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**MINISTRY OF HEALTH**  
GOVERNMENT OF TONGA

## **SITUATION REPORT**

### **Tonga Measles Outbreak 2019**

**SITREP Number: 8**  
**Date of Issue 04/12/2019**

#### **1. Summary of Situation**

##### **Background**

The outbreak of measles in Tonga began in early October 2019, following the return of a squad of Tongan rugby players from New Zealand. The first rugby player developed measles in New Zealand. Subsequently, a further 12 players developed laboratory-confirmed measles after returning to Tonga. The early outbreak involved mainly teenagers from schools on Tongatapu, as well as students from Vava'u High School. Cases on Vava'u appear to have slowed considerably, with the last case reported on 21 November 2019. Since the initial two waves of the outbreak, cases have been seen more widely in other age groups and cases have been seen in all 70 villages on the main island of Tongatapu. Small numbers of cases have been identified on the islands of 'Eua, Niuatoputapu and Ha'apai. An inter-disciplinary Ministry of Health Epidemic Task Force meets weekly to advise on management of the outbreak. In addition to routine outbreak response activities, a time-limited vaccination program targeting secondary school students has almost been completed and vaccination efforts are now being directed at other target groups.

**Note: Refer to earlier SITREPS for further detail of the initial cases and response.**

#### **2. Current Situation**

As at 02 December 2019, 440 cases of confirmed or suspected measles have been identified in Tonga, including 46 additional cases since SITREP7. All 46 of the cases from the past week have been from the main island of Tongatapu, meaning 390 (89%) cases in total have occurred on Tongatapu, where the outbreak began. No further cases have been reported from any other island since SITREP7. Given that the duration of illness is typically less than 2 weeks, it is estimated that at least 70% of the 440 reported measles cases will have already recovered from their illnesses.

Ten admissions to hospital have occurred among measles cases in this outbreak, with no deaths. The significant majority of cases have been managed in home isolation.

Figure 1 (below) shows the epidemic curve for the current outbreak in Tonga. The significant majority of cases (blue) occurred on the island of Tongatapu. Figure 2 demonstrates the breakdown of cases by sex. Consistent with early transmission through male boarding schools, most cases have been among males, with the proportion of cases among females increasing as the outbreak has progressed. A total of 64 cases have occurred in children aged less than 5 years, with 15 of these cases occurring in the past week. Cases among adolescents and young people continue to form the majority of cases in this outbreak, with 351 (80%) cases occurring in people aged 10 to 24 years (Table 1 and Figure 3).

#### **Key events/ issues since last SITREP**

- Vaccination efforts continue to target groups at greatest risk of measles infection, as well as those at greatest risk of severe illness, including:
  - Infants aged 6 to 11 months, who are being offered a 'zero dose'
  - Extended family contacts of suspected and confirmed cases

- Adolescents and young adults aged 10 to 24 years, not already picked up in the school program
- Travellers, in particular those aged 6 months to 24 years
- The total number of vaccinations administered, as at 03/12/2019 is 15,124:
  - Tongatapu: 10,371
  - Ha'apai: 1,212
  - 'Eua: 823
  - Vava'u: 2,560
  - Niuatoputapu: 158
- School-based vaccination program has been completed on all islands, with the exception of Niuafu'ou as there had not been a boat to Niuafu'ou until this week (importantly, no cases on Niuafu'ou)
- Vaccination of infants aged 6 to 11 months completed on Tongatapu on Friday, 29/11/2019
- 6,000 additional doses of MR vaccine, together with vitamin A received from UNICEF on 03/12/2019
- Anticipated arrival of 60 vials of 2 mL and 5 mL normal human immunoglobulin (NHIG) from WHO in coming days
- The Minister of Education closed all primary schools on 14/11/2019 and this closure will continue for the remainder of 2019
- Secondary schools are finishing for 2019 and most are holding smaller graduation ceremonies than originally planned
- Approximately 1,000 seasonal workers will be leaving Tonga to work in agricultural roles in Australia and New Zealand in coming months
- Additional stocks of N95 masks and hand gel are expected to arrive from WHO in the coming week

#### **Actions Taken:**

- Intensive follow up of cases of all ages and their contacts has resumed, following completion of the school-based vaccination program
- The interdisciplinary Epidemic Task Force (ETF) continues to meet weekly to discuss the measles outbreak response
- Results are awaited for 19 respiratory swabs and 12 serum samples taken from suspected cases who meet the criteria for diagnostic testing, including those with serious illness and suspected new lines of transmission. These specimens have been sent to the Victorian Infectious Disease Reference Laboratory (VIDRL) for analysis and results are expected in the coming week

