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MINISTRY OF HEALTH
GOVERNMENT OF TONGA

SITUATION REPORT

Tonga Measles Outbreak 2019

SITREP Number: 5
Date of Issue 13/11/2019

1. Summary of Situation

Background

An outbreak of measles in Tonga occurred following the return of a squad of Tongan rugby players from New Zealand where one player had developed the illness. A further 12 players developed measles on their return to Tonga. Samples from 6 of these cases were laboratory confirmed as measles. The outbreak has involved mainly teenagers from schools on Tongatapu as well as students from Vava'u High School. Cases are epidemiologically linked to the initial imported cases. The Ministry of Health Epidemic Task Force has been convened which is comprised of public health physicians and staff, clinicians, pharmacy and laboratory representatives to advise on the management of the outbreak.

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

2. Current Situation

As of the 12th of November, 251 cases of confirmed or suspected measles have been identified in Tonga of which 86% are in the island of Tongatapu and 14% in Vava'u. There have been 4 admissions since the beginning of the outbreak and all have been discharged home with no complications. No deaths have been reported.

The attached charts outline the results of analysis of current case information. The epidemic curve reflects a propagated outbreak matching the incubation period for measles (Figure 1). Figure 1 demonstrates the cases in Vava'u (in red) stemming from measles in two of the returned rugby players. Figure 2 demonstrates that while males predominate, consistent with the transmission of disease through the boys' schools, females have contracted measles as the outbreak has gone on and their numbers are increasing.

Eleven cases have been reported in infants less than 12 month of age, six cases in children 1-4 years of age and nine cases in children 5-9 years of age (Figure 3). Predominate symptoms include rash (98% of cases) and fever (82% of cases) (Figure 4). Cases in females have occurred mainly in the 15-19 age group followed by the 20-24 (Figure 5) whereas in males, it is predominantly 15-19 followed by 10-14 years of age. Although identifying vaccination history for cases has proven challenging, some progress has been made in the number of records verified as compared to the last sitrep . Of 251 cases, vaccination history has been found for 125 cases (Figure 6). Of these 125 cases, 102 (82%) have a two-dose history with MR vaccine and the remainder have a one dose history. The remaining cases are awaiting verification of vaccination histories.

There is currently no evidence to suggest that new lines of transmission have occurred.

Key events/ issues since last SITREP

- There is increasing number of cases seen outside the predominant age group (10-19) and risk category e.g. children, infants.
- Twelve cases have been reported from Vava'u, all in the 15-19 year age group and linked through the school. This is a co-educational high school and three of the cases are in girls.
- The consumables requested through MFAT to support the measles outbreak have arrived in Tonga and was received at the MOH Central Medical Store on the 11th of November.
- A supply of Capon swabs for sampling arrived from WHO DPS on the 11th of November.
- Results from samples of 18 people suspected of having measles that were sent to VIDRL on 29/10 are still pending.
- A further 2500 doses of MR vaccine has been requested from UNICEF.
- The 6 players of the Tonga futsal team that were quarantined with suspected measles in New Caledonia has been confirmed PCR positive by New Caledonia officials and genotype results is pending. These players are well and have returned to Tonga on the 12th of November and are being followed up by the Public Health team.

Actions Taken:

- On Tongatapu and Vava'u, Doctors, Health Officers and District Health Nurses are continuing to follow-up cases and contacts at home and complete details on case investigation forms and gather vaccination history.
- The MOH is collaborating with UNICEF, WHO and DFAT in the drafting, printing and releasing of risk communication materials.
- Mass media programs as well as awareness programs in villages and districts are on-going.
- The national external examinations for forms 5-7 commenced on the 5th of November and are currently underway. A mixture of students from different high schools in Tongatapu and Vava'u sit their exams in designated examination venues. The Ministry of Health collaborated with the Ministry of Education in identifying a separate examination venue for students with measles. Public Health staff were on site at each of the examination venues to provide support and to identify potential new cases. Exam supervisors were vaccinated for measles and health talks to student and teachers were carried out at all venues.
- A total of 2304 doses (1864 in Tongatapu and 440 in Vava'u) of MR vaccine have been used in response to the outbreak including post exposure prophylaxis, vaccination of HCW and vaccination of travellers including seasonal workers, sports teams and others.
- Given the current available stock of vaccine, vaccination for travellers is prioritised to the following people; those aged 10-24 years of age regardless of vaccination history, infants between 6 and 11 months of age, and children not up to date with vaccinations or where parents are not sure.
- A further 2500 doses of MR vaccine was ordered from UNICEF.
- Mr Tony Kolbe (WHO consultant) who assisted in the measles response completed his time in Tonga and a request was made to WHO for further technical assistance. We would like to acknowledge Tony for his help and support.

