

Measles and Rubella Initiative Outbreak Response Fund Request Form¹ to Access M&RI Support

The Measles and Rubella Initiative (M&RI) is a partnership of WHO, UNICEF, US CDC, UN Foundation and American Red Cross. The M&RI Outbreak Response Fund's purpose is to support rapid and effective response to measles outbreaks with funding for vaccines, injection equipment and operational costs. This is a formal request to access the M&RI outbreak response fund as outlined in the standard operating procedures.

Please provide the following information:

1. This form, filled;
2. Outbreak investigation report including any interventions already undertaken;
3. Risk assessment of the potential for spread of the outbreak
4. Plan of action and line-item budget with unit costs;
5. A cover letter from the Ministry of Health confirming commitment from the government that it will provide the human resources required for planning and implementing the vaccination activity

1) General information:

- a) Date of request: ____/____/____ (dd/mm/yyyy)
- b) Country: _____ (name of country)
- c) Name, e-mail and telephone number of contact person at
 - i) Ministry of Health: _____
 - ii) WHO: _____
 - iii) UNICEF: _____

2) Summary outbreak information

- a) Date of rash onset of first reported suspected case: ____/____/____ (dd/mm/yyyy)
- b) Total number of suspected cases during outbreak: _____ (number)
- c) Total number of suspected cases tested serologically: _____ (number)
- d) Total number of laboratory-confirmed cases (include IgM equivocal): _____ (number)
- e) Date of rash onset of first lab-confirmed case: ____/____/____ (dd/mm/yyyy)

3) Vaccination plan:

- a) Size of the target population: _____ (number)
- b) Target age group: _____
- c) Estimated cost for the requirement of vaccines and injection materials: USD _____
- d) Estimated operational costs: USD _____
- e) Estimated total cost: USD _____
- f) Will vaccination be done in one or multiple phases? _____
- g) Planned start date of vaccination: ____/____/____ (dd/mm/yyyy)²

¹ This form should be sent by e-mail to HQ-EPI WHO (MRI-ORF@who.int) through either the WHO or UNICEF country and regional offices. In most countries, the WHO country office will take the lead in sending the request. However, there might be circumstances where UNICEF takes the lead, and the request will be channelled through UNICEF country and regional offices.

² If done in phases, the start and end dates of each phase should be mentioned in a separate note.

h) Planned end date of vaccination: ____/____/____ (dd/mm/yyyy)

4) Root cause analysis:

a) Does the country request technical assistance to conduct a root cause analysis of the outbreak?
____ Yes ____ No

5) Outbreak report, including interventions already undertaken (examples in Annex 2)

a) a description of how the outbreak started and evolved, initial identification of the proximate and underlying (root) causes of the outbreak and reasons for its continuation until the present

b) a table with the number of reported suspected cases, and among these the number that were lab-confirmed, epidemiologically linked, clinically compatible and discarded, by district; the rash onset date of the first reported suspected case and first lab-confirmed case in each district should also be included;

c) an estimate of the true number of measles (and rubella) cases, by district and province

i) the preferred method to determine the estimated number of true measles and rubella cases is to multiply the total number of epi-linked and clinically compatible cases in each affected district by the district-specific laboratory-confirmation rate and adding this result to the number of lab-confirmed cases for each district; the total estimated number of true cases during the outbreak would be the sum of estimated true cases per district

d) attack rate and case fatality rate of 1) lab-confirmed, epi-linked and compatible cases and 2) estimated true cases, by district and age group

e) separate, detailed descriptive epidemiologic analyses of lab confirmed, epidemiologically linked and clinically compatible cases that address the following descriptive epidemiologic categories:

i) Time: epidemic curves, with bars stacked by

(1) classification status (i.e., lab-confirmed, epi-linked, clinically compatible, discarded) and

(2) location (i.e., district or province, or village if the outbreak is geographically limited); two separate epidemic curves may be presented for

(a) lab confirmed and epi-linked cases only and

(b) lab confirmed, epi-linked and clinically compatible cases

ii) Place: tables and spot map or pattern map of where (i.e., in which village or district) cases were infected, by classification status

iii) Person:

(1) tables and bar charts of age, age group, vaccination status, sex for

(a) lab-confirmed and epi-linked cases only and

(b) lab confirmed, epi-linked and clinically compatible cases

(2) number of deaths and case fatality rates by age group and sex

Tables and bar charts of cases by year of age are the most important “person” data to present to justify the proposed target age for ORI; case fatality rates may help determine if case management is adequate; vaccination status and sex are important to better understand the proximate and root causes of the outbreak. The report should state clearly if any substantial differences in age distribution, vaccination status, sex or case fatality rates exist in any district and if so, provide the above data by district

f) description of and results from contact tracing, if conducted;

g) A description of any immunization activities conducted previously in response to the outbreak, including target number by age group, number vaccinated and impact.