#### **Actions to be Completed:**

- Weekly Epidemic Task Force meetings to continue
- Continue vaccination efforts targeting priority groups
- Ongoing work with WHO and other partners to replenish PPE supplies
- Continue discussions with VIDRL regarding interpretation of serology results in cases known to have previously been vaccinated for measles and await results of recent specimens sent to VIDRL for testing
- Continue to work with representatives of churches and other organisations to postpone mass gatherings wherever possible
- Continue contact tracing and post-exposure vaccination of extended family contacts of cases as part of intensive case follow up, including obtaining verbal vaccination histories from parents of infant and child contacts
- Complete verification of measles immunisation records for cases, with a focus on immunisation records for cases aged less than 10 years
- Continue with enhanced surveillance activities, including completion of minimal case report form (CRF) by outpatient clinic staff

**Next SITREP due to be issued at: 11/12/2019**

**Approved by:** Dr Siale 'Akau'ola, Chief Executive Officer MOH

**Date:** 04/12/2019

Charts  
Figure 1

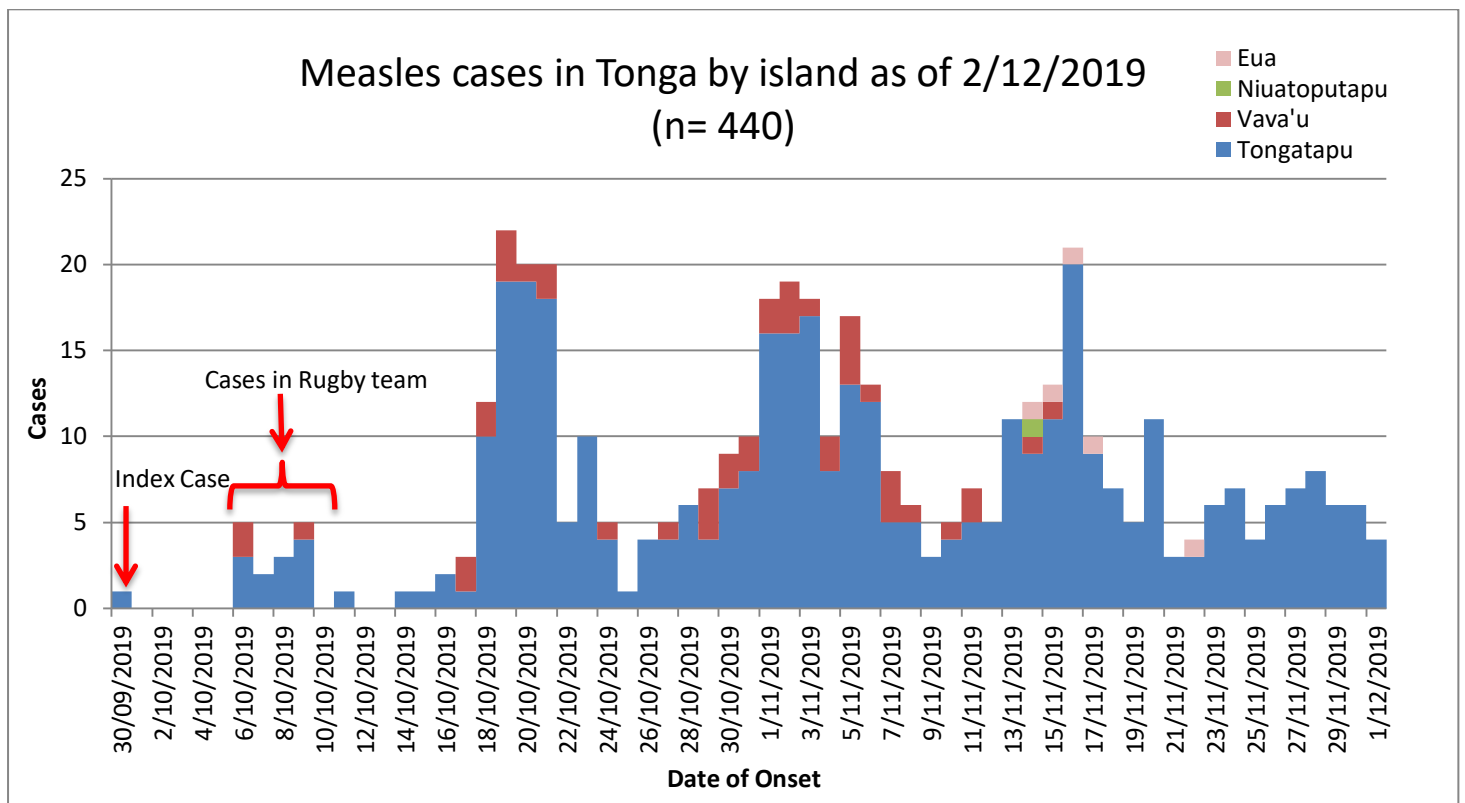
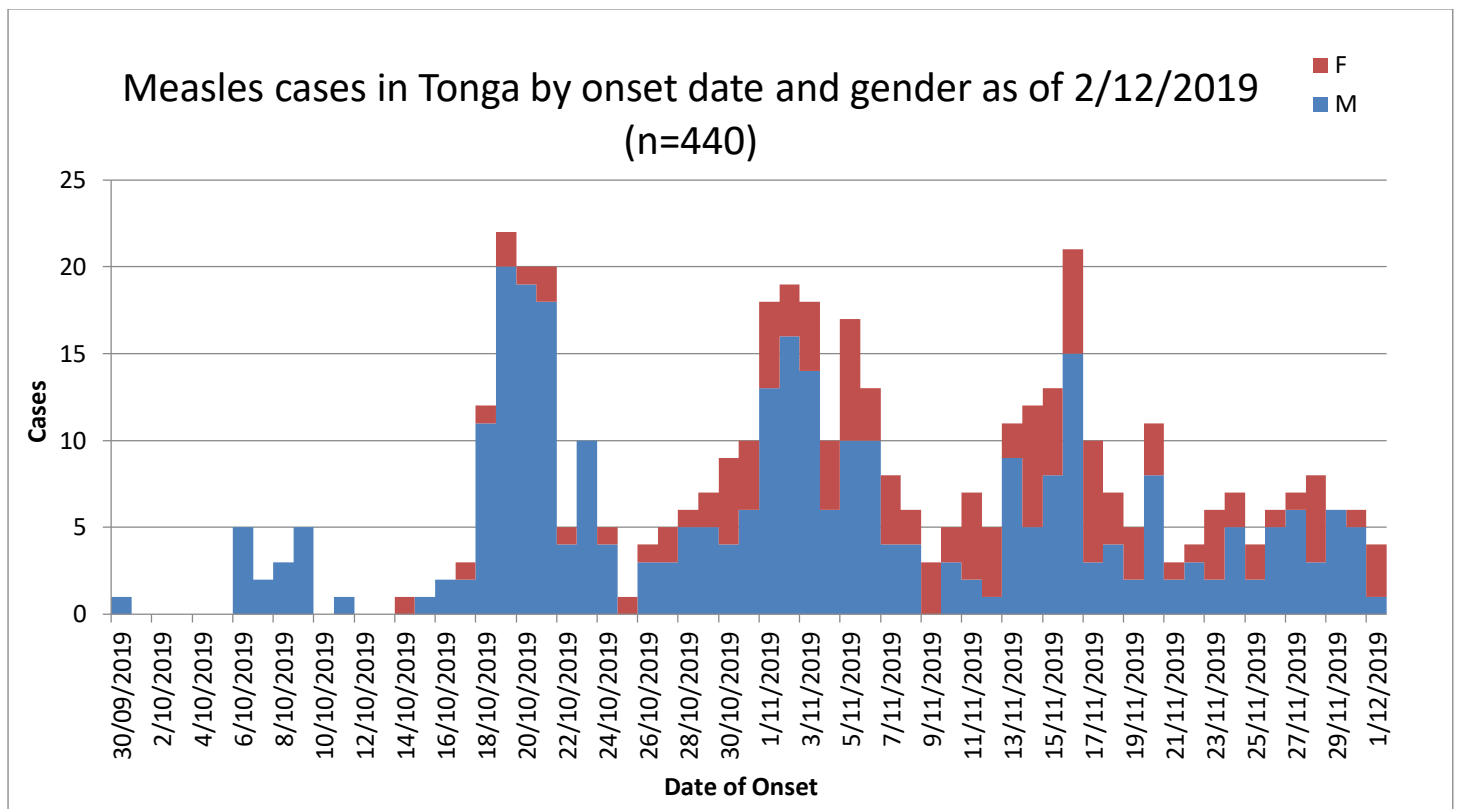


Figure 2



**Table 1: Age distribution of cases in measles outbreak, Tonga, 02 December 2019**

Age	Male	Female	Total
Less than 6 months	10	13	23
6 to 11 months	10	16	26
1 to 4 years	8	7	15
5 to 9 years	13	3	16
10 to 14 years	90	14	104
15 to 19 years	154	45	199
20 to 24 years	23	25	48
25 to 29 years	2	4	6
30 years and over	1	2	3
Total	311	129	440

**Figure 3: Age distribution of cases by island in measles outbreak, Tonga 2019**

