Sixth Meeting of the WHO South-East Asia Regional Verification Commission for measles and rubella

27–29 September 2021 (Virtual)

Report of the meeting
Sixth Meeting of the WHO South-East Asia Regional Verification Commission for measles and rubella
SEA-Immun-124

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<tr>
<td>COVID-19</td>
<td>coronavirus disease</td>
</tr>
<tr>
<td>CRS</td>
<td>congenital rubella syndrome</td>
</tr>
<tr>
<td>DQA</td>
<td>data quality assessment</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>IVD</td>
<td>Immunization and Vaccine Development Department (of WHO SEARO)</td>
</tr>
<tr>
<td>LQMS</td>
<td>laboratory quality management system</td>
</tr>
<tr>
<td>MCV</td>
<td>measles-containing vaccine</td>
</tr>
<tr>
<td>MR</td>
<td>measles–rubella</td>
</tr>
<tr>
<td>MRCV</td>
<td>measles and rubella-containing vaccine</td>
</tr>
<tr>
<td>NVC</td>
<td>National Verification Committee</td>
</tr>
<tr>
<td>PT</td>
<td>proficiency testing</td>
</tr>
<tr>
<td>RCV</td>
<td>rubella-containing vaccine</td>
</tr>
<tr>
<td>RVC</td>
<td>Regional Verification Commission</td>
</tr>
<tr>
<td>SEA</td>
<td>South-East Asia</td>
</tr>
<tr>
<td>SEA-RVC</td>
<td>South-East Asia Regional Verification Commission</td>
</tr>
<tr>
<td>SIA</td>
<td>supplementary immunization activity</td>
</tr>
<tr>
<td>US CDC</td>
<td>United States Centers for Disease Control and Prevention, Atlanta</td>
</tr>
<tr>
<td>UTC</td>
<td>coordinated universal time</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WHO HQ</td>
<td>WHO headquarters</td>
</tr>
</tbody>
</table>
Executive summary

The Regional Verification Commission (RVC) for measles and rubella elimination for the WHO South-East Asia Region (SEA-RVC) was established by the Regional Director in March 2016 to verify progress towards measles and rubella elimination and rubella/congenital rubella syndrome (CRS) control in the Region.

The name of this Commission was changed in 2020 to “WHO South-East Asia Regional Verification Commission for measles and rubella elimination (SEA-RVC)” following the adoption of the resolution on “Measles and rubella elimination by 2023” by all Member States at the Regional Committee for South-East Asia in September 2019. The Fifth Meeting of the SEA-RVC was held virtually on 6–7 July 2020.

The key objective of the meeting was to review the country progress reports on measles elimination and rubella/CRS control, submitted by national verification committees (NVCs), and verify the progress made.

The methodology for review of individual country progress reports was based on the framework for verification of measles and rubella elimination in the Region endorsed by the SEA-RVC during its Fourth Meeting in 2019 and published in February 2020.

Following an extensive review of the reports received from 10 NVC and the follow-up discussions and interactions with representatives of the NVCs of the ten countries, the commission verified that Measles Elimination has been sustained in Bhutan, DPR Korea, Maldives, Sri Lanka and Timor-Leste. The commission identified that rubella has been eliminated in DPR Korea but will require additional evidences to verify elimination. The commission also verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission categorized the remaining countries as endemic for measles and rubella. The SEA-RVC also recognized significant progress made in remaining countries and acknowledged the impact of COVID-19 pandemic on the measles and rubella elimination activities across the Region.

The SEA-RVC acknowledged the significant progress made by all countries in the Region towards measles and rubella elimination and requested the World Health Organization (WHO), NVCs and Member States to provide some additional country-specific information at the next meeting to ensure better review of progress towards achieving the 2023 goal of measles and rubella elimination in the SEA Region.
1. **Background**

The Sixty-sixth session of the WHO Regional Committee for South-East Asia, in 2013, adopted the regional goal of measles elimination and rubella control by 2020. To provide impetus to progress towards this goal, in 2014, the Regional Director announced “Measles Elimination and Rubella Control by 2020” as one of the Flagship Priority Programmes for the Region. During the Seventy-second session of the WHO Regional Committee for South-East Asia, the goal of “measles elimination and rubella/CRS control by 2020” was revised to “measles and rubella elimination by 2023”.

The Regional Director established an independent “WHO South-East Asia Regional Verification Commission for measles elimination and rubella/CRS control (SEA-RVC)” in March 2016 in order to monitor progress towards measles elimination and rubella/CRS control, as well as to verify countries that have stopped the transmission of measles and/or have controlled rubella/CRS.

Following the adoption of the new target of “Measles and rubella elimination by 2023” in 2019, the Commission was renamed as the “WHO South-East Asia Regional Verification Commission for measles and rubella elimination (SEA-RVC)”. This was followed by development of the revised regional framework for verification of measles and rubella elimination, published in February 2020, to report on the annual progress made towards achieving the goal of measles and rubella elimination.

