

## Influenza Outbreaks in Oregon 2011-2016

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## Respiratory Outbreaks in Oregon

- ORS 333-018-0015 authorizes local health departments (LHDs) to investigate all outbreaks by requiring health care providers to report all suspected outbreaks **immediately**
- Outbreak defined as 2 or more cases of similar illness clustered in time and space
  - For example: 3 residents with influenza like illness develop over 2 days
- Communicable Disease Nurses at LHDs will assist facilities to help control the outbreak

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## Respiratory Outbreak Management

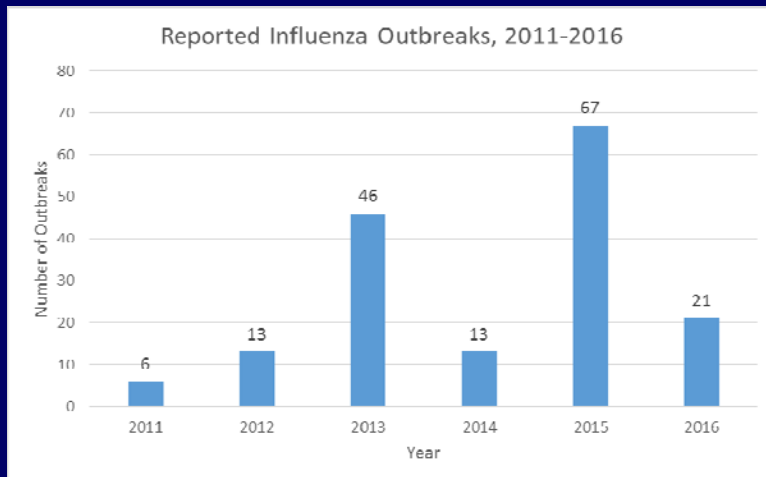
- During the course of a respiratory outbreak LHDs will facilitate:
  - Collection of basic information about symptom profile and who is affected
    - Line list
  - Collection of specimens for testing at the Oregon State Public Health Laboratory
    - 2 positive specimens necessary for *confirmed* outbreaks
  - Implementation of control measures
    - Hand hygiene/Respiratory etiquette
    - Isolation of ill patients/ill staff remain at home
    - Prophylaxis/Flu vaccination clinics
    - Environmental cleaning assessment
- We are here to help!

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## Influenza Outbreaks: 2011-2016\*



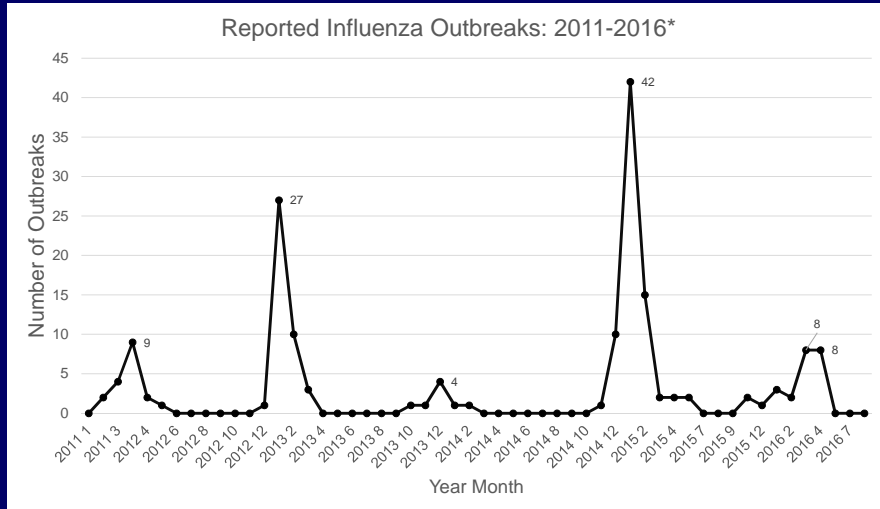
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\*outbreaks as of 8/15/2016



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## Seasonality of Influenza



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## Respiratory Outbreaks: 2011-2016\*

Year	Confirmed, Influenza	Confirmed, other pathogens	Etiology unknown	Total number of outbreaks	Proportion confirmed flu (%)
2011	6	11	2	19	31.6
2012	12	16	0	28	42.9
2013	44	21	9	74	59.5
2014	13	17	4	32	40.6
2015	66	36	8	110	60.0
2016	20	14	8	42	47.6

