# Healthcare Worker Influenza Vaccination in Oregon

Monika E. Samper, RN Healthcare-Associated Infections Program October 14, 2016



# HAI Program at OHA

- Surveillance and reporting
- Outbreak response
- Prevention





# **Objectives:**

- Overview of HCW flu vax reporting
  - Oregon law
  - Who reports and how?
- HCW influenza vaccination data
  - Vaccination rates over time and by facility type
  - Benchmarking
  - Vaccine promotion strategies
- Next steps
  - Interactive mapping
  - Promotion efforts



### **Mandatory Reporting: Oregon**

• House Bill 2524 (2007)

- LAW
- Created Oregon Mandatory HAI Program
- Activities stipulated in OR Admin Rules (OARs)
- Advisory Committee created in 2008
- National Healthcare Safety Network (NHSN) and SurveyMonkey selected for reporting



### HAI Reporting Poster: 2016

#### OREGON PUBLIC HEALTH DIVISION REPORTING FOR HEALTHCARE-ASSOCIATED INFECTIONS

Local health department information For a list of local health department phone numbers go to www.healthoregon.org/inddirectory.

ouse Bill 2524 established a mandatory Healthcare-Associated Infections (HAI) Reporting Program. The program was created to raise awareness of HAIs, to promote a transparent means of informing consumers, and to aid healthcare facilities in preventing HAIs (healthcregon.org/hai). The following table compares the Oregon HAI reporting requirements and the Centers for Medicare & Medicaid Services (CMS) Prospective Payment System requirements.

HAI MEASUREMENT TYPE	TE	HOSPITALS AND LONG-TER	M ACUTE CARE HOSPITALS	
		CMS Requirements (date requirement enacted) <sup>a</sup>	OREGON Requirements ( <i>date requirement e</i>	nacted) <sup>34</sup>
NHSN ANNUAL SURVEY	NHSN Annu	ti Survey (2010)	NHSN Annual Survey (2008)	
CLABSI	Hospitals: A	adult, pediatric and neonatal ICUs (2011)	Adult medical, surgical and medical/surgical ICUs (2009)	
	Adult and pe	diatric medical, surgical and medical/surgical wards (2015)	Neonatal ICUs (2011)	
	LTACH: All a	dult and pediatric ICUs and wards (Oct. 2012)	All adult, pediatric and neonatal ICUs and adult and pedia medical/surgical wards (2015)	tric medical, surgical and
SSI	Colon surge	y, inpatient (2012)	Colon surgery, inpatient (2011)	
	Abdominal I	ysterectomy, Inpatient (2012)	Abdominal hysterectomy, Inpatient (2011)	
			Coronary artery bypass graft surgery, Inpatient (2009)/CB	GB only (as of 2011)
			Knee prosthesis procedure, Inpatient (2009)	
			Hip prosthesis procedure, inpatient (2011)	
			Laminectomy, Inpatient (2011)	
CAUTI	Hospitals: All adult and pediatric ICUs (2012)		All adult and pediatric ICUs (2012)	
	Adult and pe wards (2015	distric medical, surgical, medical/surgical, and inpatient rehabilitation	Aduit and pediatric medical, surgical, medical/surgical, and inpatient rehabilitation wards* (2015)	
	LTACH: Adu	t and pediatric ICUs and wards (Oct. 2012)		
C. DIFFICILE LAB ID EVENT	Hospitals: Fi	cility-wide, inpatient (2013) – excluding neonatal and well-baby	Facility-wide, inpatient (2012) – excluding neonatal and well-baby	
	LTACH: Facil	Ity-wide, Inpatient (2015)		
MRSA BACTEREMIA LAB	Hospitals: Fi	cility-wide, inpatient, (2013)	Facility-wide, inpatient (2013)	
ID EVENT	LTACH: Facil	lty-wide, Inpatient (2015)		
sand	SCIP-Int-10	<sup>2</sup> (110 юнуст горогаано. 0011 нні 1, 2, 0, <del>1</del> , 0, ан	SOP-Int-10 (2011)*	110 1011gor 10portano. 001 111 1, 2, 0, 4, 0, and
ALTHCARE WORKER Hospitals: Inpatient (2013) and outpatient (2014		4)	Hospitals: Inpatient (2009) and outpatient (2014)	
		LTACH: Inpatient (2015)		Inpatient Psychiatric facilities (2015)
		Inpatient Psychiatric Facilities (2015)		

http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/R eporting communicable Disease/Documents/Reporting Posters/poster-hai.pdf



