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

The SEA-RVC meets annually to review progress made by Member States towards measles and rubella elimination. This report outlines the conclusions and the recommendations made by the SEA-RVC during its Seventh Annual Meeting in June 2022. The SEA-RVC concluded that significant progress has been made in the Region, and four countries have sustained their measles elimination status and two have sustained rubella elimination status. Two countries have eliminated rubella but this is not verified. No report received for two countries for any assessment.

21–23 June 2022
Bali, Indonesia
Report of the Meeting
Seventh Meeting of the WHO South-East Asia Regional Verification Commission for measles and rubella

Bali, Indonesia, 21–23 June 2022

Report of the meeting
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## Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<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>IEAG-MR</td>
<td>Indian Expert Advisory Group on Measles and Rubella</td>
</tr>
<tr>
<td>IgM</td>
<td>Immunoglobulin M</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>MeaNS</td>
<td>measles nucleotide surveillance system</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>RubNS</td>
<td>rubella nucleotide surveillance system</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 seventh meeting of the SEA-RVC was held between 21-23 June 2022 in Bali, Indonesia.

The key objective of the meeting was to review the country progress reports on measles and rubella elimination, 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 nine NVC and the follow-up discussions and interactions with representatives of the NVCs of the nine countries, the commission verified that Measles Elimination has been sustained in Bhutan, Maldives, Sri Lanka and Timor-Leste. The commission could not evaluate the status of DPR Korea and Myanmar in the absence of the Annual progress report from their NVCs. The commission also verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission identified that rubella has been eliminated in Bhutan and Timor-Leste but will require additional evidence to verify elimination. 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 acknowledging the significant progress made by all countries in the Region towards measles and rubella elimination 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. Introduction

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”\(^1\).

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\(^2\), published in February 2020, to report on the annual progress made towards achieving the goal of measles and rubella elimination.

The Seventh Meeting of the SEA-RVC was held between 21and 23 June 2022 in Bali, Indonesia in line with the processed and methodologies mentioned in the revised framework for verification of measles and rubella elimination.

The SEA-RVC and NVCs were oriented on the use of an electronic data archive system (SEA-RVC Repository) which has all the annual progress reports submitted by the NVCs in electronic format that can be easily analyses using the DHIS2 platform.

During the meeting, the NVC shared the lessons learnt on the functioning of the NVCs, and the issues and challenges it faces as part of peer exchange.


2. **Objectives of the meeting**

The overall objective of the Seventh 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 to:

1. In-depth review of the reports submitted by National Verification Committees (NVCs) of each country on progress towards measles and rubella elimination

2. Assessment of country performance against criteria/lines of evidence as per the revised SEA Regional framework for measles & rubella elimination

3. 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); Endemic

4. Comments of the Regional Verification Commission on recommendations made by the National Verification Committees on performance of measles/rubella elimination programme in each country

5. Orientation on the use of SEA-RVC document repository developed in the DHIS2 platform.

3. **Organization of the meeting**

The Seventh Meeting of the SEA-RVC was organized between 21-23 June in Bali Indonesia. A hybrid approach was taken using the Zoom virtual platform.

The meeting was delegated to be chaired by a member of SEA-RVC (Prof Dr A P Dubey) on behalf of the Chair as the Chair could not attend physically. The meeting was attended physically by six members of the Commission and virtually by three members of the commission. The Chairpersons/representatives of 9/11 NVCs of the Region and representatives from WHO headquarters, United Nations Children’s Fund (UNICEF) headquarters, UNICEF Regional Office for South Asia, and the United States Centres for Disease Control and Prevention, Atlanta (US CDC), participated in the meeting. Three chairs/representatives of NVCs (Bangladesh, Maldives, and Nepal) attended the meeting using the virtual platform. 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.

A pre-meeting closed-door session as held with all the SEA-RVC members to discuss and agree on the agenda, modality of the review and signing of declaration of interest and confidentiality undertaking.
Director of Communicable Disease Department (CDS) of WHO’s Regional Office for SEA inaugurated the meeting on behalf of the Regional Director jointly with the Director of Surveillance of Ministry of Health, Indonesia. The Director also read out the Regional Director’s message (Annex 2) followed by welcome remarks from the Director of Surveillance of Ministry of Health, Indonesia.

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 nine Member States were conducted (See Meeting Agenda in Annex 1).