The Sixth Meeting of the SEA-RVC was held virtually on 6–7 July 2020 in line with the processed and methodologies mentioned in the revised framework for verification of measles and rubella elimination, published in February 2020.

2. **Objectives of the meeting**

The overall objective of the Sixth Meeting of the SEA-RVC was to review reports submitted by NVCs of all countries in the SEA Region on the progress made towards measles elimination and rubella/CRS control and provide feedback.

The specific objectives of the meeting were:

- in-depth review of the reports submitted by the NVC of each country on the progress towards measles and rubella elimination;
- assessment of country performance against criteria/lines of evidence as per the revised SEA Regional Framework for measles and rubella elimination;
- classification of countries into one of the mutually exclusive categories for measles/rubella: verified elimination; eliminated (absence of transmission for >12 months but not verified by RVC); re-established transmission (post-verification); and endemic; and
- agreement/comments of the Regional Verification Commission on recommendations made by the NVCs on the performance of measles/rubella elimination programmes in each country.
3. **Organization of the meeting**

The Sixth Meeting of the SEA-RVC was organized virtually from 27 to 29 September 2021 due to the ongoing COVID-19 pandemic and the imposition of global travel restriction.

The meeting was organized using the Zoom virtual platform. It was a three-day virtual meeting, with sessions of two hours each day. The meeting was followed by a virtual closed-door session of SEA-RVC members only to finalize the conclusions and recommendations.

The meeting was chaired by the Chairperson of the SEA-RVC and attended by eight members of the Commission. The Chairpersons/representatives of 10/11 NVCs of the Region and representatives from WHO headquarters, United Nations Children’s Fund (UNICEF) headquarters, UNICEF Regional Office for South Asia, UNICEF Regional Office for East Asia and Pacific Region, and the United States Centers for Disease Control and Prevention, Atlanta (US CDC), participated in the meeting. Secretarial support was provided by the Immunization and Vaccine Development (IVD) team of the WHO Regional Office for South-East Asia. The list of participants is available in Annex 4.

The WHO Regional Director for South-East Asia, Dr Poonam Khetrapal Singh, addressed the opening session of the meeting (see Annex 2). A presentation on the objectives of the meeting and the components of the regional framework for verification of measles and rubella elimination was made by the Secretariat. Subsequently, presentations were made by the Secretariat on the global and regional updates on the measles and rubella situation. Following the presentations, reviews of country progress towards measles and rubella elimination for ten Member States were conducted (See Meeting Agenda in Annex 1).

4. **Methodology of the review of country progress**

The methodology of the review of country progress was based on the guidelines laid out in the “Framework for verification of measles and rubella elimination in the WHO South-East Asia Region”.¹

4.1 **Prior to the meeting**

The annual reporting template on progress towards measles and rubella elimination, that was revised based on feedback from SEA-RVC members during the Fifth Meeting of SEA-RVC.

The revised annual reporting template was shared by the SEA-RVC Secretariat with all the NVCs through the WHO country offices in August 2021.

The filled-in and signed annual reports were submitted by all 10 NVCs to the SEA-RVC Secretariat at the WHO Regional Office for South-East Asia (SEARO) by 24 September 2020 despite of the COVID-19 pandemic situation in the respective countries and the related competing priorities of responding to the pandemic. The SEA-RVC appreciated this.

All country progress reports were initially reviewed by the SEA-RVC Secretariat along with the US CDC for consistency and quality check.

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Two SEA-RVC members were assigned as reviewers for each country report.

Electronic versions of the country progress reports were made available to the SEA-RVC members through a weblink as well as email.

All SEA-RVC members were provided with a review checklist template to independently review the assigned country’s progress towards measles and rubella elimination.

The SEA-RVC members provided written comments on the country progress reports and requested clarifications on the report. These clarifications requested by SEA-RVC were shared with respective NVC Chairs through the WHO country offices.

### Table 1. Countries and SEA-RVC members allocated for review

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Reviewer-1</th>
<th>Reviewer-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Dr Hinky Hindra Satari</td>
<td>Dr Sujeewa Amarasena</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Dr Shahina Tabassum</td>
<td>Dr Hinky Hindra Satari</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>Dr Kumnuan Ungchusak</td>
<td>Dr Shahina Tabassum</td>
</tr>
<tr>
<td>India</td>
<td>Dr Kinzang P Tshering</td>
<td>Dr Kumnuan Ungchusak</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Dr Jon Andrus</td>
<td>Dr Joe Icenogle</td>
</tr>
<tr>
<td>Maldives</td>
<td>Dr Sujeewa Amarasena</td>
<td>Dr A.P. Dubey</td>
</tr>
<tr>
<td>Nepal</td>
<td>Dr A.P. Dubey</td>
<td>Dr Kinzang P. Tshering</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Dr Joe Icenogle</td>
<td>Dr Jon Andrus</td>
</tr>
<tr>
<td>Thailand</td>
<td>Dr Jon Andrus</td>
<td>Dr Shahina Tabassum</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>Dr A.P. Dubey</td>
<td>Dr Kumnuan Ungchusak</td>
</tr>
</tbody>
</table>

#### 4.2 Details of the meeting

Eight SEA-RVC members attended the meeting. The SEA-RVC Chairperson and members acknowledged the high level of commitment to measles and rubella elimination by the countries.

