MAIC Meeting 1/9/18
Influenza Season 2017-2018

• Quick Update
  – National - CDC Health Advisory
  – Local

• Influenza Vaccine Effectiveness

• Vaccine Protection Against Pediatric Deaths

• Key Findings - Flu Vaccination Coverage in the US
Influenza in the US 2017-18

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2017-18 Influenza Season Week 52 ending Dec 30, 2017

ILI Activity Level
- High
- Moderate
- Low
- Minimal
- Insufficient Data
Influenza in the US 2017-18

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending December 30, 2017 - Week 52

* This map indicates geographic spread & does not measure the severity of influenza activity
Influenza Season 2017-2018

- Influenza A (H3) has been the most frequently identified influenza virus subtype reported by US public health laboratories.
- All 10 surveillance regions in the US report elevated levels of outpatient ILI.
- There have been 13 pediatric deaths reported so far this season.
Influenza Season 2017-2018
CDC Health Advisory

• HAN 409: Seasonal Influenza A(H3N2) Activity and Antiviral Treatment of Patients with Influenza (12/27/17)
  – influenza activity has increased significantly and influenza A(H3N2) viruses predominating so far this season
  – In the past, A(H3N2) virus-predominant influenza seasons have been associated with more hospitalizations and deaths
  – Influenza vaccine effectiveness (VE) in general has been lower against A(H3N2) viruses than against influenza A(H1N1)pdm09 or influenza B viruses.
  – Last season, VE against circulating influenza A(H3N2) viruses was estimated to be 32% in the U.S.

  – https://emergency.cdc.gov/han/han00409.asp
Massachusetts - Influenza Activity 2017-18

Figure 1: Percentage of ILI visits reported by sentinel provider sites

*Influenza-like illness (ILI, defined by fever >100F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites
Massachusetts - Influenza Activity 2017-18

Figure 2: Percent ILI Activity Level Reported Weekly by Massachusetts Sentinel Sites
Massachusetts - Influenza Activity 2017-18 Hospitalizations

Figure 4: Massachusetts laboratory-confirmed influenza hospitalizations

Week 52
19.86
# MA Flu Vaccination Rates

<table>
<thead>
<tr>
<th>Group</th>
<th>MA 2015-16</th>
<th>MA 2016-17</th>
<th>US 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyone 6 mos+</td>
<td>50%</td>
<td>50%</td>
<td>47%</td>
</tr>
<tr>
<td>Children 6 mos – 17 yrs</td>
<td>75%</td>
<td>*72%</td>
<td>59%</td>
</tr>
<tr>
<td>Children 6 mos – 4 yrs</td>
<td>85%</td>
<td>82%</td>
<td>70%</td>
</tr>
<tr>
<td>Children 5 – 12 yrs</td>
<td>79%</td>
<td>71%*</td>
<td>60%</td>
</tr>
<tr>
<td>Adolescents 13 – 17 yrs</td>
<td>63%</td>
<td>*65%</td>
<td>49%</td>
</tr>
<tr>
<td>Adults 18 +</td>
<td>44%</td>
<td>45%</td>
<td>43%</td>
</tr>
<tr>
<td>Adults 18 – 64 y/o</td>
<td>40%</td>
<td>41%</td>
<td>38%</td>
</tr>
<tr>
<td>Adults HR 18 – 64 y/o</td>
<td>48%</td>
<td>49%</td>
<td>46%</td>
</tr>
<tr>
<td>Adults 50 – 64 y/o</td>
<td>46%</td>
<td>47%</td>
<td>45%</td>
</tr>
<tr>
<td>Adults 65+</td>
<td>60%</td>
<td>59%</td>
<td>65%</td>
</tr>
</tbody>
</table>

*Statistically significant

Source: 2015-16 and 2016-17 National Immunization Survey (NIS) – Flu, and BRFSS

MDPH 2017
Influenza Vaccine Effectiveness (VE) 2017- 2018

- The 10% vaccine effectiveness (VE) figure reported in the news from Australia estimated the vaccine’s benefit against one flu virus (the H3N2 virus).
- In the US last season, overall vaccine effectiveness against all circulating flu viruses was 39%, and VE was only a bit lower (32%) against H3N2 viruses.
- This season’s flu vaccine includes the same H3N2 vaccine component as last season.
- CDC believes U.S. VE estimates from last season are likely to be a better predictor of the flu vaccine benefits to expect this season against circulating H3N2 viruses in the United States.

Flu vaccination significantly reduced a child’s risk of dying from influenza

– A 2017 study Influenza Vaccine Effectiveness Against Pediatric Deaths: 2010–2014 was the first of its kind to show that flu vaccination can significantly reduce a child’s risk of dying from influenza.

– Flu vaccination reduced the risk of flu-associated death by half (51 percent) among children with underlying high-risk medical conditions and by nearly two-thirds (65 percent) among healthy children.

http://pediatrics.aappublications.org/content/early/2017/03/30/peds.2016-4244
National Early-Season Flu Vaccination Coverage, United States, November 2017 – Key Findings

• Approximately two of every five persons six months and older (39%) in the United States had received an influenza vaccination by early November 2017

• Early-season flu vaccination coverage showed no racial/ethnic differences except for Non-Hispanic children of other or multiple races (43%) had higher coverage than non-Hispanic black children (35%).

https://www.cdc.gov/flu/fluuvaxview/index.htm
• Among health care personnel (HCP) early season coverage was 68%, similar to last season at this time.

• As of early November 2017, influenza vaccination coverage among pregnant women before and during pregnancy was 36%.
Will the 2017-2018 influenza season mimic 2012-2013?

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