



**Early Warning** | Performance Indicators

**11**

Total number of reporting locations

**9**

Total reports submitted

**2**

Total missing reports

**82%**

Completeness

**0%**

Timeliness



**Alert** | Active alerts

**1**

Total number of IBS\* alerts  
100% verified

**0**

Total number of EBS\*\* alerts  
0% verified

Notes on alerts:

\* **Indicator-based surveillance (IBS)** alerts are based on 9 reported syndromes (see Annex 1 for case definitions and alert thresholds).

\*\* **Event-based surveillance (EBS)** alerts are based on immediate reporting of infectious, chemical and environmental hazards that pose a potential risk to public health.

For more details and to manage the alerts, login to [Tonga EWARS](#)

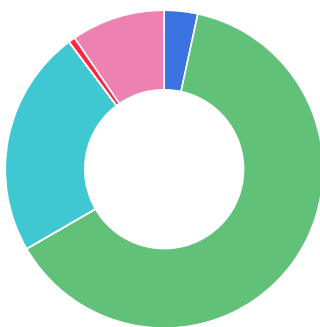
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**A. Indicator-based surveillance**

**Summary**

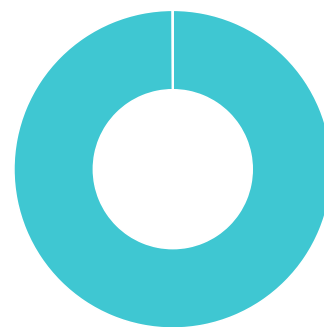
**Figure 1a** | Proportional morbidity by syndrome (W4)



- Acute Fever and Rash
- Prolonged Fever
- Influenza-like Illness
- Watery Diarrhoea
- Bloody diarrhoea
- Acute Jaundice Syndrome
- Suspected Dengue
- Suspected Meningitis
- SARI

This pie chart represents the proportional breakdown of the reportable syndromes under surveillance. These represented 5% of total morbidity in W4.

**Figure 1b** | Proportional IBS alerts by syndrome (W4)



- Acute Fever and Rash
- Prolonged Fever
- Influenza-like Illness
- Watery Diarrhoea
- Bloody diarrhoea
- Acute Jaundice Syndrome
- Suspected Dengue
- Suspected Meningitis
- SARI

# Statistical tables

**Table 1a** | Weekly and cumulative number of cases by syndrome

Syndrome	W4		Cumulative 2018	
	# cases	% morb. <sup>1</sup>	# cases	% morb. <sup>1</sup>
Acute Fever and Rash	0	0.0%	0	0.0%
Watery Diarrhoea	34	23.1%	193	23.2%
Influenza-like Illness	93	63.3%	558	67.1%
Prolonged Fever	5	3.4%	7	0.8%
Dengue-like illness	0	0.0%	0	0.0%
Bloody diarrhoea	1	0.7%	2	0.2%
Suspected meningitis	0	0.0%	1	0.1%
Acute jaundice syndrome	0	0.0%	1	0.1%
Severe acute respiratory infection (SARI)	14	9.5%	69	8.3%
<b>Total consultations</b>	<b>147</b>	<b>100%</b>	<b>831</b>	<b>100%</b>

<sup>1</sup> Proportional morbidity (expressed as % of total consultations)

**Table 1b** | Alert performance indicators by type

Syndrome	W4		Cumulative 2018	
	# alerts	% verif. <sup>2</sup>	# alerts	% verif. <sup>2</sup>
Acute Fever and Rash	0	0%	0	0%
Watery Diarrhoea	1	100%	5	100%
Influenza-like Illness	0	0%	1	100%
Prolonged Fever	0	0%	0	0%
Dengue-like illness	0	0%	0	0%
Bloody diarrhoea	0	0%	0	0%
Suspected meningitis	0	0%	1	0%
Acute jaundice syndrome	0	0%	0	0%
Severe acute respiratory infection (SARI)	0	0%	0	0%
Event-based surveillance	0	0%	0	0%
<b>Total alerts</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>