Actions to be Completed:

- Further actions to ensure that travellers and touring sporting teams/ groups as well as seasonal workers are vaccinated for measles as necessary before departure.
- The feasibility of a SIA for those aged 10-24 in Tonga to be discussed by the Epidemic Taskforce and with the Ministry of Education given that the majority of this age group will be in high school.
- Review of vaccine stocks and procure further stock given increased demand for vaccination.
- To continue with verification of measles immunisation records for cases and their contacts.
- Further discussions with the Ministry of Education on ways to minimise mixing of students and further transmission of measles given that it is the time of the year for prize giving and graduation ceremonies in both primary and secondary schools.
- Weekly meeting of Epidemic taskforce to continue.
- Continue with surveillance activities.

Next SITREP due to be issued at: 20/11/2019

Approved by: Dr Reynold 'Ofanoa , Acting Chief Executive Officer MOH

Date: 13/11/2019

Abbreviations:

DPS	WHO Division of Pacific Technical Support	RT-PCR	Polymerase chain reaction
HCW	Health care worker	TCT	Tupou College Toloa
IEC	Information Education Communication	THS	Tonga High School
MCV	Measles containing vaccine	TCA	Tonga College 'Atele
MFAT	New Zealand Ministry of Foreign Affairs and Trade	SIA	Supplementary Immunisation Activities
MOH	Ministry of Health	VIDRL	Victorian Infectious Diseases Reference Laboratory
MR	Measles rubella vaccine	WHO	World Health Organization
NFP	National Focal Point	WPRO	WHO Regional Office for the Western Pacific
PEP	Post exposure prophylaxis	UNICEF	United Nations Children's Fund