Two session were dedicated to orient the SEA-RVC and NVC members and representatives on the use of an electronic data archive system (SEA-RVC Repository) which has all the annual progress reports submitted by the NVCs in electronic format that can be easily analyses using the DHIS2 platform as well as for future online submission of Annual Progress Report by NVCs.

During the meeting, a parallel session as conducted on Day3 along with the SEA_RVC closed doors session facilitated by partner agencies where the NVC shared the lessons learnt on the functioning of the NVCs, and the issues and challenges they face.

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”.

4.1 Prior to the meeting

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

- The revised annual reporting template was shared with all the NVCs through the WHO country offices in April 2022.

- The filled-in and signed annual reports were submitted by nine NVCs to the SEA-RVC Secretariat at the WHO Regional Office for South-East Asia (SEARO) by 15 June 2022 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.

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

➤ Two SEA-RVC members were assigned as reviewers for each country report by the Chair.

➤ 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 respective 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>Kinzang Tshering</td>
<td>Rupa Singh</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Hinky Hindra Irawan Satari</td>
<td>Joe Icenogle</td>
</tr>
<tr>
<td>India</td>
<td>Shahina Tabassum</td>
<td>Joe Icenogle</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Sujeewa Amarasena</td>
<td>AP Dubey</td>
</tr>
<tr>
<td>Maldives</td>
<td>Kumnuan Ungchusak</td>
<td>Shahina Tabassum</td>
</tr>
<tr>
<td>Nepal</td>
<td>Kumnuan Ungchusak</td>
<td>Hinky Hindra Irawan Satari</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Jon Andrus</td>
<td>Rupa Singh</td>
</tr>
<tr>
<td>Thailand</td>
<td>Kinzang Tshering</td>
<td>Sujeewa Amarasena</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>AP Dubey</td>
<td>Jon Andrus</td>
</tr>
</tbody>
</table>

4.2 Key features of the meeting

➤ Nine SEA-RVC members attended the meeting (Six physically and three virtually). The SEA-RVC Chairperson and members acknowledged the high level of commitment to measles and rubella elimination by the countries.

➤ NVCs of the nine countries made the presentation on progress towards two criteria and five lines of evidence required to verify measles and rubella elimination. An overview of progress in Myanmar was also presented WHO country office Myanmar to appraise the SEA-RVC with the measles and rubella transmission situation in Myanmar.
Each SEA-RVC reviewer for the respective designated country, in order as presented in the Agenda, provided an initial comment that lasted for not more than seven 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 3, after all the presentations of the NVCs were made, to discuss and finalize the conclusions and recommendations of the meeting.

The SEA-RVC and NVCs were oriented on the use of an electronic data archive system (SEA-RVC Repository) which has all the annual progress reports submitted by the NVCs in electronic format that can be easily analyses using the DHIS2 platform.

During the meeting, the NVC shared the lessons learnt on the functioning of the NVCs, and the issues and challenges it faces as part of peer exchange.

The conclusions of the meeting were shared with all participants during the plenary by the Chair on the 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 nine 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 Sixth SEA-RVC meeting in 2020.
The SEA-RVC noted the findings of the independent external evaluation of progress towards measles and rubella elimination conducted in 2021 which concluded that although tremendous progress has been made in the SE Asia Region, the immunization levels and surveillance sensitivity necessary for elimination are likely not to be reached by all countries of the Region in 2023.

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 and at sub-optimal level.

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”:

- **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 nine countries, the commission verified that Measles Elimination has been sustained in Bhutan, Maldives, Sri Lanka and Timor-Leste. The commission verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission also identified that rubella has been eliminated in Bhutan and Timor-Leste but will require additional evidence to verify elimination. The commission could not derive

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4 World Health Organization. Regional Office for South-East Asia. (2022). Review of progress and way forward on measles and rubella elimination activities in the WHO South-East Asia Region. World Health Organization. Regional Office for South-East Asia. [https://apps.who.int/iris/handle/10665/352255](https://apps.who.int/iris/handle/10665/352255). License: CC BY-NC-SA 3.0 IGO

5 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](https://apps.who.int/iris/handle/10665/332737)
any conclusions on the progress made in DPR Korea and Myanmar in the absence of the Annual Progress report from the respective NVC. 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 evidence to verify measles and rubella elimination.

