Print media			
	4.3 TV / Radio spots developed at the national level to be used in the local channels. Ensure scroll / tickers on the local cable channels	TV / Radio / scrolls			
	4.4 Adapt key message documents and briefing docs for those briefing the media	Subject matter experts		1 month before launch	
	4.5 Organize briefings of journalists	Key journalists including anti-vaccine journalists		1 week before launch	
	4.6 Organize editors round table meetings	influential editors and journalists		1 month before launch	
5. Advocacy and stakeholder engagement: This section may include advocacy activities, events and materials to build the commitment of in-country partners and stakeholders for MR introduction. For any print materials, the budget should reflect production, printing and dissemination costs. For events, the budget should reflect all costs, including those associated with travel and administration.	5.1 Develop advocacy plan				
	5.2 Develop advocacy package with print materials (including FAQs, key messages)				
	5.3 Organize # advocacy events with Parliamentarians	Parliamentary Health Committee members, Officials from Education, WCD, railways, transport department, Professional bodies of IAP, IMA, public sector companies / townships,			
	5.4 Organize # advocacy events with Religious leaders and key influencers	Religious leaders, community elders, music artists, sportspersons, film stars etc.			

6. Capacity building: Trainings for health workers such as ANMs, ASHAs, AWWs, government staff, institutions and community mobilizers. As this applies to MR introduction, opportunities should be considered to strengthen capacity across appropriate areas of routine immunization implementation.	6.1 Training of relevant Government staff and partners in MR campaign	Core C4D team at national and state / district level			
	6.2 Training of health workers in IPC skills	Health workers			
	6.3 Training of social mobilisers in community mapping and IPC skills	social mobilisers and key influencers at community level			
	6.4 Training in crisis communications for designated team at national / provincial / district level	EPI-Communications Team members			
7. Social mobilization: This should include all social mobilization activities and efforts targeted to community leaders, institutions and stakeholder groups who will deliver IPC messages, distribute print materials, and engage with communities in relation to MR introduction.	7.1 Identify NGOs / CBOs operating in underserved communities for social mobilization			2 Months before launch	State / district authorities
	7.2 Develop state and district level social mobilization plan				
	7.3 Organize # of community meetings, focus underserved areas, with a focus on marginalized groups	Caregivers, young men and women in marginalized groups			
	7.4 Organize or leverage public events –rallies, mosque announcements, auto miking, etc. to engage communities	Caregivers, young men and women			
	7.5 house hold visits by the frontline workers and give invitation cards to the families.				
8. Monitoring and Supportive supervision: Include plans and activities for the monitoring and supportive supervision of selected MR communications activities.	8.1 Identify indicators for monitoring based on the micro plans of the community mobilizers and frontline workers: - no of trainings - IPC activities (meetings, etc.) - social mobilization activities (no of influencers, schools involved, oriented)	NGOs Mobilisers, FLW / Health workers			State / district / block authorities and partners
	8.2 Deploy monitors to monitor the campaign including the communication part				
	8.3. Review the plans and provide supportive supervision to the health workers				
	8.4 quality and quantity of the media coverage				

Sample template for block / district communication planning

DISTRICT / BLOCK / PLANNING UNIT / CHC / PHC IEC / BCC MICROPLANNING FORMAT for MR Campaign			
Name of District / Block / Planning Unit / CHC / PHC:	Name of DIO / MOIC:	Name of IEC nodal Officer :	
Type of activity	Quantity (If applicable)	Budget (if applicable)	Timeline from date of MRC
Mass Media Activities			
TV program			
Radio Program			
Newspaper ads			
Scroll / Ticker on Local cable channels			
Twitter, SMS, WhatsApp Messages			
Advocacy and sensitization			
Sensitization with Private practitioners – IAP / IMA members			
Sensitization with heads / principal of public and private schools			
Sensitization of district / Block / Coordination meetings / Convergence meeting of partners at district level			
Media spokespersons training			
Media sensitization workshops			
Capacity building & Advocacy			
IPC training of frontline workers			
Training of teachers			
Orientation of IEC / BCC staff			
Community Mobilization Activities			
Identification of high risk areas & population and develop plans			
Community / Mothers meeting			
Awareness Rallies			
Miking / Drum beating in Communities			
Mosque / Temple / church announcement			
Identification and training of key Influencers			
School painting competition			
IEC Print			
Posters	Community:		
	School:		
Pamphlets / Leaflets - IPC			
Invitation Cards			
Hoardings			
Banners			
Wall paintings			



Prototypes of IEC materials

Guidelines on production and use of IEC prototypes for Measles-Rubella Campaign

These are indicative locations. You may identify additional strategic locations in different areas of your district / block and sites / villages. Seek permission from local municipalities / premise owners / other authorities before displaying. Advice your vendor / poster-pasting-agency strictly not to paste posters on any signage put up by the local municipality that may cause inconvenience to the public.

IEC Material	Use of the IEC	Timeline
Advocacy Letters	<ol style="list-style-type: none"> Print the advocacy letter given in the Operational Guideline for school principals and medical practitioners on department letterheads. (Translate into local language, if necessary.) Attach Information / Message Sheet / FAQ given in the Operational Guideline to the Advocacy letter. 	<ol style="list-style-type: none"> Advocacy letters must reach school principals / medical practitioners at least 4-5 weeks before the campaign start date. Follow up on with the advocacy and planning activities for IEC / BCC.
Posters(@ 5 per MR campaign site) Distribution to FLWs, NGOs, Schools, institutions, through vendors, professional bodies, other departments, (railways, transport, etc) influencers and volunteers	<ol style="list-style-type: none"> District hospital / Pvt. Hospitals CHCs, PHCs, Sub-centres, Anganwadi centre(ICDS) VHND sites School notice boards / main gate / fee counter / prayer ground / classrooms Medical Institutions / other institutions Bus stands (and waiting room) bus shelters Railway stations (and waiting room) District Collector's office District Courts Panchayat Bhawan Market / Mandi area Ration shops (PDS stores) Chemist shops Tea stalls, <i>dhaba</i> 	Should be ready for printing at least 15 days before day of campaign: Display posters at least 10 days before campaign. Repeat where removed or torn at least 2 days before campaign
Hoardings (@ 5 per district) & (@ 1 per block)	<p>To be displayed at places which provide high visibility from far:</p> <ol style="list-style-type: none"> District hospital / Pvt. Hospitals Bus / Railway stations Bus shelters Market / Mandi area Near cinema theatres Panchayat bhawan Village choupal District Collector office District Courts Schools Medical Institutions / other institutions <p>Any other place where people gather in large numbers</p>	Print and display 10 days before campaign begins.
MR campaign session site Banners(@ 2 per site)	<ol style="list-style-type: none"> Market place Bus stand Railway stations Entry roads of villages, at choupals Milk booth, grocery shops <p>Near hospitals and chemist shops</p>	Display 3-4 days before start of campaign date.

Press ads Quarter / half page	English and local language advertisement in State / District level newspapers, magazines, vernacular publications	Release in national newspapers on Campaign Day. Release at least 3 times in local newspapers: 7 days before the campaign date; 3 days before campaign date; and on campaign day
Information / Message leaflets	<ol style="list-style-type: none"> 1. Translate into local language and print in bulk. 2. Distribute to children in schools and institutions where children collect. 3. Distribute to parents during parent-teacher meetings. 4. Distribute to parents in hospitals. 5. Keep in chemist shops, local grocery stores, milk booths, panchayat bhawan, etc with instructions to shopkeepers to distribute to parents. 	<ol style="list-style-type: none"> 1. Printed copies should be ready for distribution at least 15-20 days before distribution begins. 2. Start distribution at least 10 days before the campaign dates and continue through the campaign period.
Media kit for pre-during and post engagement on MR campaign	<ul style="list-style-type: none"> - At the state launch of the MR campaign - Media at state / district / local level to be engaged 	<p>Translated media kit template must reach SIO / DIO and IEC official responsible for local media engagement three weeks before the launch.</p> <p>To be tailored as per local requirements into print, radio and audiovisual formats.</p> <p>Knowledge base to be developed in local languages and made easily available to media.</p>
Scroll / Tickers	<ul style="list-style-type: none"> - To be used in the local TV channels to promote MR campaign information 	3-4 days before and during the campaign weeks
SMS	<ul style="list-style-type: none"> - In partnership with the mobile service providers, mass SMS can be sent to the caregivers 	1-2 days before the campaign
Tweets / Facebook page	<ul style="list-style-type: none"> - Social media through Twitter and Facebook 	Through the campaign period, posting the snippets / pictures of the campaign on the facebook.



Prototypes of MR IEC materials					
Banner / hoarding					
Key Message leaflets					
FLW	Teachers	Caregivers	Community leaders	Drum beating	
					
Poster for the community	Poster for school	Poster for the session site			
					
Invitation and vaccination card for MR campaign	<p>To be distributed to all eligible children in Communities To be distributed to all students in schools</p>				
TV Scroll / ticker					

Image 4.11

4.4 COLD CHAIN AND VACCINE MANAGEMENT

4.4.1 Ensuring effective vaccine logistics

Logistics planned well in advance are critical to the success of the MR Campaign. The major steps in ensuring excellent logistics during an immunization campaign are as follows:

- order vaccines in advance;
- make a written distribution plan from PHC to session sites. The plan should include;
 - specified responsible person at each post;
 - specify when and how supplies will be distributed and returned;
 - return of unused vaccines in reverse cold chain;
 - return of injection wastes from session sites and their disposal as per CPCB norms.
- pay particular attention to logistics needs for HRAs / Ps;
- ensure that vaccine and diluent are from same manufacturer, and that AD syringes, reconstitution syringes and injection safety equipment are always distributed together in matching quantities.

4.4.2 Maintaining the cold chain system

MR vaccine can be stored in either ILRs or deep freezers (DFs). In general, MR vaccine should be stored in a walk-in cooler (WIC) or ILR at +2°C to +8°C temperature. If there is shortage of ILR space, MR vaccine can be stored in a walk-in freezer (WIF) or DF only for campaign activity. However, diluents should never be stored in a freezer or in minus temperatures because of threat of micro cracks in the ampoule and thus risk of contamination. Diluent ampoules can be stored in ambient temperature until the day before the actual campaigns starts. To optimally utilize cold chain space, only the diluents that will be used for the forthcoming session will have to be stored in ILR for at least 24 h before session timing to match their temperature with vaccine during reconstitution.



Image 4.12

4.4.3 Estimation of cold space

During the supplementary immunization activities, a substantially larger cold chain capacity is needed than for RI activities.

Volume of cold chain space available for vaccine supplies for MR campaign = total available cold chain space minus estimated volume of space required for RI services.

This requires an updated inventory of the working cold chain equipment available, and a review of the cold space provided by each type of equipment. If MR vaccine is delivered in 10-dose vials, every 384 doses of vaccine require approximately 1 L of storage space, stored in the secondary packing; and 384 diluent doses will occupy another 1 L of cold chain space (based on 2.6 cm³ volume per dose of MR vaccine / diluents).

At the district level, cold chain space will mainly be utilized for storing vaccines. At the sub-district level (block / PHC), cold chain space will be needed for freezing ice packs and storing vaccines and diluents. With current cold chain infrastructure, storage space for vaccine (routine and campaign) will not be a big problem at sub-district levels (block / PHC), but there may be constraints at district level.

In case of inadequate space, vaccine can be supplied in multiple supply cycles. Since activity may spread over nearly 4 weeks, vaccines can be supplied in aliquots (50% before activity, 25% at the end of the first week and 25% at the end of the second week) if there is a constraint of cold space.

Example:

If 10-dose MR vaccine vials are delivered (1 L space can store 384 doses in secondary packing):

- **1 small ILR with net vaccine storage volume of 45 L can store 17 280 doses of MR vaccine without diluents (1728 10-dose vials) which is adequate for immunizing 15 568 children (WMF = 1.11);**
- **1 large ILR with net vaccine storage volume of 108 L can store 41 472 doses of MR vaccine without diluents (4147 10-dose vials) which is adequate for immunizing 37 362 children (WMF = 1.11).**

Contingency measures for vaccine storage:

At all levels of cold chain points / vaccine stores, in case of shortage of cold chain space in ILRs for storing MR vaccines, following options may be explored in advance.

- deep freezers
- cold boxes
- ice-factory
- private cold storage facilities
- vaccine vans can also act as temporary storage

Example 1:

Cold chain space need for a District of 20 lakh population (Considering 3 months storage of routine vaccines including buffer stock and lead time etc., that comes to 2.75 months of net storage space).

With birth rate of 25/1000 and number of estimated infant to be immunized annually 50,000 for **Routine Immunization in the district (Example if 10 dose MR vaccine is delivered)**:

- total number of children to be immunized every month i.e. $50,000/12=4167$;
- for every child to be fully immunized cold chain space need is 63.9 cubic cm (cm^3);
- cold chain space needed for maximum stock (2.75 months) is $63.9*4167/1000 *2.75 = 732$ liters,

MR Campaign (Example: target calculation based on the best estimates available in district)

- age group for MR campaign is 9 months to <15 years which is less than a third of the net population;
- as an example: Total children to be immunized with MR vaccine ie. $2000000 * \frac{30}{100} = \sim 6,00,000$;
- vaccine doses required = $600,000 * 1.11$ (WMF) = $\sim 6,66,000$;
- total cold chain space needed (in liters) for storage of MR campaign vaccine (2.6 cm^3 per dose): $666000 * 2.6 / 1000 = 1732$ litres;
- hence total cold chain capacity requirement in district including RI and MR Vaccination Campaign : 732 liters + 1732 liters = 2464 liters (vaccine alone).

This is equivalent to 23 large ILRs, each of 108 liters net storage capacity (combined storage)

Or

12 large Deep Freezer of 200 litres net vaccine storage capacity for MR vaccine only.

Options: To optimally utilize cold chain space, distribute vaccines and diluents (50-100%) from district store to Blocks and PHCs immediately.

Note: if 10 doses MR vial are used, will require nearly half of cold chain space for campaign vaccines as compared to traditional 5 dose measles vaccine supplied under UIP.



Example 2:

Cold chain space needed for a block PHC of 1 lakh population (considering 1 month's storage of routine vaccine, with a birth rate of 25/1000 and estimated infant population of 2500) for RI.

Example if 10-dose MR vaccine is delivered:

- total number of children to be immunized every month = $2500/12 = \sim 210$;
- for every child to be fully immunized, cold chain space needed is ~ 90.8 cubic cm and total cold chain space need is $90.8 \times 210/1000 = \sim 19$ L.

MR Campaign (As an example target children should be based on best estimates available in PHC)

- age group for MR Vaccination Campaign is 9 months to <15 years;
- as an example: Assuming $\sim 30\%$ of the total population, net children to be immunized with MR vaccine is $100\ 000 \times \sim 30/100 = \sim 30\ 000$;
- vaccine doses required = $\sim 30\ 000 \times 1.11$ (WMF) = $\sim 33\ 300$;
- total cold chain space need (in L) for storage of MR vaccine (2.6 cubic cm per dose) =
- $\sim 33\ 300 \times 2.6/1000 = \sim 87$ L.

Hence total cold chain capacity requirement in a PHC including RI and MR campaign = 19 L + 87 L = 106 L

Three small ILRs of 45 L net capacity or 1 large ILR of 108 L net capacity is adequate for both routine and MR Campaign in the block.

Note: Storage for diluent one day requirement must be taken into consideration. As per guideline that diluent must be stored in the cold chain at least 24 hours before start of the vaccination session.

Specifications of cold chain equipment

Equipment	Temperature	Storage Capacity	Holdover Time
Electrical			
Deep Freezer (Large)	-15°C to -25°C	Ice packs or OPV stock for 3 months (275 to 300 Litres)	At 43°C for 2 hrs 30 mins (minimum)
ILR (Large)	+2°C to +8°C	BCG, OPV, IPV, RVV, TT, Measles / MR, Hep-B, Penta, IPV, Vaccine stock for 3 months (135 to 160 litres)	At 43°C for 2 hrs (minimum)
Deep Freezer (Small)	-125°C to -25°C	Ice packs (105 to 125 litres)	At 43°C for 2 hrs 30 mins (minimum)
ILR (Small)	+2°C to +8°C	BCG, OPV, IPV, RVV, DPT, TT, Measles / MR, Hep-B vaccine stocks for one month (90-105 litres)	At 43°C for 20 hrs (minimum)
Non-electrical			
Cold Box (Large)	+2°C to +8°C	All vaccines stored for transport or in case of power failure (20 to 25 litres)	At 43°C for 96 hrs (minimum)
Cold Box (Small)	+2°C to +8°C	All vaccines stored for transport or in case of power failure. (5 to 8 litres)	At 43°C for 48 hrs (minimum)
Vaccine carrier (1.7 litres)	+2°C to +8°C	All vaccines carried for 12 hours (4 conditioned Ice packs & 16-20 vials)	At 43°C for 36 Hrs. (minimum)

Storing vaccines in ILR

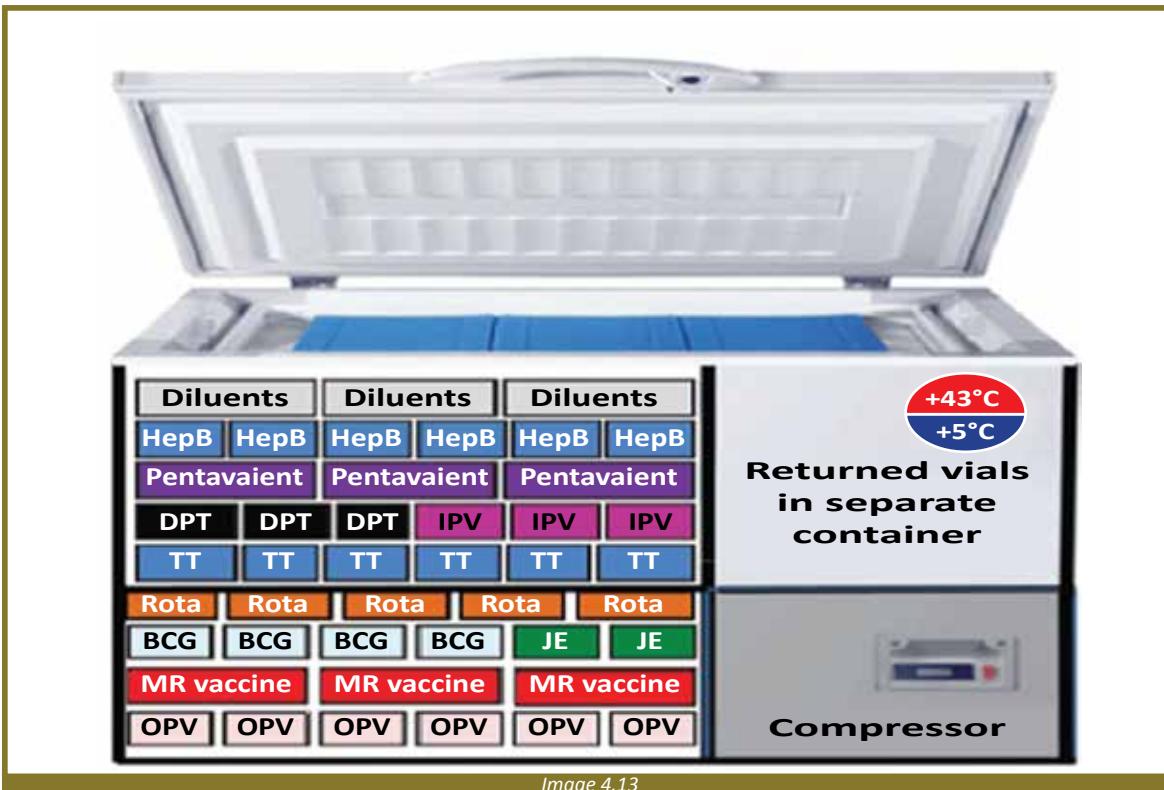


Image 4.13

Placement of vaccines at session site

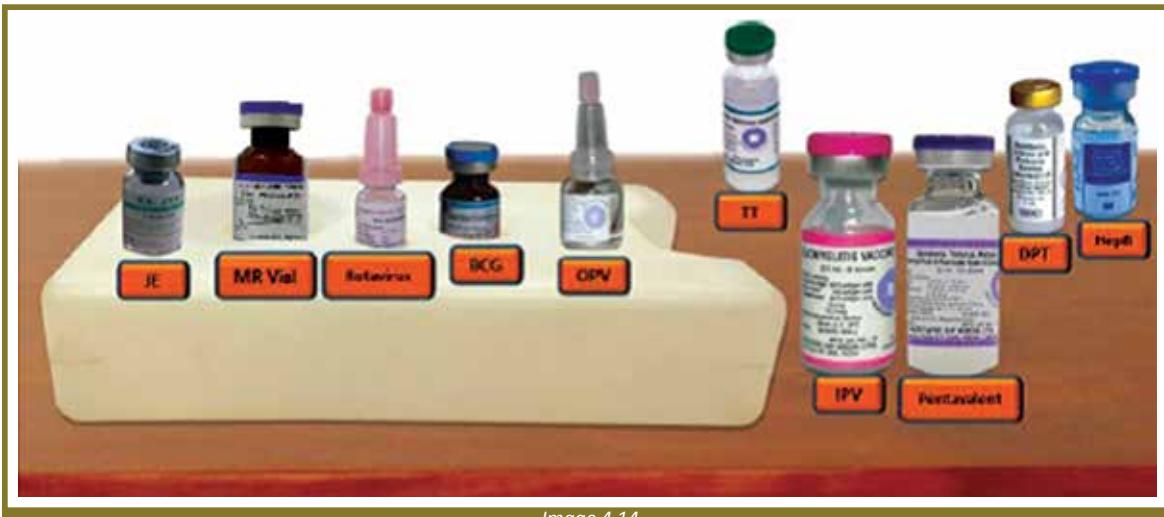
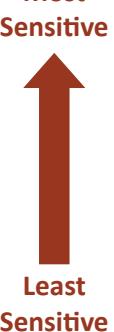


Image 4.14

Sensitivity of vaccines to heat, light and freezing

Vaccinee	Exposure To heat / light	Exposure to cold
Heat and light sensitive vaccines		
OPV	Sensitive to heat	Not damaged by freezing
Measles / MR	Sensitive to heat and light	Not damaged by freezing
BCG, RVV and JE	Relatively heat stable, but sensitive to light	Not damaged by freezing
Freeze sensitive vaccines		
HepB / Penta	Relatively heat stable	Freezes at -0.5°C (Should not be frozen)
IPV, DPT and TT	Relatively heat stable	Freezes at -3°C (Should not be frozen)
AT the PHC Level, all vaccines are kept in the ILR for a period of one month at temperature of +2°C to +8°C		
Vaccines sensitive to heat <ul style="list-style-type: none"> ■ BCG (after reconstitution) ■ OPV ■ IPV ■ Measles, MR ■ Rotavirus ■ JE ■ DPT ■ BCG (before reconstitution) ■ TT, ■ Penta, HepB 		Vaccines sensitive to freezing <ul style="list-style-type: none"> ■ HepB ■ Penta ■ IPV ■ DPT ■ TT
		

REMEMBER:

- each level needs to calculate storage space requirement and compare with present (operational) capacity, deducting space for airflow;
- calculation of cold chain capacity is mandatory along with a plan on how to substitute for shortages of capacity. If capacity (due to malfunctioning or any other reasons) is not sufficient, this needs to be reported during the planning meetings;
- if shortage of cold chain materials cannot be completely substituted from the national/ state level, solutions must be found locally with partners, or shifting around of equipment within the district must be considered;
- vaccine presentation and package will define your cold space required. 10-dose MR vaccine vials + diluents will require half the storage space than when 5-dose traditional measles vaccine vials were used.

4.4.5 Icepack requirements

Sufficient icepacks should be available for transporting the vaccines to the field and keeping the vaccines and diluents cool during the day. To sufficiently freeze icepacks, the icepacks need to be kept in the freezer for a minimum of 24 h.

Vaccines carriers require 4 icepacks each and each team will need 2 vaccine carriers, i.e. 8 icepacks per vaccinator per day initially and at least one replacement set (4 ice packs) during the day.

Daily ice pack requirement = No. of vaccinators x 8 icepacks + replacement set of 4 icepacks = 12 icepacks
 Additional ice packs for supervisors = No of supervisors x 4 + replacement set of 4 icepacks = 8 icepacks and cold boxes = 20 to 40 icepacks per load

Total ice pack requirement (freezing cycle) = Daily icepack requirement x 3

EXAMPLE:

A PHC has 6 teams with 6 vaccinators. Each vaccinator requires 2 vaccine carriers with 4 icepacks each plus 4 replacement icepacks for 1 day of activity. The total requirement for 1 day at the PHC is

- 6 vaccinators x 12 = 72 ice packs
- 2 Supervisors x 8 = 16 ice packs
- Additional icepacks for cold boxes for storage and transportation of vaccine and diluents = 40

Total icepack requirement for PHC (including freezing cycle): $(72 + 16 + 40) \times 3 = 384$

Additional icepacks are required to transport vaccines from state to districts and from districts to block / health centre level.



Freezing Ice-packs in the Deep Freezer

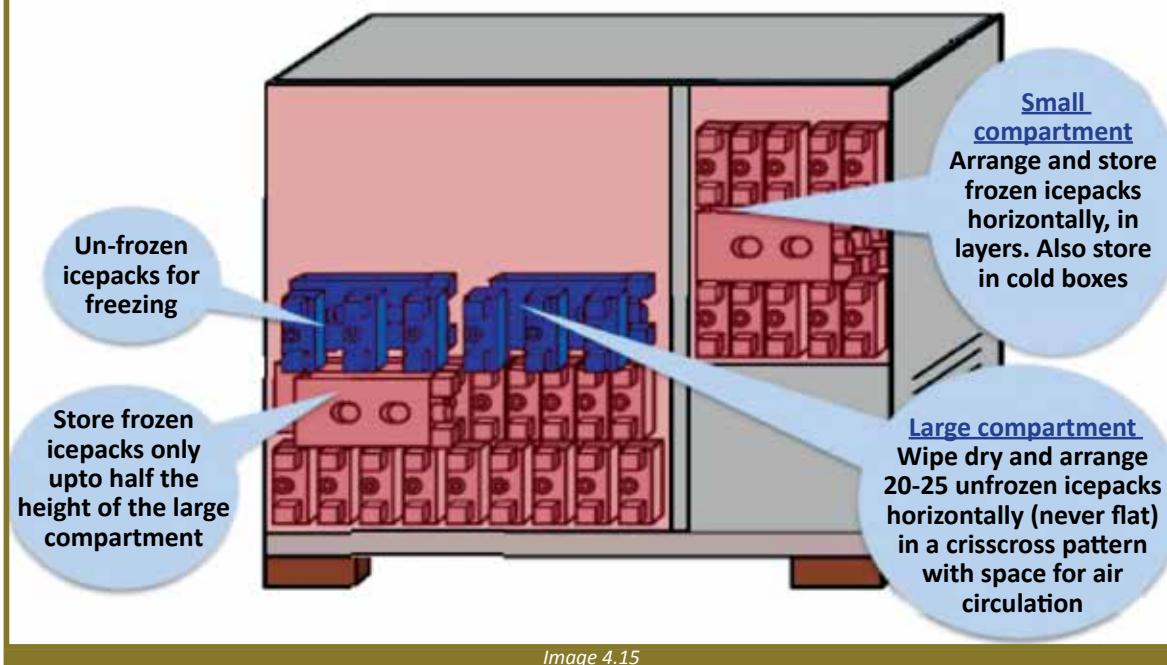


Image 4.15

Freezer capacity is needed to have required number of adequately frozen icepacks. The number of icepacks that each equipment can freeze is detailed below.

