**Introduction & Background:**

Measles and Rubella are highly contagious viral diseases that are spread by contact with an infected person through coughing and sneezing. Measles weakens the immune system of the body. Hence infection with Measles often leads to serious complications that include blindness, encephalitis, severe diarrhoea and severe respiratory infections such as pneumonia. One-third of all measles-related deaths worldwide occur in India. Rubella is a mild viral infection that occurs most often in children and young adults. Rubella infection during pregnancy can cause abortion, stillbirth and may lead to multiple birth defects in the new born like blindness, deafness, heart defects; known as Congenital Rubella Syndrome (CRS). India accounts for around one third of all children born worldwide with congenital rubella syndrome (CRS). Measles-rubella (MR) vaccine is given for preventing both measles and rubella diseases in the child.(1) No specific treatment is available for measles and rubella but these diseases can easily be prevented by vaccination. India accounted for nearly 37% of the global measles death in 2016.(2)

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

The current global goal under the Global Vaccine Action Plan (GVAP) for Measles control as endorsed by World Health Assembly2012 was to reduce measles deaths by 95% by the end of 2015(2)

India, along with ten other WHO South-East Asia Region member countries, has resolved to

eliminate measles and control rubella/congenital rubella syndrome (CRS) by 2020. To take this agenda forward, Ministry of Health & Family Welfare, Government of India, under the leadership of the Union Health Minister, Mr J.P. Nadda is introducing Rubella vaccine in its universal immunisation programme (UIP) as Measles-Rubella vaccine(3)

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| **Phase** | **MR campaign year** | **# States** | **Estimated target population** **(in million)** **(9 mon–15 yrs)** |
| **Phase 1 to 4** | **Completed** | **20** | **98.3** |
|  **Phase 5** | **Jul / Aug 2018** | **3** | **44.5** |
| **Phase 6** | **Sep / Oct 2018** | **5** | **16.4** |
| **Phase 7** | **Nov 2018** | **4** | **145.9** |
| **Phase 8** | **2019** | **4** | **99.4** |
| **Total** | **2017 – 2019**  | **36** | **404.5** |

**As of March 2019, more than 30.3 crore children have been immunised.**

**MR campaign will start in India in July 2019 with a target to immunise 27.8 million children from the age of 9 months to 15 years**(4)

**Challenges of the Campaign:**

While the campaign aims to eliminate Measles & rubella in the country, it is not without challenges which are both inherent to the campaign as well as threats perceived from outside the project. These can be as follows:

* **Size of the population:**

Due to the sheer magnanimity of this campaign it is a difficult task keeping in view the requirement of the logistics, man power, resources of the program. The campaign aims at immunising nearly 32 crore children which is a herculean task itself and requires a large manpower as well as resources.

* **Geographical Challenges:**

While the immunisation will be done only at session site the accessibility of the population to the session site as well as for head count of the children who are to be immunised is a difficult task to accomplish keeping in view the terrain which ranges from hilly to desert in Rajasthan. The success of campaign in this regard depend solely upon the grit of baseline health workers.

* **Inter-sectoral Coordination**:

The campaign aims to immunise close to 2.5 crore children in Rajasthan a majority of them are school going children, which requires an active participation of Education Department, not only this there is an active participation of various departments who have to work with each other to ensure smooth roll out and successful implementation of the program. These departments are Women & child development, Defence, Information and Broadcasting, Urban Development, Railway Board, Panchayati Raj, Road Transport and Highways Civil Aviation Ministry of Shipping etc.

* **Vaccine Hesitancy:**

As learnt from polio campaign in the past(5) it is seen than hesitancy is one of the foremost causes of denial of vaccine by parents to their ward. This can result in a serious jolt to the success of the campaign, it’s a complex topic and should be addressed by the health care worker with due diligence so as to allay all the fears of the parent regarding the vaccine.

* **Monitoring & Supervision**:

As the campaign in Rajasthan will run for 37 days starting from July, regular monitoring of the logistics as well as the vaccine quality is essential for the success of the campaign.

* **AEFI (Adverse events following immunization/vaccine reaction):**

The success of NPSP (National Polio Surveillance Program) depended hugely upon the active surveillance of any adverse effects following immunization, similarly success of this campaign will depend on the reporting of any AEFI. Proper investigation of each and every adverse event is imminent for the attainment of desired goal of the campaign. People should be educated that the prevalence of adverse events after immunization is extremely rare and there has been very less cases even after millions of vaccine sessions (6).

**Effectiveness & Outcome**

The campaign is in its last phase and plans to immunised 27.8 million children in Rajasthan, the aim is to immunise 100% eligible children.

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.

so by targeting 100 eligible children the aim to eliminate measles & rubella can be accomplished

**Conclusion:**

The campaign is in its last but very important phase & the success of it depends upon various factors as mentioned above. It requires a collective effort not only from the grass root level workers but the district, state & national authorities to overcome these challenges for achieving the desired objectives of the campaign.

Measles is acute viral infection which generally affects children causing pneumonia and is associated with diarrhoea both of which are leading causes of death in under-5 children in India. It can also lead to encephalitis which is an emerging and menacing problem in some northern part of the country. Also there is a shifting trend of measles affecting adults (8) which has increased morbidity & mortality in this age group which can be a potentially grave public health problem. Vaccination can prevent this potential public health hazard. (9)(10)

Rubella on the other hand is a mild disease in adults but remains undiagnosed which results in catastrophic financial & social results, the patients in rural areas are unable to recognise the symptoms seek care from quacks who misdiagnose it and frequently provide wrong medications which result in ample financial loss to the patients also many pregnant females who are misdiagnosed carry on their pregnancy and can deliver babies with Congenital Rubella syndrome.

As we can see that MR campaign will help eliminate much morbid & mortal condition hence the campaign should be carried on with utmost vigour and zeal for a better & healthy future

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