Event highlights

- The measles outbreaks in the four Pacific Island and Territories (PICs) continues, but with fewer cases reported in the last week.
- A low level of transmission continues in American Samoa, Fiji, Samoa and Tonga, but the overall situation has stabilised.
- No further measles cases have been reported from Kiribati, while monitoring and surveillance is continuing.
- The situation in other PICs is being closely monitored with on-site deployment of experts for surveillance and remote preparedness support from WHO, UNICEF, and other partners.

Summary by PIC

- **American Samoa**: no new laboratory confirmed measles cases have been reported; however, four suspected cases are pending results from Hawaii State Laboratory.
- **Fiji**: two new cases have been identified in the Central Division last week, one case was linked to a family member while another is being investigated for exposure.
- **Kiribati**: no new laboratory confirmed measles cases have been reported. Investigation of new suspected cases is ongoing, with on-site and remote technical support from WHO and UNICEF.
- **Samoa**: fewer cases and no deaths have been reported since 26 December 2019. Emergency Medical Teams (EMTs) are scaling down but some will remain into January.
- **Tonga**: number of cases decreasing, with fewer cases reported; all new cases are from the main Island of Tongatapu.

Pacific Regional:

- The risk of importation of measles cases, the susceptibility of the population, as well as the risk of a local or largescale measles outbreak and corresponding need for partner support, continuously monitored in all other PICs. The risk of importation of cases in PICs remains moderate, as inter- and intra-island movement will start in January 2020, after the holiday season.
- WHO is deploying staff to several PICs with elevated risks related to measles and other infectious hazards, focusing on joint action planning and health security system strengthening. For the period of January to March 2020, these efforts will include Kiribati, the Commonwealth of the Northern Mariana Islands (CNMI), the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM) and Vanuatu.
- Availability of vaccines is currently monitored by UNICEF and WHO (Table 3) and a contingency plan is in place in case of additional demand.
### Other emergency events in the PICs region

- Tropical Cyclone Sarai (category 2) has affected Fiji and Tonga.
- There are ongoing dengue outbreaks in Wallis & Futuna, the Kosrae and Yap States in the Federated States of Micronesia (FSM), the Republic of the Marshal Islands (RMI) and French Polynesia.
- Influenza outbreaks also reported in the RMI.
- Acute Diarrhoea and Vomiting (ADV), Rotavirus RDT-positive cases are reported in Kiribati this week. One death due to ADV has been investigated and reported.

### Situation update

The overview of declarations of outbreaks and states of emergency is summarised in **Table 1**; the epidemiological situation in **Table 2**, and further summarised by country below.

**Table 1. Overview of declarations of outbreaks and estate of emergency, in Pacific Islands Countries and areas with measles cases, as of 7 January 2020.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Outbreak declared</th>
<th>Outbreak days</th>
<th>State of emergency declared</th>
<th>Emergency days</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Samoa</td>
<td>8 December 2019</td>
<td>30</td>
<td>8 December 2019</td>
<td>30</td>
</tr>
<tr>
<td>Fiji</td>
<td>7 November, 2019</td>
<td>61</td>
<td>No</td>
<td>NA</td>
</tr>
<tr>
<td>Kiribati</td>
<td>Not done</td>
<td>NA</td>
<td>No</td>
<td>NA</td>
</tr>
<tr>
<td>Samoa</td>
<td>16 October 2019</td>
<td>83</td>
<td>15 November - 28 December 2019</td>
<td>43</td>
</tr>
<tr>
<td>Tonga</td>
<td>22 October, 2019</td>
<td>77</td>
<td>No</td>
<td>NA</td>
</tr>
</tbody>
</table>

Legend: NA = not applicable.

**Table 2. Overview of reported number of measles cases, morbidity and mortality and trend, in Pacific Islands Countries and areas with measles cases, as of 7 January 2020.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Reporting date</th>
<th>Reported cases</th>
<th>Reported deaths</th>
<th>Cumulative in-patients</th>
<th>Case-fatality rate*</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Samoa</td>
<td>28 December 2019</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>Stable</td>
</tr>
<tr>
<td>Fiji</td>
<td>3 January 2020</td>
<td>27</td>
<td>0</td>
<td>14</td>
<td>0%</td>
<td>Stable</td>
</tr>
<tr>
<td>Kiribati</td>
<td>3 January 2020</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>Under investigation</td>
</tr>
<tr>
<td>Samoa</td>
<td>7 January 2020</td>
<td>5,697</td>
<td>83</td>
<td>1,860</td>
<td>1.4%</td>
<td>Decreasing</td>
</tr>
<tr>
<td>Tonga</td>
<td>7 January 2020</td>
<td>622</td>
<td>0</td>
<td>18</td>
<td>0%</td>
<td>Decreasing</td>
</tr>
</tbody>
</table>