SEA-RVC also extensively deliberated on the classification of rubella transmission for Bhutan and Timor-Leste and decided that more evidence will be required to ensure that the surveillance system is robust for rubella as is for measles and suggested Secretariate to commission an onsite in-depth review of the rubella elimination status in Bhutan and Timor-Leste and report back to SEA-RVC in the next meeting. Thus, the SEA-RVC classified the status as “eliminated” but could not verify in the absence of these additional detailed information required.

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>Eliminated (not verified)</td>
</tr>
<tr>
<td>Democratic People’s Republic of Korea</td>
<td>No report received from NVC</td>
<td></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 report received from NVC</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>Eliminated (not verified)</td>
</tr>
</tbody>
</table>
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 a consultation with Member States to consider reviewing and if necessary, resetting the target elimination date, considering setbacks due to the COVID-19 pandemic.
- SEA-RVC notes there are many cases of measles in <1 year age as well as significant proportion of confirmed cases of measles and rubella that have completed vaccination series. These cases warrant further epidemiological analysis.
- All NVC to ensure better evidence on intensification of routine and supplementary Immunization activities (e.g., Catch-up, PIRI, Sweeping, SIA) to close existing immunity gaps for measles and rubella.
- All NVCs to ensure evidence of high-level outbreak preparedness and response to measles and rubella to combat imminent outbreaks caused by immunity gaps formed during the COVID-19 pandemic as well as pre-existing immunity gaps.
- All countries should make efforts to establish or improve molecular epidemiology and classify cases by its origin.
- All countries will need to generate better evidence on enhanced surveillance sensitivity – specially at subnational level.
- Evidence on sustainability and accountability which includes efforts made by countries to involve the private sector, professional associations, and international organizations for MR elimination.

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**

SEA-RVC observed that “Acute Fever and Rash” surveillance was adopted nation-wide in July 2021 by the country. The national target date for elimination of measles and rubella has been set to 2024, which is a shift from the Regional target date of 2023. SEA-RVC acknowledged the evidence on high population immunity, including at subnational level, with decreased incidence of measles & rubella. App-based house-to-house surveillance system has been developed by the country to enhance surveillance.
The SEA-RVC has requested for the following additional information in the next report:

- Detailed plans for expansion of laboratory network
- Evidence on molecular epidemiology including collection of throat swabs/urine samples. Efforts made to strengthen country capacity for genotyping of measles and rubella cases and outbreaks.
- Classification of cases and outbreaks by source (imported, import related, endemic, unknown).
- Efforts made to enhance detection of CRS within 3 months of birth to decrease number of clinically compatible CRS
- Efforts made to optimally implement new fever/rash case definition, and analysis on why country is yet to see a dramatic increase in suspect cases following the change in sensitivity of surveillance system.
- Plans for revision of denominator following 2022 census to address coverage >100%
- Evidence on enhanced capacity for preparedness and response to outbreaks.

**Bhutan**

SEA-RVC observed that a few measles cases were reported but with no clear evidence of re-established transmission; case investigation forms demonstrated (in the presence of sensitive surveillance system) that these cases are not temporally and geographically linked. All measles/rubella cases were with unknown case classification, no viral detection/genotyping has been reported to investigate transmission pattern and origin of these cases. SEA-RVC also noted that due to its geographical location Bhutan is likely have regular importation of cases of measles and rubella and thus needs to have a very vigilant system to detect and investigate these cases.

The SEA-RVC has requested for the following additional information in the next report:

- Efforts to improve molecular testing and case classification by origin
- Efforts to ensure better cross-border collaboration with neighbouring countries for measles and rubella surveillance activities
- Evidence of sensitive CRS surveillance - Review of CRS surveillance systems needed given no suspect cases of CRS has been reported
- Capacity building on MR and VPDs for new health officers for sustainability
- Evidence of immunity gaps being closed in areas with consistently low coverage including immunity profile of birth cohorts
- In-depth onsite review of rubella elimination to be conducted by end of 2022.
**Democratic People’s Republic of Korea**

The SEA-RVC did not have any report from the NVC of DPR Korea to review and make an assessment on the progress towards measles and rubella elimination status.

**India**

The SEA-RVC applauds the progress and efforts made by the program, especially improvements in MR surveillance sensitivity. SEA-RVC notes highest level of commitment by GOI to achieve measles and rubella elimination. However, SEA-RVC is concerned on the large proportion of clinically compatible cases of measles reported by the surveillance system.

