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Influenza Risk Groups

Seasonal Influenza Vaccination Series: Paper 2

Many countries around the world include seasonal influenza vaccine in their national immunization schedules, targeting specific populations for vaccination. The use of effective targeting strategies can help health authorities increase vaccine coverage in these important risk groups.

Executive Summary

- **Growing numbers of countries recommend seasonal influenza vaccination.** In 2009, 79 countries from each of the World Health Organization (WHO) regions included seasonal influenza vaccine in their national immunization schedules, up from roughly 50 countries in 2005.
- **Vaccine recommendations target specific populations to reduce the burden of influenza.** Many national and supranational vaccine recommendations aim to protect those at risk from the illness and death associated with influenza.
- **The elderly.** Surveys indicate nearly all vaccination recommendations (including WHO's) target the elderly. This group is often defined as those aged 65 years and older, although in some cases the age limit is set at 60 or even 50 years old.
- **Those with chronic illnesses.** Research indicates nearly all recommendations (including WHO's) target those with cardiovascular, pulmonary and metabolic diseases (such as diabetes mellitus), and in most cases includes renal disease and immunological disorders.
- **Children & pregnant women.** A sizeable portion of recommendations target children of varying ages, with a notable proportion (including WHO) focusing on those aged 6–23 months. A number of countries and WHO also recommend vaccination for pregnant women.
- **Home care residents.** Residents of long-term care facilities are targeted for vaccination in WHO's recommendations, and by a number of countries.
- **Healthcare workers.** Surveys of vaccination recommendations indicate nearly all target healthcare workers. WHO also includes this group in its recommendations.
- **Risk group contacts.** Several national recommendations, and WHO's, target the contacts (i.e. family members and caregivers) of other high risk groups for vaccination.
- **Effective vaccine strategy provides an opportunity to enhance coverage.** Although countries do not fully implement their recommendations, effective targeting of specific populations can help improve coverage amongst key risk groups.



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Influenza Vaccine Supply
International Task Force

Focus on Risk Groups

WHO considers seasonal influenza vaccine to be the 'most effective way to prevent the disease or severe outcomes from the illness'¹, and recommends vaccination of specific populations to reduce the number of severe illnesses and deaths². A growing number of health authorities also target specific groups for vaccination^{3,4}. As a result, there is a growing body of information on the targeting of vaccines that can help inform the development and implementation of local vaccination programs.

Increasing numbers of countries recommend vaccination against seasonal influenza

Health authorities around the world are increasingly recognizing the value of influenza vaccination and incorporating the seasonal vaccine into their national immunization schedules^{3,4}. In 2005, roughly 50 mainly industrialized countries offered vaccination to targeted populations^{2,3}. By 2008 this had grown to 71 countries, and by 2009 it had reached 79 nations worldwide^{3,4}.

Recommendations target specific groups to reduce the burden of influenza

Health authorities target a number of major population groups for influenza vaccination, with some variation between countries⁴. Targeting strategies are based on a number of factors, with the reduction of the burden of influenza a key motivation: for instance, the European Centre for Disease Prevention and Control identified risk groups that can most benefit from vaccination and are justifiable on public health grounds⁵, while the majority of Pan American Health Organization (PAHO) countries introduced vaccination because of the morbidity and mortality associated with influenza and/or political support⁶. Similarly, WHO recommendations target specific groups to reduce the incidence of severe illness and death caused by influenza².

Most vaccination recommendations target the elderly

Surveys indicate nearly all recommendations target older adults^{6,7,8,9}. WHO recommendations also include the elderly². Recommendations are usually based on a nationally-defined age, often 65 years and above^{2,6,7,9}. However, in a substantial number of cases the limit is lower (e.g. in approximately 30–45% of recommendations in PAHO and European Union [EU]/European Economic Area [EEA] countries), often targeting those aged 60 or even 50 in some cases^{6,7}. A number of countries (Austria, Estonia and the United States) recommend vaccination for all age groups^{7,10}.

Most recommendations target individuals with chronic disease

Studies indicate the great majority of influenza vaccination recommendations target those with high risk medical conditions^{6,7,8,9}. These include cardiovascular, pulmonary and metabolic diseases (such as diabetes mellitus)^{6,7,8,9}, and in most cases renal disease and immunological disorders^{6,7,9}. WHO recommendations also target individuals with these chronic conditions².

Many recommendations target children and pregnant women

Research shows 63% of PAHO countries that recommend influenza vaccination target children, with more than half of these focusing on those aged 6–23 months old⁶. Twenty percent of PAHO country recommendations target pregnant women⁶. In the EU/EEA, approximately 22% of recommendations target children, and 37% target pregnant women⁷. WHO recommendations also include children (aged 6–23 months) and pregnant women, based on 'national data and capacities'².

A number of recommendations target home care residents

Fewer wide-scale studies are available on which recommendations target residents in long-term care. However, WHO recommendations and 81% of those in EU/EEA countries target this group^{2,7}.

Most vaccination recommendations target healthcare workers

The great majority of recommendations include health professionals^{6,7,9,11}. This is supported by WHO, which recommends healthcare worker vaccination based on national data and capacities².

Some recommendations target contacts of risk groups

Fewer large-scale studies are available on recommendations targeting household contacts (i.e. family members and caregivers) of at-risk populations, but this group is included in a number, including 52% of those in the EU/EEA^{7,9}. WHO also recommends vaccination of these contacts based on national data and capacities².

Effective vaccination strategy provides an opportunity to increase coverage in key risk groups

The inclusion of influenza vaccine in an increasing number of national immunization schedules provides an opportunity to increase uptake in targeted groups. Although WHO believes countries do not fully implement their recommendations², a position that is supported by several studies^{6,7,8}, the use of effective immunization policies and targeting strategies can help improve coverage.

Conclusions

WHO and an increasing number of countries worldwide recommend seasonal influenza vaccination. These recommendations often target specific groups to help reduce the burden of influenza, including severe illness and death. The elderly, those with chronic illnesses and health workers are targeted by most national and WHO recommendations. Children, pregnant women, care home residents and household contacts of risk groups are also included in a proportion of recommendations, including WHO's. The growing number of countries now recommending vaccination of specific populations provides an important opportunity to increase coverage through the use of effective targeting strategies.

References

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About the Influenza Vaccine Supply (IVS) Task Force

The IVS Task Force includes 16 vaccine manufacturing companies that are involved in research, development and production of influenza vaccines, representing more than 95% of world production. The IVS member companies are, Abbott, Adimmune Corporation, Baxter, Biken, CSL Limited, Crucell, Denka Seiken, GlaxoSmithKline Biologicals, Green Cross Corporation, Hualan Biologicals, Kaketsuken, Kitasato Institute, MedImmune, Novartis Vaccines & Diagnostics, Sanofi Pasteur, Sanofi Pasteur MSD, and Sinovac.



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