

# EPIDEMIOLOGIC INVESTIGATION SUMMARY

## NOROVIRUS OUTBREAK AMONG RESIDENTS AND STAFF OF A SKILLED NURSING FACILITY IN WASHOE COUNTY, NEVADA, 2018

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Department of Health and Human Services  
Division of Public and Behavioral Health  
Office of Public Health Informatics and Epidemiology

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### PURPOSE

The purpose of this newsletter is to provide the scientific community, decision makers, healthcare providers, and the public a summary of the outbreak investigations conducted by the Division of Public and Behavioral Health.

### BACKGROUND

On February 28, 2018, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed of a gastrointestinal (GI) illness among residents of Facility "A." The outbreak or increase in illness was first identified by staff of the facility on February 24, 2018. Initial symptomology of the ill residents included vomiting and diarrhea. The outbreak investigation began on February 28, 2018.

### CASE DEFINITIONS

**Clinical criteria** An illness with gastroenteritis that presents with the following symptoms: vomiting, diarrhea, abdominal cramps or stomach ache, nausea, with or without fever between February 23, 2018 to March 5, 2018.

**Epidemiological criteria** Any residents or staff members associated with Facility "A" identified through investigations.

**Laboratory criteria** Any laboratory confirmation by PCR or other method from a human specimen for an enteric etiology.

#### Case classification

A **confirmed case** A case meeting clinical, epidemiological, and laboratory criteria.

A **probable case** A case meeting the following clinical and epidemiological criteria.

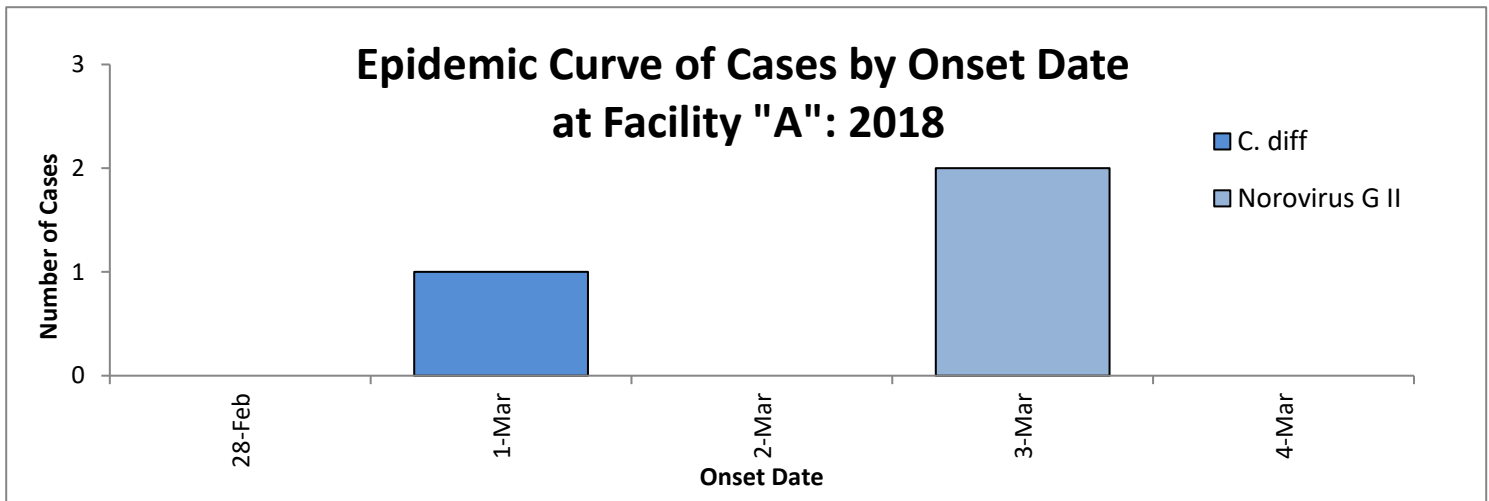
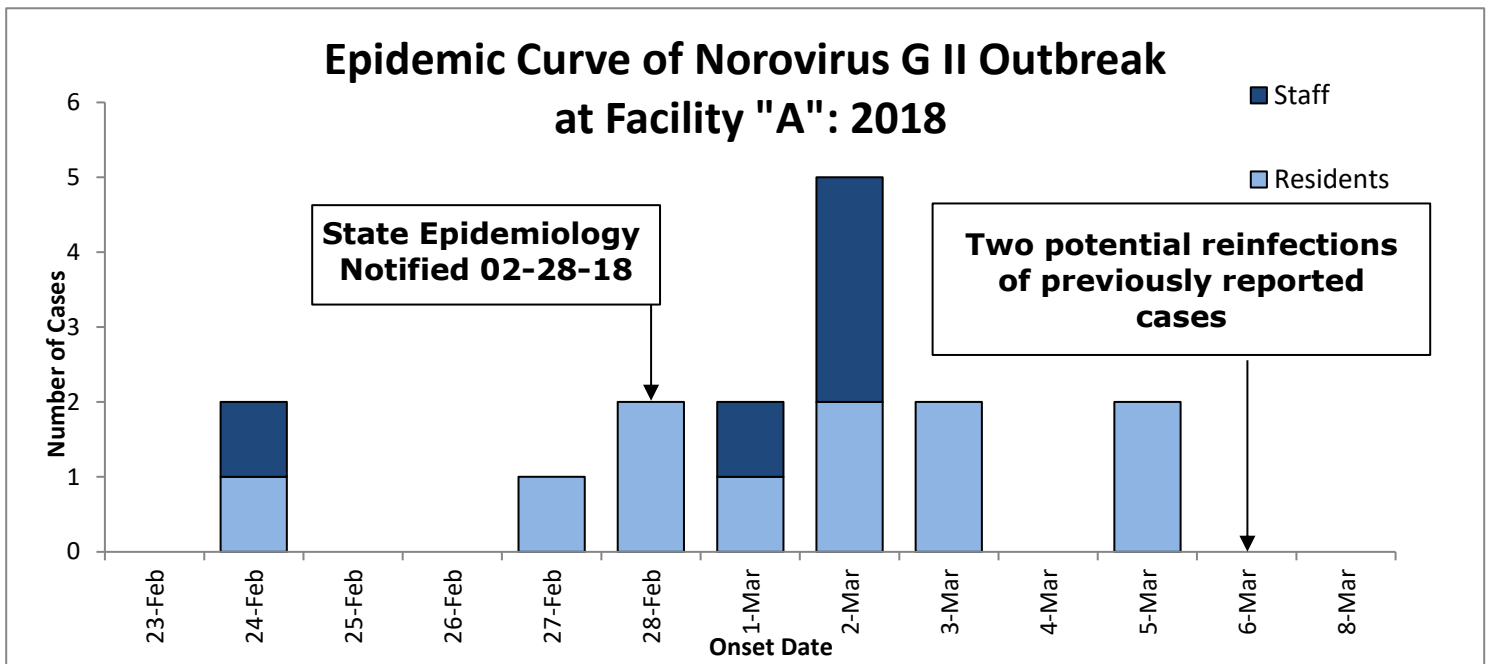
Vomiting OR Diarrhea OR Abdominal cramping (stomach ache) + fever\* OR Nausea + fever\*