The SEA-RVC has requested for the following additional information in the next report:

- Evidence that subnational immunity gaps are addressed by stratified plans based on area-specific situations, specifically in North-East states, West Bengal, and other selected states
- Details on improvements to surveillance system to decrease number of clinically compatible cases
- Evidence of sensitive CRS surveillance that includes detailed plans on expansion of CRS surveillance system
- Evidence of strengthening molecular epidemiology: Expansion of collection/transportation of throat swabs/urine samples and use of genotype analyses to help determine case classification; strengthening linkage of genetic information and surveillance activity to track transmission chains
- Evidence on Accountability: Implementation of recommendations of IEAG-MR; revitalizing district and state task forces to monitor MR elimination; Plans of NVC on monitoring measles and rubella elimination at the subnational level
- Conduct data quality assessment for immunization and surveillance data
- RVC encourages India to collect information to inform the transition from the current impressive program structure to elimination mode
- Conduct an analysis for the reasons for large number of clinical compatible cases and take necessary corrective actions e.g., strengthen sample collection process from suspected cases, using alternative sample collection methods like DBS

**Indonesia**

The SEA-RVC noted that MR elimination is planned in phases across the country with clear strategy. The country has started BIAN (National Childhood Immunization Month) which is a phased MR Immunizations activity to close immunity gap that might not achieve optimal coverage as desired. The SEA-RVC also noted with concern the drop in MR surveillance sensitivity and coverage of second dose of MRCV in 2021 compared to 2020 with significant subnational variability as well as the increased incidence of measles and rubella in 2022.
The SEA-RVC requested for the following additional information in the next report:

- Evidence on efforts made to garner greater political and health system commitment at all levels (national and subnational) to further the agenda of measles and rubella elimination
- Evidence on closure of immunity gaps through BIAN and RI and plans to reach population that were not reached through BIAN
- Evidence of genotype information to be provided including reporting to MeaNS and RubNS systems.
- Evidence of accountability/sustainability mechanism at subnational level e.g., Demonstrated through inclusion of MR elimination activities in national and subnational costed plans; Cross sectoral review mechanism at village/district level; Local procurement of kits/reagents for laboratory
- Evidence to ensure the reach of MR laboratories across the country, including molecular epidemiology. E.g., laboratory expansion plan; inclusion of private sector laboratory for MR elimination activities

**Maldives**

The SEA-RVC observed that MR elimination was well sustained amid the pandemic with focused activities in 2021. SEA-RVC also appreciated the reorientation trainings held for all atoll focal persons on fever-rash reporting.

The SEA-RVC requested the following additional information in the next report:

- Information on follow-up IgM testing of single IgM positive rubella case in 2021 that was discarded due to negative PCR result
- Detailed information on vaccination of migrant workers
- Restart MR vaccination campaign and provide coverage data as evidence of population immunity
- Review of CRS surveillance system with evidence of activities taken to enhance sensitivity of CRS surveillance system.

**Myanmar**

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

**Nepal**

The SEA-RVC appreciated the lifting of policy barrier for routine childhood immunization ceiling from 2 to 5 years of age. The SEA-RVC also observed that the MR surveillance sensitivity as well as coverage for MCV1 and MCV2 have improved in 2021 with good recovery after COVID-related drops in 2020.
SEA-RVC acknowledges the well-established sub-national accountability mechanism (ICC/declaration of fully immunized village through cross sectoral evaluation).

The SEA-RVC requested the following additional information in the next report:

- Evidence of closure of immunity gap in age groups 9 months – 15 years that currently contributes to 85% of cases of measles
- Evidence on sensitivity of sentinel site CRS surveillance
- Evidence that laboratory has made efforts to strengthen country capacity on molecular detection and genotyping of measles and rubella
- Evidence of efforts to improve cross-border collaboration for measles and rubella immunization and surveillance activities
- Efforts to involve private sector and pediatric and medical associations in MR elimination goal as an evidence for sustainability of the program
- Efforts to close MR immunization and surveillance gaps in vulnerable communities including use of alternative sample collection methods like DBS when necessary.

**Sri Lanka**

The SEA-RVC acknowledged high quality report that clearly describes sustained elimination of measles and rubella with zero cases in 2021. The SEA-RVC also observed that a new Measles and Rubella Elimination – Sustainability Plan 2021-2030 has been developed by the country. The SEA-RVC appreciated the three sentinel sites to daily review actively to identify fever-rash cases and supervision of low-reporting sites.