- ACDP receives reports of other respiratory illness outbreaks
- Confirmed influenza outbreaks account from a 1/3 to 2/3 of outbreaks
- Most common pathogen after influenza: pertussis

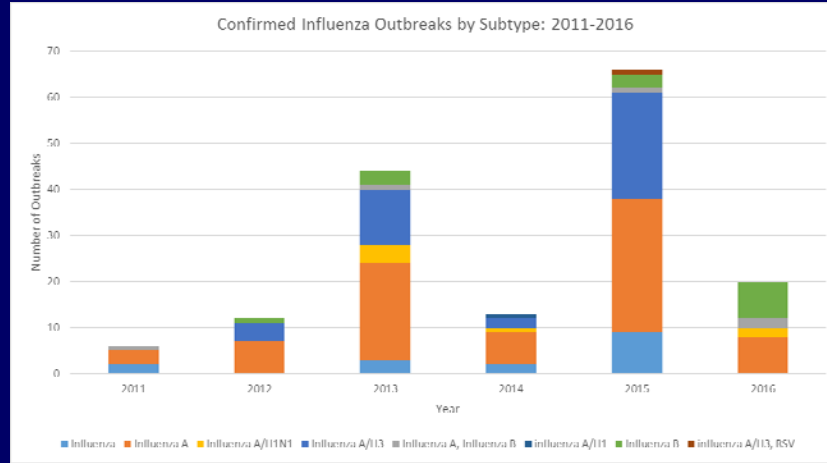
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## Influenza Outbreaks by Subtype



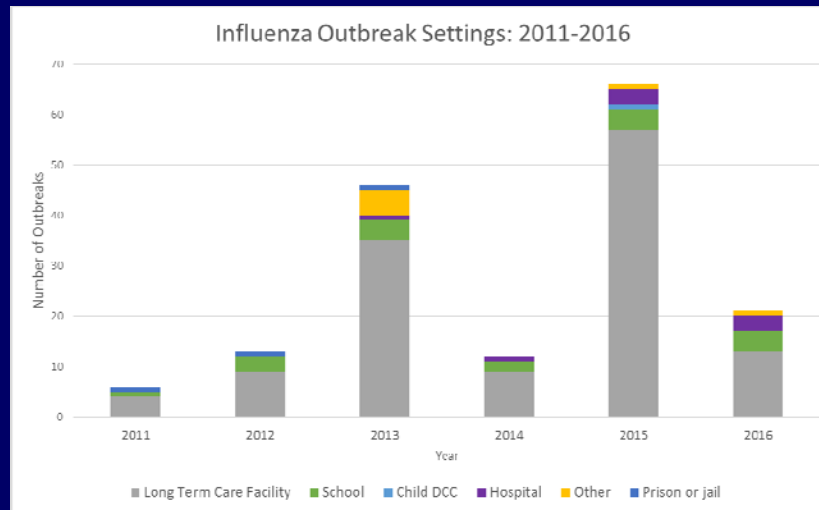
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## Healthcare associated outbreaks



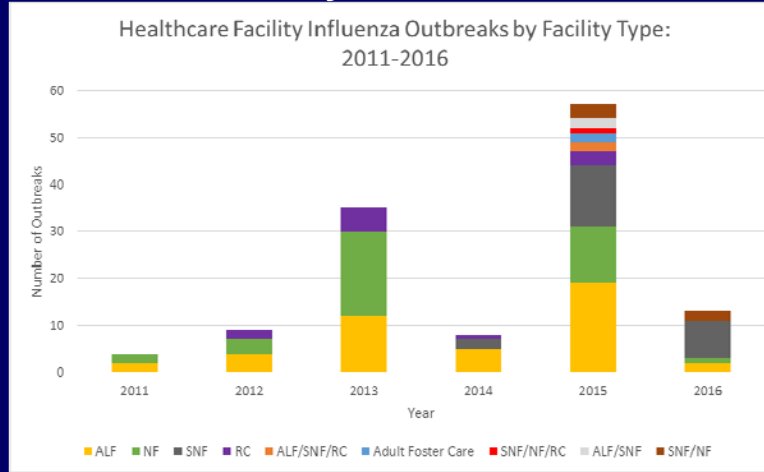
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## Healthcare Facility Influenza Outbreaks



ALF-Assisted Living Facility, NF-Nursing Facility, SNF-Skilled Nursing Facility, RC-Residential Care

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## Healthcare Facility Staff and Resident Vaccination Rates

