

## Gastroenteritis cases, Palm Hospital, May 2021

<b>Date of report:</b>	25/05/2021
<b>Outbreak name:</b>	Gastroenteritis
<b>Outbreak location:</b>	Palm Hospital
<b>Date of first detection:</b>	09/05/2021
<b>Outbreak investigation start date:</b>	14/05/2021
<b>Outbreak investigation finish date:</b>	24/05/2021

## Overview and Summary

On 14 May 2021, the Palm Hospital weekly syndromic surveillance report showed an increased number of diarrhoea cases. For epi week 19, there were a total of 38 diarrhoea cases reported, compared with seven (7) in the previous epi week. Staff in the Outpatient and Emergency Department (OP/ED) were reporting increased numbers of diarrhoea and vomiting presentations.

An outbreak response team was immediately formed and a case definition developed. A linelist was placed in the OP/ED for staff to record the details of any patients who met the case definition.

A total of 70 cases met the case definition with symptom onset between 09/05/2021 and 19/05/2021. The median age of cases was 14 years (range 0–62 years) and 35 (50%) cases were four years or younger. The most commonly reported symptom was diarrhoea (n=57, 81%), followed by vomiting (n=29, 41%), and fever (n=13, 19%). A total of 28 (40%) cases presented from the township of Palm Island with the remainder presenting from villages across the island.

Three stool specimens were collected and processed by the Medical Laboratory in Palm Hospital. All three were positive for rotavirus.

Following a peak of cases on 16/05/2021, cases naturally declined and the outbreak concluded on 19/05/2021. Due to the detection of rotavirus among three cases, discussions are underway with the Ministry of Health on how to boost vaccination coverage. Activities are planned to identify vaccination coverage levels and run vaccination campaigns where necessary.

## Outbreak team

Name	Role
Rose Bush	Lead epidemiologist, Ministry of Health
Hazel Nutt	Infection Control Nurse, Palm Hospital
Ali Gator	Medical Laboratory Technician

## Case definition

Case	Anyone presenting to the Palm Hospital with watery diarrhoea (3 or more loose stools in 24 hours) or vomiting between 09/05/2021 and 19/05/2021.
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## Descriptive analysis

Population at-risk	Residents of Banana, Mountain, Island, Hill, Mango, Flower, Palm Tree, and Sand villages.
Incubation period	Approximately two (2) days
Infectious period	Suspected between four (4) to eight (8) days.
Suspected mode of transmission	Suspected via the faecal-oral route

Table 1: Characteristics of cases (n=70) associated with an outbreak of gastroenteritis in Palm Hospital between 09/05/2021 and 19/05/2021

Characteristics	(n)	(%)
<b>Case numbers</b>		
Total Cases	70	-
Date of presentation range	09/05/2021–19/05/2021	
<b>Sex</b>		
Females	33	47
Males	37	53
<b>Age</b>		
0–4 years	35	50
5–24 years	22	31
25–50 years	9	13
50+ years	4	6
Median	14 years	
Range	0–62 years	
<b>Outcome</b>		
Hospitalised cases	13	19
Deaths	0	0
<b>Symptoms</b>		
Fever	13	19
Diarrhoea	57	81
Bloody diarrhoea	3	4
Vomiting	29	41

A total of 28 cases presented to the OP/ED from the township of Palm Island. From these, Banana, Mountain, Island, and Hill villages accounted for seven cases each (Table 2). There were other cases spread throughout the island, including cases from Sand (n=4) in the remote eastern part of Palm Island. There were 23 cases from other locations, most with only one or two cases each.