Acute Care

### **HAI Reporting Poster: 2016**

HAI MEASUREMENT TYPE	LONG-TERM CARE FACILITIES		AMBULATORY SU	JRGERY CENTERS	DIALYSIS FACILITIES		
	CMS REQUIREMENTS <sup>2</sup>	OREGON REQUIREMENTS <sup>3</sup>	CMS REQUIREMENTS <sup>2</sup>	OREGON REQUIREMENTS <sup>3</sup>	CMS REQUIREMENTS <sup>2</sup>	OREGON REQUIREMENTS <sup>3</sup>	
ANNUAL SURVEY	N/A	Evidence-based elements of patient safety performance annual survey (2015)	N/A	Evidence-based elements of patient safety performance annual survey (2009)	N/A	N/A	
HEALTHCARE WORKER INFLUENZA VACCINATION	N/A	Healthcare Worker Influenza Vaccination Survey (2010)	Healthcare Worker Influenza Vaccination Survey (Oct. 2014)	Healthcare Worker Influenza Vaccination Survey (2011)	Healthcare Worker Influenza Vaccination Survey (Oct. 2015)	Healthcare Worker Influenza Vaccination Survey (Oct. 2015)	
DIALYSIS EVENT	N/A	N/A	N/A	N/A	Dialysis event (2012)	Dialysis event (2013)	
OTHER	All minimum data set (MDS) elements required by the Skilled Nursing Facility Prospective Payment System	All minimum data set (MDS) elements including urinary tract infection in the last 30 days (2012)	NA	NA	N/A	NA	

HAI – Healthcare-associated infection NHSN – National Healthcare Safety Network CLABSI – Central line-associated bloodstream infection SSI – Surgical site infection CAUTI – Catheter-associated urinary tract infection MRSA – Methicillin-resistant Staphylococcus aureus SCIP – Surgical Care Improvement Project

#### ADDITIONAL MANDATORY REPORTING

#### Communication of Multidrug-resistant Organisms during Patient Transfer:

When a referring healthcare facility transfers or discharges a patient who is infected or colonized with a multidrug-resistant organism (MDRO) or pathogen requiring Transmission-based Precautions, transfer documentation must include written notification of the infection or colonization to the receiving facility.<sup>7</sup>

Mandatory outbreak reporting: Healthcare facilities and providers are required to report outbreaks of HAIs including MDROs of public health significance and common source outbreaks.<sup>8</sup> Multidrug-resistant organism (MDRO): an organism that causes human disease that has acquired antibiotic resistance, as listed and defined in the *Centers for Disease Control and Prevention's Antibiotic Resistance Threats in the United States, 2013.* MDROs include but are not limited to:

- a) Methicillin-resistant Staphylococcus aureus (MRSA)
- b) Vancomycin-resistant Enterococcus (VRE)
- c) Carbapenem-resistant Enterobacteriaceae (CRE)
- d) Multidrug-resistant Acinetobacter baumannii
- e) Multidrug-resistant Pseudomonas aeruginosa
- f) Drug-resistant Streptococcus pneumoniae
- g) Other Gram-negative bacteria producing extended-spectrum beta-lactamases (ESBL),
- h) Toxin-producing Clostridium difficile

http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/R eportingCommunicableDisease/Documents/ReportingPosters/poster-hai.pdf



### OAR: 333-018-0127

#### 333-018-0127

#### Annual Influenza Summary

Each hospital, ASC, Dialysis facility, LTCF, and IRF must submit an annual survey to the Authority, no later than May 31, on a form prescribed by the Authority, regarding influenza vaccination of staff. Facilities must report at least the following information:

(1) Number of staff with a documented influenza vaccination during the previous influenza season;

(2) Number of staff with a documented medical contraindication to influenza vaccination during the previous influenza season;

(3) Number of staff with a documented refusal of influenza vaccination during the previous influenza season; and

(4) Facility assessment of influenza vaccine coverage of facility staff during the previous influenza season and plans to improve vaccine coverage of facility staff during the upcoming influenza season.

Stat. Auth.: ORS 442.420 & OL 2007, Ch. 838 ¦ 1-6 and 12 Stats. Implemented: ORS 442.405 & OL 2007, Ch. 838 ¦ 1-6 and 12 Hist.: PH 17-2014, f. & cert. ef. 6-9-14; PH 8-2015, f. & cert. ef. 3-24-15

