Seasonal influenza vaccine policy and utilization: A global perspective

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Factors that impede wider usage include:

- **Public health strategy** – vaccine policy
- **Resource availability** – vaccine supply
- **Fiscal space** – vaccine costs
- **Health infrastructure** – vaccine delivery and implementation
- **Cultural perceptions** – public perceptions
Risk-based approach to vaccination:
- Elderly in long-term care facilities
- Elderly with chronic conditions
- Anybody >6 months with high risk conditions
- Elderly above a nationally defined age limit
- Other groups as nationally defined, in particular HCW, pregnant women, children 6-23 months age.

(*Weekly Epidemiological Record, 19 August 2005)
WHO 2010 Survey

WHO conducted global survey to understand:

- Seasonal influenza vaccination policies in place
- Programme performance
- Future plans for countries not using seasonal influenza vaccine
Data sources

Primary data


Supplementary data

- VENICE survey 2008 (27 MS EU+ Norway, Iceland)
- Ropero-Alvarez, BMC Public Health 2009 (research article seasonal influenza Americas)
- IFPMA
- Joint Reporting Form (JRF) survey data 2008-2009
### Countries/territories responding to the 2010 WHO Seasonal influenza survey

<table>
<thead>
<tr>
<th>Region</th>
<th>Country/ territory</th>
<th>Country/Territory list</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPRO</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>WPRO*</td>
<td>26</td>
<td>Argentina, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Chile, Colombia, Costa Rica, Dominica, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela</td>
</tr>
<tr>
<td>WPRO</td>
<td>18</td>
<td>Afghanistan, Bahrain, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, United Arab Emirates, Yemen</td>
</tr>
<tr>
<td>WPRO</td>
<td>not administered</td>
<td>ECDC/VENICE survey (27 countries)</td>
</tr>
<tr>
<td>SEARO</td>
<td>5</td>
<td>Democratic Republic of Timor-Leste, Maldives, Nepal, Sri Lanka, Thailand</td>
</tr>
<tr>
<td>AMRO*</td>
<td></td>
<td>none 0</td>
</tr>
<tr>
<td>AMRO**</td>
<td>30</td>
<td>Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Fiji, Guam, Japan, Kiribati, Laos PDR, Malaysia, Marshall Islands, Micronesia, Mongolia, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Vietnam</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>75 Member States + 4 territories</td>
</tr>
</tbody>
</table>

* 25 MSs + 1 territory
27 MSs + 3 territories

13 July 2011, Geneva
Member States participating in WHO 2010 Global Survey for Seasonal Influenza Vaccination by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>25/35</td>
</tr>
<tr>
<td>AMRO</td>
<td>18/22</td>
</tr>
<tr>
<td>EMRO</td>
<td>5/11</td>
</tr>
<tr>
<td>EURO*</td>
<td>27/27</td>
</tr>
<tr>
<td>SEARO</td>
<td>27/27</td>
</tr>
</tbody>
</table>

* Survey not administered
Seasonal Influenza Vaccine National Policy
Member States with Seasonal Influenza in National Immunization Policy by region

- **AFRO**: 3/46
- **AMRO**: 27/35, 32/35, 33/35
- **EMRO**: 7/22, 11/22
- **EURO**: 40/53
- **SEARO**: 2/11, 1/11
- **WPRO**: 8/27, 6/27, 9/27

*Based on VENICE survey in 2008 and JRF survey in 2008 - 2009*
Countries having Seasonal Influenza vaccination in National Immunization Schedule


- Countries with seasonal influenza vaccination in national vaccination programme in 2010
- Countries without seasonal influenza vaccination in national programme
- Countries plan to have seasonal influenza vaccination in national programme by 2012
- Countries offer seasonal influenza vaccination not in national programme but in private sector
- Countries which data are currently not available and pending on the new regional survey in 2011
% of countries by region recommending seasonal influenza vaccination for specific target groups, 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Children</th>
<th>Adults</th>
<th>Elderly &gt;65</th>
<th>At risk groups</th>
<th>Essential Personnel including HCWs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>AMRO</td>
<td>79%</td>
<td>50%</td>
<td>90%</td>
<td>67%</td>
<td>87%</td>
</tr>
<tr>
<td>EMRO</td>
<td>11%</td>
<td>22%</td>
<td>67%</td>
<td>100%</td>
<td>89%</td>
</tr>
<tr>
<td>EURO</td>
<td>22%</td>
<td>41%</td>
<td>100%</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>SEARO</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>WPRO</td>
<td>64%</td>
<td>54%</td>
<td>85%</td>
<td>92%</td>
<td>78%</td>
</tr>
</tbody>
</table>
Age groups recommended for vaccination at global level (n=88)
At risk groups recommended for annual seasonal influenza vaccination at global level (n=75)