* Case-fatality rate = proportion of reported deaths within the total number of reported cases.
Table 3. Overview of Measles Containing Vaccines delivered and for delivery by UNICEF.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total MCV received in country since 01 Oct (doses)</th>
<th>Scheduled Deliveries (as of 30 Dec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Islands</td>
<td>4,000</td>
<td>0</td>
</tr>
<tr>
<td>Fiji</td>
<td>735,000</td>
<td>0</td>
</tr>
<tr>
<td>Federated States of Micronesia</td>
<td>20,000</td>
<td>0</td>
</tr>
<tr>
<td>Kiribati</td>
<td>19,000</td>
<td>0</td>
</tr>
<tr>
<td>Nauru</td>
<td>3,000</td>
<td>0</td>
</tr>
<tr>
<td>Niue</td>
<td>2,000</td>
<td>0</td>
</tr>
<tr>
<td>Republic of the Marshal Islands</td>
<td>7,500</td>
<td>0</td>
</tr>
<tr>
<td>Samoa</td>
<td>265,500</td>
<td>0</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>60,860</td>
<td>0</td>
</tr>
<tr>
<td>Tonga</td>
<td>68,000</td>
<td>0</td>
</tr>
<tr>
<td>Tokelau</td>
<td>2,000</td>
<td>0</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>9,500</td>
<td>0</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>80,000</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1,276,360</td>
<td>0</td>
</tr>
</tbody>
</table>

American Samoa

- 10 confirmed cases have been reported in six geographically spread villages; all on Island Tutuila since the outbreak and state of emergency were declared on 8 December 2019.
- Nasopharyngeal swab samples are collected from suspected cases (Fever, Rash, Coryza, Conjunctivitis) and sent to Hawaii State Lab for RT-PCR testing.
  - Total Samples collected for testing: 33 nasopharyngeal samples collected for testing at Hawaii State Lab.
  - Total Samples tested at Hawaii State Lab: 29; Results: Positive: 10, Negative: 19.
- No new confirmed cases have been reported since the last sitrep.
- American Samoa began its campaign to vaccinate all adults with no evidence of MMR vaccine 11 December 2019. As of 30 December 2019, 12,932 MMR doses administered (780 doses to children 6 months to 18 years old; 12,152 doses to adults 19 years and older).

Fiji

- Two new cases were reported last week, taking the total to 27, all in Central Division.
- One of the new cases is epi-linked, while the other is under investigation of exposure links.
- One 3-month old baby reported previously is still admitted to the hospital. All other cases have recovered or are recovering well under home isolation. No deaths have been reported.
- By Christmas, 95% vaccination coverage was reached in the Central Division for the target group of 6-month to 5-year olds, and 19-39-year olds.
- Immunization targets remain below 95% in the Western, Northern and Easter Divisions; the national house-to-house immunization campaign was suspended on 27 December 2019, due to Tropical Cyclone Sarai, and restarted 6 January 2020.
- Tropical Cyclone Sarai has led to two casualties and three injuries. The National Health emergency Operations centre continues to actively coordinate Divisions are now concentrating on Initial Damage Assessments and the distribution of rations to affected families.
• The Fiji Emergency Medical Assistance Team (FEMAT) has been sent to Kadavu Islands where the effect of TC Sarai was felt most and will provide public health and clinical services for six days.

Kiribati

• No new measles cases identified, although many suspected cases identified in the hospital triage area are under investigation.
• Two laboratory confirmed cases (IgM positive for measles virus). One 11-month-old boy and one-10-month old boy, with onset of fever on 29 November and 16 December 2019, respectively. The two cases are from different villages in Tarawa island and are not linked epidemiologically.
• Contacts of the suspected cases have been traced and vaccinated. Active case finding ongoing in the villages where suspected cases have been reported.
• Six additional suspected case has been investigated and blood sample was taken; results are pending.
• The Ministry of Health & Medical Service (MHMS) is intensifying activities to support vaccination of workers in seaports and domestic flights airports as well as domestic travelers to Kiribati’s outer islands. Vaccination of all domestic travelers to and from Tarawa, who cannot show evidence of vaccination, is also ongoing
• Kiribati is also experiencing an ADV/rotavirus outbreak. One death has been reported and attributed to ADV currently affecting all the communities in Tarawa. The outbreak was detected in December when the average attack rate in the affected communities reached 43.4 per 1000 population. Cases started increasing on the 16 of December 2019 and have peaked twice on the 22 and on the 27 December 2019. Two cases have been tested positive for rotavirus and six additional samples have been sent for testing.