#### http://arcweb.sos.state.or.us/pages/rules/oars\_300/ oar\_333/333\_018.html



#### 2015-2016 HCW Influenza Vaccination Survey

#### ATTACHMENT A

Influenza Vaccination Surveillance

Collection Start Date: October 1, 2015; End Date: March 31, 2016

Fac	Facility Name:							
Fac	Facility Address/City:							
Nar	Name and Title of Person Completing Form:							
Fac	Facility Type:  Hospital (including acute, critical access and long-term acute care) Cong-term Care Facility (including assisted living, skilled nursing, and inpatient rehab) Free-standing Ambulatory Surgical Center							
The	The undersigned certifies that the information in this form is accurate and true to the best of their knowledge.							
Sig	Signature of Person Completing Form: Date:							
Cor	ntact Informati	ion	: Email:		Phone:			
Rec	ord the numbe	ro	f healthcare personnel (H	ICP) for each c	ategory below for the influ	enza season bei	ing tracked.	
	ccination type: uenza		*Influenza subtype*: Seasonal	*Influenza S	eason <sup>b</sup> : 2015/2016	CMS ID# (opti	onal):	
PLE	ASE BE SURE T	на	T QUESTION 7 (TOTAL	Employee HCP	Non-Employee HCP			
			IS THE SAME TOTAL	*Employees	*Licensed independent	*Adult	Other	
			ION 1 FOR EACH HCARE WORKER.	(staff on facility	practitioners: Physicians, advanced practice nurses,	students/ trainees &	contract	
CAI	COURT OF HE		HUARE WORKER.	payroll)	& physician assistants	volunteers	(optional)	
total 1.	Denominator Information: (Should be the same total provided in Question 7) 1. Number of HCP who worked at this healthcare facility for at least 1 day between October 1 & March 31							
	nerator Informa							
	vaccination at th	is h	o received an influenza ealthcare facility since scame available this season <sup>a</sup>					
<ol> <li>Number of HCP who provided a written report or documentation of influenza vaccination outside this healthcare facility since influenza vaccine became available this season<sup>b</sup></li> </ol>			f influenza vaccination are facility since influenza					
<ol> <li>Number of HCP who have a medical contraindication<sup>4</sup> to the influenza vaccine</li> </ol>								
<ol> <li>Number of HCP who declined to receive the influenza vaccine this season<sup>b</sup></li> </ol>			is season <sup>a</sup>					
	6. Number of HCP with unknown vaccination status (or criteria not met for questions 2-5 above) this season <sup>6</sup>							
Total of Numerator Information: (Should be the same total provided in Question 1) 7. The numbers reported in Questions 2 through 6 should add up to the denominator reported in Question 1 for each type of employee/non- employee								

Acute and Communicable Dis Oregon Public Health Division \*required

For the purpose of NHBM, influenze subgreaters to whether sessorial or non-sessorial vectine to used. Sessorial is the debuilt and only current choice.
 For the purpose of NHBM, a flux sessor is defined as July 1 to June 30.
 Among those receiving theirer timetures vectine (TM), a medical contribution to a condition of severe allergic reaction (anaphylactic hypersentituity) to agrs
or to other components of the vectine. Among hose receiving live, attenuated influenza veccine (LAIM), medical contrelindications also include estima or a history
of outline frame Syndame.



### **Healthy People Goals**

- Office of Disease Prevention and Health Promotion establishes indicators
- Healthcare worker (HCW) influenza vaccination is among the targets
  - 75% by 2015
  - 90% by 2020
- Oregon Report
  - Benchmark (Yes/No)
  - Progress towards goal



# **HCW Flu Vaccination**

Oregon Public Health

>> Oregon Health Care Worker InfluenzaVaccination Annual Report: 2014-2015

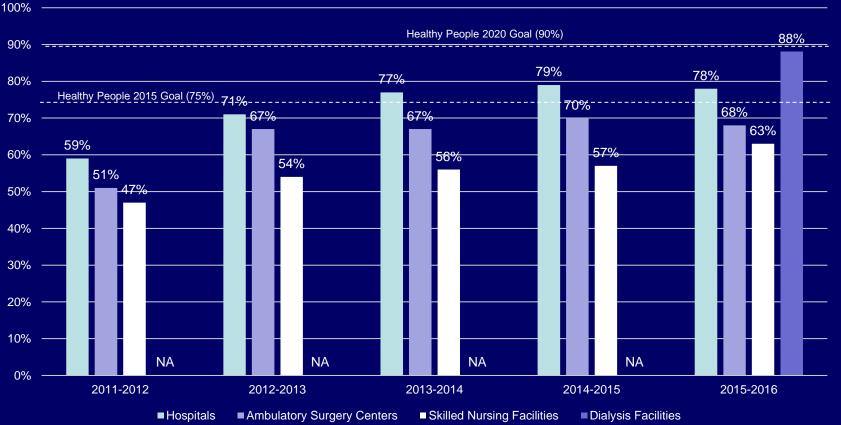


https://public.health.oregon.gov/DiseasesConditions/Co mmunicableDisease/HAI/Pages/Reports-and-Data.aspx



