Influenza Update

December 6th, 2016
Overview

• Update on influenza-like-illness (ILI) - Hannah Cain
• Update on IHS influenza vaccine coverage - Amy Groom
• Portland Area influenza vaccination activities - Tom Weiser
• IHS National Supply Service Center (NSSC) Update - James Cummings
FluView
U.S. Influenza Activity – Week 46*

• ILI is still low across the US
• Most activity so far has been caused by influenza A, H3N2 strain
• Circulating strains appear to be well matched to those in the 2016-2017 vaccine
• There have been no influenza associated pediatric deaths

* Based on data from CDC’s Weekly FluView: http://www.cdc.gov/flu/weekly/fluactivitysurv.htm
A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2016-2017 and Selected Previous Seasons
Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending November 19, 2016 - Week 46

* This map indicates geographic spread & does not measure the severity of influenza activity
Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System

Data through the week ending November 5, 2016, as of November 22, 2016
U.S. Influenza Vaccine Supply

• Influenza vaccine supply:
  – Projected: 157 million - 168 million doses

• Some delays with Sanofi Fluzone
  – 0.5mL
  – Does not impact flu vaccine ordered through the NSSC, but may impact VFC orders
  – Expected to be delivered by the end of December
IHS Influenza Awareness System (IIAS) Data as of 11/26/2016 (Week 47)

• Weekly IIAS reports now available on the IHS Flu Website - www.ihs.gov/flu
• Low influenza activity across all IHS Areas
• ~230,000 doses of influenza vaccine have been administered in IHS
  – Influenza vaccine coverage is about the same as it was last year
IHS ILI Activity as of 11/26/2016

% of outpatient visits for influenza-like-illness (ILI)
All IHS Areas
Influenza-Like Illness (ILI) for All Surveillance Years
Percentage of Visits for ILI per week
01/04/09 to 11/26/2016

Week Number

Percentage ILI


1.77
IHS INFLUENZA VACCINE COVERAGE

Week 47
# Influenza Vaccination Coverage by Age Group*

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Active Clinical Population**</th>
<th>Seasonal Flu Vaccine (At Least 1 Dose)***</th>
<th>% Seasonal Flu (At Least 1 Dose)</th>
<th>Seasonal Flu Vaccine (At Least 2 Doses)</th>
<th>% Seasonal Flu (At Least 2 Doses)</th>
<th>Total #Doses Administered****</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 months</td>
<td>4,471</td>
<td>24</td>
<td>0.5</td>
<td>0</td>
<td>0.0</td>
<td>25</td>
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<tr>
<td>6 - 23 months</td>
<td>21,232</td>
<td>6,799</td>
<td>32.0</td>
<td>572</td>
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<td>2 - 4 years</td>
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<td>9,696</td>
<td>18.6</td>
<td>101</td>
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<td>5 - 17 years</td>
<td>195,347</td>
<td>45,905</td>
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<td>256</td>
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<td>46,816</td>
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<td>18 - 49 years</td>
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<td>18.9</td>
<td>295</td>
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<td>76,421</td>
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<td>50 - 64 years</td>
<td>167,365</td>
<td>51,681</td>
<td>30.9</td>
<td>249</td>
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<td>52,545</td>
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<tr>
<td>65 + years</td>
<td>95,836</td>
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<td>Children (6 months-17 years)</td>
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<td>929</td>
<td>0.3</td>
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<tr>
<td>Adults (18 + years)</td>
<td>662,084</td>
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<td>751</td>
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<td>166,177</td>
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<td>All (6 months +)</td>
<td>930,666</td>
<td>225,823</td>
<td>24.3</td>
<td>1,680</td>
<td>0.2</td>
<td>230,386</td>
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</table>
Influenza Vaccine Coverage as of 11/26/2016

Weeks

Percent

Adults (18 + years)  All (6 months +)  Children (6 months-17 years)
# Influenza Vaccine Doses Administered by Influenza Vaccine Type*

<table>
<thead>
<tr>
<th>Area</th>
<th>INACTIV E CVX CODES*</th>
<th>CVX 88 FLU-NOS**</th>
<th>CVX 111 FLU-LAIV3</th>
<th>CVX 135 FLU-HIGH</th>
<th>CVX 140 FLU-LIIV3</th>
<th>CVX 141 FLU-LIVEN</th>
<th>CVX 144 FLU-DERMAL</th>
<th>CVX 149 FLU-LAIV4</th>
<th>CVX 150 FLU-LIIV4pf</th>
<th>CVX 153 FLU-ccLIV3</th>
<th>CVX 155 FLU-RIV3</th>
<th>CVX 158 IIV4</th>
<th>CVX 161 IIV4pf -ped</th>
<th>CVX 166</th>
<th>Proc 99.52 Vac Inf</th>
<th>ICD-9 V04.81 Vac Inf</th>
<th>CPT Billing Codes+</th>
<th>Cumulative # of Doses Seasonal Flu</th>
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<td>1</td>
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<td>0</td>
<td>3505</td>
<td>0</td>
<td>5</td>
<td>1634</td>
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<td>1</td>
<td>0</td>
<td>0</td>
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<td>68</td>
<td>0</td>
<td>323</td>
<td>8</td>
<td>1561</td>
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<td>39</td>
<td>0</td>
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<td>609</td>
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<td>2763</td>
<td>0</td>
<td>2</td>
<td>1844</td>
<td>231502</td>
</tr>
</tbody>
</table>