*\*fever refers to self-reported fever or measured elevated temp.*

### Epidemiology

#### Onset Date

The peak illness onset date was March 2, 2018.



#### Epidemiology Summary

A total of 16 cases met the confirmed and probable case definition (three lab-confirmed and 13 probable). There were no deaths associated with this outbreak and there was one resident hospitalized. The resident attack rate was 28.9% (11/38) and the staff attack rate was 8.3% (5/60). The overall attack rate was 16.3% (16/98).

**Age-** The median age was 62 (range: 24 – 90 years).

Age	n	Total N	%
10-19 years	0	16	0%
20-49 years	4	16	25%
50-74 years	6	16	37.5%
> = 75	6	16	37.5%

**Sex-** Male n=2 (12.5%), Female n=14 (87.5%)

**Incubation period-** The incubation period for norovirus is 12-48 hours<sup>1</sup>.

**Duration of illness-** The average duration of illness was approximately three days (range one – seven days).

#### Summary of Symptoms-

Symptoms	n	Total N	%
Diarrhea	11	16	69%
Fever	0	16	0%
Headache	2	16	13%
Nausea	11	16	69%
Vomiting	10	16	63%

## Laboratory

There was a total of five specimens tested, two were positive for norovirus genogroup II and one was positive for *Clostridium difficile*.

## Data Sources

Residents who reported complaints consistent with GI illness. (line listing form)

Staff who called in with complaints consistent with GI illness. (line listing form)

## CONCLUSIONS

The latest onset date occurred on March 5, 2018, though there were two suspected reinfections of previously reported cases on March 6, 2018. The facility completed two incubation periods with no new cases, therefore the outbreak investigation was closed on March 12, 2018.

## Mitigation

After lab results confirmed that the cause of the outbreak was norovirus, which has an incubation period of 12-48 hours<sup>1</sup>, DPBH reiterated the importance of continued outbreak control measures in order to interrupt further transmission. The facility continued their own mitigation efforts as well.

## RECOMMENDATIONS

To prevent norovirus outbreaks in healthcare settings, the following public health measures are recommended:

- Follow hand-hygiene guidelines and careful washing of hands with soap and water after contact with patients with norovirus infection.
- Use gowns and gloves when in contact with or caring for patients who are symptomatic with norovirus.
- Routinely clean and disinfect high touch patient surfaces and equipment with an Environmental Protection Agency-approved product with a label claim for norovirus.

- After vomiting or having diarrhea, immediately clean and disinfect contaminated surfaces using a bleach-based household cleaner, which is effective against norovirus, as directed on the product label. If no such cleaning product is available, you can mix a solution with ½ cup of bleach to one gallon of water.
- Remove and wash contaminated clothing and linens.
- Exclude healthcare workers who have symptoms consistent with norovirus from work for 48 hours after the resolution of symptoms.
- During outbreaks, place patients with norovirus gastroenteritis on Contact Precautions for a minimum of 48 hours after the resolution of symptoms to prevent further exposure to susceptible patients.

## REFERENCES

1. <https://www.cdc.gov/hai/pdfs/norovirus/229110-anorocasefactsheet508.pdf>

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