Influenza 2010-2011 Season: Vaccine Coverage, Safety, and More...

National Influenza Vaccine Summit
May 9, 2011

2010-2011 Influenza Season: Vaccination program challenges and accomplishments

• Challenges
• Overview of the flu season
• How to increase vaccination coverage?
  – Universal recommendation
  – Safe, well-matched vaccine
  – Increased vaccine supply
  – Diverse venues offering vaccination
  – Education and outreach
• Estimated vaccine coverage
2010-2011 Influenza Season Challenges

- First “post-pandemic” season
  - High seasonal vaccine coverage in 2009-10 driven by pandemic
  - Public interest in vaccination?
- First season with universal flu vaccination recommendations
- Unprecedented vaccine supply
- New venues for vaccination

Epidemiology/Surveillance
Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), National Summary, October 1, 2006 – April 23, 2011

http://www.cdc.gov/flu/weekly/
Epidemiology/Surveillance
Number of Influenza-Associated Pediatric Deaths
by Week of Death: 2007-08 season to present

<table>
<thead>
<tr>
<th>Date</th>
<th>Influenza A (2009 H1N1)</th>
<th>Influenza A (H3N2)</th>
<th>Influenza A (Subtype Unknown)</th>
<th>Influenza B</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># Deaths Current Week – 16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td># Deaths Since October 1, 2010</td>
<td>24</td>
<td>17</td>
<td>17</td>
<td>39</td>
<td>97</td>
</tr>
</tbody>
</table>

http://www.cdc.gov/flu/weekly/
How safe was the 2010-2011 influenza vaccine?

- **Background:** association of CSL TIV with febrile seizures – Australia, Fall 2010
- VSD detects an increased rate of febrile seizures in 12-23 month olds with concurrent use of TIV and PCV13*
- Attributable risk: 61 febrile seizures per 100,000 concurrent doses of TIV, PCV13 in 12-23 month olds
- No elevated risk for TIV without PCV13
- Referred to ACIP General Recommendations Working Group
  - Possible missed opportunities if concomitant vaccination is discouraged
  - Risk/benefit of vaccination vs. infection

*http://www.cdc.gov/vaccines/recs/acip/slides-feb11.htm#immunsafety

Cumulative number of doses of influenza vaccines distributed by month by season, 2004-05 through 2010-'11

*Source: Biologics data*
Place of vaccination, persons aged 6m – 17y, National Flu Surveys, United States, March 2011

- Other non-medical place: 6%
- School: 1%
- Workplace: 5%
- Pharmacy/drug store/supermarket/superstore: 17%
- Other medically-related place: 0%
- Health department: 0%
- Clinic/health center: 2%
- Doctor's office: 2%


Place of vaccination, persons aged 18-64 years, National Flu Surveys, United States, March 2011

- Other non-medical place: 4%
- School: 2%
- Workplace: 19%
- Pharmacy/drug store/supermarket/superstore: 21%
- Other medically-related place: 19%
- Health department: 28%
- Clinic/health center: 2%
- Doctor's office: 5%

Place of vaccination, persons aged ≥65 years, National Flu Surveys, United States, March 2011


Place of Influenza Vaccination Among Pregnant Women and HealthCare Personnel, 2010-11 Influenza Season November 2010 Internet Panel Survey -- United States

- By mid-November 2010, 49% of pregnant women were or definitely intend to be vaccinated this influenza season
- Place of vaccination
  - Doctor’s office (57%)
  - Pharmacy or drug store (12%)
  - Work place (8%)
  - Hospital (7%)
- By mid-November 2010, 62% of HCP were already or definitely intended to be vaccinated this influenza season
- The most common place of vaccination was at work (79%)

Source:
### Seasonal Influenza Vaccination Coverage by Age: 2008-09 thru 2010-11 Seasons

<table>
<thead>
<tr>
<th>Group</th>
<th>2008-09 (%)&lt;sup&gt;1&lt;/sup&gt;</th>
<th>2009-10 (%)&lt;sup&gt;2&lt;/sup&gt;</th>
<th>2010-11 (%)&lt;sup&gt;3&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall (persons aged ≥ 6 mos)</td>
<td>33</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Children, 6 mos-17 years</td>
<td>29</td>
<td>44</td>
<td>46 - 50</td>
</tr>
<tr>
<td>6 mos-4 years</td>
<td>44</td>
<td>62</td>
<td>54 - 61</td>
</tr>
<tr>
<td>Persons ≥ 18 yrs</td>
<td>34 - 36</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>Persons 18-49 yrs, at high risk</td>
<td>33</td>
<td>38</td>
<td>35</td>
</tr>
<tr>
<td>Persons 19-49 yrs, not at high risk</td>
<td>20 - 23</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td>Persons 50-64 yrs</td>
<td>40 - 42</td>
<td>45</td>
<td>46 - 48</td>
</tr>
<tr>
<td>Persons ≥ 65 yrs</td>
<td>66 - 67</td>
<td>70</td>
<td>70 - 75</td>
</tr>
</tbody>
</table>