* Inactive CVX Codes 15 (FLU-TIVhx), 16 (FLU-WHOLE), 123 (FLU-H5N1), and 151 (FLU-NasNOS) should not be used to document flu vaccines given this flu season. Doses are NOT deduplicated.
** CVX Code 88 (FLU-NOS) should only be used to document flu vaccines given elsewhere when flu vaccine type is unknown.
+ CPT Flu codes include: 90654-90662, 90672-90673, 90685-90686, 90724, G0008, G8108.
^ ICD9 codes V04.8 and V06.6 are not displayed on this report and are not used in any of the influenza vaccine coverage calculations.
Portland Area
2016-2017 Seasonal Influenza Vaccination Progress

CAPT Thomas Weiser, MD, MPH
Medical Epidemiologist
Portland Area IHS, assigned to:
Northwest Tribal Epidemiology Center
Early and sustained flu vaccination?

• Emphasized early flu vaccination in 2015-2016
  – Did not see earlier onset of flu vaccination activities last year or this year

• Emphasized maintaining a high volume of influenza vaccinations throughout October and November in 2015-2016
  – Rate of vaccination peaked in mid-October last year and again this year
  – Maximum rate of vaccinations given per week declined last year and again this year

• Percent of population vaccinated by week 45/46 decreased in each age group
### Onset of Seasonal Influenza Vaccination Over 3 Flu Seasons, Portland Area IHS

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% Seasonal Flu (At Least 1 Dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 + years</td>
<td>47.4</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>26.8</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>28.5</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>28.0</td>
</tr>
</tbody>
</table>

#### 2014-15

- **Vaccination begins, Week 36**

#### 2015-16

- **Vaccination begins, Week 37**

#### 2016-17

- **Vaccination begins, Week 35**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% Seasonal Flu (At Least 1 Dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 + years</td>
<td>44.0</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>24.2</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>27.2</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>26.4</td>
</tr>
</tbody>
</table>

#### 2014-15

- **Week 46**

#### 2015-16

- **Week 46**

#### 2016-17

- **Week 45**
Rate of Uptake of Seasonal Influenza Vaccine, Over 3 Flu Seasons, Portland Area IHS

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% Seasonal Flu (At Least 1 Dose)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2014-15</strong></td>
<td></td>
</tr>
<tr>
<td>65 + years</td>
<td>47.4</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>26.8</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>28.5</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>28.0</td>
</tr>
<tr>
<td><strong>2015-16</strong></td>
<td></td>
</tr>
<tr>
<td>65 + years</td>
<td>44.0</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>24.2</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>27.2</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>26.4</td>
</tr>
<tr>
<td><strong>2016-17</strong></td>
<td></td>
</tr>
<tr>
<td>65 + years</td>
<td>40.9</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>22.7</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>26.6</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>25.6</td>
</tr>
</tbody>
</table>
Maintaining Seasonal Flu Vaccination

• Although we did not show improvement over the past three flu seasons, we have been able to maintain successful flu vaccination activities in the face of some significant challenges:
  – 2014-15 flu vaccine mis-match with severely decreased vaccine effectiveness
  – Delays in delivery of vaccine supplies from various manufacturers and distributors
  – A later/milder flu season in 2015 may have decreased “demand” for flu vaccination compared to an earlier or more severe flu season
  – Withdrawal of recommendation of LAIV for children (2016-17 season)
Portland Area Federal Service Units  
Drive-up Flu Clinics

- Drive-up Flu Clinics have been offered at most of our Federal Service Units for the past several flu seasons and are always popular
- At Colville, they have been doing drive-up clinics for the past several years with great success!

2009 – <129 (July Grounds)
2010 – <129 (July Grounds)
2011 – ~129 (July Grounds)
2012 – 141 (July Grounds)
2013 – 206 (July Grounds)
2014 – 161 (At Nespelem Clinic)
2015 – 145 (At Nespelem Clinic)
2016 – 112 (July Grounds)
2016 – 45 (Omak Community Center)
Portland Area Federal Service Units  
Drive-up Flu Clinics 

- At Fort Hall, they have held two short (1 hour) drive-up clinics vaccinating between 30 and 50 patients at each offering.
Tips from Top Tribal Clinics

• Team Work is Key!
  – Standing Orders: nurses (RN’s and CMA’s) have standing orders to give vaccinations due at any time. The MA’s ask to give the flu shot in particular even if a patient has refused at a previous visit because sometimes they do change their mind.
  – Outreach to patients: The MA’s also call people to come in if they are needing vaccines and we are present at some community events to offer flu shots.
  – I think the most important factor though is consistency with every visit, and an AWESOME nursing staff!
  – Our pediatrician & his MA are amazing! They are diligent in their immunization program & educating parents on the benefits of immunizations.
We try to “max-pack” every single visit. If a patient is due for something we try to address it each time they come in.