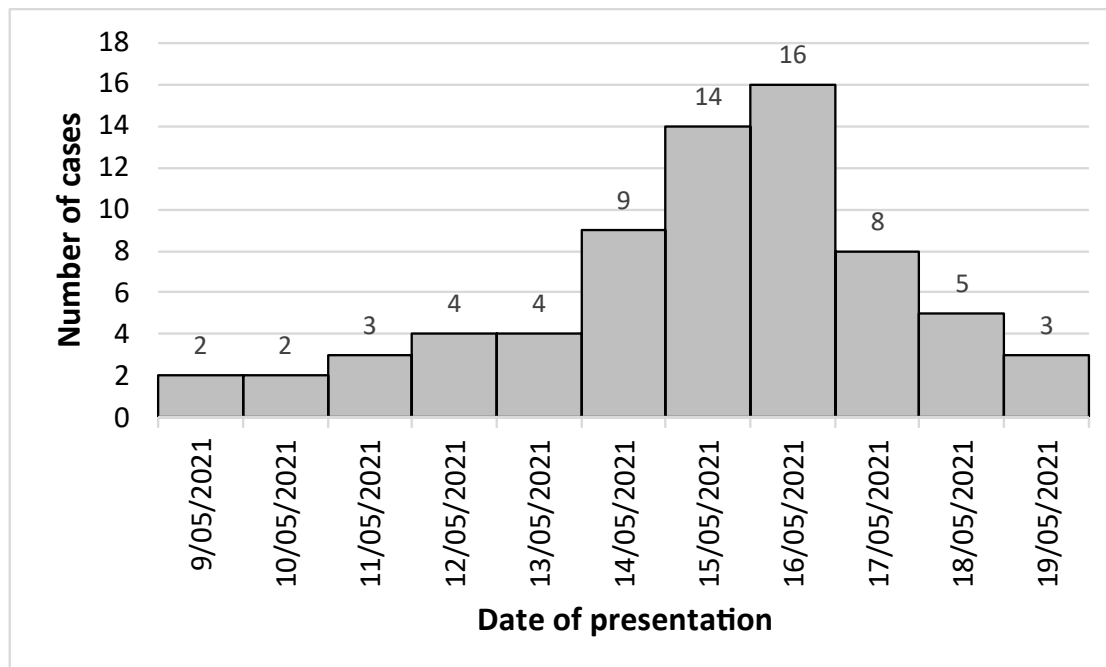
Table 2: Location of cases (n=70) associated with an outbreak of gastroenteritis in Palm Hospital between 09/05/2021 and 19/05/2021

Location	Cases
Banana	7
Mountain	7
Island	7
Hill	7
Mango	6
Flower	5
Palm Tree	4
Sand	4
Other	23
<b>Total</b>	<b>70</b>

## Epidemic Curve

The epidemic curve shows there was a peak of cases between 14–16 May, 2021 (Figure 1).

**Figure 1. Gastroenteritis cases by date of presentation to Palm Hospital, 09–19 May 2021**



## Risk communication and Community engagement strategies

Community engagement	Due to demands of the outbreak team, no community engagement activities took place. We recommend this for follow up activities by the Ministry of Health.
Risk communication	The Health Promotion team ran prevention messages among patients attending the hospital. The team also shared prevention messaging regularly on community radio.

## Public Health Action

Public Health Action taken	Description of action	Date initiated
Educational	Prevention messages given every morning at OP/ED, talking about preventing the spread of diarrhoea	15/05/2023
Laboratory	Stool specimens collected from three patients	14/05/2023

## Conclusion

A total of 70 gastroenteritis cases presented to Palm Hospital with symptom onset between 09/05/2021 and 19/05/2021. Of these, three were laboratory confirmed rotavirus cases. The pathogen/cause of illness for the remaining 67 could not be confirmed. Due to the small outbreak investigation team, community engagement activities could not take place.

Recommendations have been provided to the Ministry of Health to consider further vaccination campaign efforts and to engage with community members to share information on preventing the spread of diarrhoea.

### Recommendations

The recommendations from this investigation include:

1. Health awareness sessions to be held with communities in and around Palm Island, talking about preventing the spread of diarrhoea.
2. Consideration could be given to a rotavirus vaccination campaign (and other vaccine preventable diseases, where relevant) or a vaccination coverage estimate.