

EPIDEMIOLOGIC INVESTIGATION SUMMARY

INFLUENZA OUTBREAK AMONG RESIDENTS AND STAFF OF A REHABILITATION FACILITY IN CARSON CITY, NEVADA, 2017

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

**December 2017
Edition 1.0
2017 volume, issue 34**

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 December 1, 2017, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed the Director of Nursing of Facility “A” of an outbreak of influenza among residents. The increase in illness was first identified by staff of the facility on November 29, 2017. Initial symptomology of the ill residents included cough and fever. The outbreak investigation began on December 1, 2017.

CASE DEFINITIONS

Clinical criteria An influenza-like illness, which is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza between November 27, 2017 to December 5, 2017.

Epidemiological criteria Any residents or staff members associated with Facility “A” and their ill contacts identified through investigations.

Laboratory criteria Any laboratory confirmation by PCR or other method from a human specimen for influenza.

Case classification

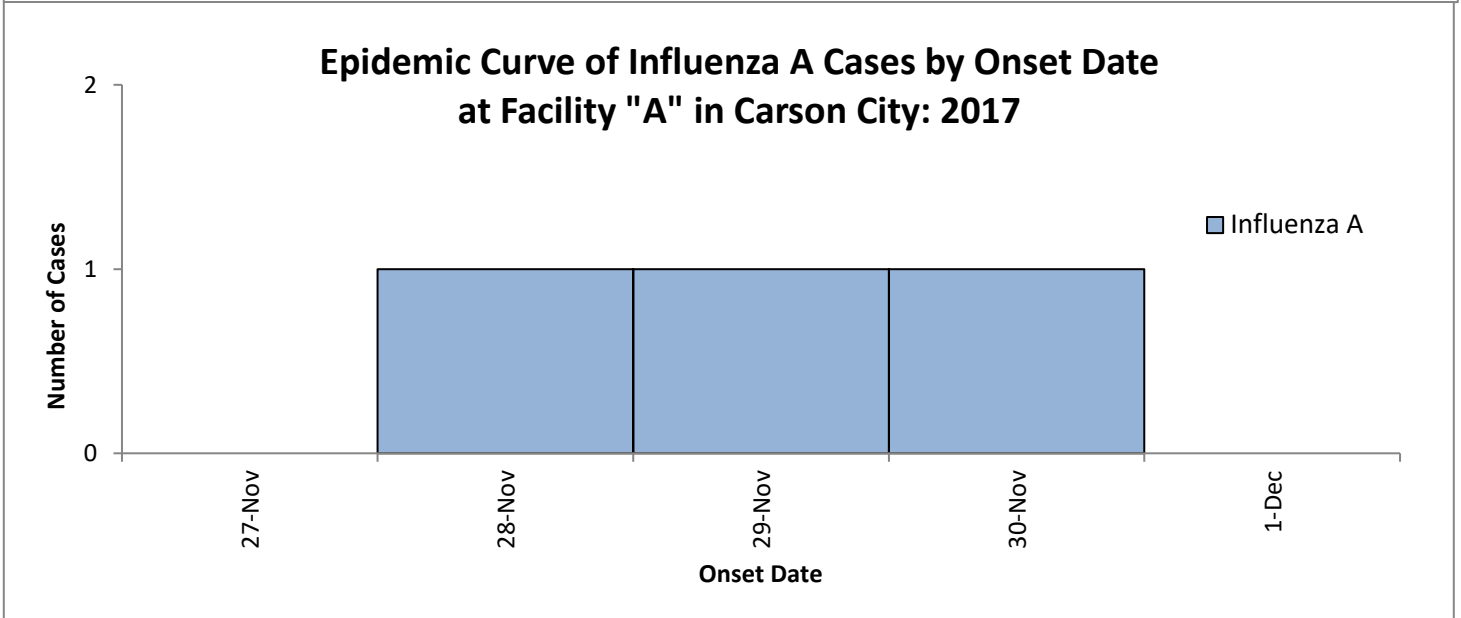
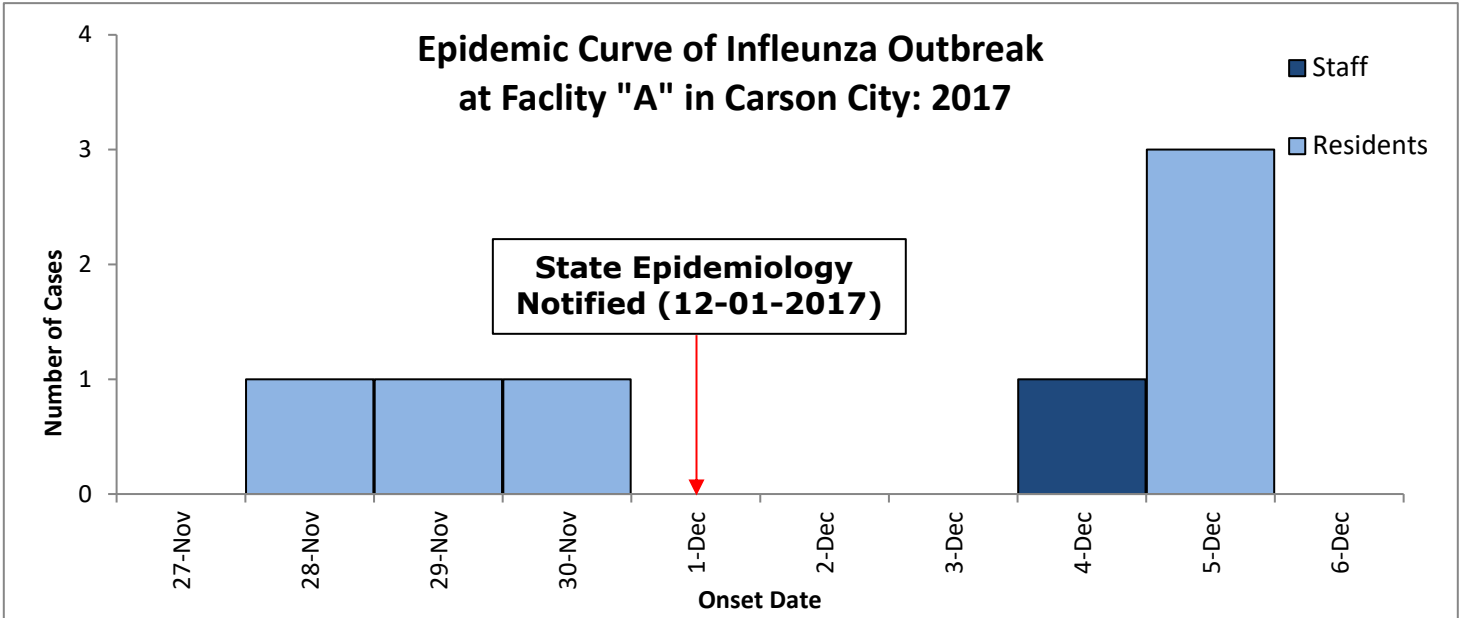
Confirmed case A case meeting clinical, epidemiological, and laboratory criteria.