Running the reports in RPMS because then we are able to call and remind the patient when we see they are behind!

If a patient refuses, the MA lets the Provider know so we can discuss it briefly. A lot of the time if we know why they are refusing, we can talk them into it by giving them more information.

We also will keep offering and encouraging the flu shot even when we know that the patient has refused in the past.

I think we have had much success because our providers participate and back us, especially when we communicate that the patient/parent is hesitant.
Summary of Clinical Strategies to Promote Seasonal Influenza Vaccination

• Team-based care where providers, nurses and CMAs work together as a team and support each other’s efforts
• Checking for and offering a flu shot at every clinic visit, including eye clinic, dental clinic, diabetes and specialty clinics and the pharmacy refill window.
• Providing flu shots at out-of-clinic venues: elder meetings, day care and Head Start facilities, and drive-through flu clinics.
• Making flu shots available at special walk-in flu clinics staffed by nurses.
• Adopting extended-hours clinics on weekends and evenings specifically for flu shots.
• Utilizing pharmacists who are authorized in most states to provide a variety of immunizations, including flu shots.
• Optimize Electronic Health Record (EHR) reminders, immunization package and two data exchange with State Immunization Information Systems.
• Providing community outreach through radio, newspaper and social media outlets to educate the community about the importance of getting a flu shot each year.
2016-17
Seasonal Influenza Vaccine and Antiviral Procurement

IHS National Supply Service Center
Pharmacy Support Branch
James J. Cummings, PharmD
James.Cummings@ihs.gov
## NSSC—2016-2017 Influenza Vaccines

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Dosage Form</th>
<th>NDC</th>
<th>Price/dose</th>
</tr>
</thead>
</table>
| **Afluria®**        | Multi-Dose Vial (MDV)  
10 doses/vial  
Peds/Adult (9 years & older)  | 33332-0116-10      | $5.49      |
| **Fluzone® Quadrivalent** | PFS - 0.25mL - 10 doses/package  
Pediciatric (6-35 months)  | 49281-0516-25      | $17.53     |
| **Fluarix® Quadrivalent** | PFS – 0.5mL – 10 doses/package  
Peds/Adult (3 years & older)  | 58160-0905-52      | $12.78     |
| **Fluzone® HD**     | PFS – High Dose - 10 doses/package               | 49281-0399-65      | $28.33     |
| **Fluzone® ‡ Intradermal** | PFS 0.1ml – 10 doses/package  | 49281-0710-40      | $13.64     |
| **Flumist® ‡ Intranasal** | PFS 0.2ml – 10 doses/package  | Did not offer      | N/A        |
| **Flublok® ‡**     | Single Dose Vial – 0.5mL—10 doses/box           | 42874-0016-10      | $25.04     |

‡ Vaccine is supplemental to the four contract vaccines and IHS receiving FSS pricing
Seasonal Vaccine Procurement Overview
2015-16 vs. 2016-17

Packages last flu season vs. upcoming flu season

2015-2016  2016-2017

High Dose (≥ 65yrs) 500 100
Multidose (MDVs) 25,142 22,444
Intradermal 18-64yrs 30% -22%
Pediatric (6-35 months) 9,504 12,901
Quad PFS (≥ 3 yrs) 38,406 38,147
FLUBLOCK (≥ 18 yrs) -7%
Total -44%

-5%
-1%
Flu Vaccine Ordering
Post-Solicitation

• Contact “Gabe” Wyatt  aaron.wyatt@ihs.gov
  – He will forward a Flu 413 Form for ordering

• Submit Seasonal Flu Form 413 to NSSC
  – NSSC may have stock of additional contract vaccine
    ▪ If not NSSC will contact manufacturers to obtain and if authorized, will purchase additional vaccine. If contract vaccine not available NSSC will contact additional vendors to find best price

• Occasionally, FSS priced vaccine available through McKesson but no guarantees
Antiviral Ordering & Procurement

- **Tamiflu® 75mg Capsules** may purchase from NSSC at substantially reduced prices by contacting “Gabe” Wyatt (Aaron.Wyatt@ihs.gov) and he will forward a 413 form.

- Complete 413 and fax to “Gabe” (405) 951-6054 or e-mail.

- Other dosage forms & strengths available thru McKesson.

- Relenza® available thru McKesson Connect.
Influenza Antiviral

- Tamiflu® Capsules, 75mg, BT/10 priced at $19.24 per bottle – Expires April 2017 (part of the Shelf Life Extension Program (SLEP) for on hand Please contact NSSC for purchasing

NSSC can ship overnight delivery if needed the next day. Typically, we ship 2-3 day ground.
Summary

• ILI activity is low, good time to vaccinate
• Current vaccine coverage is similar to last year
  – Not a great sign if we hope to increase overall influenza vaccine coverage
• Influenza vaccine supply is adequate
• Vaccinate, Vaccinate, Vaccinate!
Influenza Resources

• National Influenza Vaccination Week

• IHS Homepage Flu banner
  – Influenza Blog:

• CDC FluView: www.cdc.gov/flu

• IHS IIAS Reports: https://www.ihs.gov/flu/surveillancereports/