Table 4.4.1: Freezing and storage capacities of icepacks for deep freezers

Manufacturer	Type	Model	Net Storage capacity (in L)	Icepack freezing capacity	Icepack storage capacity
Haier	DF –large	HBD-286	200	39	350
Vest frost	DF –large	MF-314	264	60	380
Haier	DF –small	HBD-116	80	18	140
Vest frost	DF –small	MF -114	72	25	130

Table 4.4.2: Net vaccine storage volume of electrical and non-electrical cold chain equipment of different makes

Net storage capacity, using MR 10-dose vials (1 L of storage space can take 384 doses of 10-dose MR vaccine)

Cold chain equipment	Storage vol. (in L)	Vaccine storage capacity (No. of dosages)	No. of vials that can be stored without diluents
ILR-small	45	17 280	1728
ILR – large	108	41 472	4148
DF – small	72	27 648	2765
DF – large	213	81 792	8180
WIC – small (16 m ³)	6930	2 661 120	266 112
WIC – large (32 m ³)	13 440	5 160 960	516 096

Cold chain equipment	Storage vol. (in L)	Vaccine storage capacity (No. of dosages)	No. of vials that can be stored without diluents
Cold box – large	20.7	7949	795
Cold box – small	6.5	2496	250
Vaccine carrier	1	384	38*

* Vaccine carrier can contain up to 19 vials of vaccines and diluents each

4.4.6 Maintaining the cold chain from central store to health facilities

Cold boxes

In the absence of adequate ILRs or DFs, cold boxes can be used for storage of vaccines during a short period (2–7 days). Cold boxes can also be used for keeping diluents cool 24 h before vaccination if adequate space is not available in the ILR.

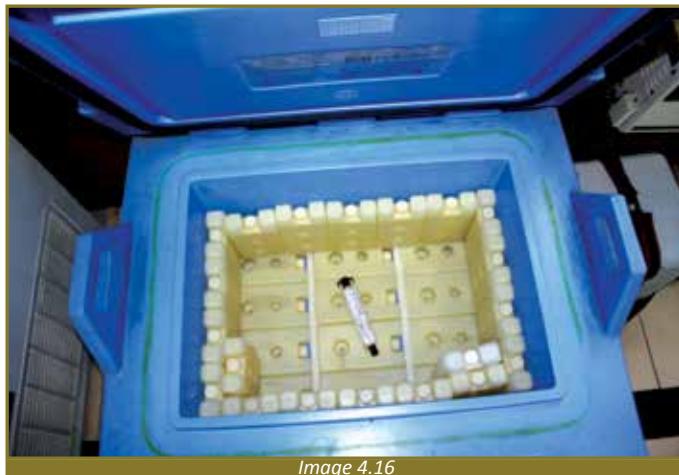


Image 4.16

Vaccine carrier packing

Only standard vaccine carriers with four icepacks should be used by vaccination teams during MR campaigns. Ensure that vaccines and diluents are kept cool during the whole day; replace melted icepacks immediately.

In theory, one can load 38 MR vials (10-dose) in one large vaccine carrier with 1 L net storage capacity. Take into account, however, that if using 10-dose vials, this represents in theory 384 doses (packed in secondary packing). Cold chain and logistic managers need to carefully plan how to load the vaccine carriers, taking into account the presentation of the vaccine vial and the target children to be vaccinated that day. (Note that by removing the secondary packing, more vials can be loaded but then the risk exists that vials can be broken easier by pressure of one vial against the other. Note also that it is a good practice to always keep a bit of a margin by loading a slightly more number of vials than the target for that day.

As an example, in school vaccination, target for the day is 200 children = 222 doses needed:

- using 10-dose MR vials:
 - vaccine carrier 1 can be loaded with 24 vials MR vaccine (240 doses) or 12 vials of MR vaccine (120 doses) and 12 vials diluents;
 - vaccine carrier 2 can be loaded with 24 vials of diluents or 12 vials of MR (120 doses) and 12 vials diluents.

During packing, a vaccine carrier puts the diluents with paper packing box or original blister packs at the centre of the vaccine carrier and vaccine vials around it. This is to avoid diluent ampoules from coming in direct contact with frozen icepacks.

Figure 6.1: Vaccine vials in zip lock bags**Figure 6.2: Diluents in blister packs above vaccine vials**

Image 4.17

Maintaining cold chain during vaccination session

- MR vaccine is very sensitive to heat and sunlight. Never expose the vaccine carrier, the vaccine vial or icepack to direct sunlight;
- all vaccines and diluents should be kept inside the vaccine carrier with the lid closed until a child comes to the centre for vaccination;
- the vaccine vial monitor (VVM) on the cap of the vaccine vial indicates whether the vaccine is usable or not. Keep the vaccines always in a zip lock plastic bag away from water to protect the labels and the VVM;
- at the time of reconstitution, the diluents must have the same temperature as of the vaccine. Ideally, diluents are kept in the cold chain 24 h prior to reconstitution;
- MR vaccine becomes more sensitive to heat after reconstitution. Reconstituted vaccine must be kept between +2 to +8 °C, away from sunlight and must be discarded 4 h after reconstitution or at the end of the session, whichever is earlier;
- the vaccinator should take out one ice pack from the second vaccine carrier (with smaller stock) to keep one vial of reconstituted vaccine in the well of the ice pack. Once the ice pack melts fully, it should be replaced with a fresh conditioned ice pack from the same vaccine carrier;
- once the reconstituted vial is finished, the next vial should be taken out of the vaccine carrier for reconstitution only after arrival of another child in the vaccination session site or if a child is waiting for vaccination;
- at the end of the session, the vaccine carrier with all icepacks, unopened vaccine vials and diluents inside, should be sent back to the concerned cold chain point (vaccine distribution centre);
- intact sealed vials returned on the previous day should be clearly marked and kept separately in the ILR on the top layer so that these will be the first to be used on the following day.



The vaccine vial monitor says...	
Usable Stage	
	✓ The inner square is lighter than the outer circle. If the expiry date has not passed, USE the vaccine.
	✓ At a later time the Inner square is still lighter than the outer circle. If the expiry date has not passed, USE the vaccine
	✗ Discard point: the colour of the inner square matches that of the outer circle. DO NOT use the vaccine.
	✗ Beyond the discard point the inner square is darker than the outer circle. DO NOT use the vaccine

NB: for measles vaccine, the VMM only indicates the at exposure of the dry vaccine; not after reconstitution.

Image 4.18

Ensuring adequate supplies and cold chain space for storing vaccines

- supplies of vaccines should match the available cold chain capacity at state / district / block level;
- readiness of the functional cold chain system to receive the stocks is required through repair and maintenance of the existing cold chain equipment, i.e. WICs, WIFs, DFs, ILRs and stabilizers at all levels. Training of the cold chain handlers on cold chain and vaccine management should be ensured;
- while distributing the vaccines and logistics from the SEPIO to the districts, oversight is needed. Supply quantities should be based on the beneficiary estimates per planning template and not on basis of the demand by the districts;
- in the states where phasing is planned, the districts which have completed the first phase should send the residual stock to the state for redistribution to other districts;
- redistribution of vaccine stock during activity, both intra-state and within districts and blocks / PHCs based on requirement will be essential to minimize vaccine wastage.

How to reduce vaccine wastage and improve vaccine management

Following are REMINDERS on how to reduce wastage of vaccines:

During transport / storage / distribution

- assure adequate transport means and adequate transport boxes;
- keep MR vaccines in their original packaging as much as possible;
- always keep the MR vaccines at the correct temperature;
- store vaccines in cold chain equipment supplied under the immunization programme and do not store any other item except UIP vaccines;
- always check expiry date and VVM and use the EEFO principle or VVM highest heat exposure.

During vaccination sessions

- never reconstitute different MR vaccine vials at the same time;
- never pre-fill any large amount of syringes;
- never expose a reconstituted MR vaccine vial to direct sunlight;
- use all vaccine contents in a vial before opening a new vial.

VACCINES COST MONEY AND SAVE LIVES... DON'T WASTE THEM

Key points

- additional cold chain space will be required for MR vaccine, diluents and ice pack freezing;
- 10-dose MR vaccine vials will take half the cold-chain space, as compared to 5-dose measles vaccine vials used at present;
- at district level, cold chain space will be used mainly for vaccine storage; at sub-district level, cold chain space will be needed for both vaccine and diluent storage and for ice pack freezing;
- MR vaccine can be stored in either ILRs or DFs, if required, for the duration of MR campaign;
- diluents must only be stored in ILR. To conserve cold chain space, only one day's supply of diluents can be kept in ILR;
- if the district has a WIC for the division/region then it can be used for storage of MR vaccine with separate documentation;
- as activity will take place within 3–4 weeks, district level stores can supply vaccines and diluents to district and sub-district level stores in 2–3 supply cycles (50% – 25% – 25%);
- ice pack requirement including freezing cycle = ice pack required for a day \times 3;
- rational vaccine stock management at every stage through constant oversight by SEPIO, DIO and BMO at state, district and block/PHC level, respectively will be highly critical for minimizing vaccine wastage.

4.5 SAFE IMMUNIZATION PRACTICES

4.5.1 Safe immunization practices

Lessons learnt from previous vaccination campaigns show that errors are still being made in managing vaccines and diluents, reconstitution of the vaccine and injection practices. These errors can lead to minor and serious AEFIs and must be avoided at all cost.

Steps which will prevent immunization errors with MR vaccine are enumerated in succeeding paragraphs.

Before reconstitution

- check expiry date and VVM on seal of vaccine vial. Do not use if VVM is not in usable stage or if vaccine has expired;
- check expiry date on diluent ampoule. Do not use if diluent has expired;
- check that both diluent and vaccine have been supplied together, are from the same manufacturer and the label on the diluent vial states that the diluent is for MR vaccine;
- check that both diluent and vaccine vials are free from visible dirt outside and that no extraneous particles are visible inside either vaccine or diluent vials;
- check that cold chain has been maintained for both vaccine and diluent and both are at the same temperature.

During reconstitution

- reconstitute only one vial at a time;
- use a new reconstitution syringe (5 ml) to reconstitute each vial of vaccine, maintaining full aseptic precautions. Do not use the same syringe to reconstitute vaccine in another vial;
- use full amount of diluent in the ampoule to reconstitute the MR vaccine vial;
- do not touch the needle or rubber cap during reconstitution;
- after reconstitution, the vial should not be rolled between the palms. The vial should be shaken gently upside down a few times, holding the neck for mixing appropriately;
- record the time of reconstitution on MR vaccine vial label;
- use only AD syringe to administer vaccine to every child;
- do not withdraw vaccine from vial to pre-fill AD syringes.

After reconstitution

- always keep reconstituted vaccine in one of the wells in the conditioned ice pack to maintain temperature at +2 to +8 °C;
- never use reconstituted MR vaccine beyond 4 h after reconstitution. Using MR vaccine beyond 4 h after reconstitution may result in toxic shock syndrome (TSS), leading to death;
- never carry and use reconstituted vaccine from one session site to another;
- reconstituted vaccine must be discarded immediately if:
 - there is any suspicion that the opened vial has been contaminated, such as any visible dirt in the vial, the vial dropped on the ground, accidentally touching the rubber cap, and contact with water;



- the cold chain has not been maintained at any point prior to administering the vaccine to the child;
- there is visible evidence of contamination, such as change in appearance and floating particles, which means that the cold chain is obviously broken.

Fig. 4.5.1: Angle for subcutaneous injection Fig. 4.5.2: Holding the child properly



Image 4.19

Ensuring injection safety

As in routine service, all vaccinators will use only AD syringes during the MR campaign. These syringes prevent person-to-person transmission of blood-borne pathogens. Remember:

- use a new sterile packed AD syringe for each injection for each child;
- use the same syringe to draw and administer the vaccine;
- do not pre-fill syringes;
- do not attempt to recap the needle. This practice can lead to needle-stick injuries;
- immediately after injecting the child, the AD syringe must be cut from the hub (plastic part at base of needle) using the hub cutter, and cut part of the syringe put in the red bag. Do not put the syringes on the table or on a tray after the injection;
- do not use AD syringes that have damaged packaging, or have passed the manufacturer expiry date;
- wash your hands with soap before and after the vaccination session.

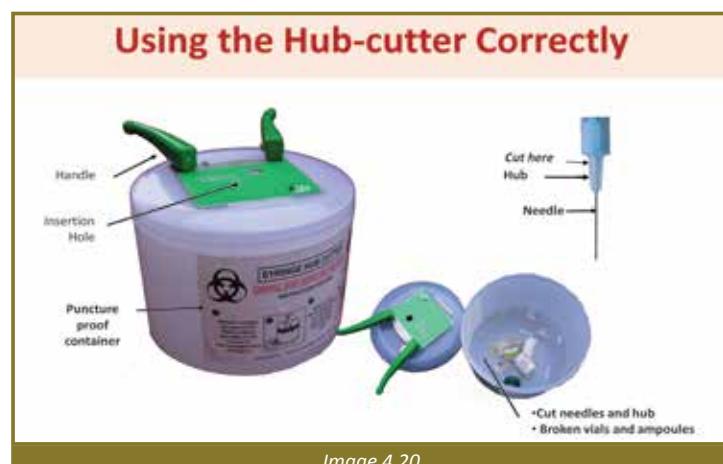
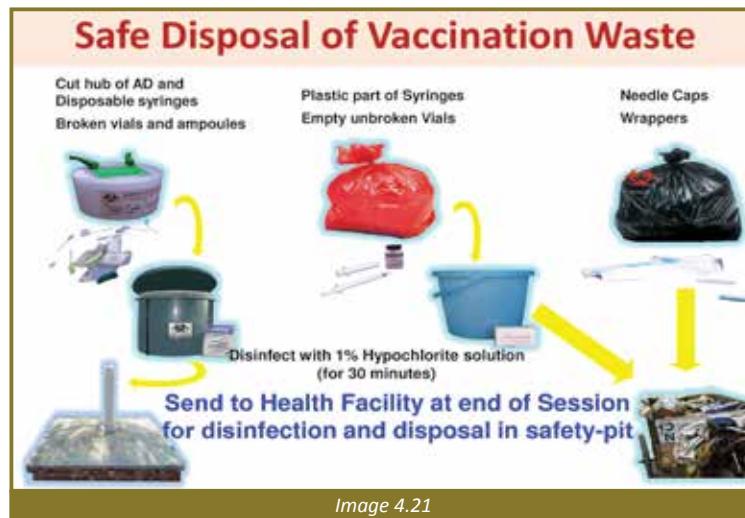


Image 4.20

Safe disposal of injection waste

- cut the hub of the AD syringe immediately after administering the injection using the hub cutter;
- the cut needles will get collected in the puncture-proof translucent container of the hub cutter;
- store broken vials in the same hub cutter;
- segregate and store the plastic portion of the cut syringes and unbroken (but discarded) vials in the red bag;
- all other non-infectious wastes will go into black bag;
- carry the immunization waste generated in the outreach sessions and hand these over to the PHC for further disposal;
- wash the containers properly for re-use.



Returning used and unused supplies

All vials (used, unused and partially used) must be returned through Alternate Vaccine Delivery (AVD) to the vaccine distribution / ILR point. Supplies that remain unused at the end of session, including unopened vaccines and diluents, should be returned to the centre from where they were distributed (PHC / UHC) maintaining a reverse cold chain for the vaccine. Completed and signed tally form should also be returned with vaccine carrier. It is important to ensure the following:

- returned unopened vials must be properly marked and stored immediately at the correct temperature;
- on the next day, these marked vials must be supplied and used first;
- ensure that all used reconstituted MR vaccines are discarded at the end of the day and kept in a separate zip lock bag to return back to ILR point;
- always keep both used and reconstituted MR vaccine returned from the field separately contained in a zip lock bag / box with proper cold chain till the next session or 48 hours whichever earlier.

4.6 Managing adverse events following immunization

Programme managers and implementers of the MR campaign must plan in advance to prevent and minimize AEFIs and be ready to respond promptly and effectively in case of occurrence of any AEFI.

Definition

An AEFI is any untoward medical occurrence which follows immunization and which does not necessarily have a causal relationship with the usage of the vaccine. The adverse event may be any unfavourable or unintended sign, abnormal laboratory finding, symptom or disease.

Occurrence of an AEFI does not necessarily imply that the vaccine is the cause of the adverse event. (For details please see AEFI Surveillance and Response to Operational Guidelines – 2015, Government of India).

AEFI during MR campaigns

Live attenuated MR vaccines currently in use have an excellent track record for safety and efficacy. However, a few children may experience some adverse events from MR vaccine as listed in below table 4.6.1. Fortunately, most adverse effects are minor and transient (local reaction, fever, rash) with no long-term sequelae. One serious but extremely rare adverse effect of MR vaccine is anaphylaxis following vaccination.

During a MR campaign, AEFIs must be rapidly detected and promptly responded to or else it can undermine confidence in the vaccine and immunization programme. This will ultimately have a negative impact on immunization programme and the objectives of MR campaign (high coverage and mortality reduction) will not be achieved.

Programme managers should be aware of the following:

- a MR campaign involves a large number of doses given over a short period of time. As the number of MR vaccine doses administered will be far above than that administered in RI in a year, this may lead to increase in absolute numbers of reported AEFI cases. However, the rate of these events per dose administered will not increase;
- immunization errors which might lead to AEFI must be prevented at all costs through intensified training and adherence to proper vaccine / diluent handling and injection practices;
- interactions with media are of crucial importance in managing the media repercussions of serious AEFIs. A separate media plan should be in place beforehand. Please refer to Section 4.3 on SBCC (IEC / IPC etc.).



Image 4.22

Table 4.6.1: List of AEFIs that may occur following MR vaccination #

Reaction*	Onset interval	Adverse reactions: case to dose ratio	Adverse reactions: incidence (%) or per million doses
Local reaction at injection site	0–2 days	1 in 10	(10%)
Fever	6–12 days	1 in 6 to 1 in 20	(5–15%)
Rash	6–12 days	1 in 20	(5%)
Febrile seizures **	6–12 days	1 in 3000	330
Thrombocytopenia (low platelet count)	15–35 days	1 in 30 000	30
Anaphylactic reaction (severe hypersensitivity reaction)	0–2 h	1 in 100 000	10
Anaphylaxis	0–1 h	1 in 1 000 000	1
Encephalopathy	6–12 days	<1 in 1 000 000	<1

* Reactions, (except local reactions and anaphylaxis) do not occur if already immune.

** Seizure risk is age-dependent and lower for older children. Children over 6 years are unlikely to have febrile seizures.

Source: World Health Organization. Mass MR immunization campaigns: reporting and investigating adverse events following immunization (Revision May 2002). Geneva: Immunization Safety Priority Project, Vaccine Assessment and Monitoring, Vaccines and Biologicals, WHO; 2002.

The risk of complications from natural MR infection and disease is much higher than the risk of AEFI after vaccination as shown in Table 4.5.2. This is a powerful advocacy tool for programme managers.

Table 4.6.2: Risk of complications after natural measles infection and selected AEFI after MR vaccination*

Complications	Risk after natural disease # (events / nb. of cases)	Risk after vaccination (events / nb. of doses)
Otitis media (middle ear infection)	7–9% of cases	0
Pneumonia	1–6%	0
Diarrhoea	6%	0
Post-infectious encephalomyelitis	0.5–1 / 1000 cases	1 / 1 000 000 doses
SSPE	1 / 100 000	0

* Source: Pless RP, Bentsi Enchill AD, Duclos P. Monitoring vaccine safety during measles mass immunization campaigns: Clinical and programmatic issues. J Infect Dis 187 Suppl 1. 2003; S291–8.

Risk as measured in developed countries. Risk likely higher in developing countries.



AEFI due to immunization errors

AEFI due to immunization errors are by definition caused by an error in vaccine preparation, handling or administration. This is not due to the vaccine per se, but due to human error and must be prevented at all costs through intensive training and by following safe injection practices. Two common causes of AEFI due to immunization error with MR vaccine are the use of wrong diluents and using reconstituted vaccine beyond the recommended time of 4 hours (Table 4.6.3).

Table 4.6.3: Immunization errors leading to adverse events

Immunization errors	Adverse event
Vaccine prepared incorrectly	
Vaccine reconstituted with incorrect diluent or with drugs substituted for vaccine or diluent, e.g. muscle relaxant, insulin	Effect of drug, e.g. muscle relaxant, insulin can even result in death
Non-sterile injection	
Improperly sterilized syringe or needle Contaminated vaccine or diluent	Infection, e.g. local suppuration at injection site, abscess, cellulitis, transmission of blood borne virus—HIV, hepatitis B or hepatitis C
Reuse of reconstituted vaccine at subsequent session	Systemic infection, sepsis, TSS

AEFI monitoring and management plan during MR campaigns

SOPs have been laid out by the GoI for responding to AEFI (AEFI Surveillance and Response Operational Guidelines, 2015) and they should be followed during the MR campaign. During MR Vaccination Campaign, AEFI detection, management and reporting should be done according to the following protocol.

AEFI surveillance during campaign

- all ANMs / ASHAs / AWWs and MOs must be sensitized to recognize and report AEFIs promptly. They must know what to do in the event of an AEFI and the location of the nearest AEFI treatment centre. All AEFIs (Minor / Serious / Severe) should be recorded by ANM in the block AEFI register.
- the District AEFI Committee must be informed and involved from the beginning of the campaign;
- the District AEFI Committee will investigate all reported serious / severe AEFIs and also contribute to managing the media during crises and otherwise;

AEFI management centres

- during the MR campaign, every Government health facility from the PHC level upwards which has at least one MO posted will function as an AEFI management site;
- in addition, BMO in consultation with CMO will explore the possibility of setting up AEFI management centres in the clinics of physicians in the private sector or other government

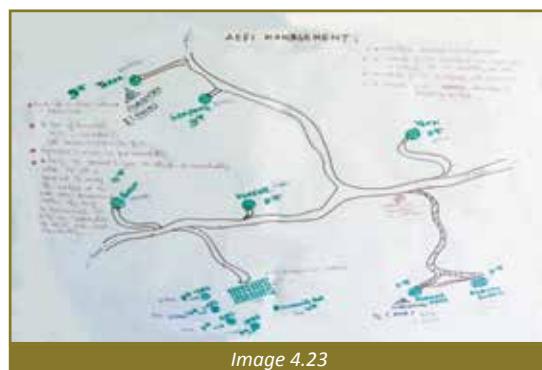


Image 4.23

departments. Such AEFI management sites should be geographically dispersed within the block so that in the event of an AEFI the child can be taken to the nearest AEFI management centre quickly;

- all such AEFI management centres should be listed out in the micro-plan with telephone number and addresses and all vaccinators and supervisors must know the contact details of the nearest AEFI centre from their area of activity for that day. This must be part of the micro-plan;
- all clinicians at the block level (block PHC and PHC), district level (district hospitals and sub-divisional hospitals) and the designated clinicians in the AEFI management centres in the private sector will be trained in standard AEFI management and reporting procedures;
- all MOs acting as supervisors will carry an emergency AEFI management kit;
- all AEFI management centres will be provided with AEFI treatment kits and AEFI reporting forms;
- for the duration of the campaign, utilization of services of 102 and 108 ambulances may also be considered by the states;
- BMO and PHC MOIC will be provided mobility support to quickly respond to reported AEFI;
- AEFI management centres will report the AEFI as per laid out procedures in the national guidelines.

Note: Vaccinator teams need to segregate potential recipients from those who have received the vaccines and are under observation for 30 minutes post vaccination, from those standing in line to receive the vaccine so that they do not interact with each other and form anxiety clusters. Beyond 30 minutes also if there is an AEFI, there should be one person from either the team members or PHC MO to report the AEFI.

As adrenaline is a drug with short expiry ensure that all adrenaline ampules are checked for expiry dates.

Response to an AEFI

- serious / severe AEIs should be immediately referred to the nearest health facility / AEFI centre and reported to the appropriate authority;
- the vaccinators and the supervisors at the vaccination site will provide primary management of AEIs;
- if needed, they will refer serious / severe AEIs to the nearest AEFI management centre;
- transportation costs will be borne through untied funds with Village Health and Sanitation Committee (VHSC).

Contents of an AEFI treatment kit

- injection adrenalin (1:1000) solution – 2 ampoules;
- injection hydrocortisone (100 mg) – 1 vial;
- disposable syringe (insulin type) having 0.01 ml graduations and 26G IM needle – 2 sets;
- disposable syringe (5 ml) and 24/26G IM needle – 2 sets;
- scalp vein set – 2 sets;
- tab paracetamol (500 mg) – 10 tabs;
- I/V fluids (Ringer lactate/normal saline): 1 unit in plastic bottle;
- I/V fluids (5% dextrose): 1 unit in plastic bottle;
- IV drip set: 1 set;
- cotton wool, adhesive tape: 1 each;
- AEFI reporting form (FIR);
- label showing date of inspection, expiry date of Inj. adrenaline and shortest expiry date of any of the components;
- drug dosage tables for Injection adrenaline and hydrocortisone;
- at hospital settings, oxygen support and airway intubation facility should be available.

Figure 4.6.2: Contents of AEFI kit



Image 4.24

Recognition and treatment of anaphylaxis

Anaphylaxis is a very rare (estimated as once every million doses of MR vaccine given) but a severe and potentially fatal allergic reaction. When anaphylaxis does occur, the patient must be diagnosed properly and treated and managed urgently by trained staff and transferred to a hospital setting.

There is a high risk that HWs who lack training will misdiagnose faints (vasovagal syncope) and dizziness following immunization for the onset of anaphylaxis. Vaccinators, paramedics and physicians should be adequately trained so that they are able to distinguish anaphylaxis from fainting (vasovagal syncope), anxiety and breath-holding spells, which are common benign reactions.

During fainting, the individual suddenly becomes pale, loses consciousness and collapses to the ground. Fainting is sometimes accompanied by brief clonic seizure activity, i.e. rhythmic jerking of the limbs, but this requires no specific treatment or investigation. Fainting is relatively common after immunization of adults and adolescents, but very rare in young children. It is managed by simply placing the patient in a recumbent position. Recovery of consciousness occurs within a minute or two, but patients may take some more time to recover fully.

An anxiety spell can lead to pale, fearful appearance and symptoms of hyperventilation (light-headedness, dizziness, tingling in the hands and around the mouth). Breath holding occurs in young children and will lead to facial flushing and cyanosis. It can end in unconsciousness, during which breathing resumes.

Table 4.6.4: Signs and symptoms of anaphylaxis

Clinical Progression	Signs and symptoms of anaphylaxis
 Mild, early warning signs	Itching of the skin, rash and swelling around injection site. Dizziness, general feeling of warmth
	Painless swelling in part of the body, e.g. face or mouth. Flushed, itching skin, nasal congestion, sneezing, tears
	Hoarseness, nausea, vomiting
	Swelling in the throat, difficulty in breathing, abdominal pain
	Wheez irregular weak pulsing, noisy, difficulty breathing, collapse, low blood pressure, irregular weak pulse
Late, life-threatening Symptoms	

Recognition of anaphylaxis

Anaphylaxis is a severe reaction of rapid onset (usually 5–30 minutes after the injection) characterized by circulatory collapse. The early signs of anaphylaxis are generalized erythema and urticaria with upper and / or lower respiratory tract obstruction. In more severe cases, limpness, pallor, loss of consciousness and hypotension become evident in addition. Vaccinators should be able to recognize the signs and symptoms of anaphylaxis in Table 4.5.5.