Charts

Figure 1

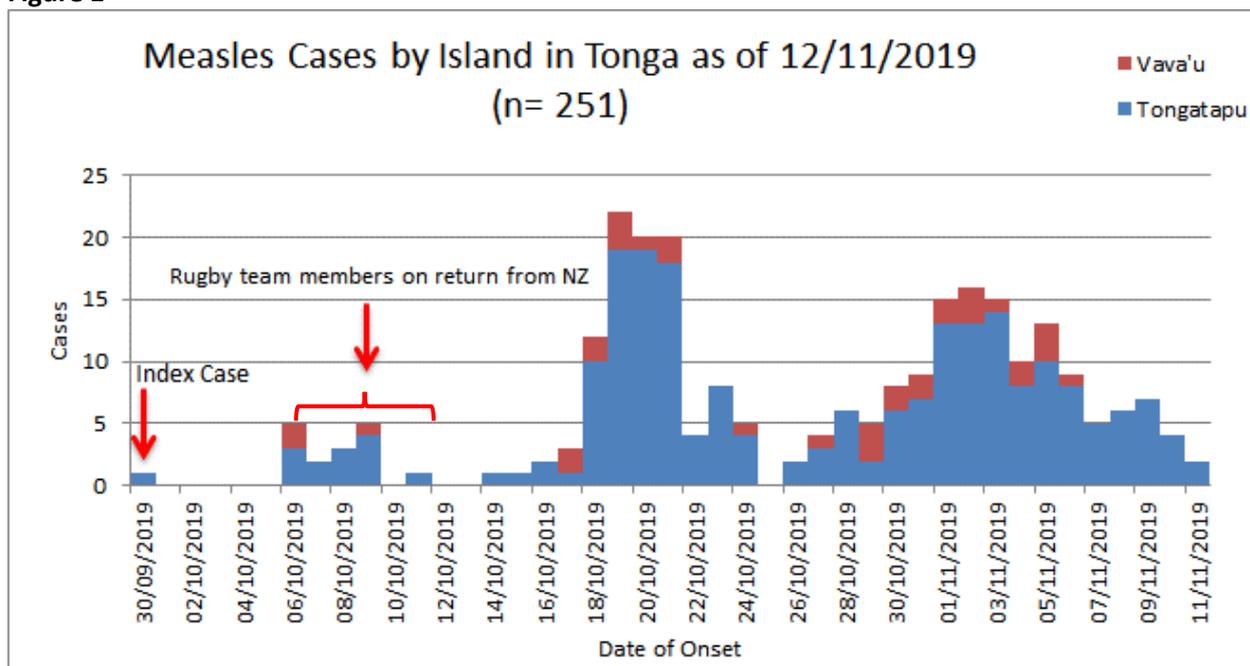


Figure 2

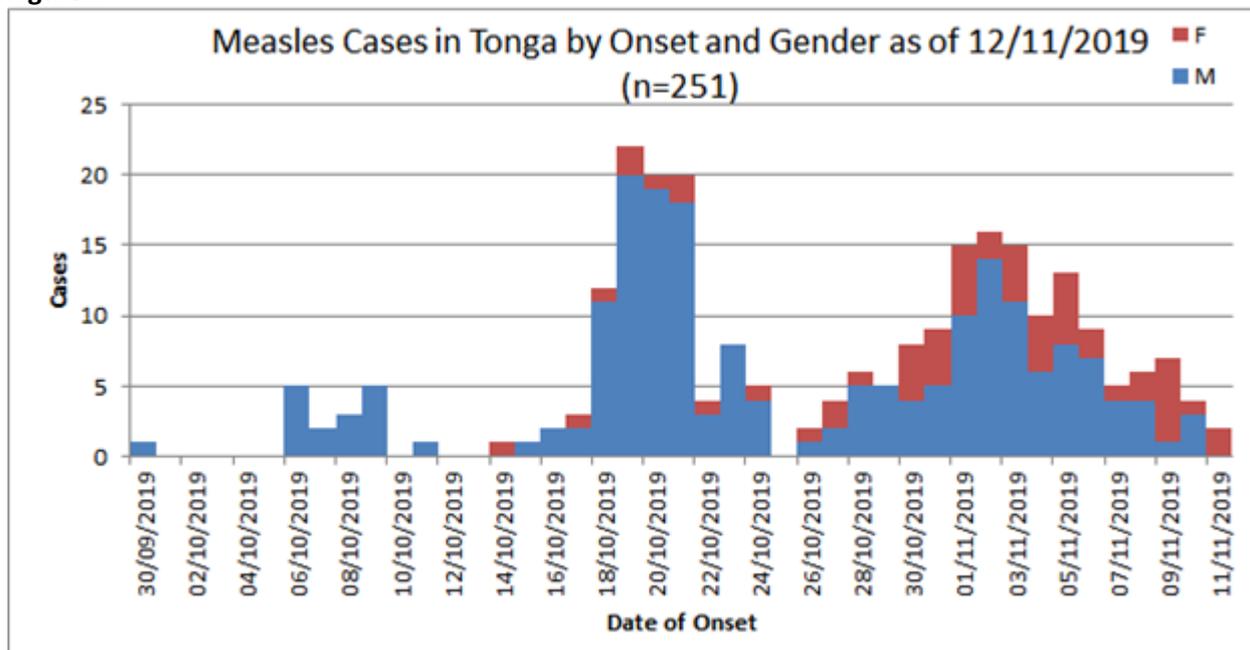