Reviews of the country progress were made based on the time zone whereby the country with the highest offset from coordinated universal time (UTC) started first, and the ones with the lowest offset from UTC came later.

Each SEA-RVC reviewer of the respective designated country in order, as presented in the Agenda, provided an initial comment that lasted for not more than five minutes and included:

- one or two key highlights of the country report;
- country classification;
- comment on recommendations made by the NVC and additional comments, if any; and
➢ any clarification required from the NVC based on review of the annual progress report.

The respective NVC Chair or the representative was then requested to respond within seven minutes of allotted time. The response included:

➢ one or two key highlights on the measles and rubella programme in the country;
➢ response to the queries from the reviewer (if any); and
➢ any queries to the reviewer related to the country classification or comments made by the reviewer.

Dedicated closed-door sessions were conducted by SEA-RVC members on Day 2, after all the presentations of the NVCs were made, to discuss and finalize the conclusions and recommendations of the meeting.

The conclusions of the meeting were shared with all participants during the plenary by the Chair on the third and final day of the meeting.

5. Conclusions and recommendations

Following an extensive review of the reports from NVCs to assess the status of progress towards measles and rubella elimination in the Region, the SEA-RVC concluded that significant progress has been made towards measles and rubella elimination in all the countries in the Region. It also appreciated all countries for their dedication and commitment towards measles and rubella elimination.

SEA-RVC appreciated the NVCs of 10 of the 11 Member States for submission of high-quality annual progress reports on measles and rubella elimination. The five lines of evidence and two criteria required to verify elimination are well presented in all the reports. The SEA-RVC also acknowledged and appreciated the updates provided by several NVCs on the progress towards the “observations” made by SEA-RVC during the Fifth SEA-RVC meeting in 2020.

The SEA-RVC recognized that the COVID-19 Pandemic had significant impact on both measles and rubella immunization and surveillance performance throughout the Region and requested the NVCs to convey their appreciation to the national programmes on immunization for the significant progress made towards measles and rubella elimination amidst the COVID-19 pandemic.

The SEA-RVC recognized the efforts made to maintain the elimination status of measles and rubella by the countries that have been already verified as measles and/or rubella eliminated and that no country had re-established transmission of measles and/or rubella after verification of elimination despite the COVID-19 pandemic. The SEA-RVC also appreciated that countries that were categorized as endemic for measles and/or rubella had initiated several activities to accelerate progress towards measles and rubella elimination despite the COVID-19 pandemic. However, the intensity of these activities was variable across countries in the Region.

The endorsement of the conclusions and the recommendations of the meeting is available in Annex 3.
5.1 Categorization of countries

The SEA-RVC categorized countries into one of the four mutually exclusive categories for both measles and rubella as per the updated “Framework for Verification of measles and rubella elimination in WHO South-East Asia Region”:\(^2\)

- Verified as eliminated: No endemic transmission for >36 months in the presence of well-performing surveillance system and verified by the SEA-RVC.
- Eliminated: Absence of endemic transmission for >=12 months, but not verified by the SEA-RVC.
- Re-established transmission post verification: Presence of a chain of transmission of a virus strain that continues uninterrupted for ≥12 months in areas where endemic transmission had been eliminated previously.
- Endemic: Existence of continuous transmission of virus, that persists for ≥12 months in areas where transmission had not been eliminated previously.

Based on careful review and the follow-up discussions and interactions with representatives of the NVCs of the ten countries, the commission verified that Measles Elimination has been sustained in Bhutan, DPR Korea, Maldives, Sri Lanka and Timor-Leste. The commission identified that rubella has been eliminated in DPR Korea but will require additional evidences to verify elimination. The commission also verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission categorized the remaining countries as endemic for measles and rubella.

The SEA-RVC members extensively discussed the classification for rubella status for DPR Korea. The NVC report suggested that there was no rubella transmission for more than 36 months, but the evidence and information on routine vaccination coverage for rubella vaccine at the subnational level, and other evidence on population immunity for rubella, were not available in the report. Thus, the SEA-RVC classified the status as “eliminated” but could not verify in the absence of additional detailed information requested by RVC in the previous meetings.

