Vaccination against seasonal and pandemic influenza
Outline

- Summary of epidemiological situation
- Introduction and use of seasonal influenza vaccine in the Americas
- Review of vaccination against pandemic influenza
- Conclusions and next steps
- Final considerations
Summary

Epidemiological Situation

Temperate South America

Tropical South America

Central America and the Caribbean

North America

Source: FluNet

- B (Lineage not determined)
- B (Victoria lineage)
- B (Yamagata lineage)
- A(H5)
- A(H1N1)2009
- A (H3N2 subtype)
- A (H3N2)
Introduction and use of seasonal influenza vaccine in the Americas
Influenza Vaccine Recommendations

Resolution WHA.56 (2003)
Coverage of >50% of older adults by 2006
Coverage of >75% of older adults by 2010

TAG 2004 and 2006
All countries should strengthen their surveillance systems in order to determine:
  • influenza disease burden
  • cost-effectiveness of influenza vaccine introduction
  • best vaccination strategy to use, formulation and when (especially in tropical countries)

All countries should establish a seasonal influenza vaccination policy that seeks to vaccinate:
  • individuals with chronic illness, the elderly and pregnant women
  • children 6-23 months of age
  • health workers

Countries using the vaccine should document experiences and lessons learned from targeting high-risk groups.
Number of Countries and Territories in the Americas with Vaccination Policies for Seasonal Influenza

Out of 45 countries and territories reporting in the Americas

Pending introduction:
- Dominica
- Guyana
- Haiti
- St Kitts
- St Maarten
- St Vincent

<table>
<thead>
<tr>
<th>Year</th>
<th>Countries and Territories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940-2003</td>
<td>10</td>
</tr>
<tr>
<td>2004</td>
<td>13</td>
</tr>
<tr>
<td>2005</td>
<td>17</td>
</tr>
<tr>
<td>2006</td>
<td>25</td>
</tr>
<tr>
<td>2007</td>
<td>33</td>
</tr>
<tr>
<td>2008</td>
<td>35</td>
</tr>
<tr>
<td>2009</td>
<td>38</td>
</tr>
<tr>
<td>2010</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: Country Reports to PAHO, MOH web pages, PAHO/WHO Surveys
Note: Data was not collected from the French Departments (French Guiana, Guadeloupe, Martinique)
# Seasonal Influenza Vaccination in Countries and Territories

<table>
<thead>
<tr>
<th>Number of countries with:</th>
<th>2004</th>
<th>2008</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Public policies for influenza vaccination</td>
<td>13</td>
<td>35</td>
<td>39</td>
</tr>
<tr>
<td>- Vaccination of elderly</td>
<td>12</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>- Vaccination of health workers</td>
<td>3</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>- Vaccination of children</td>
<td>6</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>- Vaccination of persons with chronic diseases</td>
<td>9</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>- Vaccination of pregnant women</td>
<td>3</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Country Reports to PAHO, MOH web pages, PAHO/WHO Surveys

Note: Data was not collected from the French Departments (French Guiana, Guadeloupe, Martinique)
Use of seasonal influenza vaccine in the Americas 2011 (UPDATE SUR)

Source: Country and territory reports to PAHO, MOH websites, WHO survey
Seasonal Influenza Vaccination Coverage Among the Elderly in Selected Countries

Source: Country and territory reports to PAHO

WHO Goal of 75%
Persistent Challenges
Seasonal Influenza Vaccination

- Quality of information system
  - Coverage rates for all targeted populations groups are not routinely available – absence of reliable denominators
  - WHO/UNICEF joint reporting form does not capture vaccine coverage among pregnant women

- Low vaccine uptake
  - Pregnant women
  - Health care workers

- Two-dose schedule for children <9y vaccinated for first time
  - Challenges to complete schedules
  - Challenges to calculate vaccine coverage
Review of vaccination against Pandemic Influenza
PAHO Technical Cooperation
Influenza Vaccination *During the Pandemic*

- Immediate support of seasonal influenza vaccination for countries not yet using the vaccine
- Technical cooperation in planning for pandemic vaccination campaigns (development of plans of action)
- Support in pandemic vaccine acquisition
- Monitoring vaccine use and surveillance of adverse events
- Documenting and disseminating information in real time
# Recommendations for Progressive Vaccination Against Pandemic Influenza

| SAGE (WHO)  
7 July 2009 | TAG (PAHO)  
24 August 2009 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health workers</td>
<td>1. Health workers</td>
</tr>
<tr>
<td>2. Pregnant women</td>
<td>2. Pregnant women</td>
</tr>
<tr>
<td>3. Population &gt;6 m with history of chronic diseases</td>
<td>3. Population &gt;6 m with history of chronic diseases</td>
</tr>
</tbody>
</table>
| 4. Healthy young adults (>15 and <49 y) | 4. Healthy population:  
   *6 m- 4 y  
   *school-age (>5 & <18 y)  
   *young adults (19-49 y) |
| 5. Healthy Children (<15 y) | |
| 6. Healthy adults (>49 & <65 y) | |
| 7. Adults >65 y | |
Differential Access to Pandemic Vaccine in the Region