<sup>2</sup> Proportion of alerts that have been verified

**Table 1c** | Surveillance performance indicators by Island (W4)

Location	Reporting		Performance	
	# sentinel sites	# reports received	Comp. <sup>3</sup>	Time. <sup>4</sup>
'Eua	1	1	100%	0%
Ha'apai	1	0	0%	0%
Tongatapu	8	8	100%	0%
Vava'u	1	0	0%	0%

<sup>3</sup> Completeness of reporting

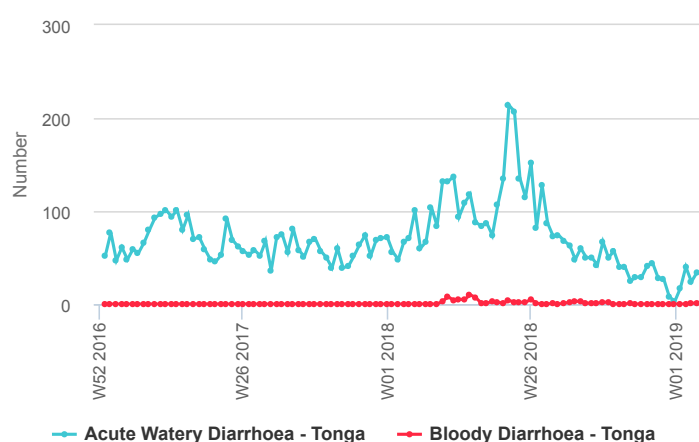
<sup>4</sup> Timeliness of reporting

**Table 1d** | Alert performance indicators by Island

Syndrome	W4		Cumulative 2018	
	# alerts	% verif. <sup>2</sup>	# alerts	% verif. <sup>2</sup>
'Eua	0	0%	6	100%
Ha'apai	0	0%	8	100%
Tongatapu	1	100%	102	2700%
Vava'u	0	0%	31	0%