Similarly SEA-RVC also extensively deliberated on the classification of rubella for Bhutan and decided that more evidence will be required to ensure that the surveillance system is robust for rubella as is for measles and suggested Secretariat to commission an onsite in-depth review of the rubella elimination status in Bhutan and report back to SEA-RVC in the next meeting. Similar onsite in-depth review for rubella elimination was also proposed for Bangladesh, Nepal, and Timor-Leste.

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\(^2\) Framework for Verification of measles and rubella elimination in the WHO South-East Asia Region available at https://apps.who.int/iris/handle/10665/332737
Table 2. Categorization of countries by SEA-RVC

<table>
<thead>
<tr>
<th>Country</th>
<th>Measles elimination</th>
<th>Rubella/CRS control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Endemic</td>
<td>Endemic</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Verified elimination</td>
<td>Endemic</td>
</tr>
<tr>
<td>Democratic People’s Republic of Korea</td>
<td>Verified elimination</td>
<td>Eliminated (not verified)*</td>
</tr>
<tr>
<td>India</td>
<td>Endemic</td>
<td>Endemic</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Endemic</td>
<td>Endemic</td>
</tr>
<tr>
<td>Maldives</td>
<td>Verified elimination</td>
<td>Verified elimination</td>
</tr>
<tr>
<td>Myanmar</td>
<td>No review conducted in the absence of NVC report</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>Endemic</td>
<td>Endemic</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Verified elimination</td>
<td>Verified elimination</td>
</tr>
<tr>
<td>Thailand</td>
<td>Endemic</td>
<td>Endemic</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>Verified elimination</td>
<td>Endemic</td>
</tr>
</tbody>
</table>

*Classification deferred to the next SEA-RVC meeting.

5.2 Overarching recommendations by SEA-RVC

The SEA-RVC made the following recommendations to WHO and all Member States of the Region:

- It endorsed all the recommendations suggested by the respective NVCs of all Member States in their annual progress report and requested for an update on the status of implementation of these recommendations at the next meeting.
- WHO-SEARO should organize an in-depth analysis of measles and rubella elimination status in all countries of the Region on a priority to review feasibility of measles and rubella elimination by 2023.
- Member States that have been verified as having eliminated measles and/or rubella should ensure that all IgM positive cases of measles and/or rubella are thoroughly investigated to rule out false positivity. Further, molecular epidemiology should be conducted for true positives to identify the source of the virus.
- All Member States should make efforts to establish molecular epidemiology and classify cases by its origin and report in the next meeting.
- All Member States to further enhance surveillance for congenital rubella syndrome.
All Member States are encouraged to explore and enhance mechanisms for cross-reporting of cases including using the IHR mechanisms that currently exist in all countries of the Region.

6. **Country-specific observations and request for additional information**

The SEA-RVC requested that additional information related to the following actions from countries be included in the next annual report.

**Bangladesh**

The SEA-RVC observed that the country conducted MR supplemental immunization activities amidst the pandemic to close immunity gaps and has transitioned to “acute fever and maculopapular rash” surveillance. However, 48% of the target population continue to reside in high-risk areas and the SEA-RVC noted no change in strategy to accelerate progress amidst the COVID-19 pandemic. The SEA-RVC has requested for the following additional information in the next report:

- Additional details on efforts made to reach hard-to-reach populations.
- A more complete description of how a single laboratory (the National Polio and Measles Laboratory) manages polio, measles, rubella and CRS surveillance for the entire country and detailed plans for expansion of laboratory network in the future.
- Classification of cases and outbreaks by source (imported, import related, endemic, unknown). Efforts made to strengthen country capacity for genotyping of measles and rubella cases and outbreaks.
- Efforts made to strengthen the collaboration among laboratory and surveillance.
- Analysis on private sector involvement in surveillance for measles and rubella, especially in the Dhaka region where the private sector has a significant contribution towards health care services.

**Bhutan**

The SEA-RVC observed that Bhutan continues to report few import/import-related cases, but no re-established transmission observed. The Programme has mapped all the high-risk groups and populations that could potentially import cases and has taken necessary steps to mitigate the risks. The SAE-RVC also observed that some key definitions which are important for case classification are missing and there is a need to review the definition for measles outbreak. The SEA-RVC has requested for the following additional information in the next report:

- Efforts to strengthen surveillance for rubella, particularly to detect/isolate rubella virus, genotyping, and additional strategies for testing to rule out false positive cases.
- Efforts to ensure better cross-border collaboration with neighbouring countries for measles and rubella surveillance activities.
- Refresher training for all health staff regarding case/outbreak investigations.
Democratic People’s Republic of Korea

The SEA-RVC observed that there are no reported confirmed cases of measles and rubella during the last seven years but the RVC could not verify the elimination status in the absence of the following information. The SEA-RVC requested the Member State to furnish the following at the next meeting:

➢ Efforts to resume vaccination of measles and rubella that has stopped since May 2021 due to stockout along with plans for MR vaccine stockpile and supplies for laboratory.
➢ During stock-out of laboratory kits, evaluation of the presence of clinically compatible cases of measles, rubella, and CRS.
➢ Review of Immunity profile against measles and rubella. This includes review of rubella vaccine coverage at subnational level and evidence for sustainability and population immunity profile for rubella in women of childbearing age that have not received vaccine.
➢ More comprehensive description of measles, rubella and CRS surveillance.
➢ Post-elimination sustainability plan including outbreak preparedness and response plan.