1. NHIS estimates, online at: <http://www.cdc.gov/vaccines/stats-surv/nhis/2009-nhis.htm>; unpublished 2008-09 BRFSS
2. BRFSS/NHFS, online at: <http://www.cdc.gov/flu/professionals/vaccination/coverage_0910estimates.htm> and unpublished
3. March 2011 NFS, online at: <http://www.cdc.gov/flu/professionals/vaccination/vaccinecoverage.htm>; unpublished data, NIS, CDC; unpublished data, BRFSS, CDC
### Seasonal Influenza Vaccination Coverage by Race/Ethnicity: 2008-09 thru 2010-11 Seasons

<table>
<thead>
<tr>
<th>Group</th>
<th>2008-09 (%)</th>
<th>2009-10 (%)</th>
<th>2010-11 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race/ethnicity (adults)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>37 – 39</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>26 – 27</td>
<td>33</td>
<td>38 (±11)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22 – 25</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td><strong>Race/ethnicity (children)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>30</td>
<td>43</td>
<td>47 - 48</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>30</td>
<td>37</td>
<td>30 (±20) - 50</td>
</tr>
<tr>
<td>Hispanic</td>
<td>31</td>
<td>47</td>
<td>54 (±15) - 58</td>
</tr>
</tbody>
</table>

2. BRFSS/NHFS, online at: [http://www.cdc.gov/flu/professionals/vaccination/coverage_0910estimates.htm](http://www.cdc.gov/flu/professionals/vaccination/coverage_0910estimates.htm); MMWR, January 14, 2011/60; and unpublished
3. March 2011 NFS, online at: [http://www.cdc.gov/flu/professionals/vaccination/vaccinecoverage.htm](http://www.cdc.gov/flu/professionals/vaccination/vaccinecoverage.htm); unpublished data, NIS, CDC; unpublished data, BRFSS, CDC

### Seasonal Influenza Vaccination Coverage of HCP and Pregnant Women: 2008-09 thru 2010-11 Seasons

<table>
<thead>
<tr>
<th>Group</th>
<th>2008-09 (%)</th>
<th>2009-10 (%)</th>
<th>2010-11 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant women</td>
<td>6-19¹</td>
<td>32-51³</td>
<td>44(±28)-49⁵</td>
</tr>
<tr>
<td>Health care personnel</td>
<td>53²</td>
<td>62⁴</td>
<td>62 - 65(±10)⁵</td>
</tr>
<tr>
<td>Hospital staff</td>
<td>72</td>
<td>68 (±5.3)</td>
<td></td>
</tr>
<tr>
<td>Ambulatory/Outpatient/Dental</td>
<td>64</td>
<td>60 (±6.5)</td>
<td></td>
</tr>
<tr>
<td>Long Term Care</td>
<td>54</td>
<td>48 (±8.4)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>48</td>
<td>40 (±6.6)</td>
<td></td>
</tr>
</tbody>
</table>

1. MMWR, August 6, 2010 / 59(3r08):1-62
3. MMWR, December 3, 2010 / 59(47):1541-1545 and CDC unpublished NHFS data
4. MMWR, April 2, 2010/59(12):357-362
5. NFS (unstable estimates) and internet panel estimates, online at: [http://www.cdc.gov/flu/professionals/vaccination/vaccinecoverage.htm](http://www.cdc.gov/flu/professionals/vaccination/vaccinecoverage.htm)
Vaccination in the 2010-2011 Influenza Season: What did the US achieve?

- Despite the expected challenge of “flu fatigue,” overall vaccine coverage maintained last season’s increases
  - Children
  - Pregnant women
  - Health care personnel in hospitals
- Multiple venues were accessed for vaccination
- Challenges for the coming season
  - Maintain the gains
  - Vaccination coverage among adults with risk conditions ~ 35%
  - Vaccination coverage among healthcare personnel in long term care and other settings

Thank You

For more information please contact Centers for Disease Control and Prevention
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E-mail: cdcinfo@cdc.gov  Web: www.cdc.gov