The SEA-RVC requested the following additional information in the next report:

- Evidence of mechanism to include the NMNR fever and rash cases into the regular reporting system. In the interim consider periodic re-calculation of NMNR rate to include other fever/rash cases to demonstrate evidence of sensitivity of MR surveillance program
- Evidence of sustainability plan to ensure low turnaround of healthcare workers.

**Thailand**

The SEA-RVC expressed concerns on the significant drops in sensitivity of MR surveillance system as well as coverage of MRCV1/2 at national and subnational levels in 2021 compared to 2020. The SEA-RVC notes the door-to-door strategy used among deep-south provinces to address vaccine hesitancy

The SEA-RVC requested the following additional information in the next report:

- Actions taken for high-level multi-partner in-depth review to of MR program to revitalize policy/political commitment for MR elimination
- Efforts made to mitigate the impact of COVID-19 pandemic on immunization and surveillance activities
Evidence on efforts made to close immunity gap through SIA, including for expanded target population for MR SIA in 2022 that includes migrant populations/factory and office workers/health personnel in private sector.

Evidence of integration and collaboration of private and public sector for immunization and surveillance activities

Evidence of enhanced sensitivity of CRS sentinel site surveillance including detailed plans on CRS sentinel surveillance to be implemented in referral hospitals in 2023

Evidence of outbreak preparedness and response capacity: Details on maintaining MR vaccine stockpile for outbreaks

Review coordination between laboratory and surveillance system and ensure a mechanism is in place for regular triangulation of data (specimens, cases) and regular corrective actions

Evidence zero-reporting/passive surveillance strengthening activities have been initiated.

Timor-Leste

SEA-RVC observed that COVID-19 pandemic had major impact on immunization and surveillance activities and door-to-door vaccination commenced in hard-to-reach and low-performing areas with limited success.

SEA-RVC also noted the preliminary unpublished findings of the National sero-surveillance study (including MR) that shows low protection level for measles and high for rubella.

SEA-RVC also noted with concern the inability to conduct molecular testing for the two suspected rubella cases (age <1 year with 1 dose MR) for whom throat swabs have been collected during the acute phase.

The SEA-RVC requested the following additional information in the next report:

Any updates to MR strategic plan

Efforts made to improve subnational variation in surveillance sensitivity and improvements in molecular epidemiology and genotyping

Efforts made to improve MRCV1/MRCV2 coverage, including conducting SIA to close existing immunity gaps

Results of MR sero-prevalence study

In-depth field review of rubella transmission in the country including review of rubella cases and their classification and review of CRS surveillance program

Evidence of capacity to timely respond to measles and rubella outbreaks.

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

Agenda

(1) Opening session
(2) Global update on measles and rubella
(3) Regional update on progress towards measles and rubella elimination
(4) Presentation on the modus operandi of the meeting
(5) Review of the country progress reports from Bangladesh, Bhutan, India Indonesia, Maldives, Nepal, Sri Lanka, Thailand and Timor-Leste
(6) Orientation on the use of SEA-RVC repository - How to review and analyze information
(7) Orientation to NVC on the use of SEA-RVC repository – Demonstration on how to electronically develop the report
(8) Challenges, innovations, and way forward: Session with Chairpersons of NVCs (Indonesia, Sri Lanka, Bhutan, Timor-Leste, India, and Thailand)
(9) Conclusions and recommendations from SEA-RVC
(10) Closing session
Chair and Members of the Regional Verification Commission for Measles and Rubella Elimination; Chair and representatives of National Verification Committees for measles and rubella elimination; National EPI programme managers and officers; colleagues from WHO headquarters, the Regional and Country Offices; representatives of partner agencies,

Good morning and welcome to this Seventh meeting of the WHO South-East Asia Regional Verification Commission for Measles and Rubella Elimination.

I first want to commend distinguished members, representatives, participants, colleagues, and friends on your steadfast commitment to achieve our target of eliminating both measles and rubella in all countries and all areas of our broad and very diverse Region.

Amid the COVID-19 response, five countries of the Region – Bhutan, DPR Korea, Maldives, Sri Lanka, and Timor-Leste – have sustained measles elimination status. Maldives and Sri Lanka have sustained elimination of rubella.