India

The SEA-RVC applauded the progress as well as the efforts made by the programme to address the disruptions caused by the COVID-19 pandemic through innovations. Examples cited include risk assessment and tailored approach and MR dashboard in all states.

In 2020, 19% of all ACS were telephonic, and 21% of all workshops were virtual. The SEA-RVC also noted significant progress on MR surveillance with more sensitive case definition of acute fever and maculopapular rash rolled out all over the country during the COVID-19 pandemic as well as the achievement of proficiency status by most laboratories that are a part of the measles–rubella laboratory network. The SEA-RVC also appreciated the National Immunization Programme for comprehensively addressing the concerns of NVC and RVC raised in the past. The SEA-RVC has requested for the following additional information in the next report:

Information on plans to close immunity gaps at the subnational level to compensate for the decline in RI coverage including the two states where MR catch-up SIA is yet to be conducted.

Root-cause analyses of large outbreaks in states where MR catch-up SIA was completed.

Expansion of use of genotype analyses to help determine case classification and establish genotyping goals in terms of numbers of genotyping to be conducted for both measles and rubella by states.

Plans for improvement of rubella molecular surveillance as well as to consider CRS surveillance system evaluation given the recent expansions to new sentinel sites.

Efforts made for inter-state and cross-border collaboration for measles and rubella surveillance.
**Indonesia**

The SEA-RVC commended the NVC for a detailed analysis of the challenging situation, which has become even more challenging due to the COVID-19 pandemic, and agreed with the plan to separate programme implementation toward elimination into two subnational areas (including providing separate analyses for both sub-national areas in the next NVC report). The SEA-RVC also noted good surveillance measures for CRS for 2020; however, detailed information is expected for 112 CRS clinically compatible cases reported. The SEA-RVC concluded that vaccine hesitancy, laboratory capacity, and varying levels of political commitment at the subnational levels remain significant challenges to achieving the elimination target and requested for the following additional information in the next report:

- Efforts made to ensure the quality of planned MR SIA in 2022 with additional information on how vaccine hesitancy, especially for rubella vaccine, is planned to be addressed.
- Information on the use of subnational risk assessment and how strategies were tailored for various risk areas.
- Efforts to ensure adequate laboratory capacity in place, if required expansion, including molecular epidemiology
- Plans to address the issue of staff turnover and its impact on surveillance (e.g. training, structural changes in hiring mechanisms, etc.)

**Maldives**

The SEA-RVC concluded that MR elimination was well sustained amid the pandemic with focused activities. One major measles outbreak (imported or import-related) was reported in 2020, but it was well responded to with timely investigations and containment. No further cases were reported. The SEA-RVC requested the following additional information in the next report:

- Efforts towards a special focus on 30–40-year populations as there is approximately 10% of the total population in this age group who are at risk of MR intermittent outbreaks with imported cases. A population-based study on a sample for measles antibody levels may help to identify the vulnerability in this group better.
- Strategies to engage with the identified high-risk population groups. Special focus on migrant population to identify any imported cases and to prevent further transmission.
- Efforts to consider reasons for low coverage during past SIAs while planning upcoming SIAs.
- Plans to address HR issues related to high turnaround and institutional memory.

**Myanmar**

The SEA-RVC did not have any report from the NVC of Myanmar to review and make an assessment on the elimination status.

**Nepal**

The SEA-RVC appreciated the high levels of political commitment demonstrated by all levels to continue and strengthen childhood immunization services during the COVID-19 pandemic.
The SEA-RVC observed the steps taken by the National Immunization Programme of Nepal to remove policy barriers to vaccinating children <5 years (previously restricted to children <2 years) so that all missed children under 5 years of age can receive essential immunization during catch-up and intensification activities. The SEA-RVC also recognized the MR SIA conducted in the midst of the COVID-19 pandemic. The SEA-RVC requested the following additional information in the next report:

➢ Evaluated coverage of the recently conducted MR SIA at the subnational levels and actions taken to close any gaps on coverage identified post MR-SIA as it was observed that less than 60% of subnational units achieved administrative coverage >95%.
➢ Efforts made by the programme to consider further differentiated strategies to reach high-risk population groups (such as the underserved ethnic group that constituted 95% of measles outbreak cases in 2020)
➢ Efforts to strengthen country capacity on molecular detection and genotyping of measles and rubella cases specially in the border areas.
➢ Efforts made to enhance accountability at the subnational level in the context of the recent decentralization of the health systems in the new federal structure.