- i) **NB: If any immunization activities were already conducted in response to the outbreak, separate analyses should be provided of the number of cases, by classification status, estimated magnitude of the outbreak, and descriptive epidemiology (i.e., items a, b and c above), by district, among suspected cases with rash onset before the immunization activity and 3 weeks or more after the activity was completed**
- 6) **Risk assessment of the potential for spread of the outbreak:** the risk assessment should include, at a minimum, 1) estimates of population immunity nationally and in the affected and at-risk districts or areas, by birth cohort/year of age; 2) prior history of measles for at least the previous 10 years; 3) surveillance quality during the previous two years, and 4) other threats to the extension of the outbreak;
- a) to estimate population immunity/susceptibility by birth cohort, consider
 - i) WHO/UNICEF estimates of national immunization coverage with MCV1 (and MCV2) by year and SIA coverage for targeted age groups, with the following assumptions of vaccine efficacy (i.e., the percentage of susceptibles who receive the vaccine dose and are protected from it):
 - (1) 85% for MCV1 and 9-11 months
 - (2) 95% for MCV1 at 12 months
 - (3) 95% for MCV1 or MCV2 at 15 months and above
 - (4) 95% for SIA doses (overall) – survey coverage point estimates should be used if available
 - ii) District-specific administrative coverage to estimate immunity gaps by age sub-nationally (these data should be provided in an annex)

Immunity or susceptibility profiles may be presented in a table or graphically with a bar chart, and can be calculated using an Excel spreadsheet (see example in Annex 2)³

- b) to report prior history of measles (or rubella) virus transmission in the affected and potentially at-risk areas, by district, consider
 - i) the number of reported suspected cases and final classification status (lab-confirmed, epi-linked, clinically compatible, discarded) at least during the past 10 years, by year and by age group (e.g., <1y; 1 – 4y; 5 – 9y; 10 – 14y; 15y and above);
 - c) to report surveillance quality in each of the affected and potentially at-risk areas for the previous 2 years, choose areas with at least 200,000 total population (e.g., district or province) and report
 - i) number of non-measles, non-rubella cases per 100,000 population (i.e., number of cases IgM negative for measles and, if tested, rubella (if tested))
 - ii) percentage of reported suspected cases, by district and/or province, with specimens collected and tested in an accredited lab (exclude epi-linked cases from the denominator)
 - d) report any special threats for extension of the outbreak, such as migration patterns, special/vulnerable population groups, population density
- 7) **Plan of action** – to describe the planned outbreak response immunization activity and provide a line item budget with unit costs; the plan and budget should include at a minimum
- a) identification of the target areas, age-groups and number of persons to be vaccinated; the rationale for the targeted areas and age groups should be included
 - b) operational plans including at a minimum the dates of the vaccination response activity, vaccine and logistics needs and transport, human resource requirements, training and social mobilization

³ Excel programs to facilitate calculation of population immunity/susceptibility are available from M&RI upon request; the Measles Strategic Planning (MSP) Tool also may be used if available

and communication activities and dates, supervision and monitoring (including rapid convenience monitoring), AEFI management and waste disposal

- c) post campaign evaluation of the outbreak response (e.g., post campaign coverage survey), if planned
 - d) root-cause analysis of the outbreak, if not already conducted, that addresses potential reasons for immunity gaps, deficiencies in surveillance performance, and delays and/or ineffective outbreak preparedness and response⁴
 - e) A detailed, line item budget with unit costs for each of the above activities; the budget should include contributions of each partner for each activity
- 8) A cover letter from the Ministry of Health** stating the government’s commitment to provide the human resources required for planning and implementing the vaccination activity, including staff working at health facilities in the outbreak areas.

⁴ A standard protocol and sample questionnaires for conducting a measles outbreak root cause analysis are available from M&RI upon request