## National trends by syndrome

**Figure 2a** | Acute Watery Diarrhoea and Bloody diarrhoea



**Figure 2b** | Acute Fever and Rash (AFR) and Prolonged Fever

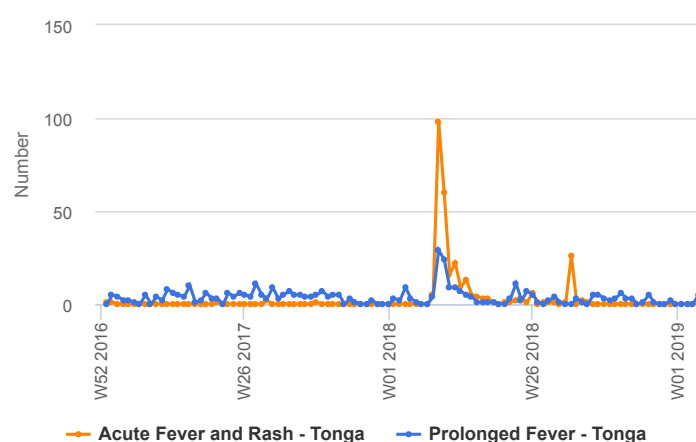


Figure 2c | Influenza-like Illness and SARI

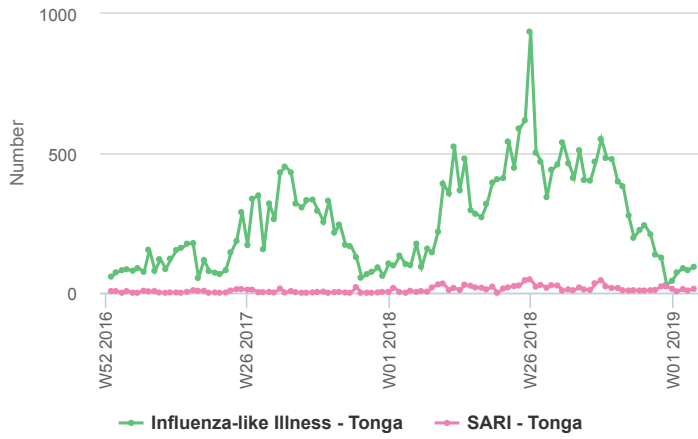
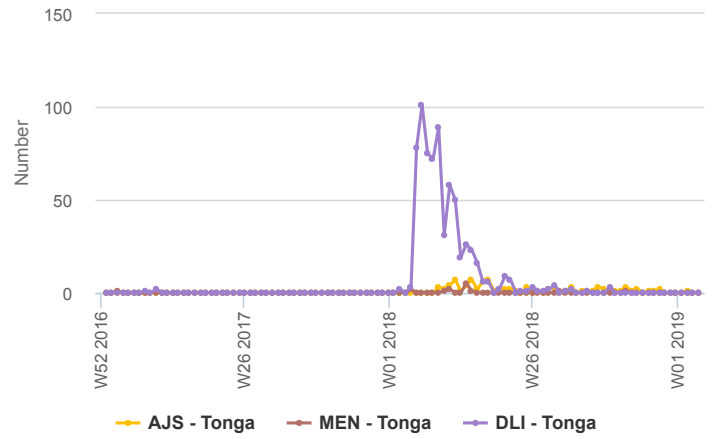