**Sri Lanka**

The SEA-RVC acknowledged the descriptions provided in the report on the efforts made by the programme to sustain elimination status very well. The SEA-RVC noted the unavailability of genotype information on the two confirmed measles cases reported in 2020, that are classified as import-related and requested for additional information on these cases classifications. The SEA-RVC requested the following additional information in the next report:

➢ Sero survey to assess population immunity for measles and rubella in selected population cohorts that have received only one dose of measles containing vaccine.
➢ Update on the plan for new strategy as the current national strategy ends in 2020.
➢ Future reports on positive cases should include molecular epidemiology and epidemiological information to identify source of importation.
➢ Coordinate with the Maldives programme to track the case of measles in a Sri Lankan citizen who contracted measles in that country and then travelled to Sri Lanka. Report on how the lesson learnt has been used to enhance better reporting of fever and rash cases from community as well as reporting sites.
➢ More detailed description of how reinvestigation of suspect CRS cases leads to discarding suspect cases.
➢ Information on the presumed upgrade in testing capacity following significant equipment upgrade in the laboratory about 2 years ago.
➢ Efforts made to review data quality in the context where some districts report MCV2 coverage more than MCV1 coverage, and the innovations followed in the national strategy to sustain measles and rubella elimination.
**Thailand**

The SEA-RVC appreciated and acknowledged the revision on MCV2 schedule to 1.5 years from 2.5 years earlier. The SEA-RVC could not determine the role of active surveillance in Thailand and perceived that CRS surveillance is being done passively. The SEA-RVC was also not clear if “zero reporting” was an essential surveillance strategy throughout the country or if active searches were conducted when cases were identified and to what extent outbreak response were implemented. The SEA-RVC requested the following additional information in the next report:

- Efforts made to mitigate the impact of COVID-19 on immunization and surveillance – around four out of 10 surveillance indicators have been severely affected
- Efforts made to close the immunity gap for measles and rubella in multiple age groups including the migrant population, especially in metropolitan cities.
- Efforts to further differentiate strategies to reach the Deep South region and evaluate the effectiveness of these strategies.
- Plans to conduct a nationwide refresher training on immunization and surveillance for front line HCW
- Information whether the country has sufficient HR capacity to expand efforts into an “elimination” mode and, if HR capacity is sufficient, whether the providers have the training necessary for MR elimination.
- Analysis of rubella genotypes with the same level of detail as measles genotypes.
- Efforts to enhance linkages between laboratory and surveillance activities for better data triangulation.

**Timor-Leste**

The SEA RVC was concerned with the very low coverage of second dose of measles-containing vaccine as well the lack of information on rubella genotype study. The SEA-RVC also noted with concern the discrepancy in the denominator used for children under the age of 1 year, whereby the national demographic statistics mentions the target population as 44,981 but the immunization programme has based its plans on a figure of 31,000. The SEA-RVC requested the following additional information in the next report:

- Efforts made to sustain high measles immunity levels as the current coverage of MRCV1 and MRCV2 are suboptimal. This includes efforts made to identify pockets of low MRCV coverage such as in Dili and tailored interventions and SIAs to close immunity gaps and prevent further outbreak of Measles.
- Data quality issues, especially over the denominator used by the programme for under-1 year age group.
- In-depth field review of rubella transmission in the country including review of rubella cases and their classification as the country may have in all likelihood eliminated endemic rubella transmission.
Additional efforts made to enhance genotyping and molecular epidemiology in the country through support from Regional Reference Laboratory Thailand.

The signed endorsement of the conclusions and recommendations made by the SEA-RVC members is available as Annex 3.
## Annex 1

### Agenda

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<td>Presentation on the modus operandi of the review of country progress</td>
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<td>Review of the country progress reports</td>
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<td>All SEA RVC members</td>
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<td>Closing remarks by the Chair</td>
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<td>Day and activity</td>
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<td>Closing session – remarks by the WHO headquarters, UNICEF, US CDC, WHO Regional Office for South-East Asia</td>
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Annex 2

Regional Director’s opening remarks

I welcome you to this sixth meeting of the WHO South-East Asia Region Verification Commission for Measles and Rubella Elimination. Over the next three days, you will verify progress to eliminate measles and rubella in select countries of our Region, based on the updated framework for elimination.

Before anything, I want to commend Member States and partners for their ongoing commitment to achieve our Flagship Priority, amid what can only be described as extraordinary circumstances – circumstances that have prevailed for almost two years now.