# **HCW Influenza Vaccination**

Figure 1. Healthcare personnel influenza vaccination rates for 2011-2012, 2012-2013, 2013-2014, 2014-2015, and 2015-2016 influenza seasons stratified by healthcare facility





# Facility-specific HCW Flu Vax: 2014 Provider Report

Facility name	# HCW eligible for influenza vaccine*	Rate of influenza vaccination for eligible HCW <sup>+</sup>	Rate of vaccine declination by eligible HCW	Rate of unknown vaccination status for eligible HCW	Change in vaccination rate since last season	Met HP2015 target (75%)	Met HP2020 target (90%)	Additional HCW needed to vaccinate to reach HP2020
Klamath Surgery Center	38	50%	11%	39%	-16%	×	×	15
Lane Surgery Center	3 <b>2</b>	/ 3%	13%	13%	-14%	V	X	Э
Laser & Surgical Eye Center, LLC	42	45%	52%	2%	+11%	X	X	19
Lovejoy Surgicenter	27	30%	30%	41%	-18%	×	×	16
McKenzie Surgery Center	102	73%	19%	9%	-13%	×	×	18
Meridian Center for Surgical Excellence	20	100%	0%	0%	+8%	~	V	
Middle Fork Surgery Center	20	65%	15%	20%	-16%	×	X	5
Mt. Scott Surgery Center	108	52%	2%	46%	+89%	×	×	41
North Bend Medical Center	59	85%	12%	3%	+17%	~	X	3
Northbank Surgical Center	153	55%	10%	35%	+14%	×	×	54
Northwest Ambulatory Surgery Center	95	74%	6%	20%	-16%	×	×	16
Northwest Center for Plastic Surgery, LLC	21	76%	10%	14%	-20%	~	×	3
Northwest Gastroenterology Clinic	44	86%	0%	14%	-6%	~	×	2
Northwest Spine and Laser Surgery Center	37	84%	16%	0%	+285%	~	×	2
Ontario Surgery Center	21	67%	14%	19%	+4%	X	×	5
Oregon Ear, Nose, and Throat Surgery Center,	40	45%	10%	45%	-39%	×	×	18
Oregon Endoscopy Center, LLC	40	93%	8%	0%	+8%	~	~	
Oregon Eye Surgery Center, Inc.	49	61%	35%	4%	-5%	X	×	14
Oregon Outpatient Surgery Center	101	73%	21%	6%	+1%	×	×	17
Oregon Surgicenter	35	86%	14%	0%	+6%	×	×	2
Pacific Cataract & Laser Institute	10	90%	10%	0%	+96%	×	V	
Pacific Cataract and Laser Institute	12	75%	25%	0%	-18%	1	×	2
Pacific Digestive Endoscopy Center	8	38%	63%	0%	-20%	×	×	4
Pacific Surgery Center	24	75%	25%	0%	0%	<ul> <li>Image: A set of the set of the</li></ul>	X	4
Pearl SurgiCenter	30	80%	20%	0%	+83%	~	X	3
Petroff Center	17	41%	41%	18%	-31%	×	×	8

#### **Vaccine Promotion Strategies**

#### **Oregon 2016 HAI Hospital Survey**

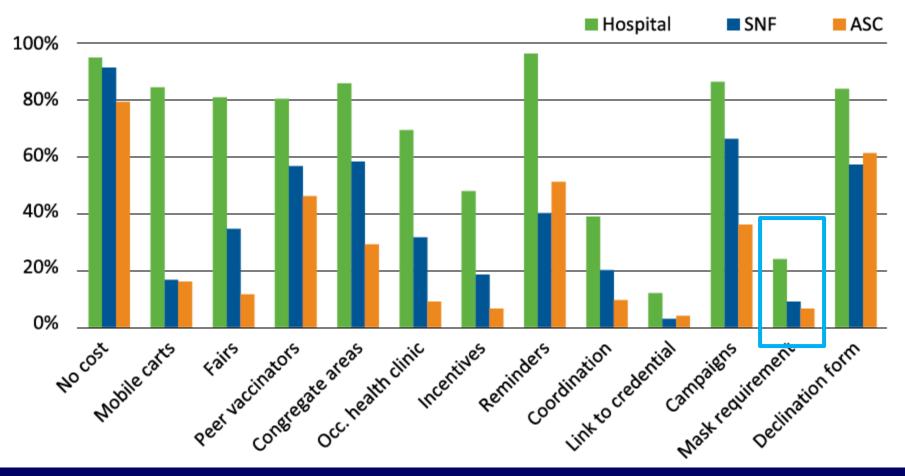
Healthcare Personnel Influenza Vaccination Promotion Strategies