In general, the more severe the reaction, the more rapid is the onset. Most life-threatening reactions begin within 10 minutes of immunization. That is why it is advised that the beneficiary be kept under observation for at least 30 minutes after the injection.

Unconsciousness is rarely the sole manifestation of anaphylaxis – it only occurs as a late event in severe cases. A strong central pulse (e.g. carotid) is maintained during a faint, but not in anaphylaxis.



Anaphylaxis usually involves multiple body systems. However, symptoms limited to only one body system, e.g. skin itching can occur, leading to delay in diagnosis. Occasional reports have described reactions where symptoms recur 8 to 12 h after onset of the original attack and prolonged attacks lasting up to 48 h.

Table 4.6.5: Distinguish anaphylaxis from fainting (vasovagal reaction)

	Fainting	Anaphylaxis
Onset	Usually at the time or soon after the injection	Usually some delay, between 5 to 30 minutes after injection
System		
Skin	Pale, sweaty, cold and clammy	Red, raised and itchy rash; swollen eyes, face, generalized rash
Respiratory	Normal to deep breaths	Noisy breathing from airways obstruction (wheeze or stridor)
Cardiovascular	Bradycardia, transient hypotension	Tachycardia, hypotension
	Nausea , vomiting	Abdominal cramps
Neurological	Transient loss of consciousness, good response once prone	Loss of consciousness, little response once prone

Treatment of anaphylaxis

Once the diagnosis is made, consider the patient as being in a potentially fatal condition, regardless of the severity of the current symptoms. Begin treatment immediately, and at the same time make plans to transfer the patient immediately to the hospital (if not already in a hospital setting).

Role of adrenaline

Adrenaline (epinephrine) stimulates the heart, reverses the spasm in the lung passages, and reduces edema and urticaria, thus countering the anaphylaxis. But this very potent agent can cause irregular heartbeat, heart failure, severe hypertension and tissue necrosis if used in inappropriate doses.

Every health facility should have health staff trained in treatment of anaphylaxis and should have rapid access to an emergency kit with adrenaline, and be familiar with its dosage and administration. The expiry date of the adrenaline should be written on the outside of the emergency kit and the whole kit should be checked three or four times a year. Adrenaline that has a brown tinge must be discarded. Adrenaline has a short expiry life, so monitor the expiry date on regular basis.

Steps in initial management

- if already unconscious, place the patient in the recovery position and ensure that airway is clear;
- assess heart rate and respiratory rate (if the patient has a strong carotid pulse, he / she is probably not suffering from anaphylaxis);
- if appropriate, begin cardiopulmonary resuscitation (CPR);
- give adrenaline 1:1000 (see below for correct dose for age or weight) by deep intramuscular injection into the opposite limb to that in which the vaccine was given (subcutaneous

administration is acceptable in mild cases) and give an additional half dose around the injection site subcutaneously (to delay antigen absorption);

- if the patient is conscious after the adrenaline is given, place his / her head lower than the feet and keep the patient warm;
- give Inj. hydrocortisone IM or slow IV per dosage chart below;
- give oxygen by facemask, if available;
- call for professional assistance, but never leave the patient alone. Call an ambulance (or arrange other means of transport) after the first injection of adrenaline, or sooner if there are sufficient people available to help you;
- if there is no improvement in the patient's condition within 10–20 minutes of the first injection, repeat the dose of adrenaline up to a maximum of 3 doses in total. Recovery from anaphylactic shock is usually rapid after adrenaline;
- record, or get someone to record, vital signs (pulse rate, respiratory rate and blood pressure) as well as time and exact dose of any medication given. Make sure the details accompany the patient when s / he is transferred;
- mark the immunization card clearly so the individual never gets a repeat dose of the offending vaccine. At a suitable moment, explain to parents or relatives the importance of avoiding the vaccine in the future;
- report the occurrence of anaphylaxis to the appropriate officer by phone followed by the reporting form.

Adrenaline dosage: 1:1000 adrenaline (epinephrine) at a dose of 0.01ml / kg up to a maximum of 0.5 ml injected intramuscularly (or subcutaneously in very mild cases).

If the weight of the patient is unknown, an approximate guide is given in below table.

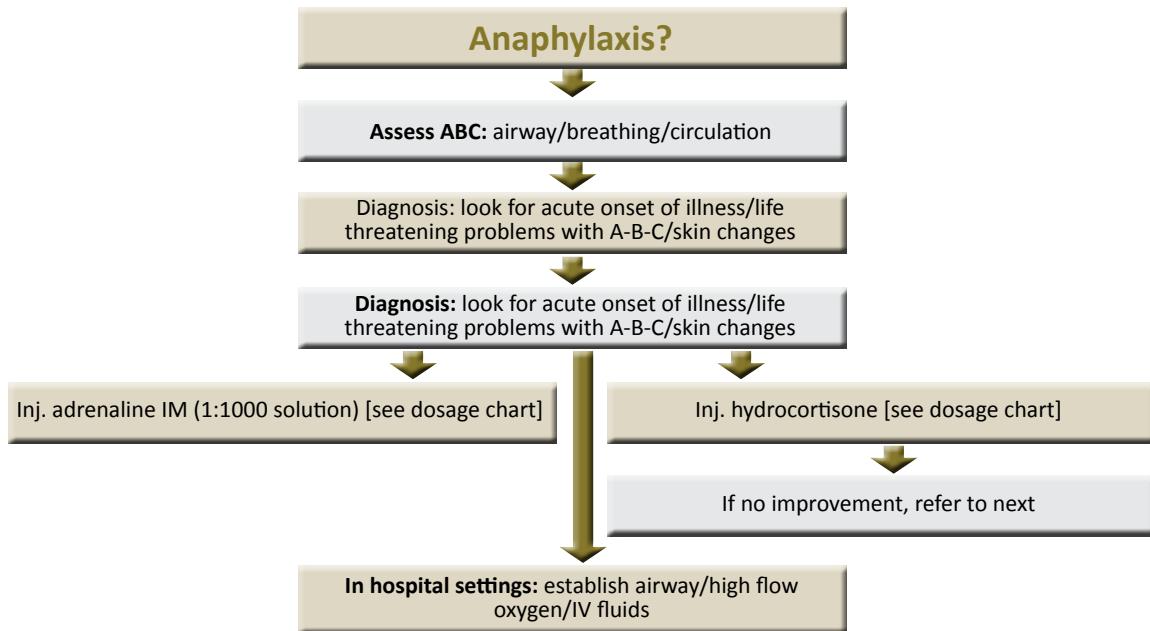
Table 4.5.6 Injection adrenaline (1:1000 solution) dosage chart IM

Age	Dosage
Less than 2 years	0.0625 ml (1 / 16th of a ml)
2–5 years	0.125 ml (1 / 8th of a ml)
6–11 years	0.25 ml (1 / 4th of a ml)
11+ years	0.5 ml (1 / 2 of a ml)

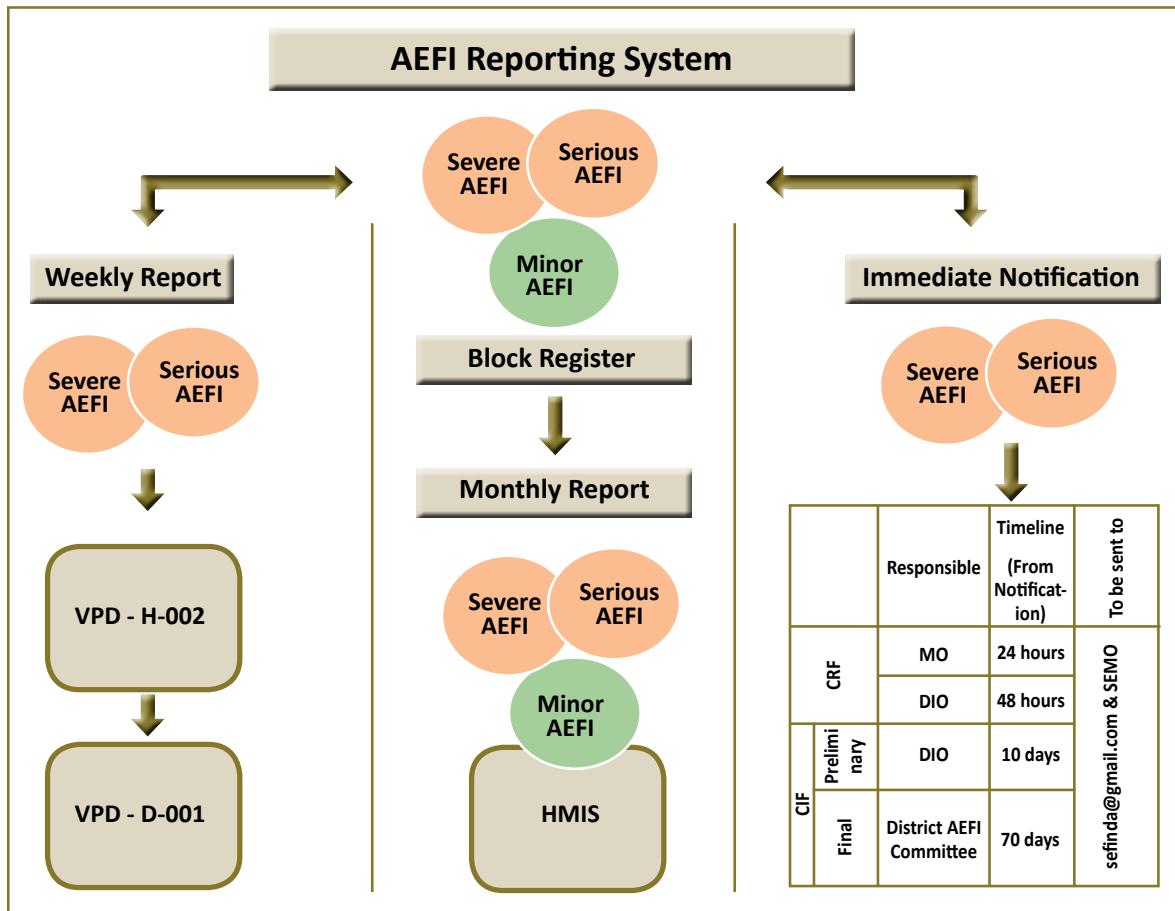
Table 4.5.7 Injection hydrocortisone (IM or slow IV): dosage chart

Age	Dosage
Less than 6 months	25 mg
6 months to 6 years	50 mg
6–12 years	100 mg
>12 years	200 mg



Fig. 4.6.3: Treatment protocol for anaphylaxis

Severe/Serious AEFI	
<ul style="list-style-type: none"> • anaphylactic reaction (acute hypersensitivity reaction) • anaphylaxis • persistent (more than 3 hours) inconsolable screaming • hypotonic hypo responsive episode (HHE) • toxic shock syndrome (TSS) • severe local reaction • sepsis • injection site abscess (bacterial/sterile) • lymphadenitis • disseminated BCG infection • osteitis/Osteomyelitis • thrombocytopenia (15-35 days after measles/MMR) • encephalopathy (6-12 days for measles/MME; 0-2 days for DTP) • acute flaccid paralysis (4-30 days for OPV recipient; 4-75 days for contact) • brachial neuritis (2-28 days after tetanus containing vaccine) • intussusception (commonly within 21 days after rotavirus vaccines) • seizures, including febrile seizures (6-12 days for measles/MMR; 0-2 days for DTP) 	<p>Serious AEFI</p> <p>Any untoward medical event that results in</p> <ul style="list-style-type: none"> • death • Requires inpatient hospitalization • Results in persistent or significant disability • AEFI cluster



Communication regarding AEFI

Although serious AEFIs due to MR vaccine per se are extremely rare, occurrence of an AEFI and sensational media coverage may seriously undermine an MR campaign. Programme managers must therefore plan a special communication strategy regarding AEFI in advance. Please refer to section 4.3.7 on AEFI and annex for technical details. There are two stages to AEFI communications—(i) Preparedness and (ii) Response.

AEFI communication objectives	AEFI communication Indicators
<ol style="list-style-type: none"> 1. Programme managers and outreach workers are fully aware of the AEFI protocol 2. During an AEFI, information flow is correct and timely 3. Response to AEFI is rapid and as per protocol 	<p>Process indicators</p> <ol style="list-style-type: none"> 1. State and district AEFI committees are formed and functional 2. AEFI Communication Protocol converted into customized formats before sharing 3. AEFI Management Protocol is readily available on demand with the Programme Manager / outreach worker 4. AEFI Committee and MR campaign staff undergo training in AEFI preparedness and response 5. Programme Manager / outreach worker is able to narrate the protocol process correctly on demand <p>Output and outcome indicators</p> <ol style="list-style-type: none"> 6. Customized AEFI formats 7. AEFI spokesperson trained in media handling 8. Post AEFI, report submitted meets guidelines 9. AEFI not reported in media / balanced report 10. Negative reactions to AEFI in community is minimal 11. MR campaign continues despite widely reported AEFI

AEFI communication activities	Resources:
<p>Internal preparedness</p> <ol style="list-style-type: none"> 1. Ensure state and district AEFI committees are formed and functional 2. Review and check each component in the AEFI Communication Protocol to ensure it is updated 3. Map all MR campaign staff at different levels who must be familiar with AEFI Communication Protocol 4. Customize AEFI Communication Protocol into suitable formats before sharing 5. Check and receive confirmation that AEFI Communication Protocol has reached the concerned people 6. Hold training at each level on the AEFI Communication Protocol (hold a mock if time and support is available; however, it needs to be planned very carefully) <p>External preparedness</p> <p>For easier management, this has been divided into two groups: (i) News media and (ii) Community groups</p> <p>News media preparedness</p> <ol style="list-style-type: none"> 1. Maintain a database of local journalists with their updated contact information 2. Ensure information packages with FAQs on MR Immunization and Fact Sheet on VPDs is provided to journalists 3. Keep media informed with regular updates on any plans, programmes and decisions through e-mail or hardcopy 4. Organize regular orientation workshops and field visits for journalists to immunization sites 5. Identify, fix, communicate and train two key spokespersons at State and at district levels, one from government and second from private health sector / development partner 6. Provide AEFI Spokespersons' kit (not to be shared with the media) containing: (i) potential and frequently asked questions by media; (ii) suggested answers. 7. Keep a steady flow of opinion articles through local influential spokespersons on the importance of MR 8. Identify and engage local impactful, equity focused media prior to the launch of a campaign <p>Community preparedness</p> <ol style="list-style-type: none"> 9. Develop strong partnership with community leaders and influencers and orient them to AEFI protocol 10. Motivate community groups / influencers to identify one or two key members to act as representatives with the health team during an unfortunate AEFI 11. Keep communities and partners constantly involved and informed of the progress of MR campaign 12. Remember to thank community representatives during and after any AEFI incident, no matter how small. <p>Community response</p> <p>When communicating with parents / caregivers during an AEFI, it will be useful to do the following:</p> <ol style="list-style-type: none"> 13. Reach out to the patient's family / bereaved family as soon as possible 14. Listen patiently and sympathetically to caregivers and their concerns 15. Reassure and support caregiver or patient but do not make false promises 16. Assist caregiver with taking patient to PHC / hospital facility in case of an AEFI 17. Keep parent / guardian / community representative routinely informed of progress being made by patient. <p>Media</p> <ol style="list-style-type: none"> 18. Follow the media response protocol and guidelines for response to media queries in case of AEFI 19. Provide regular updates to media if required and keep access to knowledge base on the MR campaign available and easily accessible to media 	<p>Resources:</p> <ol style="list-style-type: none"> 1. AEFI Committee 2. AEFI Protocol 3. Customized AEFI formats 4. AEFI training plans at all levels 5. AEFI trainers from media 6. AEFI kit for media 7. Media information sheet 8. AEFI media handling guide for spokespersons <p>Accountability:</p> <p>COG: Director Media, IEC Division, MoHFW, with Commissioner UIP</p> <p>SOG: Director IEC Bureau / SEPIO</p> <p>DTFI: District Media Officer / DIO / CMHO</p> <p>Block: BMO</p> <p>Timeline:</p> <ol style="list-style-type: none"> 1. Starting at least 6 weeks before start of MR campaign 2. Ending at least two weeks before start of MR campaign 3. Check and verify degree of readiness and repeat weak areas.

Key points

- MR vaccine is a safe and effective vaccine;
- vaccine handlers and vaccinators must understand that most AEFIs are due to immunization errors and must be prevented at all costs;
- very rarely, MR vaccine can cause serious AEFI (e.g. anaphylaxis), which must be treated promptly using adrenaline followed by hydrocortisone;
- all government facilities from PHC level upwards will function as AEFI management centres with designated MOs;
- all AEFI management centres must be fully equipped with AEFI kits and have copies of treatment protocols prominently displayed in the hospital (OPD/IPD).

4.7 SUPERVISION – MONITORING AND EVALUATION

Difference between (supportive) supervision and (independent) monitoring for MR campaign:

(Supportive) supervision

(Supportive) supervision is active support by the vaccine programme managers during the preparation phase (at least 1 month prior) and during the implementation phase (entire 1 month) of the MR campaign.

Focus of the supportive supervision is the management and operational aspects of the MR campaign with immediate corrections, problem solving and on-the-job training. This will ensure medical officers, vaccinators and other HWs comply with the highest quality standards recommended in the MR campaign operational guideline.

(Independent) monitoring

(Independent) monitoring is done by persons external to the national or local immunization programme (UIP) observing the management and operation practices of the preparation phase (1 week prior) of the MR campaign, along with the intended results during the campaign and (i) Suggesting recommendations to correct qualitative issues generally observed, and (ii) Suggesting, through RCM, areas for “sweeping” or identifying areas or population groups to be immunized that have not been covered

The supervisor and the independent monitors will be as under:

- national level supervisors – UIP supervisors from MoHFW
- state level supervisors – 1 supervisor from UIP for each district
- district level (second line) supervisors – 1 supervisor from UIP for each block
- team (first line) supervisors – 1 supervisor from UIP per every 3 teams
- independent external monitors from national, state, district level – both Government and nongovernment partners (externally hired field monitors by WHO / UNICEF, NGOs, donors)
- external monitors from international level: WHO – UNICEF – US CDC – other partners.

Following the State workshop, National level observers will visit the States / UTs to assess the preparedness and implementation activities.

Tools to be used for supervision – monitoring

Following forms are part of the annexes of the Operational Guidelines. It is necessary to orient all supervisors and monitors on the methods for supervision and monitoring and on the use of the forms and reporting methods of all findings.

- pre-campaign Checklist for supervisors and monitors (refer to accountability matrix and monitoring tool);
 - to be used 1 month before the start of the MR campaign by second level and higher-level supervisors;
 - to be used 1 week before the start of the MR campaign by monitors.
- intra-campaign Checklist for supervisors / monitors (refer to accountability matrix and monitoring tool);



- to be used by higher level supervisors in priority districts / blocks / sites;
- to be used by team supervisors covering all of their teams supervised.
- intra-campaign Checklist for monitors (refer to accountability matrix and monitoring tool);
 - to be used by external independent national and international monitors during the implementation of the campaign with priority to HRAs / Ps.
- RCM by monitors (refer to accountability matrix and monitoring tool);
 - to be used by external national / sub-national and international monitors (during implementation of the MR campaign with priority to high-risk areas / populations).



Image 4.25

4.7.1 Supportive supervision

National observers will be monitoring the planning and implementation activities after the state / district workshops have been conducted. National, state and district UIP officers should be allotted districts / blocks / urban areas that should be meticulously visited before the activity to supervise the preparedness and during the activity to supervise the implementation of the activity. The supervisors should identify any constraints that are likely to affect the implementation of the programme in terms of quality and safety, including providing solutions and on-the-job training to remove any bottlenecks for enhancing quality and coverage.

Preparatory phase

During the preparatory phase, all state UIP supervisors should attend DTF meetings, support the district health team, and report back to the State Family Welfare Secretary on the quality and effectiveness of these meetings.

Supervisors should also review the micro-plans to ensure that:

- all components are present;
- all geographical areas have been included;
- resource / logistic calculations and cold chain plan are realistic and adequate;
- team composition is appropriate with trained vaccinators and assistants identified;
- HRAs / Ps requiring special attention have been identified and plans with extraordinary measures have been developed to cover them;
- training has been planned for all vaccinators, supervisors and assistants;
- SBCC (IEC / IPC etc.) / social mobilization plans have been developed and documented;
- for the pre-campaign supervision, programme managers at various levels should use the pre campaign supervisory checklist for timely and appropriate action based on preparedness status of the concerned block / district / state that must be reviewed by STFI / DTFI.

UIP programme managers at all levels should use the pre-campaign checklist given in annex (pre-campaign checklist at multiple levels) to supervise preparedness, undertake mid-course corrections and provide on-the-job training.

Implementation phase

All UIP officers and supervisors should again visit their allotted districts / blocks / urban areas during the implementation phase to assess the quality and the completeness of coverage of children 9 months to <15 years of age. They will again review the operational planning components to confirm completion and will visit vaccination posts / teams to support and supervise the activities.

UIP program managers at all levels should use the intra-campaign checklist given in annex 11 (session site monitoring tool (form 17) and RCM tool (form 18)) to supervise and support vaccination team performance at the different sites. They will provide corrections, conduct on-the-job training and advise sweeping activities based on the outcome of the house-to-house visits as outlined in the guidelines at the bottom of the supervisory form (refer to annex 11).

4.7.2 External monitoring

Preparatory phase

External, independent monitors will be assigned from international, national, state and district levels to monitor and observe activities four week prior to the start of the MR campaign. They will debrief on their findings to the UIP managers of the level monitored and will report key issues back to the national level for eventually formulating official advisories to all states. Priority areas for monitoring will be the HRAs / Ps as defined in Section 4.2 (A set of pre campaign preparedness assessment tool have been developed for use by monitors / observers for this purpose (Refer annexed checklists State (A), District (B), Block (C), School (D)).

Implementation phase

External, independent monitors will use standardized monitoring formats to assess: (i) quality of session activity, and (ii) coverage through rapid convenience assessments (RCM). They will be briefed about the methodology of monitoring and conducting RCM before the MR Campaign. The RCM tool (form 18) is given in annex 11.

Process of conducting RCM (methodology)

Area selection for RCM: National or Independent observers / external monitors are expected to conduct as many RCMs as possible. Conduct assessment only in areas where MR campaign sessions have already taken place. Do not combine different areas in same format. Try to identify missed communities, especially in isolated areas, at the farthest point from the vaccination site, socially segregated groups, street children, working children in small enterprises or markets, etc. Start in a central location, and pick a starting direction at random by tossing a coin. Begin with the first house facing you. Identify and tally 20 target age children (9 months to < 15 years) in 20 households (1 child per household). If a household has more than one eligible child, validate the oldest child in the eligible age group who is physically present at the time of visit.

Child selection and response during RCM: You may have to visit more than 20 houses if any of the houses does not have any eligible children. If up to three children are found unvaccinated, inform the supervisor / authority to motivate and mobilize all missed children to visit the nearest campaign session-site that day or to the fixed site of that area. If four or more children are found unvaccinated, report to the supervisor and the vaccination team should revisit the area to immunize all the missed children in the entire area through a sweeping activity that is planned in the last week of the ongoing



MR campaign. All such missed children found unvaccinated must be identified and mobilized to the vaccination site. If any AEFI is noticed, direct the guardian to the nearest health facility / AEFI management-treatment centre and also report to concerned authority.

RCM is an extremely useful tool to uncover pockets of unimmunized children and take corrective actions.

4.7.3 Post-campaign assessments

Process level assessment

Following the MR campaign, review meetings should take place at district, state and national levels to identify the strengths and weaknesses of the activities. Supervision and monitoring questionnaires used during the campaign should be collected and analyzed in order to provide quantitative information related to the process of implementing the activity. In addition, it will be important to qualitatively document the impressions and experiences from the field. It is important that all stakeholders – personnel and staff involved in the planning and service delivery aspects of the activity as well as the community beneficiaries – participate in this process to document best practices and lessons learned, to ensure the highest quality of campaigns in the future.

Output level assessment

The outcome of the MR campaign is measured by the proportion of the target population (children 9 months to <15 years) who were vaccinated during the campaign. There are two approaches to estimate MR Campaign vaccination coverage:

- administratively based, on campaign field reports and estimated target populations;
- conventional household surveys using cluster sampling methodologies.

The first approach can be problematic if target population – denominator information – is not current or up to date. The second approach is often used to validate administrative coverage and is seen as the gold standard for assessment of the coverage attained during a MR Campaign.

Evaluation of the impact of the campaign

Impact of the campaign is related to the reduction in MR-related morbidity and mortality as a result of the MR Campaign and the increased immunity of the population to these viruses. This is measured through sensitive laboratory supported MR surveillance data.

Monitor and document MR Campaign SBCC (IEC / IPC etc.) activities

1. Refer table communication plan template for SBCC Monitoring (chapter 4.3)
2. Prepare a monitoring team and monitoring plan containing list of monitors at different levels, geographical areas to be monitored, date and time, mobility plan (along with mobility cost), contact number of MR Control Room
3. Hold training of all monitors, orient them to the indicators and teach them how to submit findings and in what format
4. Document all major activities to report progress. This documentation can range from simple observation and text noting to digital documentation such as:
 - photographs
 - audio / video interviews with parents, service providers, influencers

- vaccination centre and IEC material
 - events
5. All documentation must be submitted with the DTF / District Control Room and then forwarded to the SOG for analysis and presentation.

Monitor SM activities

1. Social mobilization activities must always be monitored. Have a monitoring plan and key monitoring indicators.

Key points

- second line supervisors from district and above should start supervising preparedness well before the campaign using the pre campaign checklist;
- unbiased and reliable observations by external monitors will help pinpoint problems prior to and during the campaign for any corrective actions;
- monitor communication and SM activities at every level;
- supervisors should do on-the-job training. They should be supportive and help solve problems that are identified, as a mid course correction;
- RCM is a useful tool to identify pockets of missed children/areas and take corrective actions on the ground based on the RCM findings to enhance campaign coverage;
- the last week will be planned for sweeping/repeat activity to cover left out/suboptimal coverage areas based on reported coverage and RCM monitoring, reviewed by DTFI and STFI;
- post-activity coverage evaluation surveys should be planned in advance.



4.8 Recording and Reporting

Recording of incoming and outgoing vaccines and logistics

Each level must record the incoming vaccines, diluents and ancillary products in their designated registers and electronic data bases:

- Record quantities received / dispatched , date received / dispatched, batch numbers, expiry dates, VVM status when received / dispatched
- PHC / ILR points must record on a daily basis the quantities of vaccines and ancillary supplies that are dispatched to the vaccination teams and that come back at the end of the day
- Returned vaccine from the vaccination sites need to be labelled and dispatched first the next day. Such returned / dispatched vials need to be recorded again in the designated register book and electronic database.
- Recordings of received, dispatched and returned vaccines and other logistics need to be part of the daily / weekly / end reports to the next level.
- Temperature recordings twice a day at all times and at every level is mandatory.