Figure 3

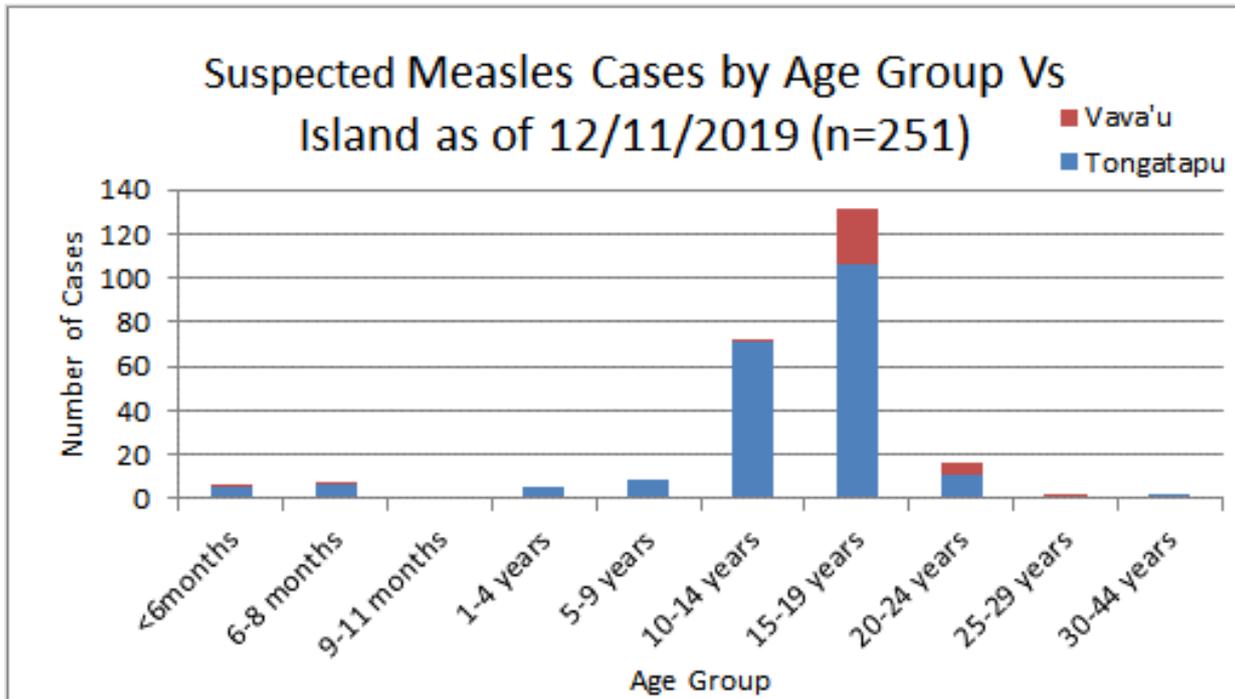


Figure 4