- \* 59. Which of the following strategies did you use to deliver and promote healthcare personnel influenza vaccination at your facility? *Check all that apply.* 
  - Mobile carts
  - Centralized mass vaccination fairs
  - Peer vaccinators
  - Provided vaccination in congregate areas (e.g., conferences/meetings or cafeteria)
  - Provided vaccination at occupational health clinic
  - Incentives
  - Reminders by mail, email, pager, or text
  - Coordination of vaccination with other annual programs (e.g., tuberculin skin testing)
  - Campaign including posters, flyers, buttons, fact sheets
  - Required mask use during influenza season among personnel declining influenza vaccination
  - Required declination form
  - Other (please specify)



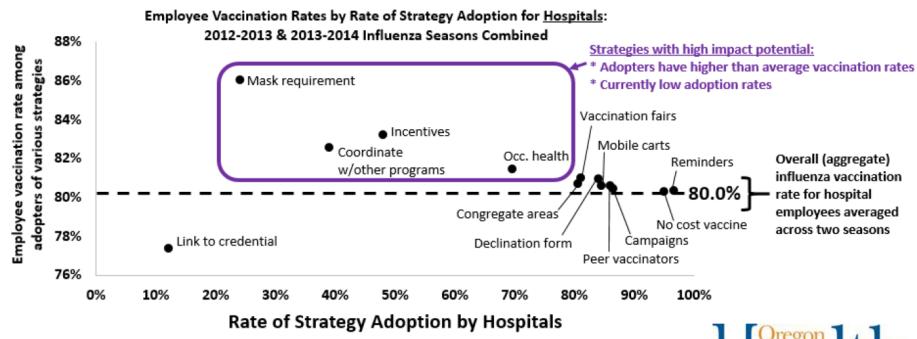
#### Vaccine Promotion Strategies

Figure 1. Use of vaccine promotion strategies by facility type: averaged over 2012–13 and 2013–14 influenza seasons



# Identifying Strategies with High Impact Potential

HOSPITALS

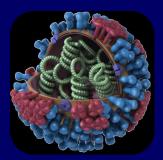


https://public.health.oregon.gov/DiseasesConditions/CommunicableDi sease/HAI/Documents/Reports/SummaryFluVax-Strategies2016.pdf



# **Next Steps**

Improve interactive map

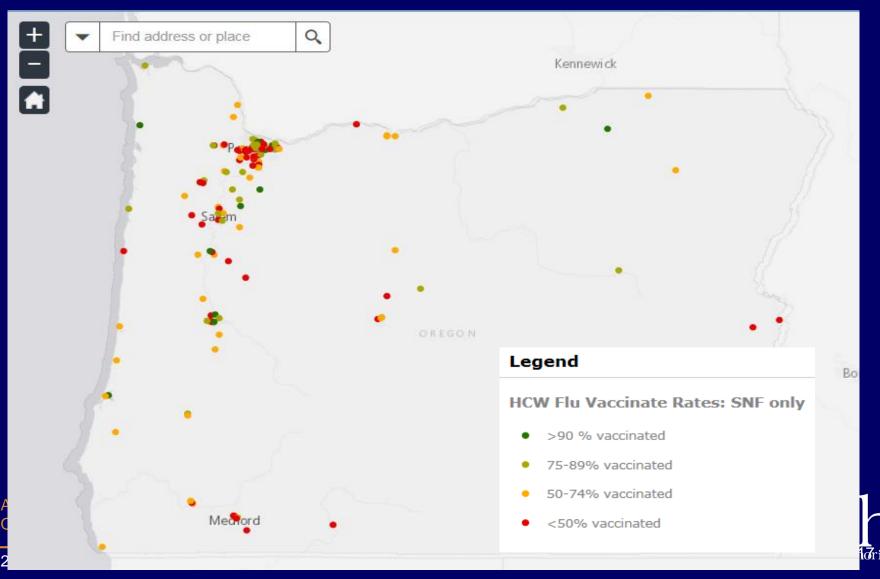


- Examine rates by county/region
- Support promotion efforts
  - Collaborate with Immunization & Preparedness
  - Develop Toolkit
  - Engage counties and HPP regions





# Updated Interactive Map for Oregon: Benchmarking Healthy People Goals



# Oregon: 2015-2016 HCW Flu Vax

Facility Type	# HCW	#HCW no-med exempt	Vax Rate (%)	Unknown Status (%)	Declined (%)
Hospital	100,155	99,157	78%	13%	9%
SNF	15,198	15,709	63%	18%	19%
ASC	5,403	5,333	68%	8%	22%
Dialysis	3,031	3,001	88%	5%	7%



### Thank you!

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#### Influenza Update and Outbreaks in Oregon