- Only SNF are required to report healthcare worker influenza vaccination rates
- We ask local health departments to ask facilities for staff and resident vaccination rates
  - Not all facilities track vaccination rates
- For 2011-2016 confirmed influenza outbreaks occurring in LTCFs:
  - Average proportion of staff flu vaccination:
    - 62.5% (range: 0-100%, n=41)
  - Average proportion of resident flu vaccination:
    - 78.2% (range: 10-100%, n=42)

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## Healthcare Facility Staff and Resident Vaccination Rates

% vaccinated	Staff (n=41)	Staff %	Resident (n=42)	Resident %
0-25%	4	9.8	1	2.4
26-50%	8	19.5	4	9.5
51-75%	15	36.6	11	26.2
>75%	14	34.2	26	61.9

- The majority of facilities have staff flu vaccination rates >50%
- The majority of facilities have resident flu vaccination rate >75%
- 18 facilities with >90% resident influenza vaccination rate
- 7 facilities with >90% staff vaccination rate

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## Influenza Outbreak Control Measures

- Control Measures are reported by LHDs

Control Measures	# of Facilities	Proportion
Droplet Precautions	108	78.8%
Prophylaxis	105	76.6%
Isolation of Ill Patients	105	76.6%
Respiratory Etiquette Education	100	73.0%
Re-offered Vaccine	49	35.8%
Cohort Ill Residents	33	24.1%
Cohort Nursing Staff	27	19.7%
No Intervention	7	5.1%

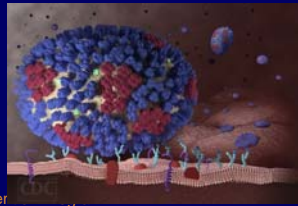
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## Why vaccinate staff and residents?

- Influenza is more likely to cause severe disease in people >65 years
- CDC reports that, with a good match, flu vaccination is 90% effective in preventing disease in young, healthy folks.
- In the elderly, flu vaccine is 50-60% effective in preventing hospitalization and 80% effective in preventing death
- Decreased lost work time for staff members
- Helps prevent influenza outbreaks
  - If staff members are sick with influenza, LTCF residents have a high risk of being exposed



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<http://www.cdc.gov/flu/images.htm>

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## Increasing Influenza Vaccination Rates in LTCF: Pilot Project

- Pilot project between Yamhill County Public Health Department and Oregon Public Health department
- Project objectives:
  - Develop tools that LHDs can use to increase staff flu rates in under-immunized LTCFs
  - Ensure the approach is scalable and requires minimal LHD time and resources.
  - Provide easy method through which LHDs can identify under-immunized LTCFs.
  - Build capacity of LTCFs to provide vaccine, or other medical counter measures, efficiently to their staff and residents.

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## Increasing Influenza Vaccination Rates in LTCF: Methods

Using survey data collected by OPHD, we identified a LTCF with staff vaccination rates below 60% (n=1)

- LHD contacted LTCF and offered support to improve staff flu vaccination rates.
- LHD met with LTCF Nursing Supervisor, reviewed current vaccination strategy, and developed plan to incorporate best practices.
- LHD staff presented at LTCF all-staff meeting to explain rationale for staff flu vaccination.
- LHD supplied LTCF Nursing Supervisor with vaccine declination forms in English and Spanish.

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## Increasing Influenza Vaccination Rates in LTCF: Best Practices

- Use of mobile carts to take vaccine to staff members during their shifts
- Use of a form requiring that a staff member actively decline influenza vaccination if he or she chooses not to be immunized
- Provide vaccine at no charge
- Mask required during influenza season if not vaccinated
- Signage or reminders about benefits of vaccination
- Incentives ( for example, a gift card) for staff who get vaccinated
- Vaccination rates rose from 48% in 2014 to 66% in 2015, a 37% relative increase.

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## Increasing Influenza Vaccination Rates in LTCF: Tools

Tools to implement the program

- Draft agenda for LHD meeting with LTCF Nursing Director, including best practices
- PowerPoint for presentation to LTCF staff
- Vaccine declination forms in English and Spanish
- Report with LTCF staff flu vaccination rates
  
- CDC Long Term Care Facility Flu Vaccination toolkit:  
<http://www.cdc.gov/flu/toolkit/long-term-care/index.htm>
  
- Contact Richard Lemam ([Richard.F.Lemam@state.or.us](mailto:Richard.F.Lemam@state.or.us)) or me if you are interested in learning more!

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## Thank You!

<http://public.health.oregon.gov>

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