Figure 2d | Acute Jaundice Syndrome, Suspected Meningitis and DLI



All cause trends by Island

Figure 3a | 'Eua

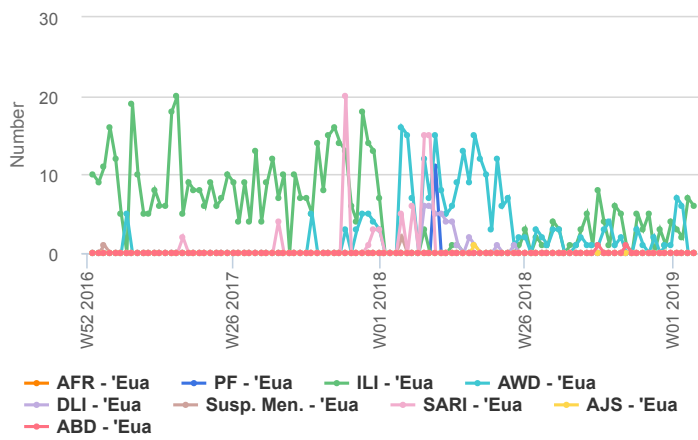


Figure 3b | Ha'apai

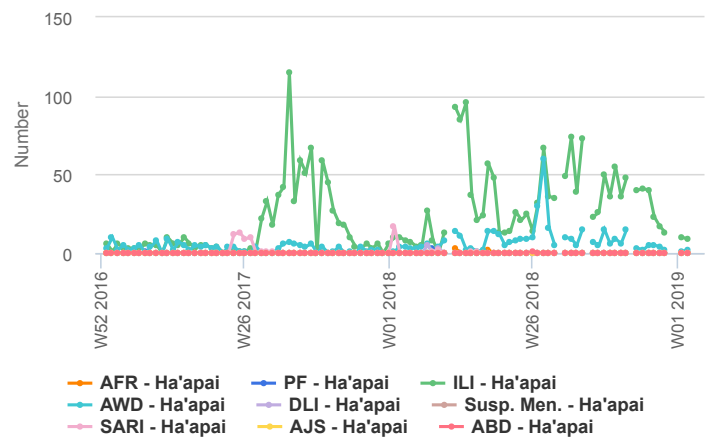


Figure 3c | Tongatapu

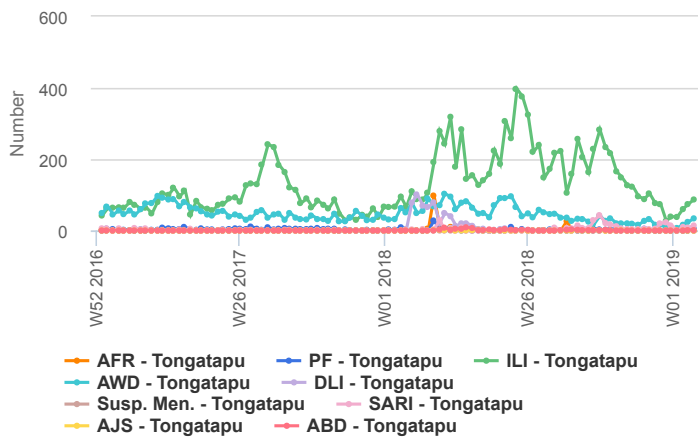
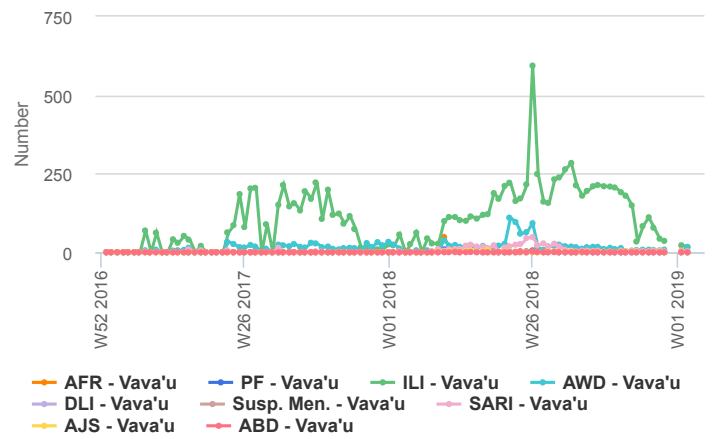


Figure 3d | Vava'u



## Analysis by syndrome

### Acute Fever and Rash

Table | Number of cases by Island

Island	AFR
'Eua	0
Ha'apai	0
Tongatapu	0
Vava'u	0

Figure | Number of cases by Island (W4 2019)

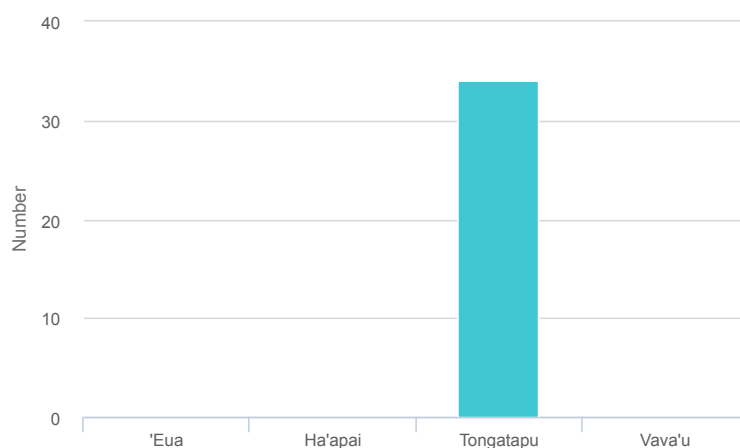


### Acute Watery Diarrhoea

Table | Number of cases by Island

Island	AWD
'Eua	0
Ha'apai	0
Tongatapu	34
Vava'u	0

Figure | Number of cases by Island (W4 2019)

