IHS Clinical Rounds
2016-2017 Influenza Season
May 31st, 2017

Amy V. Groom, MPH
Overview

• Recap of the 2016-2017 Influenza Season
  – U.S. Influenza Surveillance

• Influenza Vaccine Coverage
  – Patients and Health Care Personnel

• Influenza Vaccine and Antiviral Treatment Ordering
  – 2017-2018 flu season
SUMMARY OF THE 2016-2017 INFLUENZA SEASON: NATIONAL PICTURE
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.
Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System

Data through the week ending April 15, 2017, as of May 4, 2017
Influenza Positive Tests Reported to CDC by Public Health Laboratories, National Summary, 2016-17 Season, week ending May 19, 2017
Reported by: U.S. WHO/NREVSS Collaborating Laboratories

Cumulative

Most recent 3 weeks
Number of Influenza Positive Tests
- A (H1) - 0
- A (Unable to Subtype) - 0
- A (H3) - 143
- A (H1N1)pdm09 - 7
- A (Subtyping not Performed) - 3
- B (Lineage Unspecified) - 100
- H3N2v - 0
- B (Victoria Lineage) - 31
- B (Yamagata Lineage) - 156
- No Data
2016-2017 Influenza Season:
National Trends

- Influenza A H3N2 viruses predominated
- Influenza-like-illness peaked in early February
  - Earlier than last year
  - Higher outpatient ILI
  - Above baseline for 17 consecutive weeks
- Moderately severe season
  - Highest hospitalization rates 65+, 50-64 years
  - 95 pediatric deaths in the U.S.
    - Mostly in unvaccinated children
- Good vaccine match
  - Vaccine effectiveness~43%
INFLUENZA VACCINE COVERAGE FOR 2016-2017
U.S. Influenza Vaccine Coverage
Preliminary, Self-report

• Children (6 months – 17 years)
  – 2015-16 (Feb. 2016): 56.6%
  – 2016-17 (Nov. 2016): 56.0%

• Adults (18 years and older)
  – 2015-16 (Nov. 2015): 36.8%
  – 2016-17 (Nov. 2016): 35.0%

• Health Care Personnel (Internet Panel)
  – 2015-16: 78% (preliminary)
  – 2016-17: 79% (preliminary)
IHS Influenza Vaccine Coverage
1 dose, All Ages (≥ 6 months)

Data Source: IHS Influenza Awareness System
Data as of April 29, 2017

N (2016-2017) = 1,010,459 patients (301 facilities)
Seasonal Influenza Vaccine Coverage
All Ages (6 Months and older)
2016-2017 flu season

Data Source:
IHS Influenza Awareness System; Data as of April 29, 2017
National Immunization Reporting System, RPMS Quarterly Reports;
Data as of March 31, 2017

N = IIAS; 1,010,459 patients (301 facilities)
NIRS: 685,971 patients (150 facilities)
## All IHS Areas

### Seasonal Influenza Vaccine Coverage by Age Group*

**07/03/16 to 04/29/17**

**Active Clinical Population**

<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>124</td>
<td>2.8</td>
<td>0</td>
<td>0.0</td>
<td>125</td>
</tr>
<tr>
<td>6 - 23 months</td>
<td>22,884</td>
<td>15,224</td>
<td>66.5</td>
<td>5,154</td>
<td>22.5</td>
<td>20,412</td>
</tr>
<tr>
<td>2 - 4 years</td>
<td>55,633</td>
<td>18,825</td>
<td>33.8</td>
<td>850</td>
<td>1.5</td>
<td>19,717</td>
</tr>
<tr>
<td>5 - 17 years</td>
<td>210,646</td>
<td>71,827</td>
<td>34.1</td>
<td>542</td>
<td>0.3</td>
<td>72,622</td>
</tr>
<tr>
<td>18 - 49 years</td>
<td>434,477</td>
<td>116,131</td>
<td>26.7</td>
<td>755</td>
<td>0.2</td>
<td>117,220</td>
</tr>
<tr>
<td>50 - 64 years</td>
<td>182,200</td>
<td>74,120</td>
<td>40.7</td>
<td>525</td>
<td>0.3</td>
<td>74,915</td>
</tr>
<tr>
<td>65 + years</td>
<td>104,619</td>
<td>49,986</td>
<td>47.8</td>
<td>433</td>
<td>0.4</td>
<td>50,724</td>
</tr>
<tr>
<td>Children (6 months-17 years)</td>
<td>289,163</td>
<td>105,876</td>
<td>36.6</td>
<td>6,546</td>
<td>2.3</td>
<td>112,751</td>
</tr>
<tr>
<td>Adults (18 + years)</td>
<td>721,296</td>
<td>240,237</td>
<td>33.3</td>
<td>1,713</td>
<td>0.2</td>
<td>242,859</td>
</tr>
<tr>
<td>All (6 months +)</td>
<td>1,010,459</td>
<td>346,113</td>
<td>34.3</td>
<td>8,259</td>
<td>0.8</td>
<td>355,610</td>
</tr>
</tbody>
</table>

