

# EPIDEMIOLOGIC INVESTIGATION SUMMARY

## DERMATITIS OUTBREAK AMONG RESIDENTS AND STAFF OF AN ASSISTED LIVING FACILITY ELKO, NEVADA, 2013

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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 December 6, 2013, the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE) was informed by a public health and clinical services epidemiologist of a rash of unknown origin and etiology among residents and staff members of Facility "A." The problem was first identified by staff of the facility on September 1, 2013. Symptomology included a dry, red rash and pruritus. The outbreak investigation began on December 6, 2013.

### METHODS

#### Epidemiology

On December 6, 2013, DPBH provided recommendations to reduce and prevent the spread of illness in Facility "A," including the submission of outbreak case report forms to OPHIE until further notice and laboratory testing for dermal illness.

A **suspect case** was defined as a resident, employee, or staff member of Facility "A" who was suspected of having dermatitis but diagnosis was not confirmed since September 1, 2013.

A **probable case** was defined as a resident, employee, or staff member of Facility "A" who was diagnosed with dermatitis since September 1, 2013.

A **confirmed case** was defined as a resident, employee, or staff member of Facility "A" who was diagnosed with dermatitis caused by a known etiologic agent since September 1, 2013.

#### Laboratory

Laboratory testing for dermal illness was recommended to identify the etiologic agent, and thereby target infection prevention measures and control the outbreak within Facility "A." Laboratory testing was focused on detecting the presence of scabies and/or shingles.

Two individuals were tested for scabies on December 9, 2013.

#### Mitigation

In order to prevent further spread of illness, the OPHIE Outbreak Response Team disseminated recommendations for the prevention and control of shingles and scabies. Isolation precautions were initiated by the facility on December 5, 2013.

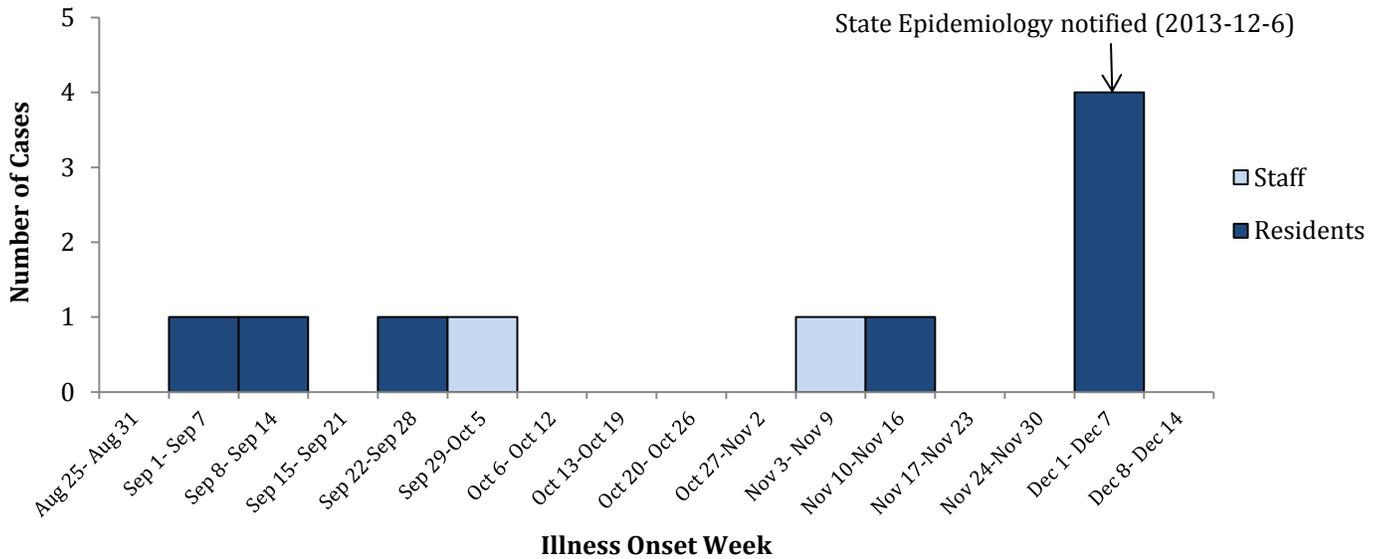


Figure 1. The epidemic curve of dermatitis (n=10) associated with an assisted living facility in Elko, Nevada, by week, from September 1-December 4, 2013.

## RESULTS

### Epidemiology

A total of 10 probable cases were reported. Illness onset occurred between September 1 and December 4, 2013. The epidemic curve is presented in Figure 1 and shows the distribution of illness onset dates.

The peak illness onset date was December 1, 2013. Among the 10 cases, the median age was 69 years old (range 23-92 years). Males comprised 30.0 % of cases.

Symptomatic cases reported rash (100.0%) and itching (40.0%). The duration of illness of most cases was 58 days (range 15 – 118 days). The resident attack rate was 7.6%, the staff attack rate was 2.0%, and the overall attack rate was 4.8%.

### Laboratory

Of the 2 scabies tests, all tests were negative for scabies.

### Mitigation

After the laboratory tests came back negative for scabies, DPBH reiterated to the facility the recommendations for preventing and controlling shingles and scabies.

## CONCLUSIONS

A dermatitis outbreak occurred among residents and staff at Facility “A,” an assisted living facility in Elko, Nevada from September 1 through December 4, 2013. Test results were unable to determine the causative agent and the mode of transmission remains unknown. However, the use of steroid cream resulted in improvement.

In total, 10 persons were classified as cases, 8 residents and 2 staff of the facility. Symptoms included rash and dermatitis with illness lasting an average of 58 days. Residents of the facility had the highest attack rate (7.6%). The epidemiological link between cases was believed to be the facility in which the residents lived and the staff worked.

The outbreak ceased as of December 5, 2013.

## RECOMMENDATIONS

To prevent such possible scabies outbreaks in healthcare settings, the following public health measures are recommended:

- Carefully screen and evaluate new patients and employees for any skin conditions that could be compatible with scabies.

- Maintain a high index of suspicion that undiagnosed skin rashes and conditions may be scabies, even if characteristic signs or symptoms of scabies are absent, for instance, no itching.
- Follow appropriate isolation and infection control practices, including gloves, gowns, avoidance of direct skin-to-skin contact, and so on, when providing hands-on care to patients who might have scabies.<sup>1</sup>

## REFERENCES

1. Centers for Disease Control and Prevention. *Parasites - Scabies*. November 2, 2010. Retrieved January 28, 2014, from [http://www.cdc.gov/parasites/scabies/health\\_professionals/prevent.html](http://www.cdc.gov/parasites/scabies/health_professionals/prevent.html).

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