Samoa

• The number of reported measles cases per day is rapidly reducing and the situation is stabilizing (Figure 1).
• 5,697 measles cases have been reported as of 6 January 2020, including zero in the previous 24 hours.
• 83 measles-related deaths; 87% was under 5 years of age.
• 1,860 measles admissions in total; approximately 95% have recovered, been discharged, and returned home.
• 16 hospitalized currently; seven critically children in intensive care and high-dependency care units (ICU/HDU).
• Post-measles infections among affected children are reporting to the hospital and are treated.
• There are ongoing visits to on Mental Health and Psychosocial support for bereaving families, discharged patients, health workers/front liners in the Tupua Tamasese Meaole, health facilities, and throughout the community. The service has expanded to include additional staff to visit families in the community to vaccinate those not previously immunized.
• Since 20 November 2019, the Ministry of Health (MoH) has successfully vaccinated 134,499 individuals in both Upolu and Savai’i.
Solomon Islands
- The travel advisory that requires all persons travelling from affected countries to show proof of vaccination is still in place and was updated for Kiribati and Papua New Guinea on 2 January 2020: From 28 December 2019 onwards (20th January 2020 for Papua New Guinea and Kiribati), all non-residents entering the Solomon Islands arriving from measles-affected countries (including American Samoa, Samoa, Fiji, Tonga, Kiribati, Australia, New Zealand, Papua New Guinea and the Philippines) will be required to provide certified proof of vaccination against measles at least 14 days prior to their date of arrival. All residents returning to the Solomon Islands from measles affected countries will be required to show certified proof of vaccination against measles at least 14 days prior to their date of arrival.

Tonga
- There is a downward trend in reported case numbers in Tonga, with fewer numbers of new cases being reported in recent weeks (Figure 2). Caution is warranted, because actual figures might change as people come back to work after the holidays.
- A total of 622 cases, including 18 admissions and zero deaths reported since the beginning of the outbreak.
- Case presentations reported remain to be generally mild, with 18 hospitalisations and no death. Most of the cases have been managed by home isolation and all patients have been discharged.
- Based on the last date of onset of cases reported in the different divisions, we see ongoing transmission in Tongatapu and Vava’u.
- The MoH estimates that >93% of the reported cases have recovered.
- Vaccination has been completed in the Islands of Tongatapu, Vavau’u and Ha’apai., the islands Eua and Niutoputapu will be covered in January 2020.

Vanuatu
- The vaccination campaign is continuing in Shefa Province for high the high-risk population.
WHO and UNICEF Actions to date

Measles Preparedness & Response in the Pacific

This sitrep is reporting on new activities in the reporting period; see Sitrep 1-9 for updates on previous activities: https://www.who.int/westernpacific/emergencies/measles-outbreaks-in-the-pacific

Health Operations & Technical Expertise

- Technical expertise continues to be deployed to PICs through partnership of WHO, UNICEF, CDC, SPC and Global Outbreak Alert and Response Network (GOARN).
- Continuous monitoring and coordination with respective Ministry of Health Officials in all the PICs has been maintained, as well as a joint assessment of likelihood of measles outbreak in outbreak countries.

Risk Communications

- WHO and UNICEF continue to support several PICs in risk communications, including using the WHO/UNICEF Pacific Measles Communication Toolkit and implementing paid social media campaigns to boost measles messaging via this online platform.

Social Media Campaign: WHO continues the implementation of a Pacific regional measles social media awareness campaign, targeting populations in all PICs, and in Australia and New Zealand. Audiences are targeted based upon their locality (geotagged) and viewing history/personal interests.

- The campaign reached 1,515,230 people and drove 23,436 link clicks to WHO's "Measles outbreak in the Pacific" landing page
- The #VaccinateByChristmas Facebook campaign for Fiji MoH has been completed. It reached a total of 303,322 people.
- The paid Facebook ad campaign for Samoa reached 225,990 people in total.
**Kiribati**
- The WHO and UNICEF teams on the ground continue active surveillance and case finding, detection of suspected measles cases, contact tracing and vaccinations in outer Islands.
- Three WHO staff members have been deployed to Kiribati to investigate the measles cases, and currently provide technical and logistical support.
- Six bio bottles of two litters and 15 swabs (COPAN UTM 306 C) have been sent from WHO to Kiribati, to support the collection and transport of samples.
- UNICEF delivered an additional 15,000 doses of MCV to the MoH.