Probable case A case meeting clinical and epidemiological criteria without laboratory confirmation.

Epidemiology

Onset Date

The peak illness onset date was December 5, 2017.



Epidemiology

A total of 7 cases met the confirmed and probable case definition (three lab-confirmed and four probable). Five (5) residents were hospitalized and there were zero (0) deaths associated with this outbreak. The resident attack rate was 5.6% (n=108) and the staff attack rate was 0.8% (n=120).

Age- The median age was 68 (range: 25 – 100 years).

| Age | n | Total N | % |
|-------------|---|---------|-------|
| 10-19 years | 1 | 7 | 14.3% |
| 50-74 years | 1 | 7 | 14.3% |
| > = 75 | 5 | 7 | 71.4% |

Sex- Male 5 (71.4%), Female 1 (14.3%), Unknown 1 (14.3%)

Incubation period- The incubation period for influenza is 1-4 days.

Duration of illness- The average duration of illness was approximately nine days (range six – fifteen days).

Clinical symptoms-

| Symptoms | n | Total N | % |
|----------|---|---------|-----|
| Chills | 1 | 7 | 14% |
| Cough | 5 | 7 | 71% |
| Fever | 5 | 7 | 71% |

Laboratory

A total of 14 specimens were tested, and a total of three were positive. There were three individuals who were positive for influenza A.

Data Sources

Health Clinic Visit Data. (electronic)

Residents who had complaints consistent with respiratory illness. (line listing form)

Staff who call in with complaints consistent with respiratory illness. (line listing form)

CONCLUSIONS

The last onset date occurred on December 5, 2017. The outbreak was declared over on December 15, 2017 because the facility went two full incubation periods without a new case.

Mitigation

After lab results confirmed that the cause of the outbreak was influenza, which has an incubation period of one to four days, 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 influenza outbreaks in healthcare settings, the following public health measures are recommended:

- Remind residents, staff, and visitors of proper hand hygiene and cough etiquette in compliance with CDC/WHO guidelines.
- Clean and disinfect equipment and environment with an agent approved to kill the influenza virus.
- Educate healthcare workers, housekeepers, administration staff, residents, and families on influenza.
- Isolate residents and exclude from work any staff members who have symptoms consistent with influenza¹.

- Immediately notify infection control about positive laboratory results.

REFERENCES

1. Centers for Disease Control and Prevention. Prevention Strategies for Seasonal Influenza in Healthcare Settings: Infection Control Practices Advisory Committee. January 9, 2013. Retrieved February 2, 2015, from: <https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm>

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RECOMMENDED CITATION

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. Epidemiologic Investigation Summary, *Influenza Outbreak Among Residents and Staff of a Rehabilitation Facility in Carson City, Nevada, 2017*. v 2017. i 34. e 1.0. December 2017.

ACKNOWLEDGEMENTS

Thank you to all persons who contributed to this publication:

Jessica Conner, MPH; Brian Parrish, MPH; Kimisha Causey, MPH; Adrian Forero, BS; Chidinma Njoku, BS; Judy Dumonte; Sandi Larson, MPH; Melissa Peek-Bullock; Ihsan Azzam, MD, MPH.

This report was produced by the Office of Public Health Informatics and Epidemiology of the Division of Public and Behavioral Health with funding from budget account 3219.