Influenza Vaccine Distribution
Data and Use of Data During
the 2006-07 Season

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Overview

• Background

• Brief overview of findings at the national level

• Preliminary results of data use evaluation

• Conclusions, next steps
Background

• Distribution data tracking began during the 2004-05 season following the Chiron vaccine shortfall
  – Included data from single manufacturer only
  – Data tracking incorporated into centralized vaccine ordering system

• Tracking system enhancements for 2005-06 and 2006-07
  – Data from other manufacturers/major distributors included
  – Data collection/posting period extended
  – Small amount of pre-book data included
Purpose, Format of Distribution Data

• **Purpose**
  - Provide information to enhance visibility of influenza vaccine distribution for state and local health officials to assist in their management of influenza vaccine availability issues and challenges

• **Data were mapped to the following variables**
  - State where flu vaccines are distributed
  - Zip code where flu vaccines are distributed
  - National Drug Code (NDC) of vaccine distributed
  - Number of doses distributed
  - Type of provider where vaccines are distributed
Provider Types

Values for the facility type variables from each participant were recoded into one of the following categories:

- Corporation/Occupational Health
- Corrections
- Distributors
- Federal Government
- Hospitals/EDs/Dialysis Centers
- Long Term Care
- Military
- Other Private
- Other Public
- Pharmacy
- Private Providers
- State/Local Health
Participants

- ASD Healthcare
- Cura Script
- FFF Enterprises
- Henry Schein/GIV
- McKesson
- Physician Sales and Service (PSS)
- Seacoast Medical
- GSK
- MedImmune
- Novartis
- Sanofi pasteur
Influenza Vaccine Distribution by Provider Type

- Corporation/OCCH Health
- Corrections
- Distributors
- Federal Government
- Hospitals/Eds/Dialysis Centers
- Long Term Care
- Military
- Other Private
- Other Public
- Pharmacy
- Private Providers, Outpatient Clinics/Facilities
- State/Local HD/Govt

Million

Provider Type Category

CDC Immunization

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Where do Adults Receive Influenza Vaccination?

- 39% Dr. Office/HMO
- 17% Workplace
- 10% Other clinic/health center
- 10% Store (grocery/pharmacy)
- 8% Health Dept
- 6% Hospital
- 4% Senior/Rec Center
- 2% School
- 2% Other

Source: Unpublished data from a Gallup telephone survey conducted on behalf of CDC in 2005.
How about the timing of vaccine distribution by provider type?
<table>
<thead>
<tr>
<th>Provider Type</th>
<th>29-Sep-06</th>
<th>20-Oct-06</th>
<th>10-Nov-06</th>
<th>1-Dec-06</th>
<th>22-Dec-06</th>
<th>12-Jan-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporation/Occ Health</td>
<td>2.2%</td>
<td>2.5%</td>
<td>2.6%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Corrections</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Distributors</td>
<td>24.9%</td>
<td>16.2%</td>
<td>18.3%</td>
<td>16.0%</td>
<td>15.7%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Federal Govt</td>
<td>1.1%</td>
<td>3.9%</td>
<td>3.3%</td>
<td>5.1%</td>
<td>5.0%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Hosp/Eds/Dialysis</td>
<td>9.2%</td>
<td>12.9%</td>
<td>10.4%</td>
<td>9.8%</td>
<td>9.9%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Long Term Care</td>
<td>4.7%</td>
<td>4.0%</td>
<td>3.7%</td>
<td>3.2%</td>
<td>3.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Military</td>
<td>0.6%</td>
<td>1.0%</td>
<td>0.8%</td>
<td>2.2%</td>
<td>2.2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Other Private</td>
<td>3.4%</td>
<td>2.9%</td>
<td>2.7%</td>
<td>2.6%</td>
<td>2.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Other Public</td>
<td>1.3%</td>
<td>1.1%</td>
<td>1.1%</td>
<td>1.1%</td>
<td>1.4%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>5.0%</td>
<td>5.1%</td>
<td>3.8%</td>
<td>3.5%</td>
<td>3.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Priv Prov/Clinics</td>
<td>41.0%</td>
<td>43.2%</td>
<td>43.1%</td>
<td>42.1%</td>
<td>42.3%</td>
<td>42.3%</td>
</tr>
<tr>
<td>State/Local Health</td>
<td>6.6%</td>
<td>7.2%</td>
<td>10.1%</td>
<td>11.9%</td>
<td>11.6%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Doses Produced (millions)</th>
<th>Dose Distributed (millions)</th>
<th>Difference (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>15.7</td>
<td>12.4</td>
<td>3.3</td>
</tr>
<tr>
<td>1990</td>
<td>32.3</td>
<td>28.3</td>
<td>4.0</td>
</tr>
<tr>
<td>1995</td>
<td>71.5</td>
<td>54.9</td>
<td>16.6</td>
</tr>
<tr>
<td>1999</td>
<td>77.2</td>
<td>76.8</td>
<td>0.5</td>
</tr>
<tr>
<td>2000</td>
<td>77.9</td>
<td>70.4</td>
<td>7.5</td>
</tr>
<tr>
<td>2001</td>
<td>87.7</td>
<td>77.7</td>
<td>10.0</td>
</tr>
<tr>
<td>2002</td>
<td>95.0</td>
<td>83.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2003</td>
<td>86.9</td>
<td>83.1</td>
<td>3.8</td>
</tr>
<tr>
<td>2004</td>
<td>61.0</td>
<td>57.0</td>
<td>4.0*</td>
</tr>
<tr>
<td>2005</td>
<td>86.0</td>
<td>81.2</td>
<td>7.0*</td>
</tr>
<tr>
<td>2006</td>
<td>120.9</td>
<td>102.5**</td>
<td>18.4*</td>
</tr>
</tbody>
</table>
Evaluation of Data Use