All countries of the Region are administering two doses of measles-containing vaccine and at least one dose of rubella-containing vaccine in routine immunization.

All countries have adopted acute fever and maculopapular rash surveillance and have at least one proficient national laboratory to support measles and rubella case-based surveillance.

In 2013 the Regional MR laboratory network had just 23 laboratories. It now has 49. At least 26 MR laboratories in the Region conduct both serology and RT-PCR for measles and rubella. Four laboratories also conduct sequencing.

Since the turn of the millennium, the Region has achieved a 98% reduction in mortality due to measles, and an 82% reduction in cases.

These are tremendous achievements.

But let us be candid: The COVID-19 pandemic has halted and, in some places, reversed progress.

Between 2019 and 2020, coverage of the first dose of measles-containing vaccine declined from 94% to 88%. Coverage for the second dose declined from 83% to 78%. Coverage of rubella-containing vaccine declined from 93% to 87%.
Surveillance performance as measured by the non-measles and non-rubella discard rate continues to remain below the 2 per 100,000 population targets, at 1.68, 0.98 and 1.46 per 100,000 population over the last three years.

As per an independent review commissioned by the Regional Office to assess progress towards measles and rubella elimination by 2023, the Region is currently off track to achieve the 2023 milestones. The target deadline may therefore need to be reviewed.

Today, I urge this commission:

First, to conduct an in-depth review of where we are today, with next steps and a feasibility assessment.

This is urgently required to help countries refine strategic, operational and policy guidelines.

Second, to increase support to countries for generating evidence and strengthening data collection and analysis.

This is essential to understanding who is missing out and why.

Third, to continue to make the case for increased investments in measles and rubella elimination.

At present, we require an additional USD 90 cents per capita annually to achieve our targets and goals.

Chair and members, representatives, colleagues, and friends,

The South-East Asia Region accounts for 24% of all infants globally – the largest birth cohort among all WHO regions.

What you achieve, the world achieves. Your success will be humanity’s success.

I wish you a productive meeting and look forward to our onward journey towards a Region and world in which everyone, everywhere, and at all ages, fully benefits from vaccines for good health and well-being.
Annex 3

Endorsement of the SEA-RVC
WHO South-East Asia Regional Verification Commission for Measles and Rubella Elimination, 2022

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 seventh meeting conducted between 21 and 23 June 2022.

During the aforementioned meeting, the SEA-RVC for Measles and Rubella Elimination, reviewed the country reports submitted by the National Verification Committees (NVCs) of nine countries of the Region. The country reports submitted by the NVCs included progress towards two essential criteria and five line of evidence on measles and rubella elimination.

Based on careful review and the follow-up discussions and interactions with representatives of the NVCs of the nine countries, the commission verified that Measles Elimination has been sustained in Bhutan, Maldives, Sri Lanka and Timor-Leste. The commission verified that rubella elimination has been sustained in Maldives and Sri Lanka. The commission also identified that rubella has been eliminated in Bhutan and Timor-Leste but will require additional evidence to verify elimination. The commission could not derive any conclusions on the progress made in DPR Korea and Myanmar in the absence of the Annual Progress report from the respective NVC. 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 evidence to verify measles and rubella elimination.
Annex 4

List of participants

RVC members
Professor Dr A.P. Dubey
Acting Chairperson, SEA-RVC
Director-Professor
Department of Paediatrics
Maulana Azad Medical College
New Delhi 110002, India

Dr Hinky Hindra Irawan Satari
Division of Infectious Diseases and Tropical Paediatrics
Department of Child Health
Fakultas Kedokteran Universitas Indonesia
Jakarta, Indonesia

Dr Joseph Parker Icenogle
Virologist/Public Health Scientist
Team Leader
Rubella Virus Laboratory
Centers for Disease Control and Prevention (CDC)
USA

Dr Kinzang P. Tshering
President, Khesar Gyalpo University of
Medical Sciences of Bhutan
Thimphu, Bhutan

Dr Kumnuan Ungchusak
Adviser
Department of Disease Control
Ministry of Public Health
Nonthaburi, Thailand

Professor TSD Amarasena
Dean, Faculty of Allied Health Science
University of Ruhuna
PO Box 70, Galle
Sri Lanka