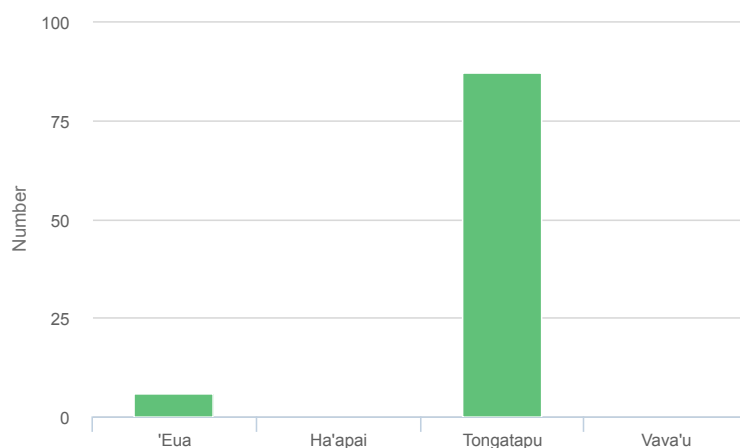


### Influenza-like Illness

Table | Number of cases by Island

Island	ILI
'Eua	6
Ha'apai	0
Tongatapu	87
Vava'u	0

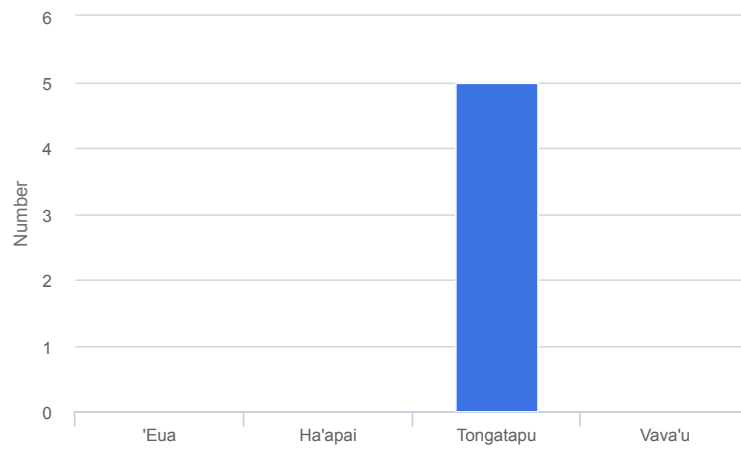
Figure | Number of cases by Island (W4 2019)