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* Limited to sites that exported both doses administered and active clinical population data.

** Active Clinical is defined as patients who have had at least 2 visits in the last 3 years.

*** Number of unique patients with at least 1 dose.

**** Total # Doses Administered = All doses administered to patients including doses not included in coverage calculation due to lack of Active Clinical Population data.

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**Data Source:** IHS Influenza Awareness System

**Data as of April 29, 2017**

N (National) = 1,010,459 patients (301 facilities)
All IHS Areas
Cumulative One-Dose Seasonal Influenza Vaccine Coverage
07/03/16 to 04/29/17
Active Clinical Population

Data Source: IHS Influenza Awareness System
Data as of April 29, 2017
New GPRA Flu Measures

• FY 2016 Baseline year
  – Children 6 months – 17 years: 37.1%
  – Adults 18 years and older: 38.7%

• Healthy People 2020 Goal: 70%
IHS Healthcare Personnel Policy 2016-2017
Influenza Season

• Revised Circular: 2016-2017

• MANDATORY SEASONAL INFLUENZA IMMUNIZATIONS FOR THE CIVILIAN HEALTH CARE PERSONNEL* – signed July 28th, 2016
  – Medical and Religious Exemptions
  – Masks for unvaccinated HCP with an exemption

• Successfully bargained with LiUNA and NFFE (2 of 3 unions)
  – 97% of union employees
  – Pending bargaining with AFGE

• Full implementation for the majority of IHS employees anticipated for the 2016-2017 season

* Available at: https://www.ihs.gov/ihm/index.cfm?module=dsp_ihm_circ_main&circ=ihm_circ_1604
HCP Influenza Vaccine Coverage by Area 2015–2016 and 2016-2017
All Facilities (I/T/U)

Data Source: National Immunization Reporting System
Data as of March 31, 2017

N = 2015-2016; 36,401 HCP (159 facilities)
2016-2017; 37,939 HCP (149 facilities)
HCP Influenza Vaccine Coverage
IHS and Tribal Sites

Data Source: National Immunization Reporting System
Data as of March 31, 2017
HCP Influenza Vaccine Coverage
IHS Facilities Only

N = 2015-2016; 15,607 HCP (66 facilities)
2016-2017; 16,220 HCP (64 facilities)

* No IHS facilities

Data Source: National Immunization Reporting System
Data as of March 31, 2017
HCP Influenza Vaccine Coverage by facility type
All IHS Areas combined
2016–2017

Data Source: National Immunization Reporting System
Data as of March 31, 2017

N = IHS; 16,220 (64 facilities)
Tribal; 20,679 (67 facilities)
Influenza Vaccine Coverage Summary

• Little change in influenza vaccine coverage
  – IHS patients and US

• Influenza vaccine coverage remains below Healthy People 2020 goals
  – 70% for general population – a ways to go

• HCP in IHS sites - HP 2020 Goal of 90% MET!
  – Mandatory policy may have helped
  – 7 IHS Areas achieved 90% coverage in their IHS facilities!
And Now Let’s Get ready For . .

2017-2018 INFLUENZA SEASON
Vaccines for 2017-2018 flu season

- Change in the influenza A H1N1 component
  - 2009 – 2016 vaccines: A/California/7/2009(H1N1)pdm09-like virus
  - 2017-2018: A/Michigan/45/2015(H1N1)pdm09-like virus:
    - No changes to other strains
      - A/Hong Kong/4801/2014 (H3N2)-like virus
      - B/Brisbane/60/2008-like (B/Victoria lineage) virus
      - B/Phuket/3073/2013-like (B/Yamagata lineage) virus
New/recent Flu vaccine Licensures