Recording methods at vaccination team level

- The recorder in the vaccination team must record the MR dose given immediately after it is administered (in real time), and use the daily tally sheet form in annex (not before and not at the end of the day)
- Vaccination team leader must calculate the total MR vaccines given and write the totals on the same form in the right hand side column.
- Vaccination team leader must report at the bottom of the Tally Sheet, the received, used and returned vaccines and other supplies.

Reporting forms to be used at every level

The reporting forms for every level need to be filled out by the MO responsible.

Sequence of reporting:

- From vaccinators to team supervisors – daily
- From team supervisor to PHC – daily
- From PHC to block (BMO) – daily
- From block to district (DIO) – daily
- From district to state (SEPIO) – daily
- From state to national level –daily (district wise) and consolidated final report at the end of the campaign.

During the MR campaign, coverage is to be reported manually. Following the campaign, under routine immunization, MR vaccine coverage is to be reported in HMIS under measles. Final signed consolidated report is to be submitted by the State / UT within 7 days of completion of MR campaign activity.

Electronic data management inside the command post

It is advised that every level of operation establishes a control room in which administrative results are followed up, posted and supervisors' / monitors' reports are compiled, analyzed and followed up. Every control room should input the administrative coverage electronically and constantly check for errors, as most errors occur in reports between the different levels.

Analysis of data to determine areas for total sweeping activities

Daily reported RCM results will help to validate administrative results or to identify need for follow-up actions and local sweeping activities.

At the end of the MR Campaign, a comprehensive and full analysis of administrative data needs to be done at every level to identify eventual areas for large-scale sweeping activities.

Final report by the state

At the end of MR campaign activity, states / UTs will submit a signed copy of the final consolidated report to the National level.

Key points

- recording incoming and outgoing vaccines and logistics is to be done at every level;
- recording of temperature needs to be done twice a day at all storage sites at every level;
- coverage reports of numbers must be checked for data errors;
- reports must be sent up from every level in a timely manner (daily) to the next level up.



4.9 Training and Orientation

All key players in the MR Campaign should be a part of the training sessions. These should include the CMO, DIO, all other MOs, key programme managers, supervisors, identified vaccinators, cold chain handlers, data handlers and other health staff directly or indirectly involved with the campaign.

4.9.1 Objectives

The overall objectives of the training are to ensure that:

- all staff involved in the MR Campaign understand their role;
- micro-plans at the sub-centre level are completed;
- all vaccinators have appropriate knowledge and skills to conduct the MR Campaign in their respective catchment areas;
- the batch size for all training at any level should not be more than 30; for orientation at block level, it should not be more than 40.



Image 4.26

4.9.2 The training cascade

Planning for training for the MR Campaign should occur as a cascade as given below. A training plan / schedule / calendar should be developed well in advance by the states, districts and blocks based on the information and training load and availability of trainers.

Types of Training for MR Vaccination Campaign

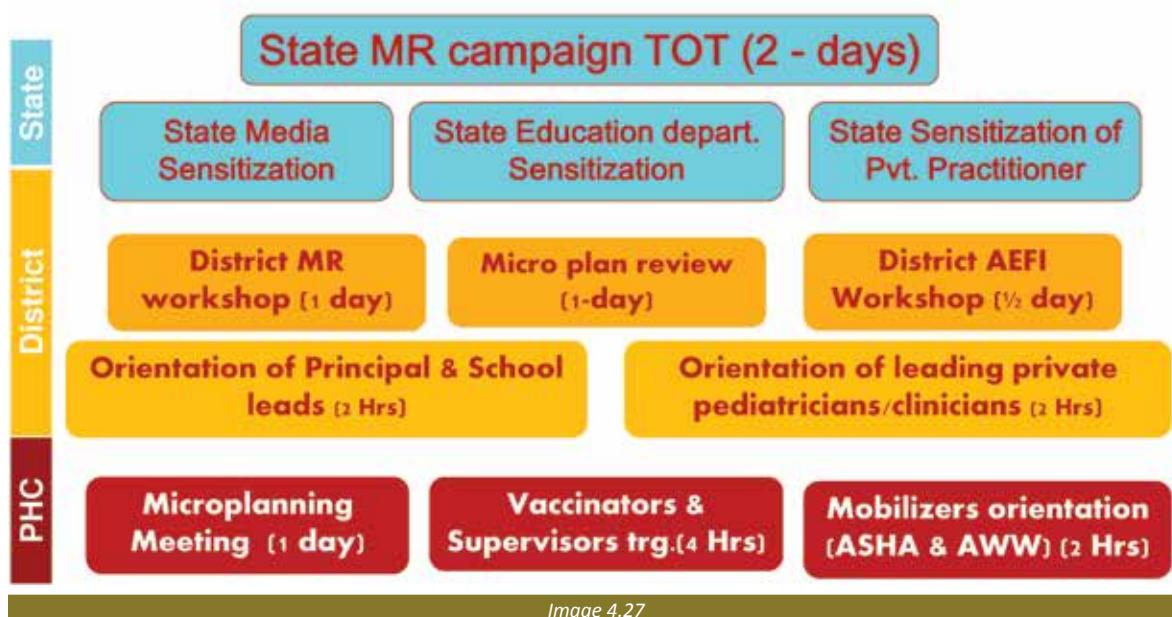


Image 4.27

National and state level training of trainers

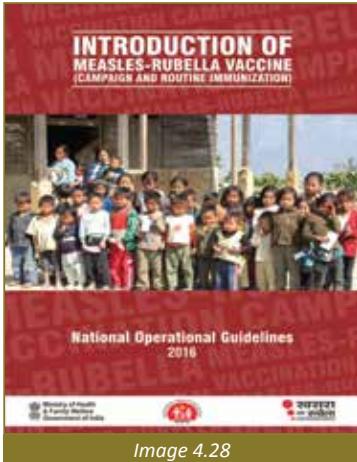


Image 4.28

In the first stage, master level ToT course for state health functionaries including deputy health directors, SIOs, other identified state-level master trainers at state training institutes and medical colleges will be conducted at the national level by the Central team. The duration of the course will be three days. The facilitators will be resource persons from Immunization Division, GoI and experts from partner organizations (WHO-India, UNICEF). This ToT will be completed at least 3 months prior to the MR Campaign in each phase.

In the second stage, ToT course will be conducted at state level for district level trainers. These would be identified by each district from among district-level health officers, MOs (MOs), health assistants and cold chain officers. The state level master trainers will facilitate this ToT. Duration will be two days. This training will be completed at least 5–8 weeks prior to the campaign in each phase.

In the third stage, each district will conduct a district MR Campaign training-cum-planning workshop of trainers for all block-level trainers like MOs, cold chain handlers, data handlers and other block level functionaries. This will be a one day training and should be completed at least 5–8 weeks before the campaign in each phase.

Vaccinator and supervisor training

All vaccinators (ANMs, HWs [M / F], nurses and others) of each vaccination team and supervisors (health assistant [HA], LHV, block extension educator [BEE], HS) will be trained in “Injection skill and micro-planning” by the BMO and team for 4 h at the block level. This training will be completed 2 weeks prior to the MR campaign. Training Handbook with FAQs for health link workers will be made available to each participant.

Vaccinator / ASHA / AWW / volunteer orientation

All vaccinators, ASHAs, AWWs and volunteers will be trained in “IPC and Session Site Responsibilities” by the MO and team for half a day at the block level. This training will be completed at least 2 weeks prior to the MR campaign. Booklets on “Measles-Rubella Teekakaran Abhiyan” containing the tasks of the vaccinators, ASHAs, AWWs and volunteers and “Frequently Asked Questions on measles–rubella” will be distributed during this training.

4.9.3 Responsibilities at each level

National level

- develop and finalize the training module, materials and plans;
- make necessary arrangements for printing of training material and ensure distribution to all field units;
- obtain approval for the training plan and budget, ensure disbursement of funds and provide the necessary logistics;

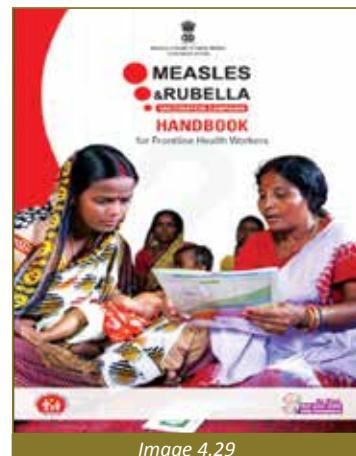


Image 4.29

- provide master level training to state-level trainers and facilitate and supervise both state level and district level training.

State and district level

- form training teams and obtain necessary master level training from the Central / state teams;
- obtain necessary training material, guidelines and funds and distribute them to the district / block level;
- plan and organize district level training for block level MOs and teams; facilitate and supervise the training at blocks.

Block / PHC level trainers (Block / PHC MOs and teams)

- plan the schedule for the micro planning training and invite all vaccinators and supervisors for the training. Advise the vaccinators to bring data for micro plans to be prepared;
- ensure adequate space for the participants so that they can sit in a “U” or semicircle and have good eye-to-eye contact during the training. The venue should be clean, airy and allow speakers to be heard by all participants;
- ensure that the number of participants for the training of vaccinators and supervisors do not exceed 30. For health-link workers / ASHAs / AWWs / volunteers orientation, the batch size should not exceed 40.

4.9.4 Contents of training

Ensure that the following topics are covered during the training sessions:

- objectives, rationale and strategy of the MR Campaign, with focus on the high-risk areas / populations;
- dates of campaign and target age group;
- micro planning, including preparation of sub-centre maps showing schools and outreach clinics;
- task allocation for each participant, detailing roles and responsibilities;
- social mobilization including importance of IPC and registration of all target children;
- organization and management of a vaccination / session site;
- cold chain and vaccine management including VVM, care of the vaccine and diluent during transportation and session period;
- reconstitution of MR vaccine, recording time of reconstitution and need to discard MR vaccine within 4 h after reconstitution;
- injection technique with hands-on skills training;
- safe disposal of vaccination site wastes including sharps;
- AEFI management including recording and reporting;
- use of tally form and reporting forms;
- supervision of campaign activities including rapid convenience monitoring;
- logistics arrangements for receiving vaccine and supplies for vaccination sites;
- financial arrangements.

Essential training material at block level

- MR Campaign Handbook for Vaccinators and Supervisors;
- booklets on “Measles-Rubella Rakshak Abhiyaan” with FAQs;
- sub-centre micro-planning templates and sample sub-centre map;
- note pads for participants and the trainer (to be used for recording participant’s responses, questions and own observation about the training session).

Monitoring of training

- each training session held at block level must be reported to the district level in a training workshop reporting format (annex);
- at least 10% of all block level training should be monitored by district programme officers and their feedback must be documented at the district level by CMO / DIO (annex).

4.9.5 Training / capacity building for SBCC (IEC / IPC etc.) for MR campaign

Training in SBCC is an extremely important component of the MR Campaign operations. Almost every level of programme staff, ranging from programme managers to outreach workers need their capacity to be built on understanding and operationalizing communications at the large level of the MR Campaign.

Training objectives	Training indicators
<p>Objective 1: Develop capacity of programme managers for conducting cascade-level training in SBCC planning and operationalization</p> <p>Objective 2: Develop capacity of programme managers to lead planning of SBCC strategy for MR Campaign</p> <p>Objective 3: Improve capacity and motivation of frontline service providers (vaccination teams) through IPC training</p>	<p>Process indicators</p> <ol style="list-style-type: none"> 1. Training manual developed 2. Training calendar developed 3. Master trainers / district-based trainers list prepared 4. ToTs held 5. Planning tools for state, district and block prepared <p>Output and outcome indicators</p> <ol style="list-style-type: none"> 1. Supervisory checklist prepared / revised 2. Evidence-based SBCC plans available at state, district and block level 3. Increase in positive perceptions by caregivers about ANMs / ASHAs and AWWs: <ol style="list-style-type: none"> a. ANMs / ASHAs and AWWs are knowledgeable about MR and RI b. ANMs / ASHAs and AWWs answer any questions c. ANMs / ASHAs and AWWs are friendly and encouraging d. ANMs / ASHAs and AWWs are trustworthy e. ANMs / ASHAs and AWWs encourage you to go the health facility / fixed post for other vaccines

Training activities	Resources / accountability / timeline
	Resources: State and district level trained trainers
	Accountability: MOIC / BMO / DIO
	Timeline: Starts at least 6 weeks before start of MR Campaign Ends at least 2 weeks before start of MR Campaign

Ensure training in social mobilization

- Organize training for HWs and social mobilization teams to identify and maximize the effects of the communication interventions
- Have a supportive supervision plan for social mobilization teams.

Key points

- planning and training are combined in one workshop on all levels
- cascade strategy for planning - training with training of trainers at each level;
- batch size should not exceed 30 for vaccinators training and 40 for orientation of vaccinator / ASHA / AWW / Volunteer;
- ANMs and supervisors will develop and review micro-plans during Block level training sessions;
- training sessions will be monitored for quality, contents and respect for proposed agenda and timelines;
- training sessions should be mostly practical, hands-on based and role plays with a minimum of presentations (standard health workers module must be used);
- separate hands-on training on injection skills can be conducted on RI session day for new and weak performing vaccinators including nursing student trainees.

Table 4.8.1: Training workshop reporting format

Name of training site	
Dates of training workshop	
Number of participants expected	
Number of participants attended	
List of participants with designation, address and place of work (attach registration copy)	

Attach a copy of training programme (agenda) including: Name of sessions Time allotted Name of resource person Methodology	
Mention the training materials used	
List training and other materials given to all participants in local language	MR training and book Handouts from training materials FAQs Others
Remarks on the workshop indicating good experiences and problems / constraints faced	
Remarks by facilitators / training organizers regarding: – Trainings materials – Release of funds – Facilities available at the training venue	

Table 4.8.2: Checklist for monitoring the quality of training

Date of visit	
Place of visit (location of training venue)	
Names and designation of persons who conducted the monitoring visit	
Number of participants nominated / expected	
Number of participants attended	
Who were the trainees? Vaccinators / supervisors / MOs / volunteers / others	Vaccinators (HVs)
Attach a copy of training programme / agenda	
Training and other materials given to all participants in local language	<ul style="list-style-type: none"> • MR training • handbook • Handouts from training materials • FAQs • Others
Feedback received from trainees and action taken?	Yes / no
Sessions assessment Whether session objectives were fulfilled Appropriate use of audio-visual (AV) aids Methodology – one way, interactive, role play, questions and answers	

4.10 Tasks List for Functionaries at Different Levels

A MR Campaign is a one-time opportunity and must be of high quality to attain more than 95% coverage. This will only be possible if:

- realistic and detailed micro-plans are drawn up well in time;
- micro-plans are reviewed and refined in the run-up to the activity;
- supportive supervision at district and block levels is conducted from the time of planning itself till the end of activity;
- all health functionaries including doctors, ASHAs / AWWs and volunteers are trained well before the activity;
- proactive engagement with local government, social and religious leaders, NGOs and other partners, media and targeted SBCC strategies with community are implemented prior to the campaign;
- during implementation, appropriate corrective actions are taken based on feedback from monitoring reports.

This chapter outlines the tasks that programme managers and implementers at district and sub-district levels will perform before, during and after the MR Campaign.

4.10.1 District level

The chief MO has overall accountability for the programme and the DIO will be the programme officer at the district level.

Pre-campaign tasks

- through the mechanism of the DTFI, coordinate with district authorities and other departments, minute action points and circulate for implementation;
- at least 2 months before starting the campaign, CMO should assign block / municipal level responsibilities to deputy CMOs. Deputy CMOs should make regular visits to the blocks / municipalities, review their preparedness and solve problems faced by BMO;
- at least 1 month before starting the MR campaign, prepare and communicate district plan and logistics orders to the state;
- conduct ToT 4–8 weeks before start of activity;
- finalize block-level micro-plans at least 4 weeks before start of activity.

In the week before the activity

- review DTF is arranged;
- block-level trainings are held;
- logistics (vaccines, diluents, AD and mixing syringes) have reached the district;
- other materials – SBCC materials, recording formats, etc. have reached or have been procured by the district;

- first consignment of bundled vaccines (vaccines, diluents, syringes) is sent to the blocks as per cold chain plan. Such consignments may have to be sent 2–3 times during the activity depending on cold chain storage and freezing capacities and the electricity situation at the block level;
- SBCC plans have been executed per schedule;
- waste disposal mechanisms at PHC level and other cold chain points are in place;
- AEFI response and management plan is in place;
- prepare for changing over from measles to MR vaccine in RI;
- assure supervisors and monitors are monitoring for correct implementation of measles to MR vaccine transition plan.

During campaign tasks

Activate district control room to:

- monitor logistic utilization and address shortages, if any;
- monitor daily coverage reports and take action in problem areas;
- respond to any AEFI reports promptly and proactively;
- review school based campaign and decide on contingency plans.

District level officers (like Deputy CMOs, District Programme Managers [DPMs], District Public Health Nurse (DPHNs), Health Information Officers) are assigned with block supervisory responsibilities to check block, PHC and sub-centre level implementation through field visits. During such field visits, they will assess the following and solve identified problems:

- coverage using standard data collection tool to identify missed children / areas for corrective action;
- adherence to all injection safety norms by vaccinators;
- effectiveness of SBCC strategies;
- cold chain status including ice pack freezing;
- adherence to safe disposal norms for injection waste materials;
- changing over from measles to MR vaccine and ensure no more measles vaccine is present in the cold chain;
- ensure supervisors and monitors are monitoring correct implementation of measles to MR vaccine transition plan.

Post campaign tasks

- immediately after the round, make special plans to cover missed children in areas with low coverage (>20% missed children);
- finalize reports to be sent to State level;
- take final stock of all vaccines and other logistics at district, block and sub-block storage sites;
- utilize MR Campaign session site micro-plans to improve RI session micro-plans for district / block level / PHC.



The MO I / C of the PHC will have overall accountability of the PHC area. For municipal areas, CMO in consultation with District Magistrate and municipal authorities will designate an accountable person.

4.10.2 Block level

Pre-campaign tasks

- BMO should build a team of MOs, block programme managers and other senior public health staff in the block to help him supervise and implement the activity;
- BMO should ensure that the block micro-plan complete in all respects (including identification of persons by names at session sites, cold chain plan and logistic movement plan) is ready at least 4 weeks before start of activity;
- review functioning of cold chain equipment available in the block (block level, PHC, additional PHC) and solve problems in consultation with the District.

Training

- draw up session-wise training plans for all persons involved in the activity;
- ensure that training sessions are held with full participation, including training;
- of absentees in later sessions. Training should be completed as per training schedule days before start of activity;
- ensure that doctors designated in the AEFI component of micro-plan are trained in post MR vaccination AEFI management.

Logistic movement plan

- make a detailed logistic movement plan including plan for hiring of vehicles;
- if needed; Make spot visits to some special areas or areas with high-risk population, especially the hard-to-reach areas, to assess feasibility of logistic movement plan to these areas.

SBCC:

- meet with local leaders, religious leaders and opinion leaders in the community and schoolteachers to solicit their support;
- ensure that SBCC materials are displayed as per plan;
- ensure that ASHAs / AWWs carry out local level IPC in the 3 days before the activity begins in the Block;
- AEFI management sites (public and private sectors): Identify, review and train the AEFI management sites.

In the week before the activity

- review the status of training;
- all cold chain equipment is ready to receive vaccine and diluents and adequate contingency plans have been made for power failures;
- receive and store logistics (vaccines, diluents, AD and mixing syringes) from district. Redistribute to PHC level as per block cold chain plan;

- receive and distribute other materials – SBCC materials, recording formats;
- review that SBCC plans have been executed as per schedule, including local level IPC by ASHA;
- review logistic movement plan to assess the vaccine distribution schedules and schedules for collecting unused vaccines and injection waste materials;
- review that all waste disposal facilities and mechanisms are in place at Block and PHC levels as per CPCB guidelines.

IMPORTANT!! Issue the vaccine only on the day of activity. Do not allow vaccine to be issued on day before the activity under any circumstances.

During campaign tasks

- check that logistics and personnel are in place in the field as per plan;
- check if AEFI management centres are ready with all equipment and medicines;
- by mid-morning check for:
 - any reports of vaccine shortages;
 - any problems reported from any area, such as AEFI;
- monitor logistic utilization and address shortages, if any;
- review school-based campaign (end of second week) and decide on contingency plans in consultation with district;
- make contingency plans for immunizing missed children;
- BMO, PHC M.O and the bloc-level team should make spot visits to some areas. During field visits, they will assess the following and solve identified problems:
 - visit some immunization sessions in progress;
 - assess adherence to all injection safety norms by vaccinators;

Implementation and effectiveness of SBCC strategies;

- verify functionality of cold chain at session sites;
 - adherence to safe disposal norms for injection waste materials;
 - assess coverage using standard data collection tool and initiate appropriate actions.
- send daily coverage reports to the district;
 - conduct daily evening review meetings with supervisors, monitor daily coverage reports and take action in problem areas.

Post campaign tasks

- immediately after the MR vaccination round, review the data and make special plans to cover missed children in areas with low coverage (> 20% missed children);



- finalize reports to be sent to district level;
- take final stock of all vaccines and other logistics at block and sub-block storage sites;
- utilize MR Campaign session site micro-plans to improve RI session micro-plans for the block.

4.10.3 Tasks of first-line supervisor

First-line supervisors will be accountable for all aspects of the campaign in areas allocated to them. One supervisor will supervise three teams.

Supervisors should be selected from existing health supervisors, block level ICDS and other key block level government functionaries. They should be familiar with the area allocated to them. All supervisors must receive training prior to the activity in the technical as well as operational aspects of the programme. Supervisors should be well motivated, physically fit and supportive of the vaccination teams in the field. Each supervisor should be independently mobile.

Pre-campaign tasks

- Get familiar with the area allocated;
- Assist the BMO / PHCMO in formulating accurate micro plans. This includes:
 - collating all data (villages by population, schools, etc.) for area of responsibility;
 - selecting appropriate session site locations;
 - selecting vaccinators, ASHAs, AWWs and volunteers;
 - rational distribution of teams and session sites according to target population in villages / urban areas;
 - developing maps showing vaccination sites located at schools and outreach sites and for hard-to-reach populations;
 - team supervisors are preferably from the same area where they will be supervising thus they will be well aware of the schools and communities in the area that will help in identification of missed schools / communities;
- check that logistic distribution plan is realistic and all vaccination teams understand pick-up and drop points for vaccines and logistics;
- ensure that ANMs, ASHAs, AWWs and volunteers attend the training on schedule;
- all team members should know the nearest AEFI management points and their contact details;
- make random visits to the field to ensure that ASHA has completed house-listing of target beneficiaries and has distributed the session site invitation slips / cards. At the same time, assess the preparations for the campaign using the pre-campaign supervisory checklist.

During campaign tasks

Supervisors should use the supervisory checklist to assess the quality of activity at the session sites and coverage in areas where immunization activity has been completed.

Supervisors should be independently mobile and must carry logistic support with them to replenish vaccine, diluents and injection equipment quickly if teams run out of them.

- Supervisors should visit each session site at least twice and check:
 - last minute absenteeism of vaccinators, shortage of vaccines / logistics and solve such issues;
 - vaccinator is adhering to safe injection practices (cold chain, aseptic precautions, safe disposal);
 - record of vaccination is being maintained properly;
 - parents are being provided with record of vaccination (vaccination cards) with clear instructions to retain the same;
 - parents of under-5 children are reminded of other RI doses with instructions to bring the child in the next immunization session in the village;
 - proper information about AEFI is being provided to the parents.
- supervisors will also check for the following:
 - *school session site*: eligible children from all classes in the school and from the village where the school is situated are being immunized;
 - *outreach session sites*: local ASHA / AWW are assisting the team by mobilizing children to the session sites;
 - *mobile teams for hard to reach / high risk populations*: Proactively support the teams working in such areas.
- supervisors will visit all the areas where teams have completed their work the previous day and assess the coverage with the help of the supervisors' check list. Based on their findings, the BMOH / PHCMO will decide on the appropriate corrective response;
- at the end of the day's activity, supervisors will:
 - collect, compile and analyse data from vaccination teams;
 - attend the evening meeting at block and give feedback to MO.

Post campaign tasks

- organize repeat immunization activities in areas with low coverage identified through RCA monitoring and as decided at district / block level;
- if there are only a few missed children, ensure that all of them are immunized in the next nearby campaign site or a fixed facility or in the subsequent RI session in the village for campaign dose for missed children.

4.10.4 Tasks of implementers at session sites (vaccinators, ASHAs / AWWs, volunteers)

Proper implementation of activities at the vaccination session sites is the key to success. At the session site, a vaccinator team will usually comprise 3 members. Each member has a specific role in MR Campaign as below.

Tasks for the vaccinator

Pre-campaign tasks

- provide accurate information regarding her sub-centre area including new settlements (permanent or temporary) and hamlets that have come up after the last review of the RI micro-plan. She should also provide information about schools in the private and public sectors in her area;



- assist the block level person to prepare micro-plan for her sub-centre area including plans for vaccine delivery and logistics;
- participate in training and coordinate with all ASHAs, AWWs and volunteers in her area to attend the appropriate training sessions;
- liaise with community leaders in the catchment area and ensure that ASHA / AWW distributes invitation cards to all target beneficiaries;
- coordinate with local ANM regarding location of MR vaccination session sites, ASHA, AWW and local leaders;
- check that appropriate plans have been made for delivery and pick-up of vaccines and other logistics during campaign days;
- to ensure safety and accountability, when two vaccinators are working they will work in parallel, that is, each will administer the vaccine independently.

During campaign tasks

- organize MR vaccination session site with help from ASHA / AWWs and volunteers. Ensure that all SBCC material is displayed at the session site properly;
- check that all logistics (vaccines, diluents, tally sheets, immunization cards, marker pens, cotton wool) have been received in appropriate quantities and quality;
- check that MR vaccine and diluents are from same manufacturer and within expiry date;
- administer vaccine following all safety norms. Dose is 0.5 ml and should be administered subcutaneously in the right upper arm. The site is important for survey purposes;
- record campaign dose in tally sheet. Check that tally forms are correctly completed and summarized at the end of each day;
- ensure that every immunized child gets a MR Campaign card;
- supervise and guide ASHA, AWWs and volunteers in her team;
- ask each beneficiary to wait for at least 30 mins after vaccination;
- respond promptly to AEFIs;
- wait for 1 h after vaccinating the last child at the site to respond to AEFIs, if any;
- dispose of all immunization waste material following proper guidelines.

Post campaign tasks

In the subsequent RI sessions after the campaign activity in the area, when ANM goes to the village where she usually works, she should ask ASHA to mobilize those children (9 months to less than 15 years) who were missed in the MR Campaign to provide their missed MR campaign dose.

Tasks of ASHA / AWW

Pre-campaign tasks

- participate in training arranged at PHC or block level;
- arrange for proper site and facilities for a session site if it is located at a site where no RI sessions are held;
- IPC to all families through invitation card to target age group children at least 3 days before the activity in the block;
- mobilize the community—get the PRI representative to convene a meeting of the VHSC at least 1 week before the activity in the village.