So much is at stake. In the past two decades, the Region has reduced mortality from measles by around 80%. Five countries of the Region have been verified for eliminating measles, each of them sustaining elimination throughout 2020. Two countries have eliminated rubella, which four more countries have controlled.

By 2019, coverage of routine immunization in the Region – of which coverage of measles-containing vaccine is a strong indicator – had reached 91%, up from 83% in 2010.

In 2020, amid the COVID-19 response, an additional 35 million children across our Region were vaccinated against measles and rubella through supplementary immunization campaigns.

These and other achievements are a credit to Region-wide resolve, and to the immense capacity that all countries of the Region have developed, and which they continue to strengthen.

Gaps and challenges remain, which countries and partners are committed to addressing. In 2020, first-dose coverage of measles-containing vaccine declined to 88% from 94% the previous year. Second-dose coverage declined to 78%. In several countries of the Region, cracks in surveillance have widened, risking outbreaks in communities already at risk of being left behind. Inadequate financing continues to hamper operational planning and implementation. If unaddressed, it will negatively impact efforts to achieve our 2023 target, which is an important indicator for the achievement of Sustainable Development Goal 3 Target B1.

Together, we must catch up and reclaim the advantage, for which the Region’s new Strategic Framework and the global Immunization Agenda 2030 will prove vital.

Today, I highlight three priorities, which I urge this Commission, experts, and Member State representatives to contribute towards.

First, the Region must remain goal-oriented, focused on maintaining and strengthening routine and supplementary immunization capacities. Now more than ever, we must pull together to achieve our vision of a Region in which no child suffers or dies from measles; where no pregnant woman loses her unborn baby due to rubella; and where no neonate is born with a heart ailment or loss of hearing owing due to in-utero rubella infection.
Second, we must remain agile and responsive, adapting plans where required, while continuing to monitor progress. An in-depth review of where we are today, with next steps and a feasibility assessment, is urgently required to help countries refine strategic, operational and policy guidelines. In all countries of the Region, this Commission must help generate evidence and strengthen data collection and analysis, which is essential to understanding who is missing out and why.

Third, we must continue to make the case for increased investments in measles and rubella elimination, and to fully implement the Strategic Framework and Immunization Agenda. Immunization is a global health and development success story. It saves millions of lives every year. Amid the COVID-19 response, investing in, maintaining and strengthening routine and supplementary immunization capacities is more important than ever – for life-long health and well-being, for social and economic development, and to achieve the fairer, more equitable Region and world to which we are committed.

WHO will continue to support this Commission in all its functions, committed to ensuring high-level objectives lead to local level success. I once again thank Member States and partners for their commitment, wish you successful deliberations, and look forward to being apprised of the outcomes.
Annex 3

Endorsement of the SEA-RVC

WHO South-East Asia Regional Verification Commission for Measles and Rubella Elimination, 2021

We, the Members of the South-East Asia Regional Verification Commission (SEA-RVC) for Measles and Rubella Elimination, hereby endorse the conclusions and recommendations made by the Commission during its sixth meeting conducted virtually between 27 and 29 September 2021.

During the aforementioned meeting, the SEA-RVC for Measles and Rubella Elimination, adopted the framework for verification of measles and rubella to conduct detailed review of the country reports submitted by the National Verification Committees (NVCs) of ten countries of the Region. The country reports submitted by the NVCs included progress towards two essential criteria and five line of evidences on measles and rubella elimination.

Based on careful review and the follow-up discussions and interactions with representatives of the NVCs of the ten countries, the commission verified that Measles Elimination has been sustained in Bhutan, DPR Korea, Maldives, Sri Lanka and Timor-Leste. The commission identified that rubella has been eliminated in DPR Korea but will require additional evidences to verify elimination. The commission also verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission categorized the remaining countries as endemic for measles and rubella. The SEA-RVC also recognized significant progress made in remaining countries and acknowledged the impact of COVID-19 pandemic on the measles and rubella elimination activities across the Region. The Commission suggested several recommendations for all countries to help develop evidences to verify measles and rubella elimination.

Prof. A P Dubey

Dr. Kinzang P Tshering

Dr. Hinky Hindra Irawan Setari

Dr. Kumruan Ungchusak

Dr. Joseph P. Icenogle

Prof. Sujeeva Amarasena

Dr. Jon Andrus

Prof. Shahina Tabassum, Chair, SEA-RVC
Annex 4

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Professor and Chairman
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Chairperson, NVC
Bangladesh

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Professor Shafiqul Islam
Member, NVC Bangladesh
(Prof) Dr. Saif Ullah Munshi
Member, NVC Bangladesh
Dr. Azalun Nessa
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Chairperson, NVC Bhutan
Dr. Tapas Gurung
Member, NVC Bhutan
Dr. Sonam Wangchuk
Member, NVC Bhutan