October 14, 2016

Magdalena Kendall Scott, MPH Influenza Epidemiologist Acute and Communicable Disease Prevention Program



### The Illness

- Acute viral respiratory illness characterized by fever, cough, sore throat, headache, myalgia, coryza
- Illness duration 2–7 days
- Virus spread person-to-person through respiratory secretions either as droplets or airborne infection by droplet nuclei
- Incubation period 1–3 days
- Substantial burden: ~200,000 hospitalizations, 3,000 – 50,000 deaths in US annually
- Seasonal





### **Oregon Surveillance Components**

- Biosurveillance (syndromic surveillance) at emergency departments
- Laboratory surveillance
- Hospitalizations (in Portland tri-county)
- Outbreaks
- Pediatric deaths and novel strains
- Sentinel provider surveillance at outpatient clicnics

#### Flu Bites Report available at: <u>http://bit.ly/flubites</u>





Oregon's Weekly Surveillance Report Influenza & Respiratory Viruses

#### Oregon Public Health Division

Published April 29, 2016

Data at a Glance April 17–April 23, 2016 (Week 16)					
	Current Week (16)	Previous Week (15)			
Percentage of emergency department visits for ILI <sup>1</sup>	1.5%	1.6%			
Percentage positive influenza tests <sup>2</sup>	11.8%	14.5%			
Influenza-associated hospitalizations <sup>3</sup>	18	19			
Reported ILI/influenza outbreaks	1	4			
Influenza-associated pediatric mortality	0	1			
Percentage of outpatient visits for ILI	0.9%	1.0%			
Respiratory Syncytial Virus (RSV) activity <sup>4</sup>	7%	11%			
<sup>1</sup> Based on Oregon ESSENCE Syndromic Surveillance. Data represent statewide aggregate percent.					

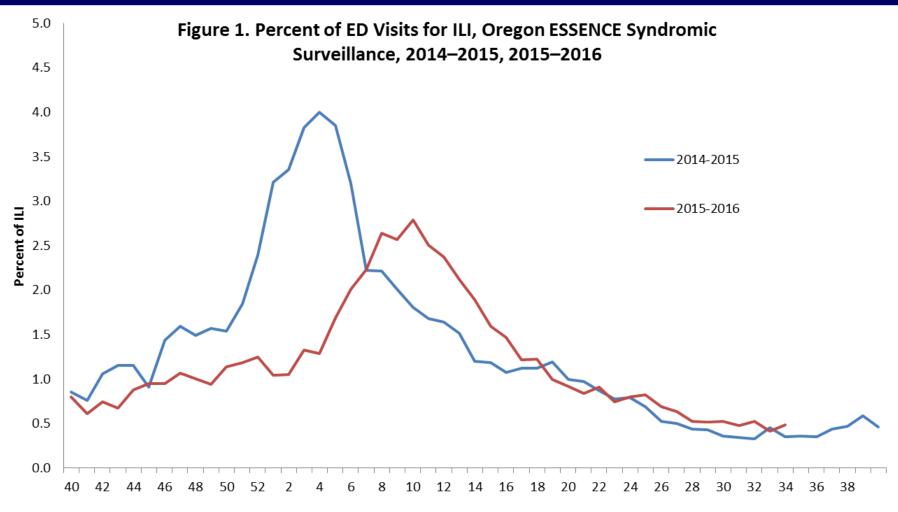
<sup>2</sup>Percent positivity based on data from Oregon reporters to the National Respiratory and Enteric Virus Surveillance System (NREVSS)

<sup>3</sup>Based on hospitalization surveillance in Clackamas, Multnomah, and Washington counties only.

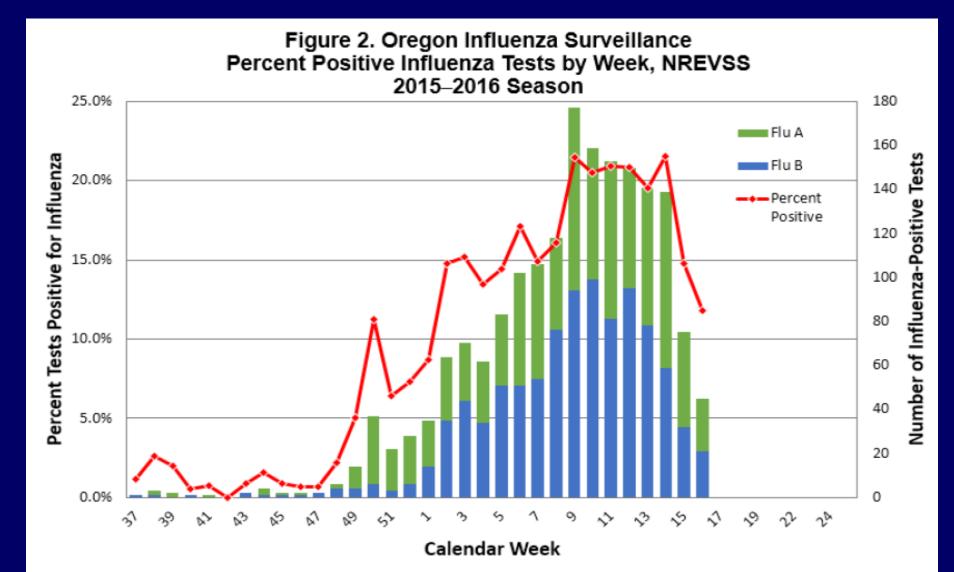
<sup>4</sup>Percent positivity based on data from Oregon's RSV Laboratory Surveillance System.