• Objective: Determine how grantees used influenza vaccine distribution data during the 2006-07 season.

• Methods: Two-step process
  – Workshop at NIC to gather qualitative data about how grantees used data and what benefits/limitations they reported
  – Email survey to quantify data use/benefits/limitations among all those who accessed FluFinder application
**Preliminary Results**

- Grantees granted access to FluFinder: 40
- Grantees responding the survey: 24
- Response rate: $24/40 = 60\%$
- % respondents using FluFinder: $22/24 = 92\%$
  (Sample size for survey = 22)
- One survey user indicated trouble accessing data; one non-user cited difficulty with certificate as reason for not accessing the system
Frequency of Access to FluFinder (n= 22)

- 1 Time
- > 1 Time
- > 1 Time (Beginning)
- Weekly

% Grantees (n=20)
Types of Analyses Carried Out (n = 22)
Use of Data to Redirect Doses or Patients

• Two grantees reported using data to redirect patients

• One grantee reported using data to redistribute doses (explanation not provided)
Comparison of SDN Data with Other Data Sources (n=10)
# Data Used to Communicate with Selected Groups

<table>
<thead>
<tr>
<th>Group</th>
<th># (%) of grantees</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHDs</td>
<td>14 (63%)</td>
</tr>
<tr>
<td>Other providers</td>
<td>13 (59%)</td>
</tr>
<tr>
<td>Media</td>
<td>13 (59%)</td>
</tr>
<tr>
<td>Others (Coalitions, Medical Advisory Board, Infection Control Practitioners, PHI O, AAP/ AAFP chapter, local/ state medical society, state legislature, etc)</td>
<td>10 (45%)</td>
</tr>
</tbody>
</table>
Level of Data Used to Communicate with LHDs (N=14)

- Summary: 10%
- State Level: 50%
- LHD specific: 30%
- All LHDs: 30%
- LHDs do own analyses: 10%
Level of Data Used to Communicate with Other Providers (N=13)
Level of Data Used to Communicate with Media (N=13)

% Grantees (n=20)

Summary | State Level | Local Level | Other

0 | 90 | 10 | 10 | 10
Other Uses of Distribution Data

• Used it to communicate with a provider who was concerned about vaccine going to community vaccinators

• Monitored available vaccine for hospitals, LHDs

• Used data to calculate total flu need for adults immunization program (future season planning)

• Attempted to locate provider following vaccine adverse event
Use of PreBook Data

• Grantees using this data 4 (18%)

• Use of data (n=2):
  - To anticipate where it might be important to schedule additional clinics with community partners in the state (e.g., VNA, HAA),
  - Data presented to local health director to provide additional information about where vaccine was located
Additional Suggestions

• More specific provider data would be helpful, esp for redistributing vaccine

• I would have used these data more if I’d known some possible approaches to take

• If CDC could provide county level data, that would be helpful (?high risk population numbers)
Conclusions

• Influenza vaccine distribution data accessed by less than half of NCI RD immunization grantees
  – First year with complete, full-season data
  – Small number of access problem bear further follow up

• Most (91%) used the data more than once throughout the season (41% used data weekly)

• Most common analysis was vaccine distributed by provider type; product type, county level and zip code level analyses also conducted
Conclusions (Continued)

- About half of grantees who used the data compared it with other data sources and used it to communicate with LHDs, other providers, media

- Little experience gained with use of pre-book data this season

- Guidance around using influenza vaccine distribution data may help increase the number of grantees using these data to assist in their management of seasonal influenza
Acknowledgements

- Lisa Galloway, Eddie Wilder
- Jim Harrison
- Greg Wallace
- Julie Morita, Debbye Rosen, Vincent Sacco, Lane Wake
Extra slides
Percentage of Influenza Vaccine Doses Received by a Distributor by HHS Region

HHS Region

0% 5% 10% 15% 20% 25%

Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7
Region 8
Region 9
Region 10

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Influenza Vaccine Distribution Data by Time and Provider Type

- Corporation/Occ Health
- Corrections
- Distributors
- Federal Govt
- Hospitals/Eds/Dialysis Ctrs
- Long Term Care
- Military
- Other Private
- Other Public
- Pharmacy
- Private Providers/Clinics
- State/Local Health