Professor Dr Shahina Tabassum
(Virtual)
Professor and Chairman
Department of Virology
Bangabandhu Sheikh Mujib Medical University (BSMMU)
Bangladesh

Dr Jon Kim Andrus
(Virtual)
Adjunct Professor and Senior Investigator
Center for Global Health
University of Colorado
Washington DC, USA

Dr Rupa Rajbhandari Singh
Professor and Chair
Division of Neonatology
Department of Pediatrics
B.P. Koirala Institute of Health Sciences
Dharan, Nepal

NVCs for measles and rubella elimination

Bangladesh (Virtual)
Professor Mahmudur Rahman
Chairperson
NVC Bangladesh

Bhutan
Dr Sangay Thinley
Chairperson
NVC Bhutan

India
Dr Rajibdas Gupta
Memeb
NVC India

Indonesia
Professor Elisabeth S. Herin
Chairperson
NVC Indonesia

Prof (Dr) Ismoedijantoe
Member
NVC Indonesia

Prof Reta Sita Sitorus
Member
NVC Indonesia

Dr Nyilo Purnami
Member
NVC Indonesia

Dr Hariadi Wibisono
Member
NVC Indonesia

Dr Syarif Rohimi
Member
NVC Indonesia
Seventh Meeting of the WHO South-East Asia Regional Verification Commission for measles and rubella

Dr Mulya Rahma Karyanti  
Member  
NVC Indonesia

Dr Tri Yunis Miko  
Member  
NVC Indonesia

Dr Damayanti Soetjipto  
Member  
NVC Indonesia

Dr Nina Dwi Putri  
Member  
NVC Indonesia

Maldives (Virtual)  
Dr Abdul Azeez Yoosuf  
Chairperson  
NVC Maldives

Nepal (Virtual)  
Dr Kedar Baral  
Member  
NVC Nepal  
Sri Lanka

Dr Samitha Ginige  
Member  
NVC Sri Lanka

Thailand  
Dr Supachai Rerk-Ngarm  
Chairperson  
NVC Thailand

Timor-Leste  
Dr Milena M. Lay dos Santos  
Chairperson  
NVC Timor-Leste  
Ministry of Health Indonesia

Dr Endang Budi Hastuti  
Immunization and VPD’s Surveillance  
Ministry of Health

Dr Gertrudis Tandy  
Immunization team, MOH

Dr Lily Banonah Rivai  
Immunization team, MOH

Dr Fristika Mildya  
Immunization Team

Dr Bie Novirenallia Umar  
Immunization Team

Dr Dyan Sawitri  
Immunization Team

Dr Gestafiana  
Immunization Team

Donors and Partners

Centre for Disease Control and Prevention (CDC)  
Dr Michelle Morales  
Medical Officer, Rubella Team  
CDC, Atlanta, USA

Dr Ahmed Kassem  
Epidemiologist, Measles elimination  
CDC, Atlanta, USA

UNICEF HQ  
Dr Sanjay Bhardwaj  
Immunization Expert  
UNICEF HQ  
New York, USA

UNICEF ROSA  
Dr Azhar Abid Raza  
Immunization officer

WHO-HQ (Virtual)  
Dr Patrick O’Connor  
WHO-HQ  
Geneva, Switzerland

Dr Miguel Norman Mulders  
Scientist  
IAI/IVB

WHO Country Office, Myanmar  
Dr Khaing Khaing Gyi  
NPO Immunization and Surveillance

WHO-SEARO  
Dr Suman Rijal  
Director  
Department of Communicable Disease (CDS)

Dr Sudhir Khanal  
Technical Officer-Measles  
IVD/CDS

Dr Lucky Sangal  
Virologist  
IVD/CDS

Mr Rajiv Maken  
Executive Assistant  
IVD/CDS
The Regional Verification Commission (RVC) for measles and rubella elimination for the WHO South-East Asia Region was established by the Regional Director in March 2016 to verify progress towards measles and rubella elimination.

The SEA-RVC meets annually to review progress made by Member States towards measles and rubella elimination. This report outlines the conclusions and the recommendations made by the SEA-RVC during its Seventh Annual Meeting in June 2022. The SEA-RVC concluded that significant progress has been made in the Region, and four countries have sustained their measles elimination status and two have sustained rubella elimination status. Two countries have eliminated rubella but this is not verified. No report received for two countries for any assessment.

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

21–23 June 2022
Bali, Indonesia
Report of the Meeting