### Oregon ESSENCE Syndromic Surveillance



#### Laboratory Surveillance

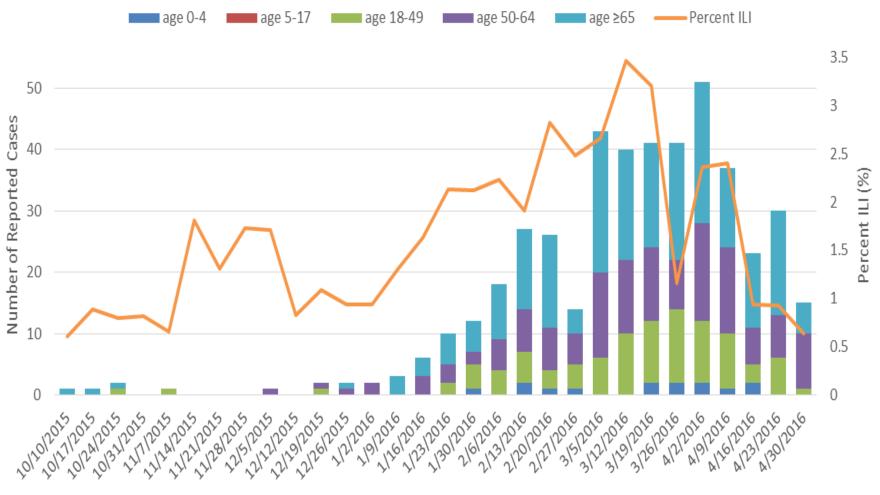


### FluSurv-Net

- Portland metro-area hospitalized flu surveillance.
- Estimate the age-specific hospitalization rates.
- Describe the temporal trends of laboratory-confirmed influenza hospitalization, including by influenza subtype.
- Describe characteristics of persons hospitalized with severe influenza illness.
- Describe the clinical features and course of influenza disease (e.g., severe illness and influenza-associated complications) among persons hospitalized with influenza.



Portland Metro Influenza-Associated Hospitalization by Age Group and ILINet Percent of ILI Outpatient Visits, 2015–2016



MMWR Week

#### Procedures, treatments, findings, and patient outcomes for influenzaassociated hospitalized adult patients in the Portland tri-county area, 2013–2014 and 2014–2015 seasons compared to 2015–2016

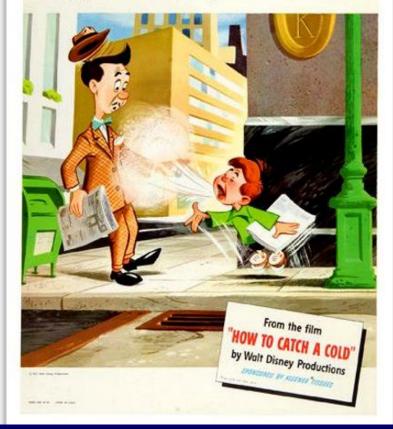
	2013–2014 season	2014–2015 season	2015–2016 season*
	N=609	N=810	N=467
Procedure, Treatment, Outcome	No. (%)	No. (%)	No. (%)
Procedure			
Chest x-ray	582 (96)	769 (95)	440 (94)
Mechanical ventilation	76 (12)	41 (5)	47 (10)
Treatment			
Received antiviral medication	494 (81)	693 (86)	387 (83)
Admitted to the ICU	145 (24)	100 (12)	93 (20)
Outcome			
Died	17 (3)	23 (3)	23 (5)
*2015-2016 data are preliminary as of 10/10/16			



#### **Outbreaks**

# How To Spread a Cold-

Forget to cover coughs and sneezes!