**RMI**
- UNICEF delivered additional 5,000 doses of MCV to MoH.

**Samoa**
- WHO supports health system recovery, including appropriate management of post-measles infections.
- With technical support from WHO and UNICEF, the MoH Mental Health and Psychosocial Support (MHPSS) team work continues to be focused on patients and their families with measles in Samoa.
- Emergency Medical Teams (EMTs) providing case management, psychosocial support, and vaccination are currently scaling down. A total of 45 EMT rotations and 549 visiting personnel have been deployed to date to support TTM Hospital, Leulumoega and Faleolo District Hospitals.
- UNICEF has delivered six ice line refrigerators to MoH, three of which were installed in three health facilities of Savaii.
- UNICEF provided technical assistance in the development of a plan for catch-up vaccination campaign for school entry children.
- The UNICEF team on the ground provided technical support in the drafting of a new immunization policy.
- UNICEF delivered 100,000 IU Vitamin of A to MoH.

**Tonga**
- Three technical experts have deployed from WHO to support the Tonga MoH.
- A shipment of PPE has been delivered from WHO.
- UNICEF delivered additional 10,000 doses of MCV.
Next steps

Pacific

• Continue technical support both in-country and remotely for all pillars of response.
• WHO is rolling-out a collaborative methodology to identify gaps in measles preparedness and response capacities in priority PICs, and to support them in the development of 3-6-month action plans to guide activities to further mitigate the risk of measles importation and transmission.
• Priority preventive immunization – including outer island immunization coverage. Conduct mop-up vaccination to ensure all susceptible (particularly children 6—59 months) are vaccinated.
• Active follow up on social media campaigns across the Pacific.

Fiji

• MoHMS plans to conduct rapid coverage assessment during the second week of January 2020.

Federated States of Micronesia

• Planning for supplementary immunization activity to start in Jan 2020 in all four states. The target groups are children aged six months to 17 years, travellers to and from FSM, first responders (health workers, police, immigration officers), and anyone living in the same household as an infant under the age of 11 months

Kiribati

• Risk communication support for public awareness of measles symptoms and complications, vaccine target groups (including travellers).
• Phase three of the action plan will include follow up campaign in all the islands (six months to 14 years) and the frontline, establish MR clinic at the airport for the domestic travel and validate the MS1 report (January to November) for the routine immunization program.
• Priority preventive immunization – including outer island immunization coverage. Conduct mop-up vaccination to ensure all susceptible (particularly children six to 59 months) are vaccinated.
• An updated immunization profile is being developed by a UNICEF consultant, and the immunization programme officer, in consideration of the last vaccination campaigns.

Tonga

• UNICEF will send two ice-lined refrigerators to Tonga.
• MoH has planned vaccinator training to be conducted in February 2020.
• WHO planning to support the transition from outbreak to post-outbreak surveillance, including the appropriate use of laboratory testing and implementation of electronic early warning alert system for routine surveillance of epidemic prone diseases

Samoa

• Planning for the transition from outbreak to post-outbreak surveillance, including the appropriate use of laboratory testing and implementation of electronic early warning alert system for routine surveillance of epidemic prone diseases
• The vaccination coverage data has been analysed and forwarded to Samoa Bureau of Statistics for review.
**Tonga**
- Plan to start vaccination for children under 10 years of age in the coming weeks as recommended by Taskforce team.

**Republic of the Marshal Islands**
- UNICEF has delivered 5,000 doses of MCV this week.

**Vanuatu**
- Supplementary immunization activities (SIAs) were suspended during the holiday period and will restart early in January 2020 to ensure 95% coverage is achieved.
- Planned to start the SIA in Santo province covering Zones 1, 2 and 4 from 6 – 17 January 2020. Microplanning will also start in Tanna province for Zones 1, 2, 3 and 4 on 1st week of January 2020.
- Shefa Health team discussed with National team on the plan to conduct additional five-day catch-up campaign to reach the unreached children.
- The start date for SIA targeting children aged six mons to 15 years will be decided at the next task force meeting as disbursement of fund from the government is still unknown.
- The social mobilization activities including FAQs for social media were shared with the MoH and will be posted in the Govt Facebook page once its finalized. Content for SMS Push and radio broadcast for Sanma and Tanna province will be developed.

**WHO/UNICEF weekly coordination meeting**
The secretariat would be pleased to include the support provided by other partners in the next and subsequent sitreps.

The next coordination meeting will be held on Wednesday 22 January 2020 at 09:30am, at the WHO office in Suva. Please let us know if you will join in person or by Zoom, by emailing Measles2019@who.int. Any change in venue will be advised.

For those wishing to call in:
Join from PC, Mac, Linux, iOS or Android: https://wpro-who.zoom.us/j/5993964937
Or Telephone: +1 669 900 6833 (US Toll), +1 646 876 9923 (US Toll).
Meeting ID: 599 396 4937.
International numbers available: https://wpro-who.zoom.us/u/acZxLvmItF

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