Illness & Injury

Norovirus outbreaks in long-term care facilities

Norovirus infection causes nausea, vomiting, diarrhea, muscle aches, fever and abdominal cramps, which can result in dehydration. Symptoms typically resolve within a day but can remain for up to three days. Norovirus is highly transmissible and persons typically get norovirus by eating contaminated food containing infected stool or vomit particles. Norovirus is the leading cause of foodborne outbreaks in the United States and is often found in semi-permanent settings such as Long-Term Care Facilities (LTCFs) and cruise ships.

In late 2011, the Oregon Public Health Division began to track suspect norovirus outbreaks. From 2011 to 2013, 224 norovirus or norovirus-like outbreaks were reported in Oregon LTCFs. They comprised 65% of all norovirus outbreaks and affected 7,116 staff and residents of LTCFs (Figure 1).

![Norovirus LTCF outbreaks and cases per year, Oregon, 2011–2013](image)

Source: Oregon outbreak investigation database
The Oregon State Public Health Laboratory (OSPHL) began identifying genotypes associated with gastrointestinal outbreaks in late 2012. As shown in Figure 2, norovirus genogroup GII genotype 4 New Orleans was predominant in 2011 and 2012 accounted for 33 (24%) of 136 total confirmed norovirus outbreaks among Oregon LTCFs. Also in late 2012, a new norovirus strain of genogroup II, genotype 4 originating in Sydney, Australia (GII.4 Sydney 2012), became the predominant norovirus strain and caused a severe norovirus season globally and in the US. In 2013, GII.4 Sydney was responsible for 41 (47%) of 88 confirmed norovirus outbreaks among Oregon LTCFs.

In 2012-2013, presumed norovirus infections among staff and residents in Oregon LTCFs afflicted more females (73%) than males (27%). Of those presumed LTCF norovirus cases, 32% were in staff and 68% were in residents.

**Additional Resources:** Oregon Health Authority- Public Health Long-Term Care Facility Investigative Guidelines
About the Data: Case data used in this analysis come from Oregon’s outbreak investigation database, “Outbreaks.” Demographic data comes from the Case Log database listing the age, sex, symptom profile and facility role of those presumed to be sick during an outbreak.

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Oregon State Health Profile

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