### **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

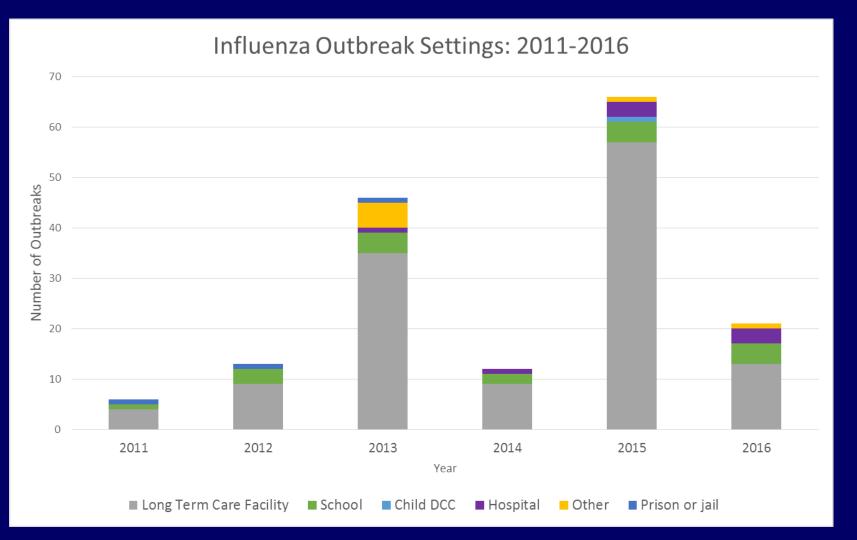


### **Respiratory Outbreak Management**

- 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!



#### Influenza outbreaks



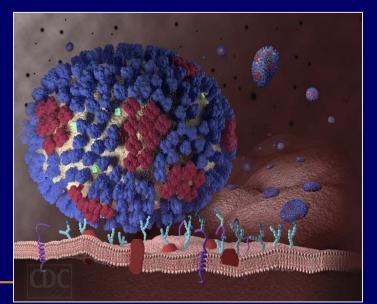
Acute and Communicable Disease Prevention Program Oregon Public Health Division

\*outbreaks as of 8/15/2016



#### 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



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

### 2016–2017 ACIP and CDC Influenza Vaccine Recommendations

FLU VACCINE CATEGORIES REGULAR ANY QUESTIONS HIGH NEEDLE NJECTION 1.000 HIGH RISK PREGNANT AGE VER OWRISK AGE 65 PRIORITY & JOBS HEALTH UNDEF AGE STAFF VAVE GRANLUND@www.davegranlund.com

### Influenza Vaccine Composition United States, 2016–2017

- A/California/7/2009 (H1N1)pdm09-like
- A/Hong Kong/4801/2014 (H3N2)-like
- B/Brisbane/60/2008-like (trivalent)
- B/Phuket/3073/2013-like (quadrivalent)



### FluMist Vaccine is NOT recommended



- During the 2016-2017 season, only injectable flu vaccines should be used.
- Live attenuated influenza vaccine (LAIV), sold as FluMist, is NOT recommended for use during this season because of concerns about its effectiveness.





### Egg allergy? No problem!

- CDC guidance says risk of anaphylaxis in egg allergic person after flu vaccine is minimal:
  - People with egg allergies no longer have to wait 30 minutes after receiving their vaccine; everyone should wait 15 minutes
  - Folks with an egg allergy who have experienced only hives after egg exposure <u>should</u> receive a flu vaccine
  - Folks with severe reactions after egg exposure should be administered in an inpatient or outpatient medical setting
  - Patient should be supervised by a health care provider who is able to recognize and manage severe allergic conditions
- A previous severe reaction to an influenza vaccine is contraindication to future receipt of flu vaccine



### **CD** Summary (Google it)



#### What's New in Flu?

As the refreshingly cool temperatures of fall descend upon the state it's time to start gearing up for the flu season. On June 22, 2016, Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) adopted recommendations for the 2016–2017 flu season. The two most noteworthy changes are an (interim) exclusion of live, attenuated influenza vaccine (LAIV) from its recommendations for the 2016–2017 season; and elimination of the egg allergy limitations of the past.

#### FluMist<sup>®</sup> is out!

During the 2015–2016 season, in which influenza A (H1N1) viruses predominanted, the U.S. Influenza Vaccine Effectiveness Network found no significant effectiveness of LAIV against acute outpatient respiratory illness caused by all influenza A and B viruses combined (3%; 95% confidence interval [CI] -49%–37%), or by influenza A (H1N1) (-21%; 95% CI -108%–30%)



#### **Thank You!**

http://public.health.oregon.gov

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#### **Questions?**

#### HAI Lunch and Learn website

https://public.health.oregon.gov/DiseasesConditions/Communicable Disease/HAI/Prevention/Pages/lunch-and-learn.aspx