**Table |** Number of cases by Island

Island	PF
'Eua	0
Ha'apai	0
Tongatapu	5
Vava'u	0

**Figure |** Number of cases by Island (W4 2019)

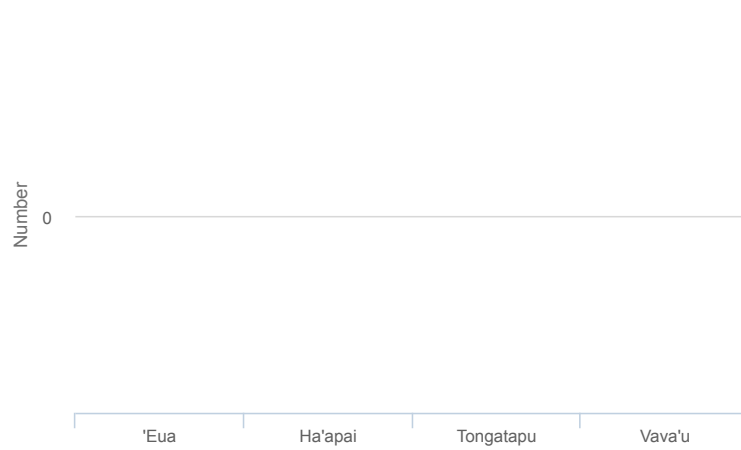


Dengue-like illness

**Table |** Number of cases by Island

Island	DLI
'Eua	0
Ha'apai	0
Tongatapu	0
Vava'u	0

**Figure |** Number of cases by Island (W4 2019)

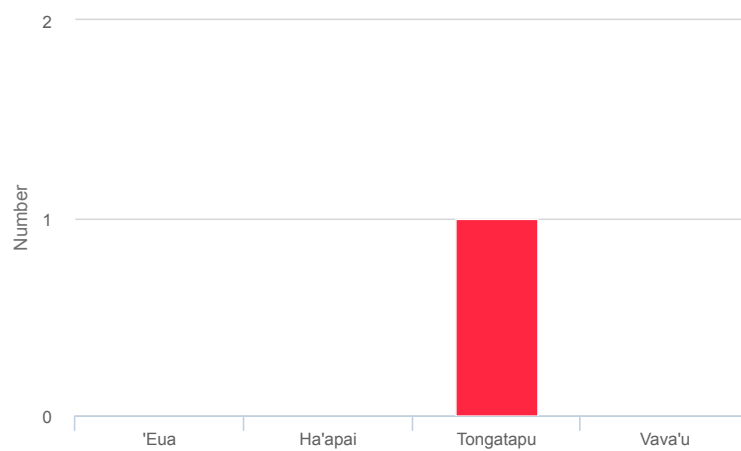


Bloody Diarrhoea

**Table |** Number of cases by Island

Island	BD
'Eua	0
Ha'apai	0
Tongatapu	1
Vava'u	0

**Figure |** Number of cases by Island (W4 2019)



**Table** | Number of cases by Island

Island	AWD
'Eua	0
Ha'apai	0
Tongatapu	0
Vava'u	0

**Figure** | Number of cases by Island (W4 2019)



Acute Jaundice Syndrome

**Table** | Number of cases by Island

Island	MEN
'Eua	0
Ha'apai	0
Tongatapu	0
Vava'u	0

**Figure** | Number of cases by Island (W4 2019)

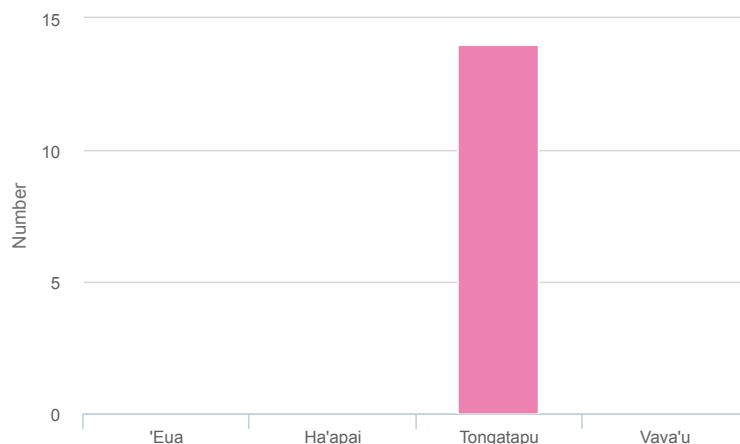


Severe acute respiratory infection (SARI)

**Table** | Number of cases by Island

Island	SARI
'Eua	0
Ha'apai	0
Tongatapu	14
Vava'u	0

**Figure** | Number of cases by Island (W4 2019)



## B. Annexes

### Annex 1 | Case Definitions

Syndrome	Case Definition	Alert Threshold
Acute Fever and Rash	Fever plus rash	1 case
Prolonged fever	Fever for 3 days or more	Twice the average number of cases seen in the previous 2 weeks
Influenza-like illness	Fever plus cough or sore throat	Twice the average number of cases seen in the previous 2 weeks
Watery diarrhoea	3 or more loose or watery stools in 24 hours (non-bloody)	Twice the average number of cases seen in the previous 2 weeks
Bloody diarrhoea	Any episode of acute bloody diarrhea	3 cases in one location in 1 week <b>or</b> twice the average number of cases seen in the previous 2 weeks
Acute jaundice syndrome	Jaundice (yellow eyes or dark urine), <b>and</b> severe illness with or without fever	3 cases
Dengue-like illness	Fever for at least 2 days, <b>plus at least two</b> of the following: i. Nausea or vomiting; ii. Muscle or joint pain; iii. Severe headache or pain behind the eyes; iv. Rash; v. Bleeding	Twice the average number of cases seen in the previous 3 weeks
Suspected meningitis	Sudden onset of fever, <b>plus one or more</b> of the following: i. Severe headache; ii. Neck stiffness; iii. Altered consciousness; iv. Petechial/purpurral rash	1 case
Severe acute respiratory infection (SARI)	Influenza-like illness (ILI) and hospitalisation <b>or</b> , if at a Health Centre, ILI and referral to main hospital	Twice the average number of cases seen in the previous 2 weeks

#### Data Sources

EWARS Sentinel Reporting Sites

#### Contact Information

Ministry of Health  
Nuku'alofa, Tonga  
Telephone: #23200

Ministry of Health  
Nuku'alofa, Tonga  
Email:  
Telephone:



Global  
**EWARS**

Learn more about EWARS  
<http://ewars-project.org>

#### Tonga EWARS

has been deployed since Feb 2018 in response to Tropical Cyclone Gita. It is supporting Tonga MoH in enhancing syndromic surveillance to its 11 sentinel sites using mobile technology.  
<http://to.ewars.ws/login>



**World Health  
Organization**