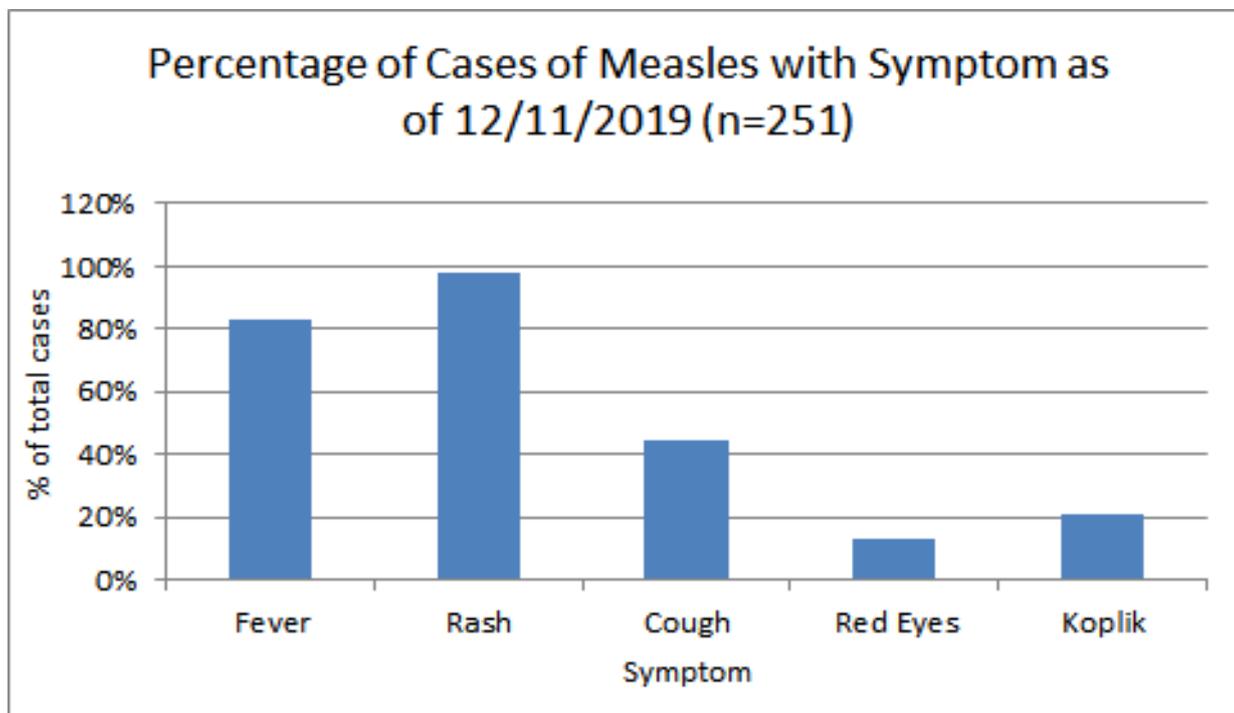


Figure 5

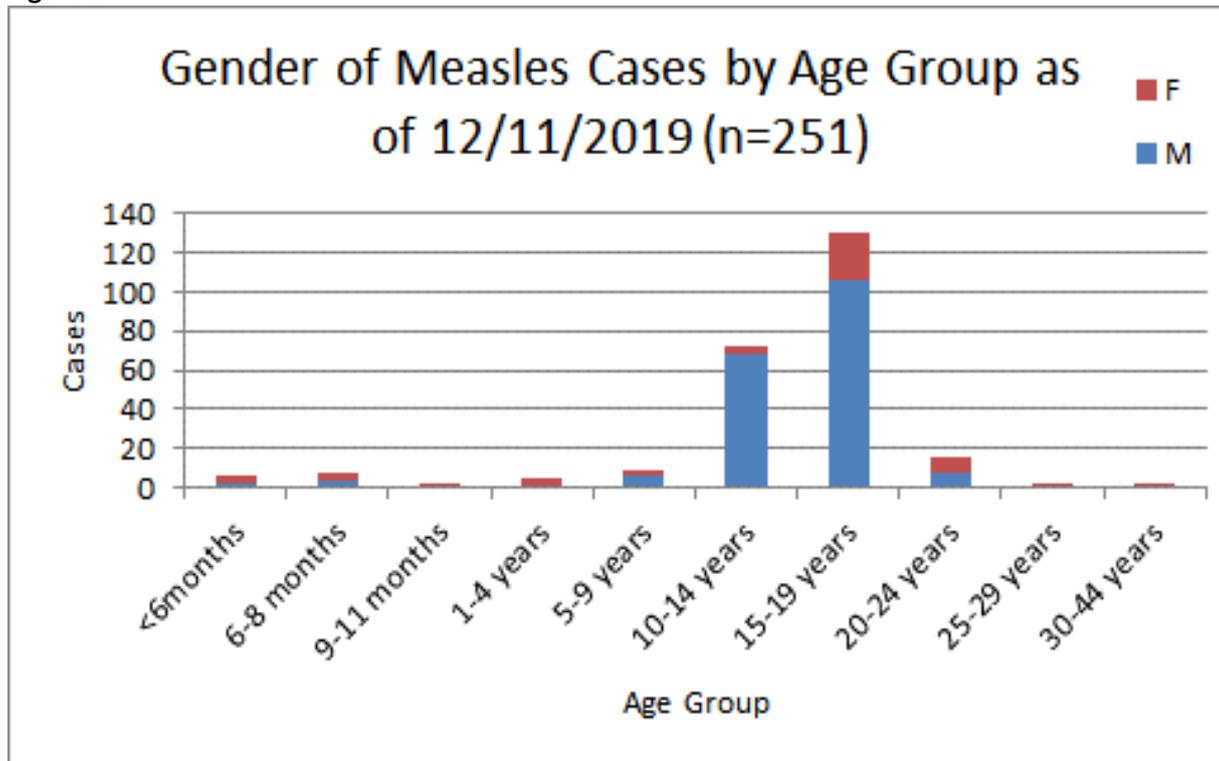


Figure 6

