

# EPIDEMIOLOGIC INVESTIGATION SUMMARY

## GASTROINTESTINAL ILLNESS OUTBREAK

### AMONG RESIDENTS, STAFF, AND VISITORS OF AN ASSISTED LIVING FACILITY IN CLARK COUNTY, NEVADA, 2017

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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 November 18, 2017, 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, staff, and visitors of Facility "A." The outbreak or increase in illness was first identified by staff of the facility on November 18, 2017. Initial symptomology of the ill residents, staff, and visitors included vomiting and diarrhea. The outbreak investigation began on November 18, 2017.

## 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 November 15, 2017 to November 22, 2017.

**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 criteria and epidemiological criteria. Vomiting OR

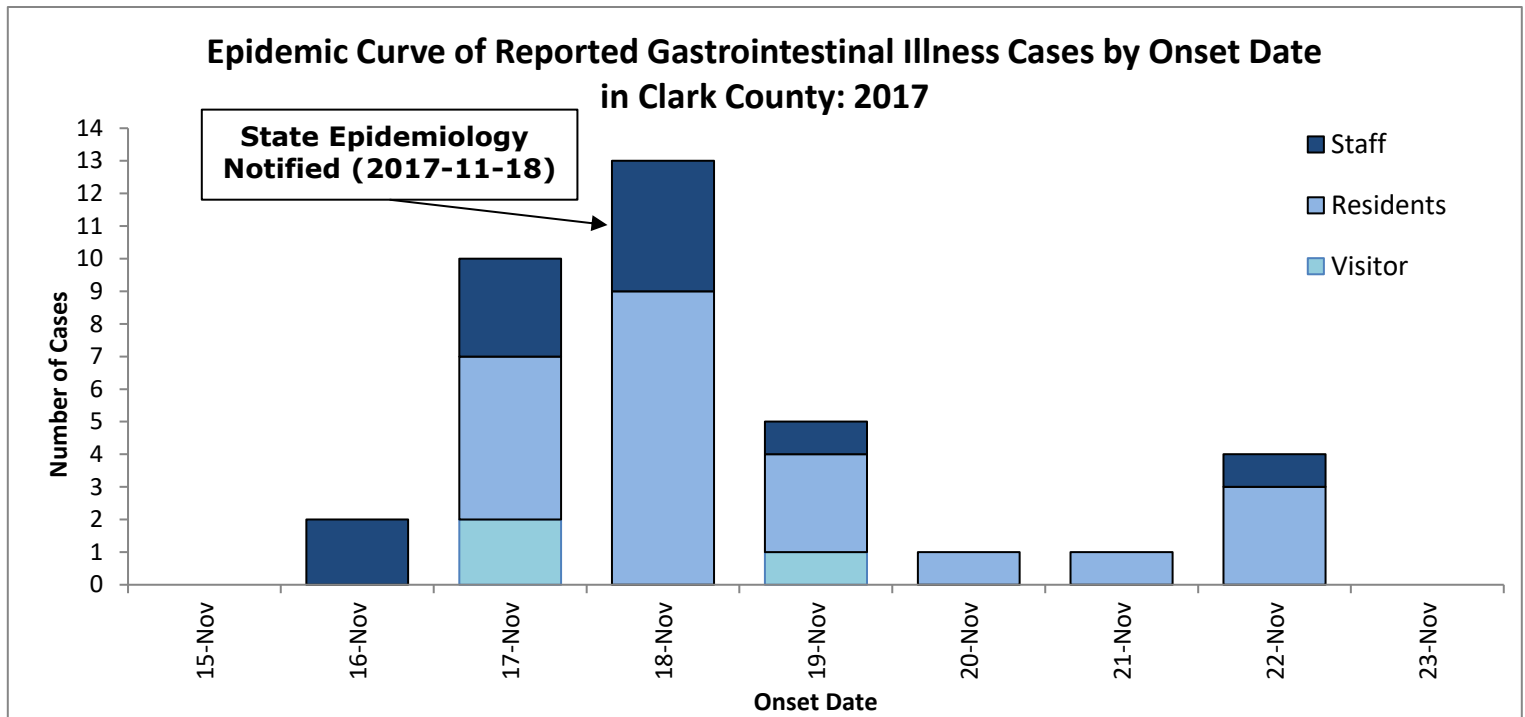
Diarrhea OR Abdominal cramping (stomach ache) + fever\* OR Nausea + fever\*

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

## Epidemiology

### Onset Date

The peak illness onset date was November 18, 2017.



### Epidemiology Summary

A total of 36 cases met the probable case definition (22 residents, 11 staff members, 3 visitors). There were no deaths associated with this outbreak, and there was one hospitalization (one staff member). The resident attack rate was 66.7% (n=33) and the staff attack rate was 36.7% (n=30). The overall attack rate was 52.4%.

**Age-** The median age was 68 (range: 19 – 93 years).

Age	n	Total N	%
10-19 years	1	36	8.3%
20-49 years	8	36	8.3%
50-74 years	5	36	16.7%
> = 75	19	36	66.7%

**Sex-** Male n=7 (19.4%), Female n=29 (80.6%)

**Incubation period-** The incubation period for norovirus, the suspected pathogen, 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	19	36	53%
Fever	0	36	0%
Nausea	0	36	0%
Vomiting	35	36	97%

### Laboratory

There were no specimens tested for norovirus, however, one specimen was tested for *Clostridium difficile* and the results were negative.

### 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 November 22, 2017. The facility completed two incubation periods with no new cases, therefore the outbreak investigation was closed on December 1, 2017.

### Mitigation

Although there were no lab results confirming the cause of the outbreak was norovirus, 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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