During campaign tasks (at session site)

- assist ANM to set up and manage the session site;
- arrange local village leader to inaugurate the session site;
- mobilize children to the session site. If turnout is low by mid-morning, she should visit households with children in the target age group and persuade them to get their children immunized;
- assist ANM in running the session site – welcome families to the session site, assist mothers to hold their children properly and generally assist in crowd control;
- assist in left thumb marking and tally sheet marking in coordination with ANM;
- remind parents of eligible children to complete routine immunization;
- advise where to report in case of an AEFI and report to ANM if she is aware of any AEFI;
- at the end of the day, she should identify children in her area who have not been immunized.

Post campaign tasks

- in the next RI session day in her village, arrange with her local ANM to immunize children with campaign dose who have been missed during the MR campaign.

Tasks of the volunteer

Pre campaign tasks

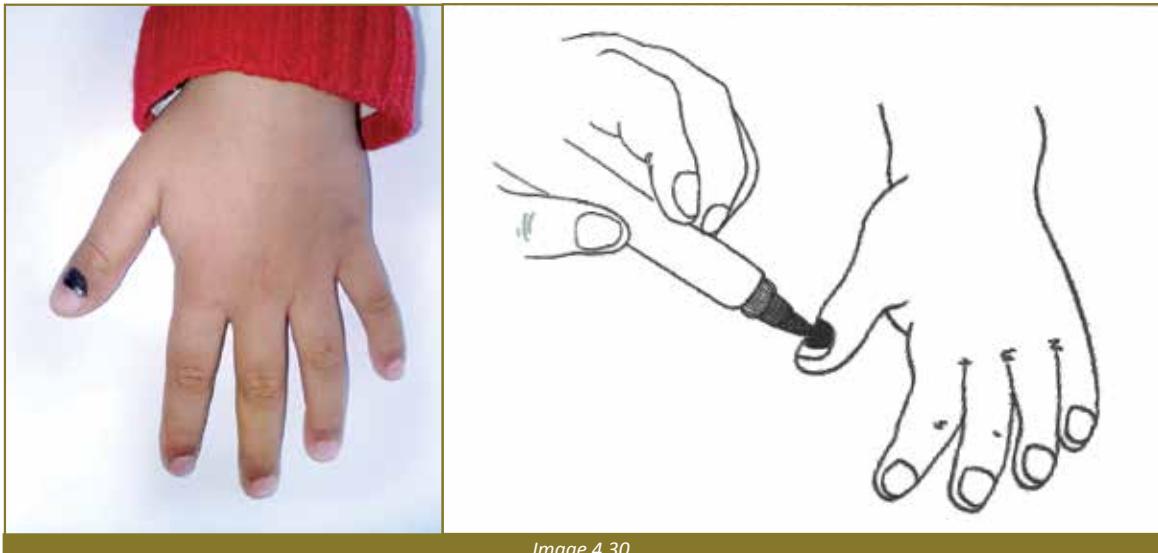
- participate actively in training activities before the campaign.

During campaign tasks

- assist in crowd control;
- fingermark each vaccinated child (left hand, cuticle of the thumb nail bed);
- carry out tally sheet marking for vaccinated children under ANM's guidance;
- give the campaign card to the child / parents accompanying the younger ones.



Fig. 4.9.1: Finger marking with indelible ink ((left hand, cuticle of the thumb)



Logistics to be supplied to each team

- each day, every vaccination team will receive the following items according to distribution plan;
- adequate amount of MR vaccines and diluents (from same manufacturer) according to the target population for that day;
- vaccines and diluents must be packed in separate zip-lock plastic bags inside the vaccine carrier with 4 conditioned ice packs;
- adequate number of 0.5 ml AD syringes;
- adequate number of 5 ml reconstitution syringes to match the vaccine vials supplied;
- one hub-cutter;
- one or 2 red bags for bio-hazardous waste materials;
- one or 2 black plastic bags for other waste;
- one cotton wool pack (25 gm);
- tally sheets;
- one hundred fifty vaccination cards for each vaccinator;
- one marker pen will be supplied to each vaccinator for 2 days (250–300 children);
- SBCC materials for displaying session site location;
- AEFI case reporting form (CRF).

Key points

- every level campaign manager/worker/vaccinator needs to fully understand his / her role and responsibility through advanced orientation/training with emphasis on simulation/role play;
- respect towards working hours and taking responsibility for the task assigned will contribute to higher quality of the services provided and higher administrative coverage;
- each HW from national level down to the volunteer in the vaccination team has an important role in the MR Campaign. Taking away one function in the chain of work during planning, preparation and implementation can compromise the success of the MR Campaign;
- the ultimate goal of the MR immunization campaign is to safely and effectively vaccinate each and every child of the target group. It is therefore everyone's responsibility to correctly handle and manage MR vaccines until final administration.





5

FREQUENTLY ASKED QUESTIONS ON THE MR VACCINATION CAMPAIGN

5.1 Frequently asked questions for HWs

Frequently asked questions (FAQs) are critical for training and communication needs for the planned MR Campaign. A set of such selected questions along with their rational answers are provided below for reference and use by HWs while communicating with the caregivers and community.

What are measles / rubella diseases?

Measles is a highly infectious disease causing illness and death due to complications in the form of diarrhoea, pneumonia or brain infection mostly among the children less than 5 years of age. Rubella is a mild yet highly contagious disease that can cause crippling birth defects or the death of the unborn child of an infected pregnant woman.

What is congenital rubella syndrome?

CRS is a set of serious congenital defects a child may be born with when a pregnant women gets rubella infection in her early pregnancy (usually in the first trimester), causing blindness, deafness, heart defects, mental retardation, liver disorders and other hematological disorders incompatible with normal healthy living.

Why is this measles–rubella vaccine given?

This MR vaccine is given for preventing both measles and rubella disease in the child, as these diseases can be only prevented by vaccination.

Does this vaccine give lifelong protection?

Yes, MR vaccine gives lifelong protection but vaccine efficacy of MR vaccine is 85% when given below 12 months of age in a child and > 95% efficacy when given above 12 months of age. Rubella vaccine efficacy is more than 95% if administered to a child below 12 months and > 99% if given above 12 months of age.

Does a combined vaccine of measles and rubella lead to any loss of efficacy of either vaccine?

No, combined vaccine of measles and rubella does not affect the efficacy of either of measles or rubella vaccine and the efficacy of both vaccines remains the same as when administered in a monovalent form..



Does a child need to be vaccinated if she or he has a history of any fever, rash or illness including measles or rubella?

Yes, every child must be vaccinated with two doses with measles and rubella vaccine at the recommended ages as per the national immunization schedule, irrespective of any past fever, rash, illness or history of measles / rubella vaccination or measles / rubella disease.

Will the child be vaccinated with the campaign dose if he or she has already received the routine doses of the vaccine?

Yes. As recommended in the current MR Campaign guideline, every child needs to be vaccinated with the campaign dose as an additional supplementary dose, irrespective of previous vaccination history (whether through campaigns or routine services), if the child belongs to the target age group at the time of ongoing campaign.

If a child has received MR vaccine before 9 months of age, is it necessary to repeat the vaccine later?

Yes. According to the National Immunization Schedule, the MR vaccine needs to be administered after the completion of 9 months until 12 months of age as first dose and at 16–24 months as second dose in RI.

Up to what age a child can be vaccinated with MR vaccine?

Under the UIP, if the child has not been administered two doses in the recommended ideal age as laid down in the National Immunization Schedule for MR vaccine, it can be administered until 5 years of age in the RI schedule and up to 15 years of age during an MR campaign.

What is a MR campaign?

This MR campaign is a special campaign to introduce the MR vaccine and to vaccinate all children in a wide age group in a state with one dose of MR vaccine. The MR campaign dose is given to all children, both immunized and unimmunized, who belong to the target age group. The goal of a MR campaign is to accelerate population immunity for both measles and rubella that will reduce deaths from measles and disabilities from CRS. A MR campaign must immunize above 95% of the target age group children (9 months <15 years) in order to help achieve the required population immunity.

What are MR follow-up campaigns?

These are additional MR campaigns following the initial MR catch-campaign required at periodic intervals to boost and sustain the herd immunity among the country's population depending on the susceptible cohort accumulated over the years. In any follow-up campaign, the targeted children's age group is the cohort born after the completion of last campaign. The intervals between these follow-up campaigns are decided at the country level and are based on the immunization coverage attained in both the MR Campaign and RI, including country epidemiology.

If a child comes after 2 years for the first dose, can he / she get the second dose?

All efforts should be made to immunize all children at the right age, i.e. first dose at completed 9–12 months and second dose at 16–24 months. However, if a child comes late (beyond 2 years), then two doses of the vaccine can be given at one month's interval until 5 years of age under the UIP.

If a child received one dose of MR vaccine during the MR Campaign, should he / she receive the routine dose of measles vaccine?

Yes, the child should receive routine doses of MR vaccine according to the National Immunization Schedule, irrespective of any MR campaign dose in the past.

What should be the minimum time interval between a routine vaccination and campaign vaccination?

If the campaign dose is due as per the guideline, it will be given irrespective of any gap between the last RI received by the child, as this is a one-time activity and there is no harm done to the child with an extra dose.

However, following a campaign vaccination, for the next due RI dose there should be a minimum gap of 4 weeks as a standard recommendation between two doses of live injectable vaccines.

Why is the amount of diluents provided by manufacturers more than the amount of vaccine doses to be administered?

The manufacturer provides more quantity of diluents than required, e.g. for 10 doses MR the diluent is more than 5 ml. The reason for this is to take care of the unavoidable vaccine wastage that occurs due to:

- some dead space in the hub and needle;
- sticking of the vaccine to the inner wall of the vaccine vial;
- inefficiency of the HWs in drawing the entire amount of vaccine from the vial.

Therefore, it is important to teach all HWs to draw the entire amount of diluent from the ampoule and use it to reconstitute the vaccine vial as a standard practice.

Why is the MR vaccine given in the right arm?

MR vaccine is given always on the right upper arm as a standardization and uniform practice across the country. This will also help caregivers / mothers recall while doing a coverage evaluation survey in the population.

Can MR and JE vaccine be given together?

Yes, In JE endemic districts, both MR and JE vaccine should be given together at the same time but on different arms. When for any reason we are not able to give both the vaccines on the same time / day, then a minimum gap of 4 weeks has to be maintained as a standard practice between any two live vaccines.

Can any other vaccine be given along with MR vaccine on the same arm at the same time?

Yes. Preferably, to keep it easy and simple for the vaccinators, we should avoid giving two vaccines at the same arm / site at the same time, but when you need to give multiple vaccines / injections at same time, the practice of giving 2 injectable vaccines on the same arm but a minimum of 2.5 cm apart is safe and acceptable.



5.2 FAQs for caregivers on MR vaccination campaign

What vaccine will my child get during the MR campaign?

Every eligible child will get a combined MR vaccine during the wide age range MR campaign.

Why does my child need to have this MR Campaign vaccination?

To stop transmission of measles and rubella in the country and achieve the goal of measles elimination and rubella control, each and every child needs to be vaccinated with campaign doses, in addition to the routine two-dose schedule.

Where will I get my child vaccinated during the campaign?

All eligible children will be vaccinated in the schools / outreach sites in the village / wards like health sub-centres, anganwadi centres and other fixed health sites like PHCs / CHCs / other government hospitals.

Does my child need MR vaccination campaign dose even if she / he has had all her / his routine vaccinations?

Yes, the campaign dose will be administered to all the children falling between the age group of 9 months to <15 years of age, irrespective of any past history of disease or vaccination.

How will I know the date and place of vaccination?

The local HWs (ANMs / lady health visitors [LHVs]) and community link workers like ASHAs and AWWs will communicate to all families / mothers / caregivers regarding date and place of vaccination and also give out invitation cards that will have the date and place of campaign vaccination site mentioned.

What are the benefits of this MR vaccination of my child?

Every vaccinated child will be protected from measles and rubella disease and its complications.

Are there any side effects of MR vaccination on my child?

This MR vaccine is safe and administered worldwide in all countries under RI programme as well as through MR campaigns. Millions of children have been vaccinated with this vaccine safely all around the world and the vaccine is safe for children.

5.3 FAQs for HWs on MR vaccination in routine immunization

When will MR vaccine be available for administration under the RI programme?

MR vaccine will be available for administration under the RI programme from the day the MR Campaign is launched in the state.

Which child is eligible for MR vaccine under the RI programme?

Every child who is eligible for either first dose or second dose of measles vaccine in his / her RI schedule will be provided with combined MR vaccine in place of measles only vaccine.

What should be the time gap for a child between Measles / MR / MMR vaccine given under RI and MR vaccine given through the campaign?

If the child had his / her RI dose first followed by campaign dose, then time interval between both doses is irrelevant, as the child will be given a mandatory campaign dose irrespective of any past RI dose; but if the child comes for his / her scheduled RI dose after receiving the campaign dose, then

ask the mother / caregiver to come a month later, to maintain an interval of 4 weeks gap between two shots of the same live attenuated vaccine. This variation in practice is allowed because campaign dose is a one-time activity and cannot be deferred, whereas RI is an ongoing activity where a child can get window of opportunity again.

5.4 FAQs for caregivers on MR vaccination in routine immunization

Can my child receive routine MR vaccine during the MR Campaign along with other due vaccinations? No, a child visiting any RI session site on RI days during campaign period will be given all other due antigens except Measles / MR vaccine. However the child should be given the due MR vaccine in RI as per his / her routine schedule only after the campaign.

If my child has received her / his routine MCV recently, will she / he get the MR vaccination in the campaign?

Yes campaign vaccination will be an additional vaccine dose provided to each and every target-eligible child (from 9months to <15 years), irrespective of his / her previous vaccination status.

FAQs on multiple injections during RI sessions

Why does my child need multiple injections at one visit?

Giving a child several vaccinations during the same visit allows your child to be immunized as soon as possible. This provides protection during the vulnerable early months of your child's life. In addition, giving multiple vaccinations at one time means fewer vaccination visits.

Is it safe to give multiple injections at one visit?

Yes, it is safe for your child to receive multiple injections at one time. Many countries have immunization schedules where children receive multiple vaccine injections at one visit.

Is there any evidence that multiple injections of vaccines may increase the risk of adverse events?

No. Numerous studies have shown that giving multiple vaccinations during the same visit does not result in higher incidence of adverse events.

Are multiple injections painful for the child?

While receiving multiple injections at once is painful, having to return for additional vaccines forces the child to experience pain on more visits. It is better for the child to experience one, brief moment of discomfort than pain on separate days.

Would it be safer to separate vaccine injections and spread them out?

No, it is safer for your child to receive all of his vaccinations at once. Spreading out vaccinations leaves babies unprotected for a longer time and the child may have to wait for a 4-week gap between two live vaccines.

If my child receives multiple injections on the same visit, will the vaccines be as effective if given alone?

Yes. MR does not interfere with other vaccines and MR is equally effective when given alone or with other vaccines.

Can multiple vaccines given at once “overwhelm” a child’s immune system?

No. Children are exposed to numerous bacteria and viruses on a daily basis through eating and playing. Vaccines do not add a significant burden to the immune system.



5.5 How to reduce student anxiety at immunization time

Helpful hints for vaccinators and school staff

Mass immunization or school immunization of children is the best way to protect against illness and prevent spread of certain VPDs. Most children handle immunization with little difficulty. However, some children find the prospect of immunization anxiety producing. Vaccinators and school staff have a role in making school immunizations a positive experience. With your assistance, we can help reduce children's fear and anxiety, encourage their cooperation and help them understand the value of immunization.

5.5.1 Before immunization

- **maintain calm.** Use a matter of fact approach. This will help normalize immunization as part of the school-based programme offered to students;
- **promote learning** about diseases and immunization with class room discussions;
- **remind students** about the positive benefits of receiving protection through immunization, preventing the spread of communicable diseases and their responsibility to protect themselves;
- **reassure students** that this vaccine usually has no side effects (they may experience minor discomfort like fever and redness, warmth, or slight swelling at the immunization site);
- **reduce anxiety.** Some ways of dealing with anxiety include—concentrating on relaxing, using distractions, deep breathing, counting and visualizing something pleasant;
- **be honest.** Don't tell students it won't hurt at all;
- **don't tease or exaggerate.** Encourage (other) school staff and students not to tease or frighten others. Ask students to comfort and reassure each other;
- **use alternate words** like "fluid" or "immunization" instead of "blood" and "needle";
- **encourage students** not to skip meals on the day of immunization;
- **parents** may accompany their children if necessary.

5.5.2 After immunization

- **resume** regular school work as soon as possible;
- **beware** of the expected reaction and how to deal with them;
- **notify the school nurse** if students become unusually pale so that an appropriate assessment can be done. Have the student lie down with her / his feet up or sit with their head between their knees. Offering a drink of water, or suggesting that the student have a snack or juice if they have one available can be helpful;
- **encourage students to remain in a group**, or at least in pairs, for the first 15 minutes after being immunized so students are not left alone.

Call the vaccinator supervisor, remain calm, and maintain classroom order if a student experiences usual symptoms or faints.

6

INTRODUCTION OF MR VACCINE IN ROUTINE IMMUNIZATION

Introduction and implementation considerations

MR vaccine will be introduced in the national immunization schedule immediately after the campaign is launched in the respective states through a well-coordinated manner to replace both doses of measles vaccine currently administered to every child at 9–12 months and again at 16–24 months with MR vaccine.

6.1 Revised National Immunization Schedule

Under UIP, MR vaccine will be administered as a 0.5ml dose through the subcutaneous route. All children in the 9 months to <15 year age-group will be vaccinated with one dose of MR vaccine in a nationwide MR campaign. MR vaccine will be introduced in RI immediately after launching this wide age range campaign in the states.

In RI, the first dose of MR vaccine will be administered along with the first dose of Vitamin A and first dose of JE vaccine (in JE endemic areas only). The second dose of MR vaccine will be administered along with first booster dose of DPT and OPV, second dose of Vitamin A and second dose of JE vaccine (in JE endemic districts only).

Table 6.1. Comparison of current and post MR introduction RI schedule in India for infants and children

Age	Vaccination schedule before MR introduction	Vaccination schedule after MR introduction
At birth	BCG, bOPV-zero dose, Hep B-birth dose	BCG, bOPV-zero dose, Hep B-birth dose
6 weeks	bOPV-1, Pentavalent-1, Rota-1 (if applicable), fIPV-1 (as applicable)	bOPV-1, Pentavalent-1, Rota-1 (if applicable), fIPV-1 (as applicable)
10 weeks	bOPV-2, Pentavalent-2, Rota-2 (if applicable)	bOPV-2, Pentavalent-2, Rota-2 (if applicable)
14 weeks	bOPV-3, Pentavalent-3, Rota-3 (as applicable)	bOPV-3, Pentavalent-3, Rota-3 (if applicable), IPV / fIPV-2 (as applicable)
9 months	Measles-1, Vit A*, JE-1 (where applicable)	MR-1, Vit A*, JE-1 (where applicable)



Age	Vaccination schedule before MR introduction	Vaccination schedule after MR introduction
16-24 months	DPT first booster dose, bOPV-booster dose, Measles-2, JE-2 (where applicable)	DPT first booster dose, bOPV-booster dose, MR-2 , JE-2 (where applicable)
5-6 years	DPT second booster dose	DPT second booster dose
10 years	TT	TT
16 years	TT	TT

6.2 Injection safety and waste management

Injection safety protocols are incorporated into existing RI guidelines. All health staff dealing with injections including RI injectable vaccines are regularly trained on these protocols. Information from monitoring of session sites is shared with districts and states for appropriate response. During training for MR vaccine introduction, injection safety and its benefits for the HW, beneficiary and community will be reemphasized.

Waste sharps generated from immunization with MR vaccine will be handled as per guidelines prescribed by the Biomedical Waste Management and Handling Rules already in place for RI.

6.3 National coordination mechanism to ensure successful introduction

MoHFW will coordinate the introduction of MR vaccine across the country. The Immunization Division of MoHFW will oversee the process and regularly apprise the Ministry of the state-wise progress. An Indian Expert Advisory Group on Measles and Rubella (IEAG-MR) was formulated by Government of India (GoI) on 01 December 2014 to provide technical oversight to attain the overall objective of measles elimination and rubella control with MR vaccine introduction as one of the critical activities.

The Immunization Division will have the responsibility of deciding the activities and timelines required to ensure implementation of the MR vaccination campaign followed by MR vaccine replacing two doses of measles vaccine in the current UIP schedule. It will issue relevant guidelines and SOPs and conduct sensitization and training meetings / workshops towards this objective.

MR Campaign implementation committees will be formulated at national, state, district and sub-district levels for reviewing all aspects of the Campaign and coordinate the changing over from measles to MR vaccine in the RI programme immediately after campaign. At the national level a COG will be constituted for providing day-to-day oversight. Similar bodies will be formulated at state and district level for effective planning and close coordination and monitoring of MR Campaign implementation including the changing over from measles to MR vaccine in routine immunization after the campaign.

6.4 Affordability and financial sustainability

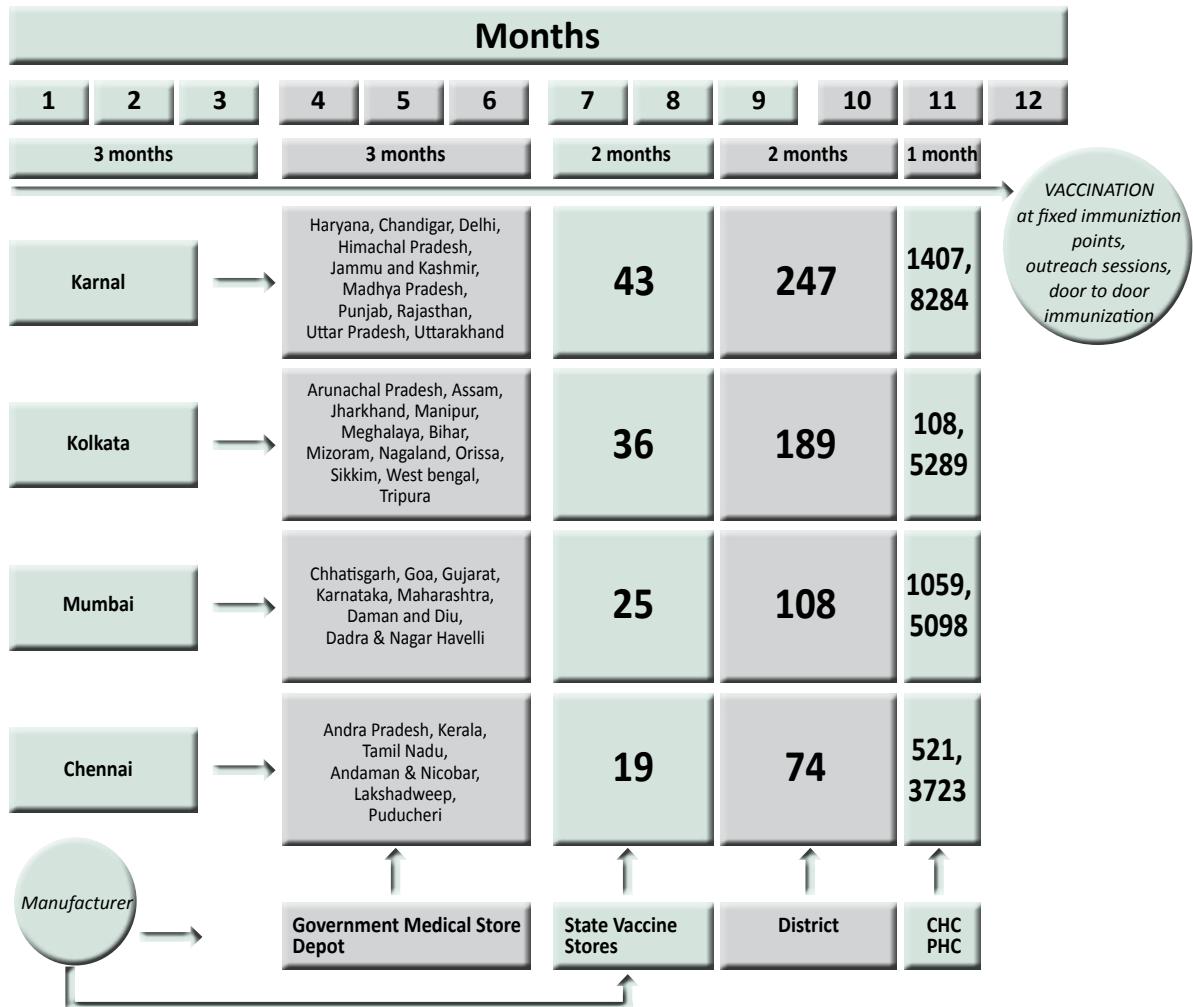
The GoI has in its comprehensive Multi-year Plan 2013–17 (cMYP) includes the introduction of MR vaccine into RI with government financing as part of its strategic objectives on new vaccine introduction.

6.5 Overview of cold chain capacity at district, regional and central levels

The cold chain infrastructure is a wide network of cold-chain stores consisting of government medical supply depots (GMSDs), State, regional / divisional vaccine stores and district and PHC /

CHC vaccine storage points. Cold chain network in the country has been the backbone to ensure that right quantity and right quality of vaccine reaches the right place at the right time, and ultimately the target population.

Fig. 6.1: Vaccine storage network and storage timelines in India



Source: National Cold Chain Assessment 2008

India has completed a national effective vaccine management (EVM) assessment and has also developed an online system for assessing cold chain equipment functionality and space availability. Since MR vaccine (10 dose vial) will replace the current measles vaccine (5 dose vial) under RI, no additional cold chain space will be required for introducing MR vaccine. India has also conducted measles catch-up campaigns between 2010 and 2013 in 14 states of the country and faced no challenges with cold chain space availability. Further strengthening of the existing network has been envisaged in the cMYP 2013–17, which will further enhance cold chain capacity and quality in the country.

6.6 Training activities

National training of trainers

Training activities for the MR Campaign will incorporate MR vaccine introduction in RI. This training will commence at the national level with a 2-day orientation ToT for state-level officers. These

trainers will also get to know about the changing over from measles vaccine to MR vaccine, where the state has to plan gradual depletion of measles vaccine before the campaign launch date and ensure that all cold chain points at every level in the state are informed and are implementing the transition plan.

State level training of trainers

Training activities for the MR campaign will incorporate MR vaccine introduction in routine immunization. This will be a two-day orientation TOT (training of trainers) for state and district level officers. These trainers will be oriented on changing over from measles vaccine to measles-rubella vaccine. The state has to plan gradual depletion of measles vaccine before the campaign launch date and to ensure that all cold-chain points at every level across the state are informed and implementing the transition plan. Subsequently, these officers will conduct trainings in their respective districts.

District level workshop

District level officers will conduct a district level training for block MOs of their district as district planning workshops and urban planning meetings. These MOs will, in turn, be responsible for training HWs, including ANMs, supervisors and cold chain handlers for the MR Campaign that will include MR vaccine introduction in to the RI programme in their respective areas. Cascaded training for all levels will be conducted as part of the MR Campaign activity that will act as a launching platform for MR vaccine introduction in RI along with the campaign launch, thus ensuring that subsequently all session sites after the campaign start date in the state and district provide only MR vaccine.

