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Health technology assessment of use of an enhanced inactivated influenza vaccine for those aged 65 years and older in the HSE Seasonal Influenza Vaccination Programme: plain language summary

Publication date: 8 October 2024

Plain language summary

Influenza, or the flu, is a virus that infects the lungs and upper airways (windpipe, throat, mouth and nose). The flu virus spreads every winter. Some people recover quickly from the flu while others may get very sick and need hospital care. In serious cases, people can die from the flu, especially older people and those with underlying conditions. The best protection against the flu is to get the annual flu vaccine.

Vaccination can help prevent the flu while those who still get the flu after being vaccinated usually have milder symptoms and recover faster. The flu virus changes over time, so the vaccine is updated each year, and people need to get it annually for ongoing protection.

As people get older, their immune systems become weaker and are less able to fight infections. People's response to vaccines also reduces. This means that vaccines may be less effective in older people. To help with this, enhanced flu vaccines have been developed. These include:

- adjuvanted flu vaccines, which contain an extra ingredient that boosts the immune response compared with standard vaccines
- high-dose flu vaccines, which have four times as much of the ingredients that trigger the immune response compared with standard vaccines.

In Ireland, a free annual flu vaccine is provided by the Health Service Executive (HSE) to certain groups of people and those who are at increased risk of developing severe illness from flu. Those at increased risk of severe illness include people aged 65 years and older. Currently, only standard flu vaccines are offered to this age group through the HSE Seasonal Influenza Vaccination Programme. However, the National Immunisation Advisory Committee (NIAC) has recommended an enhanced (adjuvanted) flu vaccine for those aged 65 years and older.

The Department of Health asked the Health Information and Quality Authority (HIQA) to look at the impact of making enhanced flu vaccines available to everyone aged 65 years and older. HIQA reviewed the evidence of how effective and safe enhanced flu vaccines are for older people. HIQA also considered the cost and whether it would be an efficient use of HSE resources. In addition, HIQA looked at the organisational, social and ethical impact of providing enhanced flu vaccines to adults aged 65 years and older through the HSE Seasonal Influenza Vaccination Programme.

HIQA looked to see what other European countries recommend for adults aged 65 years and older. HIQA reviewed evidence from 31 countries, all of which were found to recommend annual flu vaccination for this age group, but which differed in the type of vaccine and funding. HIQA found that 10 countries provide enhanced flu

vaccines for free to some or all older people. In five countries, these enhanced flu vaccines are free only for certain groups, such as those aged 75 or older, or those living in care homes. The most common enhanced vaccines offered in European countries are high-dose vaccines, followed by adjuvanted vaccines.

The number of people aged 65 years and older diagnosed with the flu and the number who require hospitalisation varies every year. In Ireland, these numbers have increased over time, as the number of people in this age group has increased. More testing is also being done in recent years and this may explain some of the increase in the number of people diagnosed with the flu. During the 2022 to 2023 flu season, over 4,500 people aged 65 and older were diagnosed with the flu. Nearly 1,800 were hospitalised, 70 needed ICU treatment, and 159 people died. Among older people, those aged 85 and older are more likely to be diagnosed with the flu and are more likely to be hospitalised. These hospitalisation and diagnoses data demonstrate the ongoing impact of flu on people and the healthcare system. Importantly, they are in the context of an existing vaccination programme where nearly eight out of every 10 people in this age group take up the vaccine that is offered. This highlights the need for better vaccines and the importance of high vaccine uptake.

HIQA looked at evidence of the safety and effectiveness of enhanced vaccines for people aged 65 years and older. This work was based on a report from the European Centre for Disease Prevention and Control, from March 2024. Overall, studies showed that adjuvanted vaccines may be more effective than standard vaccines in preventing hospitalisation due to flu in older adults. High-dose vaccines may be more effective than standard vaccines in preventing flu cases in this age group. The effectiveness of other enhanced flu vaccines in older adults was unclear as the studies included people of different ages. In terms of safety, flu vaccines are generally safe and well tolerated. Serious adverse events are rare with both standard and enhanced flu vaccines. However, some side effects such as headache, pain at the injection site, or fever are more common with a number of the enhanced vaccines, but these are usually mild and short-lived.

In Ireland, over 800,000 adults aged 65 and older are offered a free flu vaccine each year through the HSE Seasonal Influenza Vaccination Programme. Currently the programme offers a standard flu vaccine to this age group. HIQA assessed whether switching to an enhanced flu vaccine for this age group would be a good use of HSE resources. In the economic evaluation, HIQA only included those enhanced vaccines for which we had found evidence that they may be more effective than standard vaccines. Accordingly, HIQA assessed the added benefits and costs of switching to an adjuvanted flu vaccine or a high-dose flu vaccine as part of the annual flu vaccination programme.

HIQA estimates that switching to an adjuvanted flu vaccine for those aged 65 and older would likely be the best use of resources. Although the vaccine may cost more, it would likely reduce the burden of flu and could save the HSE money by reducing hospitalisations. Replacing the standard flu vaccine with a high-dose vaccine could be an even more effective strategy, but it would likely cost the HSE more overall, as the higher vaccine price would only be partly offset by savings. The best value option would depend on the price the HSE has to pay for each type of vaccine, but these prices are confidential.

Since Ireland already has a seasonal flu vaccination programme for those aged 65 years and older, changing the type of vaccine offered would be expected to have very little impact on how the programme is organised. If a decision is made to change from a standard to an enhanced flu vaccine, it would be important to inform the public and healthcare professionals about the change. Clear information should be provided on the potential added benefits of the enhanced vaccine. While the side effects of flu vaccines are usually mild and short-lived, it should be explained that these can occur more frequently with some of the enhanced vaccines. This information would support healthcare professionals in providing trustworthy advice and ultimately helping people to make informed decisions about vaccination.

In summary, offering an adjuvanted or high-dose flu vaccine to people aged 65 and older instead of a standard vaccine would likely reduce the burden of flu. Whether such a switch would represent a good use of HSE resources would depend on the price the HSE has to pay for one of these enhanced vaccines compared with the standard flu vaccine.

Published by the Health Information and Quality Authority (HIQA).

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