More than 224 million doses applied in the Region
- 144 million in LAC
- 81 million in USA
H1N1 vaccine coverage in target groups, LAC

98% coverage in LAC

Source: country reports to PAHO and Ministry of health websites
H1N1 vaccine coverage by Risk Group in selected countries, 2010

Coverage >100% reflects problems with denominator estimation

- Total Coverage
- Health Personnel
- Pregnant Women
- Chronic Diseases
- Others

Argentina
Bolivia
Brasil
Cuba
Chile
Guatemala
Mexico
Nicaragua
Paraguay
Influenza Vaccination Among Pregnant Women

- Pregnant women emerged as a group particularly vulnerable to complications from influenza
- Very low coverage of pandemic vaccine
- Pandemic appears to have led to changes in influenza vaccine policy regarding pregnant women
  - Before 2009, 7 countries/territories vaccinating pregnant women
  - In 2010, 17 countries/territories vaccinating pregnant women*
- Vaccine coverage in this group not routinely reported
- Vaccination of this group should be undertaken under the framework of Millennium Development Goals

*Source: WHO survey
## Surveillance of Adverse Events

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Notified cases per million doses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total ESAVI</strong></td>
<td>13,621</td>
<td>94.59</td>
</tr>
<tr>
<td><strong>Severe ESAVI</strong></td>
<td>846</td>
<td>5.88</td>
</tr>
<tr>
<td>Seizures</td>
<td>27</td>
<td>0.19</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>72</td>
<td>0.50</td>
</tr>
<tr>
<td>GBS</td>
<td>101</td>
<td>0.70</td>
</tr>
<tr>
<td>Other neurological events</td>
<td>19</td>
<td>0.13</td>
</tr>
<tr>
<td>Pneumonia/ Bronchitis</td>
<td>8</td>
<td>0.06</td>
</tr>
<tr>
<td><strong>Other severe events</strong></td>
<td>619</td>
<td>4.30</td>
</tr>
</tbody>
</table>

*As of December 2010. 144 million doses administered.*
Evaluation of Pandemic Vaccination Campaigns

- Consolidation of lessons learned
  - Support of countries evaluation of lessons learned
  - Regional consolidation of best practices identified during pandemic vaccination campaigns

- Evaluation of impact of pandemic vaccination through CDC’s Decision 2009

Lessons Learned

- Vaccination campaigns must be included as part of National Influenza Pandemic Preparedness Plans
- It is important to pre-establish coordination mechanisms to facilitate more efficient operations and mobilization of resources
- Engagement of scientific/professional organizations and societies crucial to reach target groups
- Complexity of campaign strengthened national EPI teams & ESAVI National Committees, thus improving capacity planning and operation of the program
- Communication strategies also need to be developed for specific audiences and make use of more diverse media
- Information sharing platforms essential –experiences of other countries proved invaluable during campaigns
Conclusions

- Since 2004, rapid uptake of seasonal influenza vaccine in the Americas
  - Experience served to prepare for the introduction of a pandemic vaccine
- More than 31 countries and territories carried out pandemic vaccination campaigns
  - Vaccination coverage generally high among high risk groups, except pregnant women
- H1N1 vaccination campaigns provided opportunity to strengthen adverse event surveillance
- Important for countries to continue to strengthen seasonal influenza vaccination for populations at risk, in addition to elderly and children
  - Pregnant women
  - Healthcare workers
  - Persons with chronic illness
- Urgent need to strengthen information systems for influenza vaccine coverage data, especially among vulnerable group (pregnant women)
Next Steps

- Strengthen information systems for influenza vaccine coverage data
- Support countries in the estimation of influenza vaccine effectiveness and evidence-based decision making for expansion to new groups
- Publication of successful experiences and lessons learned with pandemic influenza vaccine introduction
- Finalization and publication of estimation of H1N1 vaccine impact “Decision 2009”
Final Considerations

**RISK GROUPS**

- Countries are considering expansion of seasonal influenza vaccine to new risk groups.
- **For the consideration for the TAG:**
  - Reiterate / emphasize previous recommendations on risk groups
  - Given their increased risk for complications, stress recommendations for pregnant women

**INFORMATION SYSTEMS**

- Many countries lack accurate denominators for high risk populations and influenza vaccine coverage data.
- WHO/UNICEF Joint Reporting Form (JRF) does not capture coverage among pregnant women.
- **For the consideration for the TAG:**
  - Recommend that this information be routinely collected through JRF
  - Underscore the importance of the quality and completeness of influenza vaccination coverage data
Thank you
Gracias
Obrigada
Merci