- FluLaval Quadrivalent (IIV4) ID Biomedical age indication expansion
  - Down to 6 months and older
  - 0.5 ml for ALL AGES

- New vaccine products
  - Fluad® (aIIV3), Seqirus – adjuvanted trivalent, 65 yrs+
    - MF59, an oil-in-water emulsion of squalene oil
  - Quadrivalent formulations
    - Seqirus
      » Flucelvax Quadrivalent (ccIIV4) – Cell culture, 4 years+
      » Afluria Quadrivalent – IIV4, 18 yrs+
    - Protein Sciences
      » Flublok quadrivalent (RIV4) – recombinant, 18 yrs+
2017-2018
Seasonal Influenza Vaccine and Antiviral Procurement

IHS National Supply Service Center
Pharmacy Support Branch
James J. Cummings, PharmD
James.Cummings@ihs.gov
### 2017-2018 Seasonal Influenza Vaccine

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Dosage Form</th>
<th>NDC</th>
<th>Price per 10 doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afluria® MDV</td>
<td>Multi-Dose Vial (MDV) - 10 doses/vial (9 years &amp; older)</td>
<td>33332-0116-10</td>
<td>↑ $125.08</td>
</tr>
<tr>
<td>Fluzone® Quadrivalent</td>
<td>PFS - 0.25mL - 10 doses/package Pediatric (6-35 months)</td>
<td>49281-0516-25</td>
<td>↓ $142.01</td>
</tr>
<tr>
<td>Fluarix® Quadrivalent</td>
<td>PFS - 0.5mL - 10 doses/package Peds/Adult (3 years &amp; older)</td>
<td>58160-0905-52</td>
<td>$127.79</td>
</tr>
<tr>
<td>Fluzone® High Dose</td>
<td>PFS - 0.5mL High Dose - 10 doses/package</td>
<td>49281-0399-65</td>
<td>↓ $267.50</td>
</tr>
</tbody>
</table>
Vaccine Delivery Timeline

• **Seqirus, GSK, and Sanofi will ship the product directly to your facility according to the following shipment schedule:**
  – At least 50% of each facility’s requirements between 8/15/16 and 9/15/16
  – Any remaining amount between 9/15/17 and 10/15/17.

• **Fluzone® PFS (6-35 months) has a different delivery time frame.**
  – 40% by August 15th
  – 100% by November 11th.
Non-contract Flu vaccine Procurement

• **Fluzone Intradermal®**
  – We are still awaiting the FSS pricing for this product and expect this to be communicated in July.
  – All orders placed through the NSSC will be pre-booked with Sanofi Pasteur Inc. and once pricing is determined, we will bill your facilities accordingly.
  – This product should be delivered at the same time as your contract Sanofi Pasteur Inc. orders (i.e. High Dose & Pediatric).

• **Flublok®**
  – We will be submitting the individual facility requirements for Flublok® directly to McKesson for each of your facilities. Once available at our McKesson Distribution Center, the NSSC will ship the vaccine directly to your facility.
  – We do not have next season’s pricing on this product and will communicate this once it is available.

• **Flumist®**
  – It is unlikely the Intranasal will make it back to the U.S. market for 2017-2018 season due to ongoing manufacturing issues and efficacy of this vaccine. NSSC will be reaching out to these facilities to account for the lack of intranasal vaccine in their facility’s totals.
Influenza Vaccine Activities
Tucson Area

Rodrigo Villar, MD
Flu vaccine coverage among patients

• 2016-2017 flu season
  – 32 confirmed cases
    • No severe cases
    • No deaths
  – Immunized 56% of the population
  – Surveillance data shows we keep vaccinating at higher rates over a longer period of time

  – Immunized 98% of Healthcare Personnel
Percent vaccinated by week
National

Percent vaccinated by week
Tucson Area

TONHC keeps vaccinating
Vaccination Activities
Patient Population

• Offering flu vaccine to family members
  – Not just appointed patient
• Frequent email updates on flu information
• Discuss flu inventory, what to do if we lack VFC vaccine
• Using flu vaccine as a POD exercise
  – 2 years in a row
• Vaccinating at events/elders centers/school
  – NP at two schools
Vaccination Activities
Healthcare Personnel

• Frequent email updates on flu information
  – Preparing for the season, vaccinating
  – Sharing flu vaccine coverage data

• Using the mandatory flu vaccine policy
  • Explaining reasoning behind mandatory employee vaccination

• Involving staff to champion their clinic site