ASHAs and AWWs

ASHAs and AWWs will play a crucial role in the successful and smooth implementation of the introduction through wide age range campaigns followed by inclusion in the RI programme. The Child Development Project Officers of Department of Women and Child Development, officials from Department of Primary and Secondary Education and ICDS supervisors will also be sensitized on the need and the process for introduction of MR vaccine in the RI programme, before the campaign launch in the state. The state / district health departments, education department and the department of women and child development will have to coordinate their efforts for smooth implementation of such reorientation / training (for ASHAs and AWWs), sensitization and further implementation of a well-coordinated transition plan.

Sensitization of paediatricians / medical practitioners through involvement of IMA, IAP will also focus on supporting the introduction through MR campaigns, alongside introduction in RI programme in their respective areas / districts.

6.7 State-wide changing over from measles to MR vaccine

6.7.1 Pre-transition activities

RI vaccine stock management has to be in such a manner that all measles vaccine has to be either used up or returned back in a reverse cold chain to the state vaccine store from the block / district / regional vaccine stores. There has to be a gradual depletion of measles vaccine vials and diluents in the district and block / PHC ILR points, including regulating the vaccine supply process at each level further downstream three months before the campaign. The state has to timely and accurately report the stock of measles vaccine, based on which the vaccine supply will be regulated so that there is only sufficient vaccine to carry out routine immunization till the start of the campaign. State has to ensure that there is no overstocking of measles vaccine. Monitoring plan has to be in place to verify and validate that no measles vaccine stock is held / available at the peripheral levels one week before campaign launch date. In order to ensure that no measles vaccines and diluents are left over

during campaign and to prevent mix-up of vaccine, remaining measles vaccine stock along with its diluent should be segregated and contained in at the cold chain points.

6.7.2 Monitoring the changing over from M to MR in routine immunization

Ideally on the day of the campaign launch, the state-level stores should not have any measles vaccine and diluents stored / distributed at any level of the vaccine chain, starting from the state vaccine store to the regional vaccine store, district vaccine store and block / PHC ILR points. The supervisors and monitors deployed for campaign supervision and monitoring should also cross-check the cold chain points visited to verify if any measles vaccine is available in the ILR points. If any measles vaccine or diluents are observed during the MR Campaign then this should immediately be segregated and contained at cold-chain points.

RI monitoring during the campaign weeks should also be looked into for any aberration in terms of measles vaccine or diluent available at the session-site and do the needful segregation and containment as per SOP.

6.7.3 Post transition monitoring in routine immunization

Following the change over from measles to MR vaccine in the RI programme, timely supervision of RI in the field should continue. During session site supervision, if any mix-up or deviation in vaccine stock management is observed, proactive corrective measures have to be undertaken in coordination with the district immunization officer and state immunization officer to segregate the measles vaccine at the earliest.

6.8 Monitoring MR vaccine introduction in the RI programme

As part of the ongoing RI session site monitoring across the states that will include MR vaccination, the new MR vaccine introduction will be specially monitored and tracked with a feedback shared at every level. There should be necessary measures on the ground to ensure smooth transition to replace measles vaccine with MR vaccine in the national immunization schedule under strict supervision and oversight all across the state.

6.9 SOPs for Measles vaccine stock management:

Three months prior to start of MR Campaign:

- no direct supply from manufacturers. Supply will be made only on written request / demand by the state;
- state / UTs to reassess and return measles vaccine with diluent which cannot be consumed by the start of MR campaign, in secondary or tertiary packaging.

Less than 3 months:

- measles vaccine supply will be made on demand, initially monthly supply, which will further reduce to a week supply. No further supply from 10 days prior to campaign.

Same principle will apply for supply of measles vaccine by state / UT further to Divisions or Districts etc.

- MR campaign vaccine distribution will be done from 1 month in advance. States need to ensure a vaccine distribution plan to utilise all CCPs across the state / UT (all ILRs and DFs).



Other vaccines under UIP:

- state to apply due diligence of not overstocking other vaccines in order to free the space for MR campaign;
- if any measles vaccine is left after the campaign, this should be used up through administration a first dose (MCV-1) till last stock.

6.10 How can the MR Campaign strengthen the RI and VPD surveillance!

Mass immunization campaigns have been developed and successfully used in the past in many countries including India, to boost and promote the RI programme and to strengthen the VPD surveillance programme.

The current Operational Guidelines for the introduction of MR vaccine through campaign in India contains various chapters with clear references to both programmes. In particular, the components of micro planning, communication and social mobilization, supervision and monitoring and training give an opportunity to improve RI and VPD surveillance programmes.

Introducing the new MR vaccine through a campaign and changing over from measles to MR vaccine in the RI programme after the MR Campaign, creates many opportunities at all levels to boost both doses of MR vaccine coverage.

While the normal RI schedule will continue uninterrupted during the one month implementation of the MR Campaign, there are opportunities to strengthen not only the first and second doses of MR vaccine coverage but coverage of all other antigens in the RI programme.

Following key actions are the special efforts / components that will lead to strengthening the RI programme and MR surveillance, if well planned, prepared and strictly implemented:

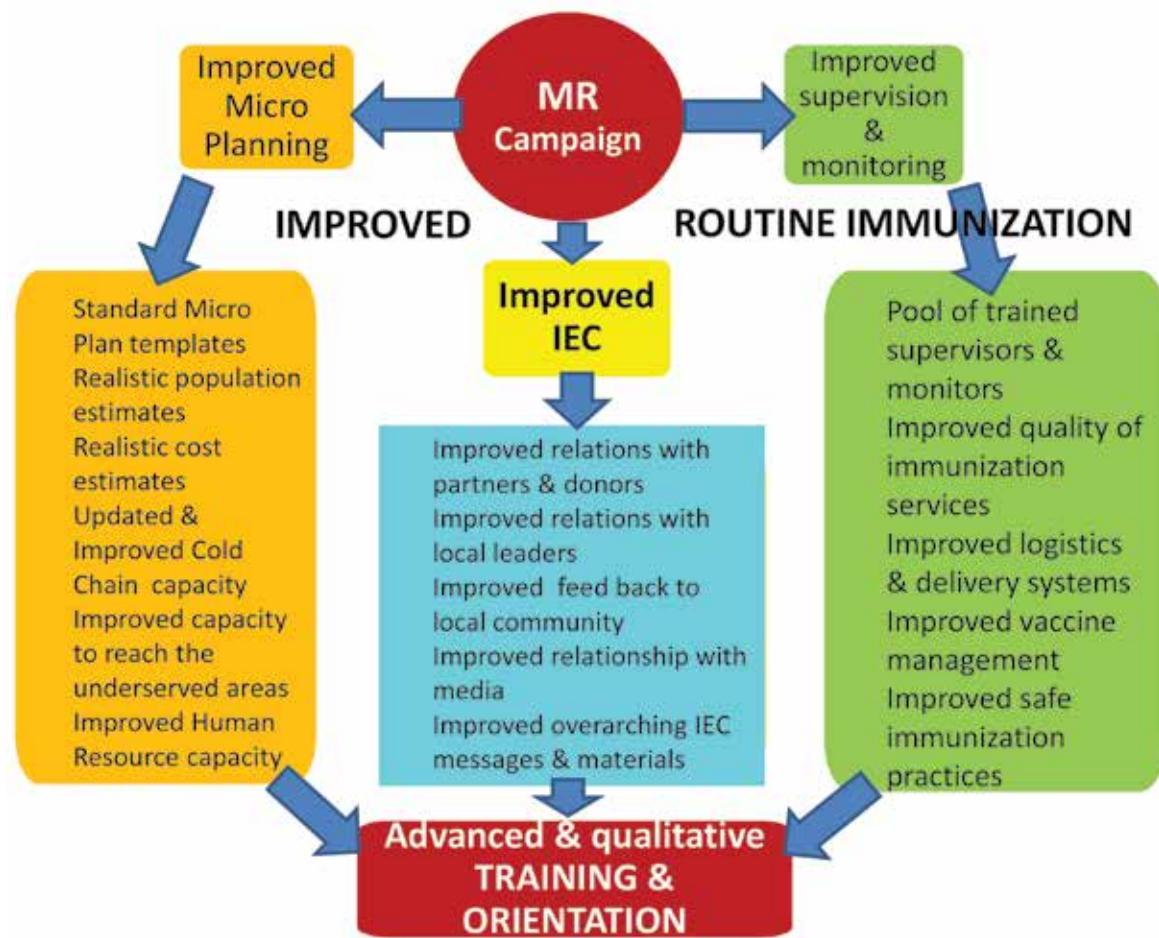
Before the MR Campaign

- develop operational guidelines that include development partners for health system strengthening in all coordination structures at all levels;
- advocate / sensitize political / religious / community leaders during the MR planning meetings and provide information on MR Campaign linkage to the RI and surveillance programmes;
- prepare the MR Campaign micro-plans based on the currently used routine micro-plans and revise these after workshops have come out with new realistic information. Especially, focus on the high-risk areas / populations;
- include strategies / ways / messages in the MR Campaign communication plan that includes strengthening the RI programme, especially boosting the MCV1 and MCV2 coverage and messages to the public about the importance of reporting of suspected measles cases at hospitals;
- include hands-on exercises in the MR introduction campaign training curriculum to improve knowledge and skills of vaccinators, team supervisors and community HWs that will improve not only the quality of their RI work but also will boost immunization coverage;
- plan for extra supervisors and external monitors, with focus on the underserved areas and populations to help raise capacity of HWs and help advocacy and social mobilization efforts;
- update cold chain inventory and ensuring functionality of cold chain equipment's;

- update inventories of measles vaccine and needs of MR vaccine while changing over from measles vaccine to MR vaccine.

During the MR campaign

- vaccinators / supervisors / community health volunteers to provide messages to the caregivers about the importance of RI. Particularly, follow-up on MCV2 and reporting of suspected MR cases;
- supervisors and external monitors should visit health centres / communities with focus on the underserved in high-risk areas / populations and carry out briefing / debriefing of political / religious / community leaders about introduction of the MR vaccine in RI and boosting of MCV 1&2 coverage, including MR surveillance.



After the MR campaign

- revise the RI micro-plans with more accurate and realistic information based on the MR introduction experience and realistic target registration, tallying and active search for missed children (including HRA / P);
- foster strong relationship with media for supportive supervision to enhance RI coverage;
- correct cold chain systems for RI, based on the information / reports from HWs, supervisors and monitors. Post MR campaign, accurately inventorize and redistribute MR vaccine stocks;

- correct all RI related implementation strategies based on the findings and reports from the MR Campaign supervisors and monitors;
- information from the RCM to why the child was missed must be applied to strengthen communication strategies for RI.

Following frameworks graphically show the main MR operational components: micro-planning, SBCC, supervision and monitoring, that can improve both RI and the surveillance programme and to what improvements they may / can / will lead if properly planned and prepared. The operational component of orientation and training is the central vehicle that must be used to constantly reinforce / build capacity to sustain those improvements based on progress assessments within the RI and surveillance programmes.

Key points

- MR vaccine will be introduced in the routine immunization problem after the campaign immediately;
- training of health workers and medical officers before the campaign must also focus on MR vaccine introduction in RI;
- the MR Campaign gives the opportunity to more realistically and accurately adapt the RI micro-plans;
- the MR Campaign is the perfect platform to raise public awareness of the Universal Immunization Programme and will help in reaching the underserved population;
- MR Campaign can link UIP and surveillance programmes and strengthen coordination between their health staff;
- the MR Campaign is the ideal platform for capacity building of staff involved in RI and Surveillance programmes;
- orientation and training are the keys for all other operational components to build capacity to sustain progress based on programme assessments by supervisors and monitors.

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Annex 1: Measles vaccine coverage in all states

(Evaluated and administrative coverage data)

MCV1 & MCV2 coverage, Evaluated & Reported data

State	Evaluated coverage data			Reported (HMIS) data, 2015-16*	
	%Measles first dose, Most recent survey	Data Source for Measles first dose	%Measles sec- ond dose, 24-35 months, RSOC, 2013-14	%Measles first dose, Apr 2015- Mar 2016	%Measles second dose, Apr 2015- Mar 2016
A&N ISLANDS	76	NFHS4	N / A	98	69
ANDHRA PRADESH	89	NFHS4	44	95	74
ARUNACHAL PR.	86	RSOC	11	71	38
ASSAM	79	RSOC	22	88	75
BIHAR	79	NFHS4	11	88	78
CHANDIGARH	89	DLHS4	N / A	86	95
CHHATTISGARH	86	RSOC	28	87	80
D&N HAVELI	85	DLHS3	N / A	80	68
DAMAN & DIU	91	DLHS3	N / A	79	71
DELHI	85	RSOC	36	106	108
GOA	97	NFHS4	55	99	101
GUJARAT	81	RSOC	25	86	74
HARYANA	79	NFHS4	28	94	91
HIMACHAL PRADESH	93	RSOC	23	95	91
JAMMU & KASHMIR	75	RSOC	24	99	92
JHARKHAND	76	RSOC	27	87	74
KARNATAKA	82	NFHS4	55	93	86
KERALA	93	RSOC	30	96	62
LAKSHADWEEP	92	DLHS3	N / A	105	98
MADHYA PRADESH	80	NFHS4	11	76	67
MAHARASHTRA	93	RSOC	26	98	94
MANIPUR	75	RSOC	22	97	68
MEGHALAYA	72	NFHS4	18	99	73
MIZORAM	95	RSOC	29	108	94
NAGALAND	53	RSOC	15	66	50
ODISHA	76	RSOC	28	84	85
PONDICHERRY	95	NFHS4	N / A	69	72
PUNJAB	87	RSOC	29	97	93
RAJASTHAN	64	RSOC	11	77	63
SIKKIM	93	NFHS4	52	74	66
TAMIL NADU	85	NFHS4	28	85	34
TELANGANA	91	NFHS4	N / A	102	88
TRIPURA	70	NFHS4	38	100	79
UTTAR PRADESH	62	RSOC	18	82	63
UTTARAKHAND	81	NFHS4	20	101	92
WEST BENGAL	93	NFHS4	49	95	94
INDIA	79	RSOC	27	88	74

*HMIS data as on 7 Oct 2016

Annex 2: Role of other Government departments and other organizations in MR vaccination campaign

Education

- district education officer sensitize and orient school principals, teachers, parents and students about the importance of MR vaccination campaign in coordination with DIO/CMO;
- prepare school - class wise number of campaign eligible children and inform health officer;
- identify school noodle point, class leads and conduct orientation training on MR campaigns;
- organize MR vaccination centres in schools for vaccination of children less than 15 years of age;
- identify a focal person for coordinating school-based vaccination activity, like providing space in the school, mobilizing and controlling the flow of children;
- mobilize school teachers at least two week before to support vaccination teams in school-based activity to achieve high coverage with safety;
- send out prior intimation to parents of school children regarding days of MR immunization at the school and seek their cooperation through parent-teachers meeting;
- enlist name wise missed children after the school campaign and intimate the concern medical officer in charge (BMO) for vaccinating all the missed children.

Women and Child welfare

- facilitate use of ICDS centres as MR session sites wherever required;
- ICDS workers should be part of vaccination teams as support staff for mobilization at MR vaccination session sites;
- assign ICDS workers to distribute and display SBCC materials like handouts, posters and banners in their areas and mobilize local community leaders / mothers' groups to raise community awareness about MR Vaccination Campaign;
- ICDS supervisors and CDPOs must be part of block level coordination plan and can be supervisors in the campaign micro plan.

Panchayati raj institutions

- gram panchayat vikas adhikaris (village development secretaries), lekhpal, village pradhans and panchayat members should mobilize the community to attend the MR session site for maximum coverage;
- launch the programme in their areas;
- help to identify and provide suitable locations for MR session sites where RI sessions are not held regularly to reach the unreached;
- village Health Sanitation Committee will support the MR campaign in the following ways:
 - in case there are no regular RI session sites in a village, VHSC should help identify appropriate place for MR session site;
 - provide logistic support to team like chair, benches, water, etc. Identify volunteers to assist on the session day;



- identify and mobilize left-out children to maximize coverage during sweeping activity;
- if needed, utilize untied VHSC funds for transporting AEFI cases to nearest AEFI management centre.

Other Government departments like Home Affairs, Defence, Telecom, Employees' State Insurance, Information & Broadcasting, etc.

- allow MR session sites to be located in their premises, if needed;
- government workers may be part of vaccination teams and encourage support and ensure coverage in their own residential colonies;
- government offices should display SBCC materials like posters and banners;
- police wireless may be used to convey urgent messages for MR Vaccination Campaign;
- concerned departments should allow the key messages of MR Vaccination Campaign programme to be printed on telephone, electricity and water bills;
- telephone exchanges, mobile service providers (government and private) may be requested to send text and voice messages.

Professional medical bodies

- national, state and district chapters of all professional bodies (primarily IAP and IMA) should send out a formal communication to all their members requesting them to mobilize their clients;
- all private and public physicians, private practitioners and other health professionals can inform their clients of the campaign dates and the need for all children of 9 months to <15 years of age to receive a additional dose of MR vaccine irrespective of their prior immunization status;
- display SBCC (IEC / IPC etc.) materials at their clinics;
- sensitize their members to manage and report any AEIIs at their facilities;
- assist vaccination teams to convince reluctant parents, if needed;
- health professionals can also help to monitor the MR activities in coordination with local government / partner counterparts.

NGOs / other voluntary organizations, National Cadet Corps, National Service Scheme and Nehru Yuva Kendra

- create community awareness for MR vaccination campaign by contacting community – religious leaders, developing, distributing and displaying SBCC materials;
- MR session sites may be located at their premises / campuses;
- help to mobilize parents to the session site and support vaccination teams during activity.

Annex 3: Communication with media regarding AEFI

- In the event of an AEFI, it is essential to present information to the media in a way that will generate a sense of credibility and confidence by being:
- **honest** – never lie; if you do not know, say so, but assure to find out, e.g. “We don’t know at this time, but we have taken steps to answer that question”. A lie or cover-up can become a bigger news story than the initial event;
- **caring** – create a strong, compassionate, competent image for yourself and the immunization programme;
- **clear** – avoid jargon; use simple phrases and give examples to clarify the meaning;
- **serious** – avoid any light comments / humors;
- **responsible** – don’t be defensive, e.g. “We will see if there is any truth in the report”, but accept responsibility appropriate to your position and avoid blaming someone else;
- **responsive** – hold a daily press conference if needed to meet the needs of the public and media; regular contact helps build a trusting relationship with the media;
- **positive** – reframe the situation in positive terms; use terms such as “vaccine safety” (which has a positive connotation) rather than “adverse event”.

When facing a hostile interviewer, prepare these techniques:

- **Block** – respond to a negative question with a positive answer, e.g., when asked, “How many children have died from immunization?”, answer: “Immunization saves lives. Since our immunization programme began, X children have been immunized, and of them Y% might have died from one of these diseases. That is the context in which we must consider the tragic, but thankfully rare adverse events which follow immunization.”
- **Bridge** – having answered a difficult question, move quickly to something linked but positive (see example below);
- **Correct what is wrong** – immediately correct information from the interviewer that is wrong. Be assertive, not aggressive; and state the facts simply, factually and in a friendly way;
- **Stay cool** – no matter how bad it gets, don’t get angry or defensive; stay friendly, polite and warm;
- **Be assertive** – state what you want to say in a clear way without getting aggressive; take time to think about the response and don’t be rushed or forced.



Annex 4: Prototypes of letter from District Health / Education Officer to schools

To

The Principal / head of institution

Subject: Supporting Measles-Rubella Vaccination Campaign

The state ofis conducting the MR vaccination campaign as part of the national strategy to eliminate Measles and control Rubella / CRS in the country. All children aged 9 months to less than 15 years will be provided with an additional dose of MR vaccine, regardless of any previous vaccination status or history of measles / rubella-like illness.

Measles is a highly infectious disease caused by a virus. An estimated nearly 49 000 children die from measles annually, making it one of the leading causes of child deaths in India. Measles can be prevented by immunizing children with two doses of measles vaccine, which is safe and effective. A MR campaign offers a second opportunity to ensure population immunity against measles and rubella. The aim of the campaign is to cover 100% of the targeted children.

Rubella is an infectious yet mild viral illness affecting both children and adults that can cause death and disabilities in the newborn if an unprotected pregnant woman gets infected with rubella virus in early pregnancy. Rubella virus has the potential to cause abortions, stillbirths and severe birth defects known as congenital rubella syndrome (CRS), including deafness and blindness in the newborn child. This may lead to serious lifelong disabilities, which is a huge burden to the family and society (nearly 30000 estimated CRS cases in the country per year).

Under the Campaign, the Departments of Health and Education are partnering with schools to bring students and teachers to jointly participate in the MR Campaign. All schools – public and private, including other institutions are receiving this letter, which will be followed by orientation for teachers and students to be conducted by health programme managers / health workers of your area.

The MR campaign will be conducted within a period of 3–4 weeks. Vaccination will be conducted in schools during the first 2 weeks and later on in the community through outreach sessions. Duration of the campaign may vary depending upon the vaccinator's availability Vs injection load, based on district / state micro plans.

Please take the necessary initiative to ensure that all children in the target age in your school get vaccinated during the campaign.

Your active participation in the campaign is requested for the following:

Inform about the date and time of the session to students and their guardians.

Prepare list of students less than 15 years of age.

Assign teachers to help organize and conduct immunization sessions in the school.

Coordinate with health workers to conduct the session during school timings.

Ensure that teachers **crosscheck left thumb** marking of all vaccinated children.

Share list of absentee target students with the health worker for vaccination during the village campaign session.

Senior students should get involved in motivating and ensuring the vaccination of those under-15 children who are out of school.

Please also see the attached information sheet on measles and rubella that can be sent to parents and distributed among teachers and children.

Should you have any questions, please call (Tel no) or meet.....

(Names of Immunization Officers / Medical Officers).....



Annex: 5 Prototype of letter addressed to medical practitioners / paediatricians / members of professional medical associations

To

Subject: Supporting Measles-Rubella Vaccination Campaign

Dear Doctor

The state..... of is conducting the MR campaign as part of the national strategy to eliminate Measles and control Rubella / CRS in the country. All children aged 9 months to under-15 years will be provided with an additional dose of MR vaccine regardless of any previous vaccination status or history of Measles/Rubella-like illness.

As you are aware, measles is highly infectious disease caused by a virus. An estimated nearly 49000 children die from post-measles complications annually, making it one of the leading causes of child deaths in the country. Measles can be prevented by immunizing children with measles vaccine, which is safe and effective.

As you also know, rubella is an equally infectious yet mild viral illness affecting both children and adults. Rubella infection when acquired in the first trimester of pregnancy can causes congenital rubella syndrome (CRS) leading to spontaneous abortions, stillbirths and babies born with serious multi-organ congenital anomalies, including blindness and deafness, etc. causing a life full of disabilities (nearly 30 000 annual incidences of CRS across the country), which is completely preventable with rubella vaccine (as MR vaccine) having > 95% efficacy.

National routine MCV1 vaccination coverage is ~83% (Rapid Survey of Children 2013-14) and even less for MCV2 coverage (70% as per Health Management Information System). Although measles vaccination confers immunity in 85% of children when given at 9–12 months of age and in 95% of children when they get immunized at 16–24 months of age, a substantial number of children remain unprotected even if they are vaccinated. Hence an MR campaign offers an opportunity to the susceptible group of children to get vaccinated and overall to boost population immunity against measles and rubella across the country, through sustaining high MR vaccination coverage in all the states.

The MR campaign will be conducted within a period of 3–4 weeks. Vaccination will be conducted in schools during the first 2 weeks and later on in community through outreach sessions. Duration of the campaign may vary depending upon the vaccinator's availability and injection load, based on district / state micro plans.

For the success of the campaign, your contribution will be critical. Your active participation in the following activities will be highly appreciated:

- providing your clinic as a site for immunization sessions;
- developing your clinic to act as an AEFI management centre. You will be trained to manage AEFRs and will be given AEFI management kits;
- advocating with parents to get their children vaccinated;
- becoming a trainer for the vaccinators and supervisors (if interested) after training at district level and communicating the messages to your colleagues for similar involvement in the campaign.

We thank you in advance for your cooperation and support.

Should you have any questions, please call (telephone numbers) or meet.....

(Names of Immunization Officers / Medical Officers).

Annex: 6 Prototype letter for local government / religious / social leaders / NGOs

To

Subject: Supporting Measles-Rubella Vaccination Campaign

Dear

The District / Block / Village / Ward of.....

.....

There will be a MR campaign in our area as part of the national strategy to eliminate measles and control rubella in our country. To achieve this elimination goal a new MR vaccine will be introduced in the immunization programme across country. Every children aged 9 months to under 15 years will be provided with an additional dose of MR vaccine regardless of past vaccination status or history of Measles/Rubella-like illness.

As you are aware, measles is a highly infectious disease caused by a virus. An estimated nearly 49 000 children die from post-measles complications annually, making it one of the leading causes of child deaths in the country. Measles can be prevented by immunizing children with measles vaccine, which is safe and effective.

Rubella is an equally infectious yet mild viral illness affecting both children and adults. Rubella infection when acquired in the first trimester of pregnancy can cause congenital rubella syndrome (CRS) leading to spontaneous abortions, stillbirths and babies being born with serious multi-organ congenital anomalies, including blindness and deafness, etc. Thus causing a life full of disabilities (estimated nearly 30 000 annual cases of CRS across the country), which is completely preventable with rubella vaccine (as MR vaccine) having > 95% efficacy.

MR campaign offers an opportunity for children at risk of the diseases to get immunized and overall to boost population immunity against measles and rubella in the community, through sustaining high MR vaccination coverage in all areas.

The MR campaign will be conducted within a period of 3–4 weeks. Vaccination will be conducted in schools during the first 2 weeks and later on in the community through outreach sessions. Duration of the campaign may vary depending upon the vaccinator's availability vs injection load, based on district / state micro plans.

For the success of the campaign, your contribution will be critical. Your active participation in the following activities will be highly appreciated:

- advocating with parents to get all their eligible children vaccinated;
- providing your leadership for mobilizing children to the immunization sessions;
- help in inaugurating immunization session sites in your areas with other local leaders;
- support health-link workers team to conduct quality immunization sessions in your areas with safety.

We thank you in advance for your cooperation.

Should you have any questions, please call (telephone numbers) or meet.....

(Names of Immunization Officers / Medical Officers).



Annex 7 : State / District AEFI Response Template

DATE ____ / ____ / ____ As a part of the Universal Immunization Program, the state / district _____ vaccinated _____ (number of) children against vaccine preventable diseases including Polio, childhood TB, Diphtheria, Pertussis, Tetanus, Hepatitis B, Measles and MR vaccine in the state between the months of ____ - _____. The Government of _____ (specify state) _____, through its ongoing immunization programme, has achieved an immunization coverage of _____ % in _____ (year).

_____ (number of) doses of BCG / DPT / OPV / Measles / MR vaccine (others specify) (choose the vaccine in question) have been administered between (the dates) ____ / ____ / ____.

As a part of the routine surveillance, _____ (number of) AEFIs have been reported on ____ / ____ / ____ (date) in the district / s _____ (name of district / s), including _____ (details of case / s _____ number of deaths, number of hospitalizations) in ____ / ____ / ____ (months). The AEFI surveillance system records all minor adverse events (such as rashes, swelling at the injection site, fever etc) and investigates the serious cases (such as death and hospitalization) to strengthen the immunization program.

The State / District AEFI committee is investigating the above cases with support from the state govt.