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Chairperson, NVC India
Dr. Madhuri Vijay Kulkarni
Member, NVC India
Dr. Subhash Salunke
Member, NVC India
Dr. Rajiv Dasgupta
Member, NVC India
Dr. Muneer Ahmad Masoodi
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Prof. (Dr) Ismoedijantoe
Member, NVC Indonesia
Dr. Sherli Karolina
Member, NVC Indonesia
Dr. Indri Sukma Putri
Member, NVC Indonesia
Dr. Dyan Sawitri
Member, NVC Indonesia

Maldives
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Chairperson, NVC Maldives
Dr. Ahmed Faisal
Member, NVC Maldives
Sixth Meeting of the WHO South-East Asia Regional Verification Commission for measles and rubella elimination

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- Dr. Govind Prasad Ojha - Chairperson, NVC Nepal
- Dr. Sarala Malla - Member, NVC Nepal
- Dr. Kedar Baral - Member, NVC Nepal
- Dr. Krishna Bista - Member, NVC Nepal
- Dr. Arun Kumar Sharma - Member, NVC Nepal

**Sri Lanka**
- Prof. Lalitha Mendis - Chairperson, NVC Sri Lanka
- Dr. S.M. Arnold - Member, NVC Sri Lanka
- Dr. Nihal Abeyesinghe - Member, NVC Sri Lanka
- Prof. Pujitha Wickramasinghe - Member, VC Sri Lanka
- Dr. Nadeeka Janage - Member, NVC Sri Lanka

**Thailand**
- Dr. Supachai Rerk-Ngarm - Chairperson, NVC Thailand
- Dr. Pawinee Doung-Ngern - Member, NVC Thailand
- Ms. Sarinya Chaiya - Member, NVC Thailand
- Mr. Chatmongkon Sompan - Member, NVC Thailand

**Timor-Leste**
- Dr. Milena M. Lay dos Santos - Chairperson, NVC Timor-Leste
- Ms. Agusta Amaral Lopes - Member, NVC Timor-Leste
- Dr. Elvio de Jesus Mendes - Member, NVC Timor-Leste
- Dr. Noel Gama Soares - Member, NVC Timor-Leste

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- Dr. Md. Tanvir Hossen - Deputy Programme Manager, EPI
- Ministry of Health, Bangladesh

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- Bhutan
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- MOHFW, New Delhi, India
- Dr. Ashish Chakraborty - Asst. Commissioner – Immunization
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- MOH, Indonesia
- Dr. Lulu A. Dewi - Staff, Immunization Programme
- MOH, Indonesia
- Dr. Cornelis K. - Staff, Immunization Programme
- MOH, Indonesia
- Dr. Irma Gusmi Ratih - Staff, Immunization Programme
- MOH, Indonesia

**Maldives**
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- Health Protection Agency, Maldives
- Ms. Aminath Aroosha - Senior Public Health officer
- Health Protection Agency, Maldives

**Nepal**
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- Ministry of Health, Nepal
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<td>Dr Samitha Ginige</td>
<td>Dr Suchada Jiamsiri</td>
<td>Dr Gunter Bousser</td>
<td>Dr Natasha Crowcroft</td>
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<tr>
<td>Chief Epidemiologist</td>
<td>Medical Officer, Disease Control</td>
<td>Regional Health Advisor</td>
<td>Senior Technical Adviser – MR</td>
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<td>Dr Deepa Gamage</td>
<td>Dr Chaninan Sonthichai</td>
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<td>Dr Katrina Kretsinger</td>
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<td>Consultant Epidemiolo</td>
<td>Medical Officer, Department of Disease Control</td>
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<td>Dr Janaki Abeynayake</td>
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<td>Dr Miguel Norman Mulders</td>
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<tr>
<td>Mr Manuel Mauiry</td>
<td>Dr Christopher Gregory</td>
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<tr>
<td>EPI Program Manager</td>
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<td>Ministry of Health, T</td>
<td>UNICEF HQ, New York, USA</td>
<td>Dr Balwinder Singh Chawla</td>
<td>WCO Bhutan</td>
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<td>Dr Filipe de Neri Machado</td>
<td>Medical Officer, Surveillance</td>
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<td>Dr Ariful Islam</td>
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<td>Ms Liliana Varela</td>
<td>Ministry of Health, Timor-Leste</td>
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<td>Surveillance Officer</td>
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<tr>
<td>Centre for Disease Control and Prevention (CDC)</td>
<td>Dr Khin Devi Aung</td>
<td>Dr Md Kamar Rezwan</td>
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<tr>
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<td>CDC, Atlanta, USA</td>
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<td>Dr Ratnesh Murugan</td>
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<td>Dr Ahmed Kassem</td>
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<td>NPO – Measles and Rubella</td>
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<td>Epidemiologist, Measles elimination</td>
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