- Chronic pulmonary
- Cardiovascular
- Renal
- Immune Disorders
- Haemat o./ metabolic disorders
- HIV/ AIDS
- Hepatic diseases
- Pregnancy

%Countries
Essential personnel groups recommended for annual seasonal influenza vaccination (n= 75)

- Health care workers
- Lab workers
- Field workers investigate outbreaks in human
- Field workers investigate outbreaks in animal
- Military
- General travelers
- Energy sector
- Finance and banking sector

% Countries
% Countries including seasonal influenza in the national programme and able to meet WHA 56.19 (75% coverage in elderly by 2010)

- WPRO: 5/8
- AMRO: 13/36
- EMRO: 2/9
- EURO: 1/27
- SEARO: 0/1
- AFRO: 0/3

[Bar chart showing the percentage of countries meeting the 75% coverage target for seasonal influenza in the elderly by 2010, categorized by WHO regions: WPRO, AMRO, EMRO, EURO, SEARO, AFRO.]
Seasonal Influenza Vaccine Supply
Type of seasonal influenza vaccine used by region

- AFRO*: 1/24
- AMRO: 10/24
- EMRO: 13/24
- EURO*: 1/8
- SEARO: 7/8
- WPRO: 2/15

* Data not available
### Seasonal Influenza public sector purchase and costs by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of countries responded</th>
<th>Doses purchased</th>
<th>Costs/dose (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2008-2009</td>
<td>2009-2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFRO</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>AMRO</td>
<td>23</td>
<td>60,445,643</td>
<td>71,786,028</td>
</tr>
<tr>
<td>EMRO</td>
<td>8</td>
<td>1,438,000</td>
<td>1,359,000</td>
</tr>
<tr>
<td>EURO*</td>
<td>not administered</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SEARO</td>
<td>1</td>
<td>2,200,000</td>
<td>2,400,000</td>
</tr>
<tr>
<td>WPRO</td>
<td>8</td>
<td>11,857,860</td>
<td>11,056,420</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>75,941,503</td>
<td>86,601,448</td>
</tr>
</tbody>
</table>
Procurement of Seasonal Influenza Vaccine by region

* Data not available
Distribution of Seasonal Influenza Vaccine 2004-2009 by WHO Region (IFPMA)
## Sector administering seasonal influenza vaccine

<table>
<thead>
<tr>
<th>Region</th>
<th>No. countries responded</th>
<th>Countries offered vaccine through public sector</th>
<th>Countries offered vaccine through private sector</th>
<th>Countries offered vaccine through both public and private sectors</th>
<th>Free of charge by public sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>AMRO</td>
<td>24</td>
<td>4 (17%)</td>
<td>0 (0%)</td>
<td>20 (83%)</td>
<td>24 (100%)</td>
</tr>
<tr>
<td>EMRO</td>
<td>8</td>
<td>2 (25%)</td>
<td>0 (0%)</td>
<td>6 (75%)</td>
<td>8 (100%)</td>
</tr>
<tr>
<td>EURO*</td>
<td>not administered</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SEARO</td>
<td>1</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (100%)</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>WPRO</td>
<td>17</td>
<td>2 (12%)</td>
<td>5 (29%)</td>
<td>10 (59%)</td>
<td>12 (71%)</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>8 (16%)</td>
<td>5 (29%)</td>
<td>37 (74%)</td>
<td>45 (90%)</td>
</tr>
</tbody>
</table>
Outlook: Update on WHO's Seasonal Influenza Vaccines Recommendations
Revisiting WHO's Position paper on seasonal influenza vaccination*: SAGE WG

Target populations:
- children < 2 years,
- elderly,
- pregnant women,
- high risk groups
- health care workers

Key questions:
- burden of disease
- vaccine performance
- cost effectiveness
- operational issues affecting vaccine delivery

Coverage targets

(*WER, 19/08/2005)
Acknowledgements:

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