All medical records are being reviewed / xx samples have been collected / postmortems are being conducted / ____ (please add particulars of the relevant investigation / s).

AEFI surveillance is a reporting system to investigate the potential side effects after vaccination. Reporting an AEFI does not mean the vaccine has caused it. The cause can be determined only after proper investigation. There are wide ranging reasons for most side effects.

Vaccination has been recognized as the most effective public health intervention for child health, preventing disease mortality and morbidity. Every year, _____ (number of) children suffer from _____ (diseases / specific to antigen in question—depending the available data) in the state. Manufacturing of vaccines is a tightly monitored process with multiple checks at different stages of production. Post production, each batch goes through tests to ensure quality and safety before they are released for use.

Contact Details:

Annex 8: MR Campaign information sheet: protecting children from measles and rubella

Government of India has decided to eliminate Measles and control Rubella / CRS in the country through introducing MR vaccine across all the states. Both first and second dose of measles vaccine currently administered in the RI programme under the national immunization schedule, will be substituted with MR vaccine. All states / UTs will conduct a wide age range MR vaccination campaign in phases, targeting children from 9 months to <15 years, which will be followed by introduction of MR vaccine in their respective Routine Immunization programme.

What is a MR Vaccination Campaign?

A MR Vaccination Campaign is a special campaign to vaccinate all children in a wide age group with MR vaccine, in all states. The MR campaign dose is given to all children, (both previously vaccinated and unvaccinated), who belong to the target age group (9 months to <15 years). The goal of the MR campaign is to quickly enhance the population immunity to both measles and rubella in order to reduce deaths from measles and disabilities like CRS due to rubella infection in early pregnancy. A MR campaign must immunize more than 95% of the target age group children in schools as well as outreach session sites with a country goal to achieve 100% coverage of targeted children with safety.



Who should be vaccinated?

- all children who have completed 9 months of age and are below 15 years of age (completed 9 months since birth but have not reached their fifteenth birthday), must be vaccinated with this additional dose of MR vaccine,
- a child in the target age group should always get the campaign dose of MR vaccine even if the child was vaccinated earlier,
- a child with a history of having measles / rubella in the past should also be vaccinated if the child is in the target age group,
- malnourished children should be on priority since they have a higher risk of complications and death if they get measles,
- children with minor illnesses such as mild respiratory infection, diarrhoea and low grade fever should always be vaccinated.

Where will the children be vaccinated?

Children will be vaccinated at designated vaccination sites only. There will be no house-to-house vaccination. In the first week, students will be vaccinated in schools. Non-school-going and left out children will be vaccinated in the following 2-3 weeks at designated vaccination sessions sites in villages and urban areas.

Annex 9: Training of Vaccination teams: Facilitators guide

Duration of training	Part 1: For vaccination and supervisors - 4 hours
Participants	Vaccinators (ANM / HW-F, HW-M) Supervisors (LHV, HA-M) ASHA / AWW / Volunteers (ASHA, AWW and volunteers, if any, will be trained in the second half of the day for two hours)
Batch Size	ANMs (10), Supervisors (4) for part 1, in addition, ASHAs (10) and AWWs (10) for part 2.
Facilitators	Designated district officers trained at state level ToT. The Medical Officer in Charge of PHC will support the trainer for both modules.
Facilitators per batch	Two
Venue	Block / PHC level

Contents of the Training Plan

Module	Subject / Activity	Who	timing	method
Part 1	Micro Plan development for sub centre	Vaccinators (ANM) Supervisors	2 hours	Presentation / practical exercise
	Basic principles of cold chain and vaccine management Calculating the logistics Safe Injection practices through exercise / role play	Vaccinators (ANM) Supervisors	2 hours	Presentation Demonstration Practical Exercise / Role play
Part 2	SBCC (IEC / IPC etc.) (Information – Education – Communication) IPC (Inter-Personal Communication)	ANM + ASHAs, AWWs* and Volunteers	2 hours	Presentation Practical Exercise / Role play

*As there will be 5-10 ASHAs and AWWs for every ANM, the group should together ensuring that the ANM is in the same group as ASHAs and AWWs from her area.

Annex 10: Accountability framework matrix for pre / during / post campaign activities with proposed time frame

Sl	Level of Action	Activity details	Responsibility	Time frame
1	National	Develop action plan, incl. Logistics timeline (central operations group)	Central Ops. group	6 months prior
2	National	Budget and operational costs for MR campaign estimated	Central Ops. group	6 months prior
3	National	Logistics timeline / costs etc. For MR campaign finalized	Central Ops. group	6 months prior
4	National	Procurement of vaccines and other logistics initiated	Central Ops. group	6 months prior
5	National	Operational guidelines and vaccinators hand book developed	GoI / WHO & other Partners	3 months prior
6	National	Communication package, branding for MR campaign including development of SBCC (IEC / IPC etc.) materials-methods completed	GoI / Unicef & ITSU	3 months prior
7	National / state	Operational guidelines and IEC prototypes printed- distributed	GoI / WHO / Unicef	2 months prior
8	National / State	Disseminate financial guidelines to states	GoI, Imm. Division	1-2 months prior
9	National	National / Regional workshops conducted	GOI / WHO / Unicef	2 months prior
10	State / District	State workshops & trainings at district / sub-districts completed	Govt. / WHO / Unicef	1.5 month prior
11	District / Block	Micro plans prepared & reviewed	Govt. (DIO / BMO)	1 month prior
12	District / Block	Training of vaccinators and ASHA / AWW completed	(TOT) Trained MOs	1 month prior
13	State / District / Block	Cold chain systems at district / sub-district levels reviewed and strengthned	State cold chain officer & Unicef	2 months prior
14	National	National level coordination meetings conducted	Central Ops. group	2 months prior
15	State	State level coordination meetings (STFI) initiated	STFI	2 months prior
16	District	District level coordination meetings (DTFI) initiated	DTFI	1 month prior
17	District / Block	Sensitization workshop / meeting for the private pediatricians and leading physicians in the district completed	CMO / DIO / Partners / IMA / IAP	two weeks prior

18	District / Block	District level advocacy meetings with local government, community / religious leaders, NGO's, civil groups conducted	CMO / DIO / Partners	1 month prior
19	District / Block	Sensitization meeting for the principals from all private and public schools completed	CMO / DIO / Partners	1 month prior
20	District / Block	Information on target children form schools compiled	DIO / BMO	1 month prior
21	District / Block	Teachers orientation by principals / Nodal points completed	Principals	2 weeks prior
22	National / State / District	Communication and social mobilization drive SBCC (IEC / IPC etc.) initiated	Govt IEC cell / Bureau / Unicef	2 months prior
23	National / state	Distribution of vaccines and other logistics to state-districts completed	CMO / DIO	2-3 weeks prior
24	District / Block	Reorientation / sensitization of all MOs (Govt and Pvt) on AEFI management completed	CMO / DIO / Partners	1 week prior
25	State / District	Media sensitization workshop to be completed	Govt. / Unicef	1 week prior
26	National / State / District	Pre-campaign monitoring	Govt. and partners	1 month prior
27	At all levels	Establishing MR campaign control room	Govt nodal officers	2 weeks prior
28	All levels	Starting of the MR campaign	Govt. and partners	As per state
29	National / State / District	Intra- campaign monitoring	Govt. and partners	4 weeks duration
30	National / State / District	Post campaign review at district and state level	STFI & DTFI	Immediately after campaign
31	District	Sweeping activities based on campaign monitoring findings (post campaign)	CMO / DIO	Immediately after campaign
32	National / State	Post-campaign review and proposed coverage evaluation survey planning / Implementation	GOI & Partners	1-2 months post campaign

Annex 11: Formats

Measles-Rubella Campaign Year _____ Sub centre/ Urban health centre /supervisor area especially in urban area -wise baseline information						
State _____	District: _____	Block _____	Planning unit _____			
Sub-centre/Urban Area: _____		Name of Supervisor: _____		Name of Health Worker: _____		
Sr. No	Name of Village / Hamlet / Tola / Urban Ward	Category # (R/HRA/HTR)	Population	Estimated Beneficiaries (9 m - < 15 y)	Name of Schools/any educational institutions/Pre-School/AWC/Madarsa etc in the Village / Hamlet / Tola / Urban Ward	Estimated Beneficiaries (9m - <15 y) enrolled in the school*
					If there are >3 schools in a given area - use next row to complete the information for each School/Institute.	
1		a	b	c	d	e
2					1. 2. 3.	f
3					1. 2. 3.	
4					1. 2. 3.	
5					1. 2. 3.	
6					1. 2. 3.	
7					1. 2. 3.	
8					1. 2. 3.	
9					1. 2. 3.	
10					1. 2. 3.	
Total						

(R/HRA-P) R=regular, HRA=High Risk Area/Population including migratory like nomads, brick kilns, construction site and hard to reach area (HTR) like post riverine inaccessible areas, jungles, sparsely populated isolated/cluster population, displaced population etc.

* include all children enrolled in the school. They may be from other villages as well.



MR Campaign FORM - 1 A

Measles-Rubella Campaign Year _____
Urban health centre / Polio supervisor area wise survey of schools/educational institutes for baseline information

State _____ District: _____ Planning unit _____

Block / Urban: _____

Sector (sub-centre)/Urban Area: _____ Name of Supervisor: _____

Name of Health Worker: _____

Sr. No	Name of Village / Hamlet / Tola / Urban Mohalla	Name of Schools/any educational Institutes in the village / Hamlet / Tola / Urban Mohalla	Name of the Principal / Headmaster / Headmistress	Contact Number of the school / Principal / Head master/Headmistress	Name of the Nodal person with contact number for management of MR campaign in the school	Number of beneficiaries as per school (if possible collate class and section wise)	School timing (mention time separately if it has classes in more than one session)	Number of vaccinators required for the schools (=no of beneficiaries / 200)
1			1. 2. 3.					
2			1. 2. 3.					
3			1. 2. 3.					
4			1. 2. 3.					
5			1. 2. 3.					
6			1. 2. 3.					
7			1. 2. 3.					
8			1. 2. 3.					
9			1. 2. 3.					
10			1. 2. 3.					

(R/HRA-P) R-regular, HRA-High Risk Area/Population including migratory like nomads, brick kilns, construction site and hard to reach area (HTR) like post riverine inaccessible areas, jungles, sparsely populated isolated/cluster population, displaced population etc.

* Include all children enrolled in the school. They may be from other villages as well.

School form for target estimation - Pre MR campaign

(School Principal to ensure this information reaches nodal medical officer in time)

Block

School name & address:

School vehicle available yes / no

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Govt/ Private/ Aided	(encircle)	Co-ed/ Boys only / Girls	School leads
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Principal name & Telephone number:

School number MB Commision unication (Name & Tel number):

Gli effetti della legge sulle vaccinazioni

Class leads training planned on DD/MM/YYYY

Class/ Total target

PTM date planned **Student -teacher interaction date planned**

National operational guidelines for introduction of measles-rubella vaccine

149



School templet for missed children list- Post school campaign

(School Principal to ensure this information reaches nodal medical officer in time)

Reasons : 1. Chronic absentee 2. Sick on vaccination day 3. severe illness 4. Child travelling 5. Previous history of allergy 6. Refusal 7. Fear of injection 8. Others (specify)

Measles-Rubella Campaign Year _____		School Planning Form		Planning unit:		Logistics requirement		AEFI	
State: _____		District: _____		Block: _____		School Nodal Person			
Sr. No		Name of school		Team Details		Name and designation of 1st line supervisor (with mob no)			
Village / Urban Locality		Name of Vaccinator(s)		Name of volunteers (ASHA, AWW, others)					
A	B	C	D	E	F	G	H	I	J
No. of Vaccinators Required (e.g children: 200)		<15 yrs children in the school		Number of target children (9m - 10 dose each)		Measles-Rubella Vaccine Vials*		Measles-Rubella Dose Diluent (10 dose each) (f x 1.11/10)	
Date of vaccination		Distance from l/r point		Measles-Rubella Diluent Ampoules (= Ml)		Recirculation spray (5 ml) (= Ml)		Hub Vaccination site (1 per Vaccinator)	
Time of vaccination		Number of children (9m - 10 dose each)		Red Plastic Bags (1 bag per 50 syringes)		Black Plastic Bags (2 per site)		Indelible Marker Pens (1 pen per 250 beneficiaries)	
District Health Officer		Contact Number		AD (0.5 m spray)		(fx 1.11)		MR Vaccination card (fx 2)	
Name		School Nodal Person		Name and designation of 1st line supervisor (with mob no)		Address & Contract No. of Measles & Rubella Management center		AEFI	

*Educational Institute: All schools (private and Government), Day-care centers, Creches, centres or institutes for specially abled children where children upto 15 years age are likely to be found
EACH VACCINATOR MUST HAVE ONE FUNCTIONAL HUB CUTTER AND INDELIBLE INK MARKER PEN EVERY DAY



Outreach Planning Form (Including Regular and High Risk Area/Population session-sites)

MR Campaign
FORM - 4

Sr. No	Name of Village / Urban Locality	Name of session sites	Type of Area (R/HRA-P)	Distance from IIR point	Date of vaccination	Time of vaccination	*Realistic Number of Target children (9 mo to <15 yrs) left after deducing anticipated school coverage based on school enrollment													
A	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Name of Supervisor with contact no:																				
District: _____																				
Block: _____																				
State : _____																				
Urban area / Sub c/Urban area / Sub center: _____																				
Name of Supervisor with contact no:																				
Planning unit: _____																				
MR Vaccination card (F)																				
Address & Contact No. of nearest AEF Management centre																				
Indelible Marker Pens (1 pen per 250 beneficiaries)																				
Black Plastic Bags (2 per site)																				
Red Plastic Bags (1 bag per 50 synergies)																				
HUB Cuttler (1 per vaccinator)																				
Reconstruction Syringe (5 ml) (=K)																				
AD (0.5 ml) Syringe (f x 1.11) [=L]																				
Measles-Rubella Vaccine Vials* ([f x 1.11] / 10) [=M]																				
Measles-Rubella Vaccine Vials* ([f x 1.11] / 10) [=N]																				
Contact Number of Volunteers (with mob no) [=O]																				
Team Details																				
Logistics requirement																				
AEFI																				

Total

* It is assumed that school coverage will precede outreach sessions-sites and the remaining target children / beneficiaries of the village or confined urban area (mohalla/ward or sub ward) needs to be adjusted accordingly taking into consideration school enrolment and anticipated coverage during school vaccination in the first week of the campaign. Realistic Number of Target children (9 mo to <15 yrs) left after deducting anticipated school coverage based on school enrolment has to be projected For an Example, 1. If the coverage is ~ 50%, plan for 50% supply of vaccine & logistics; (2) If school coverage is ~ 25%, plan for 75% supply of vaccine & logistics and needful adjustment of vaccine logistics calculation for outreach session site planning after necessary reduction of target.

EACH VACCINATOR MUST HAVE ONE FUNCTIONAL HUB CUTTER AND INDELIBLE INK MARKER PEN EVERY DAY

Measles-Rubella Campaign Year _____
Planning Unit Vaccine, Logistics and Human Resource Plan

Measles-Rubella Campaign Year _____												Planning Unit Vaccine, Logistics and Human Resource Plan											
State: _____			District: _____			Block: _____			Planning unit: _____			Human Resources											
Sr. No	Sub center / Urban Area		Vaccination site			Logistics requirement						Human Resources											
	Target (9 months to <15 yrs. children)	School session sites (Number)	Regular Outreach session sites (Number)	Special Teams for +HRA/+P (Number)	Fixed session sites in Hospitals (Number)	Total session sites (Number)	Measles- Rubella Vaccine vials (10 dose vial)	Measles- Rubella Diluent Ampoules (=H)	AD (0.5 ml) syringe (B x 1.11)	Reconstitut- ion syringe (5 ml) (= H)	Hub cutters (2 functional / ANM)	Red Plastic bags (1 per 50 syringes) = (J+K)/50	Black Plastic Bags (2 per session) =G/2	Cotton roll (100 gm pack) (= G)	MR vaccinati- on card (#B x 2)	Indelible Marker Pens (1 pen per 250 beneficiaries) = B / 250	Total vaccinators (Number)	Total ASHA/AWW/ volunteers (Number)	Total 1st line Supervisors (Number)				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T				



Measles-Rubella Campaign Year _____
District Vaccine, Logistics and Human Resource Plan

Note: Fixed site will run on all working days of the 4 weeks campaign (total 20 days). The first week will target school. Any facility providing routine immunization service during the campaign period will hold the regular session on due date. * (R/HRA/P) R-Regular, HRA/P-High Risk Area/Population

Measles-Rubella Campaign Year _____
Cold Chain Contingency Plan at ILR/vaccine storage points and waste management plan

State: _____ District: _____ Block: _____ Planning unit: _____

Important Contacts			
Designation	Name	Mobile No.	Landline No.
Chief Medical Officer			
District Immunization Officer			
Block Medical Officer			
District Cold Chain Technician			

Cold Chain Contingency Plan

Person responsible for taking action:

- 1 Name: _____ Designation: _____ Contact Number: _____
- 2 Name: _____ Designation: _____ Contact Number: _____
- 3 Name: _____ Designation: _____ Contact Number: _____

If the first contact (as detailed above) is not available, the second contact will be responsible; otherwise contact the third person

What to Do?

If ILR breaks down	1	Transfer vaccine to the cold box with frozen icepacks. Place a thermometer inside the cold box.
	2	Keep diluent outside for storage but ensure that diluent is transported to session site in Vaccine Carrier at +2 to +8 Deg. C
If Deep Freezer breaks down	3	If cold boxes not sufficient in number, move vaccine to _____ Contact Person is district cold chain technician and mention the contact number _____.
	4	Inform DIO and District Cold Chain Technician, Mr _____ on Phone no. _____
If Power Failure for more than 4 hours	1	Freeze icepacks in _____ ice factory at _____ and his contact number is _____.
	2	Inform DIO and District Cold chain Technician, Mr _____ on Phone no. _____
	1	Inform BMO, DIO and CMO
	2	Inform local electricity department and enquire when electric supply likely to be restored. If it is going to take longer than hold-over time of the equipment in which vaccines and ice packs are stored, take actions as mentioned in ILR and DF breakdown above

Waste Management Plan

Designation / Person assigned	Name	Mobile No.	Remarks
Person responsible for waste disposal at PHC/Urban centre			



Measles-Rubella Campaign
District Cold Chain Plan

State:

Sr. No.	Block / PHC	Target Population (9 mths to <15 years)	Measles-Rubella Vaccine Doses required (C*1.11)												Maximum Diluent ampoules = D	Cold Chain Space required for MR Vaccine (Litres) (C*2.6/1000)	Maximum Cold Chain space required for diluents per day (2.6 cubic cm per dose X D litres) (C*2.6/1000)	ILR MK 144 (Number) / ILR HBC (Number)	ILR MK 304 (Number) / ILR HBC Measles-Rubella Vaccine	Deep Freezers- Only for Measles- Rubella vaccine and not for diluents (Ltrs)	Deep Freezers- Only for Measles- Rubella vaccine and not for diluents (Ltrs)	Total available Space (Ltrs)	Space available for campaign (Total Space minus space required for Routine immunun).*	Excess /Deficit	No. of Deep Freezers Excluding DFs considered for vaccine storage	Other Options like ice factory ,domestic refrigerators etc.	CC Space for Freezing of Ice Packs	Cold Boxes available	Carriers required (2 x Vaccinators + Supervisors + replacement freezers cycle (36x no. of vaccinators) IP)	Number of ice packs required for 3-day freezing cycle (36x no. of vaccinators)	AD Syringes (0.5 ml) Required (C*1.11)	5 ml Recons. Syringes Required (No of vials X 1.11)	Whether Adequate Dry Space Available ? (Y/N)	In case of space unavailable, where logistics will be stored?
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W									

District Total

ILRs-MK 144 has 45 Lts and MK 304 has 108 Lts of available space for vaccine storage. ILRs-HBC 70 has 50 Lts and HBC 200 has 10 Lts of available space for vaccine storage.

DEEP FREEZERS-MF 314 has 264 Lts and MF 114 has 72 Lts of available space for vaccine storage. Cold chain storage space needed for RI : 63.9 cc per child /year for all RI antigens.

* Refer to Cold Chain Chapter of Measles-Rubella Operational Guidelines for RI cold chain space calculation and further details.

DISTRICT/BLOCK/PLANNING UNIT/CHC/PHC
IEC/BCC MICROPLANNING FORMAT for MR Campaign

**MR Campaign
FORM - 7**

Name of District/Block/Planning Unit/CHC/PHC:	Type of activity	Name of DIO/MOIC:	Name of IEC nodal Officer :	Budget (if applicable)	Timeline from date of MRC
Mass Media Activities					
TV program					
Radio Program					
Newspaper ads					
Scroll/Ticker on Local cable channels					
Twitter, SMS, WhatsApp Messages					
Advocacy and sensitization					
Sensitization with Private practitioners – IAP/IMA members					
Sensitization with heads/ principal of public and private schools					
Sensitization of district/ Block/Coordination meetings /Convergence meeting of partners at district level					
Media spokespersons training					
Media sensitization workshops					
Capacity building & Advocacy					
IPC training of frontline workers					
Training of teachers					
Orientation of IEC/BCC staff					
Community Mobilization Activities					
Identification of high risk areas & population and develop plans					
Community/Mothers meeting					
Awareness Rallies					
Miking/Drum beating in Communities					
Mosque/Temple / church announcement					
Identification and training of key Influencers					
School painting competition					
IEC Print					
Posters		Community: School:			
Pamphlets / leaflets - IPC					
Invitation Cards					
Hoardings					
Banners					
Wall paintings					





Measles-Rubella Campaign Year _____
District-level Supervision Plan

State: _____

District: _____

MR Campaign
FORM - 8 B

Sr No.	Name and Designation of District Level Supervisor	Date: Details of Planned visit							
		PHC	Village(s) -(R/HRA P)/ Schools*						
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* (R/HRA/P) R-Regular, HRA-P-High Risk Area-Population



Ministry of Health and Family Welfare
Government of India

MEASLES & RUBELLA VACCINATION CAMPAIGN

Invitation & Vaccination Card

Please bring your children between 9 months upto 15 years of age to the Measles Rubella Vaccination Campaign

Name of the Child:

Name of Mother/Father:

Date of Campaign:

Place of Session site:

Contact no. of ASHA/ANM/AWW:

You are cordially invited to the MR campaign.

Vaccinated on:

District Immunization
Officer

Chief Medical & Health
Officer



To know more about the vaccine, contact your ANM, ASHA or Anganwadi worker

Please keep the card safely and bring it to the session site





Measles-Rubella Campaign Year VACCINATOR TALLY SHEET

MR Campaign FORM - 10

State _____ District: _____ Block/Urban _____ Planning Unit: _____ Date: _____
 Name & location of session site: _____ Team No. _____ Location & contact details of nearest AEFI Centre/Doctor _____
 Type of site (Put ✓ mark) Health facility Outreach School
 Special/Mobile for HRA/P

Age Group	Tick (✓) 1 box for each child vaccinated (Male)										Tick (✓) 1 box for each child vaccinated (Female)										Total (M)	Total (F)	Total
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10			
5 Years - < 5 months - < 6 months	1	2	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20		
	2	1	22	23	24	25	26	27	28	29	30	21	22	23	24	25	26	27	28	29	30		
	3	31	32	33	34	35	36	37	38	39	40	31	32	33	34	35	36	37	38	39	40		
	4	41	42	43	44	45	46	47	48	49	50	41	42	43	44	45	46	47	48	49	50		
	5	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
5 years - > 10 years	1	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20		
	2	21	22	23	24	25	26	27	28	29	30	21	22	23	24	25	26	27	28	29	30		
	3	31	32	33	34	35	36	37	38	39	40	31	32	33	34	35	36	37	38	39	40		
	4	41	42	43	44	45	46	47	48	49	50	41	42	43	44	45	46	47	48	49	50		
	5	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
10 years - > 15 years	1	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20		
	2	21	22	23	24	25	26	27	28	29	30	21	22	23	24	25	26	27	28	29	30		
	3	31	32	33	34	35	36	37	38	39	40	31	32	33	34	35	36	37	38	39	40		
	4	41	42	43	44	45	46	47	48	49	50	41	42	43	44	45	46	47	48	49	50		
	5	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		

Name and designation of vaccinators:	Name of AWN/ASHA/volunteers:	Name, designation, signature of supervisor & time										Plastic Bags
		1	Time _____	2	Time _____	3	Time _____	Hub Cutter	Diluent	AD (0.5 ml)	Reconstitution	Vaccine
No of AEFI cases (during the campaign)	Serious Severe Total											
Received												
Used, Partially used, Wasted												
Returned (unopened)												

Check to ensure MR vial and diluent are within expiry date and VVM is in usable stage before reconstitution.
 Use one new disposable mixing syringe to reconstitute one vial. Use the whole content of the diluent that is manufactured by same manufacturer for reconstitution. The 5 ml AD mixing syringes should be cut in the hub cutter immediately. Mention the time of reconstitution on vial.

Do not clean the injection site with spirit/water. Administer MR vaccine 0.5 ml sub-cutaneously by holding 0.5 ml AD syringe at 45 degree angle in the right upper arm.

Do not touch the needle before and while administering the vaccine. The 0.5 ml AD syringe should be cut in the hub cutter immediately after vaccination.

Ask Children / caregivers to stay with children - to stay for at least 30 min after vaccination.

Discard reconstituted vaccine after 4 hours or at end of session whichever is earlier.

Wait for one hour after vaccinating the last child at the site to respond to any AEFI, before leaving the areas/villages.

Measles-Rubella Campaign Year

Check-list for Supervisors

Name of the Supervisor:

State:

District:

Block/Urban: _____

Planning unit: _____

Date: _____

		Site 1	Site 2	Site 3	Site 4
Observe	1 Name of the site visited				
	2 Type of site (Urban ward (U) / Rural area (R) / Educational Instt (E) / High Risk Area/Population(HRA/P)				
	3 Is this site as per microplan? (Y / N)				
	4 Are all vaccinators available as per microplan? (Y / N)				
	5 Are other team members as per microplan? (Y / N)				
	6 Does the vaccination site have visible IEC (Banners/Posters)? (Y / N)				
	7 Are team members managing the crowd well? (Y / N)				
	8 MR vaccine and diluents are stored in vaccine carrier with 4 ice packs (Y / N)				
	9 Vial in use is kept in the hole of icepack out side the vaccine carrier (Y / N)				
	10 Time of reconstitution is noted on the label of the vial (Y / N)				
	11 Diluent is kept cool in vaccine carrier before reconstitution? (Y / N)				
	12 Only one vial is reconstituted at a time? (Y / N)				
	13 Whole of diluent is used for reconstituting a vial? (Y / N)				
	14 Vaccinators administering the vaccine through subcutaneous route (Y / N)				
	15 Vaccinators administering the vaccine into the right arm? (Y / N)				
	16 Syringe needle remains untouched during reconstitution, drawing and administering vaccine? (Y / N)				
	17 Tallying is done immediately and correctly after vaccinating each child (Y / N)				
Interview the Vaccinators	18 Vaccinators following "no recapping" procedure? (Y / N)				
	19 Used syringes are being cut using hub cutter immediately after use? (Y/N)				
	20 How was vaccine distributed for the session sites? (AVD / Supervisor / ANM)				
	21 Does the vaccination site have all necessary logistics? (Y / N)				
	22 Is a functional hub cutter available at session site? (Y / N)				
Verify	23 Are AEFI reporting form and investigation form present at the site (Y / N)				
	24 Are the vaccinators aware the process to be followed in case of a serious AEFI (primary care, referral and reporting)? (Y / N)				
	25 Vaccinators mobilizing children through house visit? (Y/N) NA for school phase				
	26 Adequate MR vaccine vial present at the site? (Y / N) (1 vial contains 10 doses = for approximate estimation of adequacy)				
	27 Adequate AD syringe (0.5 ml) is present at the site? (Y / N)				
	28 Are Ice packs inside the vaccine carrier completely melted? (Y / N)				
	29 Is VVM (vaccine vial monitor) in usable stage? (Y / N)				
	30 Adequate reconstitution syringe (5 ml) available at the site (Y / N)				
	31 MR vaccine and diluents are made of same manufacturer (Y / N)				
	32 MR vaccine, diluents and syringes are all within date of expiry (Y / N)				
	33 Do the number of vials used and beneficiaries vaccinated as per tally sheet match reasonably? (Y / N)				

COMMENTS AND OBSERVATIONS:

Supervisor should visit the area where campaign was done on previous day. S/he should survey at least 20 households across the village / urban ward (including areas which are isolated or on the border of the ward/sub-block or on the farthest point from the vaccination site)

	Site 1	Site 2	Site 3	Site 4	Total
Name of site visited					
a) Number of households visited					
b) Number of 9 months to <15 years aged children in those households					
c) Number of children found not vaccinated in campaign					
d) Percent of unvaccinated children (c/b x 100)					

If 1-3 (out of 20) children are found "missed" (unimmunized) at a site, request the guardians to take their children to the nearest site where vaccination is going on today. If 4 or more children (out of 20) are found unimmunized at a site, then immunization activity should be repeated for such area.



Measles-Rubella Campaign Year
Daily Supervisor Report

MR Campaign FORM - 12

State: _____	District: _____	Block/Urban: _____													
Planning unit: _____	Name of Supervisor: _____														
Date: _____ / _____ / _____	Day of Activity (encircle): 1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18														
Team no.	Session Site Name	Session site type (Health facility/Outreach/School)	Vaccinated children						Total Number			No. of MR vaccine vials Opened	No. of MR vials returned	No. of AD unused syringes used	No. of AD unused syringes returned
			9 m to < 5 y			5 y to < 10 y			10 y to < 15 y						
M	F	Total	M	F	Total	M	F	Total	M	F	Total				
Health facility/ Outreach/School															
Sub-total															
mobile teams															
TOTAL in Sector															

This form should be compiled by the respective supervisors using data from respective tally sheets.

Supervisor's comments:

1. How many immunization centers were visited? _____
2. I distributed additional MR vaccine / syringes / ice packs to team/s during my supervisory visit: Yes/No (If Yes: Which teams _____)
3. I am satisfied with the overall activity in my area: Yes/ No (If No please give reasons in a separate sheet of paper highlighting reasons and add to this sheet)

Name and signature of Supervisor

Measles-Rubella Campaign Year – Planning unit Report

State:

Block/urban:

Planning unit:

Date: _____ Day of Activity (Encircle): 1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18

Name and Signature of MO in-charge

Measles-Rubella Campaign Year District Report

District Report

State:

State: _____ Date: _____

District:

Day of Activity (encircle): 1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18

Date: _____

This form should be completed by the district and manner using data from respective block reports.

Name and Signature of Chief Medical Officer

State: _____

Date: _____

Measles-Rubella Campaign Year _____

State Report

MR Campaign
FORM - 15

This form should be compiled by the state data handler using data from respective district reports.

Name and Signature of Chief Medical Officer



Measles-Rubella Campaign Year _____
Final Consolidated Report of Planning Unit / District / State

MR Campaign
FORM_16

State: _____ District: _____ Planning Unit : _____ Date of report: _____ / _____ / _____

Date of activity	Vaccinated children												No. AD syringes used	No. of MR vaccine vials opened		
	9 m to < 5 y			5 y to < 10 y			10 y to < 15 y			Grand total						
	M	F	Total	M	F	Total	M	F	Total	M	F	Total				
Sub-total																
Mobile Team coverage																
TOTAL in State																

Measles-Rubella Campaign Year

Session Site Checklist for Monitors

Name of the Monitor:		Organization:	District:
Block:	Planning unit:	Date:	Site No.
Observe	1	Name of the site visited	
	2	Type of area: Urban area (U) / Rural area (R)	
	2a	Type of site: Educational Instt (E) / Regular [outreach or fixed site] (R) /High Risk Area/Population (HRA/P)	
	3	Is this site as per micro plan? (Y / N)	
	4	Are all vaccinators available as per micro plan? (Y / N)	
	5	Are other team members as per micro plan? (Y / N)	
	6	Does the vaccination site have visible IEC (Banners/Posters)? (Y / N)	
	7	Are team members managing the crowd well? (Y / N)	
	8	MR vaccine and diluents are stored in vaccine carrier (with 4 ice packs) (Y / N)	
	9	Reconstituted vial is kept in the hole of 1 ice pack removed from the vaccine carrier (Y / N)	
	10	Time of reconstitution is noted on the label of the vial (Y / N)	
	11	Diluent is kept cool in vaccine carrier before reconstitution? (Y / N)	
	12	Only one vial is reconstituted at a time? (Y / N)	
	13	Whole of diluent is used for reconstituting a vial? (Y / N)	
	14	Vaccinators administering the vaccine through subcutaneous route (Y / N)	
	15	Vaccinators administering the vaccine to the right arm? (Y / N)	
	16	The sterile part of the syringes remain untouched during reconstitution, drawing and administering vaccine? (Y / N)	
	17	Tallying is done correctly immediately after vaccinating each child (Y / N)	
	18	Vaccinators following "no recapping" procedure? (Y / N)	
19	Used syringes are being cut using hub cutter immediately after use? (Y/N)		
Interview the Vaccinators	20	How was vaccine distributed for the session sites? (AVD / Supervisor / ANM)	
	21	Does the vaccination site have all necessary logistics? (Y / N)	
	22	Is a functional hub cutter available at session site? (Y / N)	
	23	Are AEFI reporting form and investigation form present at the site (Y / N)	
	24	Do the Vaccinators know what to do in case of a serious AEFI (primary care, referral and reporting)? (Y / N)	
	25	Whether social mobilization is being done by house visits to invite beneficiaries? (Y/N / NA for school phase)	
Verify	26	Adequate MR vaccine vial is present at the site? [Adequate = (target x 1.11)/10 for school sites and ~ 50% of this for outreach sites?] (Y / N)	
	27	Adequate AD syringe (0.5 ml) is present at the site? [Adequate = target x 1.11 for school sites and ~50% of this for outreach sites?] (Y / N)	
	28	Are ice packs inside the vaccine carrier completely melted? (Y / N)	
	29	Is VVM (vaccine vial monitor) in usable stage? (Y / N)	
	30	Adequate Reconstitution syringe is present at the site [Adequate = No. of Measles-Rubella vaccine vial supplied] (Y / N)	
	31	MR vaccine and diluents are made of same manufacturer (Y / N)	
	32	MR vaccine, diluents and syringes are all within date of expiry (Y / N)	
	33	Do the number of vials used and beneficiaries vaccinated as per tally sheet match reasonably? (Y / N)	
	34	Did the 1st line supervisor visit this site at least once today? (Y/N)	
	COMMENTS AND OBSERVATIONS: (This checklist will be used by all monitors through the campaign including school and outreach sites)		
PLEASE FILL IN ALL DATA ENTRY FIELDS FOR ALL SITES. DO NOT LEAVE ANY BLANKS.			

**MR Vaccination Campaign Year _____**

Rapid Convenience Monitoring

Organization: _____

Name of the Monitor: _____ Designation: _____

State: _____ District: _____ Block/Urban Area: _____ Village/Mohalla: _____

Area type: Urban/Rural : _____ H2R/High-risk population: Yes/No _____ Date of Activity: _____ Date of Monitoring: _____

National or Independent observers/external monitors are expected to conduct as many RCMs as possible . Conduct assessment only in areas where MR campaign sessions have already taken place. Do not combine different areas in same format. Try to identify missed communities, especially in isolated areas, at the farthest point from the vaccination site, socially segregated groups, street children, working children in small enterprises or markets, etc. Start in a central location, and pick a starting direction at random by tossing a coin. Begin with the first house facing you. Identify and tally 20 target age (9 months to < 15 years) children in 20 households (1 child per household). If a household has more than one eligible child, validate the oldest child in the eligible age group who is physically present at the time of visit.

You may have to visit more than 20 houses if any of the houses does not have any eligible children. If upto 3 children are found unvaccinated, inform the Supervisor/authority to motivate and mobilize all missed children to visit nearest campaign session-site on that day or to the fixed site of that area. If 4 or more children are found un-immunized, report to the Supervisor and the vaccination team should revisit the area to immunize all missed children through a sweeping activity, that is planned in the last week of the ongoing MR campaign. If any AEFI is noticed, direct the guardian to the nearest health facility/AEFI management treatment centre and also report to concerned authority.

Children Assessment Table:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	No checked	Total (count of Y)
1. Child received vaccine during MR campaign ? (Y/N) If not then also record the reasons for non-vaccination in the table at bottom and write name & address on the reverse																						
2. Whether family/child knew about campaign? (Y/N) For those responding YES, record source of information below./ Multiple responses are admissible)																						
\$																						
3. Did the child have any AEFI after MR vaccination? If yes, record details as per code*																						

* 1= Any condition requiring hospital admission; 2 = Death; 3 = cluster; 4 = Disability; 5 = Parental/community/media concern; 6 = Injection site abscess; 7 = Others [Pts note that 1 - 5 are Serious/severe AEFIs, 6 and 7 are minor AEFIs.

Reason Table(child was unvaccinated): "Why was the child not vaccinated during the campaign?"

	Total	Count of minor AEFIs	Count of Serious/severe AEFIs
1. Parents didn't know about the MR campaign			
2. Parents didn't know the place or date of campaign			
3. Parents didn't give importance			
4. The child was sick			
5. There was no vaccine at the MR session site			
6. There was no vaccinator at the site (check whether s/he went on scheduled date or not)			
7. Fear of Infection			
8. Fear of AEFI			
9. Site was too far			
10. Very long queue			
11. Child had gone to the field/market/traveling			
12. Child had gone to school			
13. Any Others			

Measles-Rubella Vaccination Campaign 2017					
State Level: Pre-Campaign Preparedness Assessment Check-list					
Date of visit _____ / _____ / _____	Name of observer: _____	Designation: _____	Organization: _____		
State _____	Number of districts _____				
To fill this checklist observer should visit the health/Education/CDS state level officials to assess the preparations. They should record any observations, provide specific recommendations to the state core group/State Task Force. Completed check lists should be submitted to the SEPIO/ WHO NIPSP for follow up					
Activities		Assessment		Actions suggested to person responsible with timeline <i>(Follow up / compliance status (to be filled by SEPIO within a week after observer visit)</i>	
Planning and Coordination		Funds		Vaccine and logistics management	
1 State Task Force meeting(s) held?	Held / planned / not held		2 State MR campaign planning workshop cum ToT completed?	Y / N	
3 Whether state has assigned observers for priority district for providing oversight?	Y / N		4 Did SEPIO/ state observer visit priority district for MR campaign review	Y / N	
5 Whether state has received financial guidelines from GoI ?	Y / N		6 If yes - Whether state has disseminated financial guidelines to district?	Y / N	
7 Funds disbursed to all districts?	Y / N		8 Has the state received MR vaccine (as per actual requirement assessed by observer- target population x 1.11)	yet to receive / received partial doses / received all doses	
9 Has the state received AD syringes - 0.5 ml (as per actual requirement assessed by observer- same as number of MR vaccine doses)	Y / N		10 Has the state received 5 ml mixing/reconstitution syringes (as per actual requirement assessed by observer- MR vaccine doses/10)	yet to receive / received partial stocks/ received all stocks	
11 Status of MR vaccine storage capacity at State Vaccine Store	Adequate capacity / inadequate but alternate arrangements done / inadequate but no alternate arrangements done yet		12 Is there a plan for transport of vaccine logistics to districts?	Y / N	
13 No of district NOT having adequate electrical cold chain space ?	Y / N		14 Any other points you may wish to record		
15 State media sensitization meeting held?	Held / planned / not held		16 IAP/IMA/Medical colleges & Pvt doc. sensitization meeting held?	Held / planned / not held	
17 IEC materials (poster/banner/hoarding/pamphlet) procured ?	Y / N		18 State has planned launch for the MR campaign	Y / N	
19 Any other points you may wish to record	Y / N		20 Has education department communicated to district education department about MR campaign	Y / N	
21 If yes, have the roles and responsibility at district/block/school also been communicated?	All/ partial/ None		22 Is there a plan to sensitize or review the status of preparedness with all DEOs at state level before MR campaign	Y / N	
Other comments if any. Use reverse of form for additional comments.					
Note: This checklist will be used before 4-6 weeks prior to campaign start date on a weekly basis to monitor progress.					
Signature _____ Name _____					

Measles-Rubella Vaccination Campaign 2017
District Level: Pre-Campaign Preparedness Assessment Check-list

Checklist-B

Date of visit ____ / ____ / ____ Name of observer: _____ Designation: _____ Organization: _____

State _____ District _____ Number of rural planning unit _____ Number of urban planning units: _____

To fill this checklist observer should visit the health/Education/ICDS district level officials to asses the preparations. They should record any observations, provide specific recommendations to the district core group preferably in presence of the DM. Completed check lists should be submitted to the DIO/ WHO NPS (SMO) for appropriate follow up

Activities		Assessment	Actions suggested to person responsible with timeline	Follow up / compliance status (to be filled by DIO within a week after observer visit)
Planning and Coordination	1 District Task Force meeting(s) held ?	Held / planned / not planned		
	2 Did the District Magistrate chair the DTF?	Y / N		
	3 Representative of which department/ organisation did NOT attend DTF. (Encircle all applicable)	Education Department / ICDS / Urban Development / Panchayati Raj / IAP / IMA / Religious Institutes / others		
	4 Has district Core Group (Edu Deptt and Health Deptt) established?	Y / N		
	5 If Yes, has the district core group (Edu Deptt and Health Deptt) meeting been held?	Held / planned / not planned		
	6 District MR campaign planning workshop held?	Held / planned / not planned		
Microplanning	7 Total number of microplans (blocks+Urban planning units) received at the district			
	8 Total number of microplans (blocks+Urban planning units) reviewed by DIO/partners			
	9 Total number of blocks+Urban planning units which have not completed Form 1 (baseline information - all components)			
	10 Total number of blocks+Urban planning units which have not completed Form 3 (school microplanning form)			
	11 Total number of blocks+Urban planning units which have not completed Form 4 (outreach microplanning form)			
	12 Total number of blocks+Urban planning units which have not completed Form 5B (District HR, Vaccine/logistics planning form)			
	13 Has the district prepared the Cold Chain contingency planning from (Form 6A)	Completed / Partial / Not available		
	14 Has the district prepared the Cold Chain planning from (Form 6B)	Completed / Partial / Not available		
	15 Has the district planned for visiting all the cold chain points at least once by the refrigerator mechanic before the start of MR campaign	Y / N		
	16 If yes, explore if the visits have started as per plan ?	Y / N		
	17 Has the district prepared the IEC/BCC micropalanning format (Form 7)	Completed / Partial / Not available		
	18 Has the district prepared the District level supervision plan (Form-8B)	Completed / Partial / Not available		
	19 Any other points you may wish to record			
Supervision	20 Supervision plan for monitoring blocks available?			
	21 Any other point you may wish to record			
Funds	22 Whether district has received financial guidelines fro MR campaign from the state	Y / N		
	23 Whether district has received funds for MR campaign from the state	Y / N		
	24 Have funds been disbursed form district to the blocks / urban planning units	Completed / Partial / Not Started		
	25 Has the district calculated the vaccine requirement as per guidelines on number of beneficiaries and considering wastage factor 1.11 (10%)?	Y / N		
MR Vaccine/ Logistics supplies management	26 Has the district received MR vaccine (as per actual requirement assessed by observer- Target population x 1.11)	yet to receive / received partial doses / received all doses		
	27 Has the district received AD syringes - 0.5 ml (as per actual requirement assessed by observer- same as number of MR vaccine doses)	yet to receive / received partial stocks/ received all stocks		
	28 Has the district received 5 ml mixing/reconstitution syringes (as per actual requirement assessed by observer- MR vaccine doses/10)	yet to receive / received partial stocks/ received all stocks		
	29 Status of MR vaccine storage capacity at State Vaccine Store	Adequate capacity / inadequate but alternate arrangements done / inadequate but no alternate arrangements done yet		
	30 As per plans total number of rural and urban planning units NOT having adequate electrical cold chain space (refer microplanning form no 6B)			
	As per plans total number of rural and urban planning units NOT having adequate non-electrical cold chain space (cold boxes/vaccine carriers) (refer microplanning form no 6B)			
	32 Status of Indelible ink marker pens	yet to receive / received partial stocks/ received all stocks		
	33 Status of tally sheets, invitation cards cum vaccination cards and other forms	yet to receive / received partial stocks/ received all stocks		



Measles-Rubella Vaccination Campaign, 2017
Block/PHC/Planning unit Level: Pre-Campaign Preparedness Assessment Check-list

Checklist-C

Date of visit ____ / ____ / ____ Name of observer with designation _____ Organization _____

Date _____ District _____ Name of block/Urban Planning Unit: _____ Setting: Rural / Urban

o fill this checklist observer should visit the health/Education/ICDS officials at block/ Urban planning unit level to asses the preparations. They should record any observations, provide specific recommendations to the block MO and district core group preferably in presence of the DM. Completed check lists should be submitted to the DIO/ WHO NPSP (SMO) for appropriate follow up

Activities	Assessment	Actions suggested to person responsible with timeline	Follow up / compliance status (to be filled by MO block/Urban Planning Unit within a week after observer visit)
1 Block/ PHC/ Urban Planning Unit meeting on micro-planning held?	Yes / planned / not held		
2 Has the block identified Nodal Officer from Education department?	Y / N		
3 Block education dept official received communication from district education officer?	Y / N		
4 Has the Education department submitted the list of schools to health department for MR campaign?	Y / N		
5 Has block education officer (BEO) received any communication on MR campaign from district level	Yes / Not as yet		
6 Has BEO identified any nodal officer for MR campaign at block level	Yes / Not as yet		
7 Has BEO sent any communication on MR campaign to schools?	Yes / Not as yet		
8 If yes, has communication on MR campaign sent to all government and private schools	Only Govt/ Only Pvt/ Both/ None		
9 Is there any mechanism to involve and engage play schools, Creches for MR campaign	Yes / Not as yet		
10 Micro-plan status at Block/ PHC/ Urban Planning Unit ?	Completed / Partial / not started		
11 Micro-plan of the Block/ PHC/ Urban Planning Unit submitted to District?	Yes/ Not as yet		
12 If yes, has school vaccination plan sharred with the education department?	Yes / Not as yet		
13 Dose microplan have areas listed with category (Regular/High Risk Area /Hard to Reach), estimated beneficiaries and required vaccinators for the area and schools (FORM-1)?	Y / N		
14 Form 1 has all schools/institutes incorporated provided by the education department	Y / N / not applicable		
15 Type of institutes in Form 1 (multiple options allowed)	Govt schools / Pvt schools / play schools / Religious school / others		
16 Status of information in form 1A (Urban health centre / Polio supervisor area wise survey of schools/educational institutes for baseline information)	Complete / partial / not applicable		
17 Has the block received Form 2A (School form for target estimation - Pre MR campaign) from all the schools	Completed / partial / no school has submitted yet		
18 Has the school/educational institute informed parents-teachers meeting and student-teacher interaction dates from available forms (Form 2A)	All / partial / none		
19 Are "special" strategies planned for areas with migratory settings such as Nomads, brick kilns, construction sites, and geographically hard-to-reach areas post riverine inaccessible areas, jungles, displaced & sparse populations etc. (Form-5B)	Y / N / NA		
20 Is there a supervision plan that includes names, dates and daily locations of supervisors? (FORM 8A)	Y / N		
21 Has any district level official visited for reviewing the preparations for MR campaign? (Ask Medical Officer and refer to District level supervision plan if available/procured from the district before field visit - FORM 8B)	Y / N		
22 Supervision and support from district to Block/ PHC/ Urban Planning Units adequate? (Subjective assessment on interviewing with Medical Officer focussing on identified bottlenecks)	Y / N		
23 Any other points you may wish to record			
24 Has the block /planning unit received funds from district?	Y / N		
25 Has the block /planning unit received financial guideline from district?	Y / N		
26 Has the district calculated the vaccine requirement as per guidelines on number of beneficiaires and considering WMF 1.11 (10%)	Y / N		
27 Has the block received MR vaccine (as per actual requirement assessed by observer- Target population x 1.11)	yet to receive / received partial doses / received all doses		
28 Has the block received AD syringes - 0.5 ml (as per actual requirement assessed by observer- same as number of MR vaccine doses)	yet to receive / received partial stocks/ received all stocks		
29 Has the block received 5 ml mixing/reconstitution syringes (as per actual requirement assessed by observer- MR vaccine doses/10)	yet to receive / received partial stocks/ received all stocks		
30 Assessment of MR vaccine storage status at this planning units (Vaccine storage point)	Adequate capacity / inadequate but alternate arrangements done / inadequate but no alternate arrangements done yet		
31 Is there a timeline for receiving and distributing vaccine/other logistics?	Y / N		
32 Is there a plan for transport of vaccine/logistics ?	Y / N		
33 Proper cold chain plans made for storing routine & campaign vaccines and ice-pack freezing?	Y / N		

Measles-Rubella Vaccination Campaign, 2017
School visit Check-list

Checklist-D

Date of visit _____ / _____ / _____	Name of observer with designation _____	Organization _____																																																															
State _____ / _____ District _____ - _____	Name of block/Urban Planning Unit: _____	Setting: Rural / Urban _____																																																															
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Annex 12: Do's and Don'ts during Measles-Rubella Campaign Sessions

Dos	Don'ts
Vaccination schedule	
<ul style="list-style-type: none"> give MR vaccine to all children who have completed 9 months of age and below 15 years. ask parents to bring the child for routine dose of MR vaccine after 4 weeks, in case it is due as per RI schedule. 	<ul style="list-style-type: none"> do not withhold a child from being vaccinated in case of mild illness, as cold, cough, diarrhea or mild fever (102 °F or less), or malnutrition do not vaccinate if child has history of high fever or severe allergic reaction or is hospitalized.
Cold chain	
<ul style="list-style-type: none"> ensure use of conditioned ice packs check that both diluent and vaccine are from the same manufacturer. use vaccine and diluent only with usable stage of VVM and within expiry date. keep the vaccines and diluents inside the vaccine carrier with lid always closed at session sites take one ice pack from vaccine carrier and keep reconstituted MR vaccine in the well of the conditioned ice pack to maintain temperature of +2 to +8 °C. 	<ul style="list-style-type: none"> do not keep the vaccine carrier in direct sunlight or open the lid of vaccine carrier frequently. do not use vaccine with VVM in unusable stage even if the vaccine is still within expiry date. do not use vaccine with VVM in usable stage if the expiry date has been reached. do not keep expired vaccines or vaccines at (stage 3 and beyond) inside the cold chain. do not keep the reconstituted vaccine on the table without icepack.
Vaccine handling and administration	
<ul style="list-style-type: none"> use a new AD syringe for each injection and new disposable syringe for each reconstitution. use entire amount of diluent for reconstitution of the vaccine. write the date and time of reconstitution on label of MR vaccine. inject MR vaccine by subcutaneous route in right upper arm. explain potential AEFIs and what to do. ask beneficiary to wait for 30 mins after injection the session site. 	<ul style="list-style-type: none"> do not use reconstituted vaccine beyond 4 h of reconstitution. do not carry and use reconstituted vaccine from one session site to another; it increases risk of contamination leading to TSS. do not reuse disposable syringe or needle for reconstitution; it can lead to infection with HIV, hepatitis B or hepatitis C. do not draw air into AD syringes. do not recap / bend or touch any part of the needle. do not pre-fill AD syringes with vaccine.
Waste management	
<p>Cut the hub of the AD syringe in hub cutter immediately after administering the injection. Dispose off the plastic part of the cut AD syringe in red plastic bag.</p>	<p>Do not keep the used syringes and needles on the table or floor; it increases risk of injury and infection to the beneficiaries / caregivers.</p>
Recording and reporting	
<p>Mark the cuticle of left hand thumb of child. Mark tally sheet immediately after vaccination. Record each immunization in the immunization card.</p>	<p>Do not mark tally sheet before or in the evening after the vaccination; it can lead to inaccurate recording and reporting of data.</p>
Adverse events following immunization (AEFI)	
<ul style="list-style-type: none"> in case of serious AEFI, give primary care and refer immediately to nearest AEFI management centre; inform the centre and your supervisor. in case of minor AEFIs ensure management and reassurance. record all minor AEFI in block AEFI register 	<ul style="list-style-type: none"> do not delay primary care, referral and reporting of serious AEFI; it may lead to death of the child. do not forget to record all minor AEFI in block AEFI register.

Annex 13: Financial norms for Operational Funds under MR Campaign

Micro-planning – ₹ 100 / - per sub-centre and ₹ 1000 / - per Block PHC / CHC / District for incidental expenses like printing, photocopying, stationery etc.

Vaccine transport & Delivery – ₹ 10000 / - per district as pool fund for transport of vaccines up to PHC / CHC and ₹ 50 / - per session site to be used as pool for transport of vaccines from Block PHC / CHC to session sites.

Cold Chain - ₹ 2000 / - per Block PHC / CHC for POL for generator & ₹ 4 / - per icepack

Supervision – ₹ 100 / - per supervisor for mobility, one supervisor for 2-3 teams: ₹ 800 / - per vehicle per day for two vehicles per block; these may also be used for transporting AEFI case if needed.

Trainings – ₹ 200 / - per participant for arranging training materials, refreshments and other miscellaneous expenses; ₹ 600 / - as honorarium for 2 state level trainers; ₹ 1000 / - as honorarium for 2 national level trainers.

Meetings – ₹ 100 / - per participant at disposal of for arranging training materials, refreshments and other miscellaneous expenses.

Mobile Team – ₹ 800 / - per vehicle per day for one vehicle per block

IEC & Mobilization of Beneficiaries – ₹ 4 / - per poster: 5 poster per 1500 population (ASHA area) & ₹ 300 / - per day for 3 days for miking, and additional pool of ₹ 50, 000 per state.

Injection Safety – @ ₹ 2 / bags / session; two bags per team per day

Other Incidental expenses – ₹ 75 / - per ANM / ASHA / AWW per session day

Printing cost of Reporting Formats, Cards etc. – ₹ 5 / - per beneficiary

Contingency – @ ₹ 10,000 per district

Support for Monitoring of state level officials @ ₹ 50,000 per state

The states will have flexibility of 20% within the overall budget allocated for the activity with approval of the State Health Secretary.

Notes

Notes



Notes



World Health Organization

COUNTRY OFFICE FOR India

Developed by WHO Country Office for India for Ministry of Health & Family Welfare

