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# **Plain language summary of the Draft Health Technology Assessment of use of an enhanced inactivated influenza vaccine for those aged 65 years and older in the Seasonal Influenza Vaccination Programme**

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## Plain language summary

Flu (influenza) is an acute viral infection that infects the lungs and upper airways. Some people recover quickly from the flu, but others become very sick and need to be treated in hospital. Some people can die from the flu, especially if they are older or have underlying conditions. The flu virus spreads every winter. The annual flu vaccine is the best way to protect against the flu. People who get the vaccine may be protected from the flu. Those who still get the flu after vaccination should have milder symptoms and recover faster. People need to get the flu vaccine every year, since protection fades over time. Flu strains change over time, so the content of the vaccine is updated each year to match the circulating strains.

People's immune systems change as they age and as a result they are less able to respond to infections. These natural changes mean that vaccines may be less effective in older adults. Enhanced flu vaccines have been developed to address this problem. These enhanced flu vaccines include:

- adjuvanted flu vaccines, which contain an extra ingredient (called an adjuvant) that increases the immune response compared with standard vaccines
- high-dose flu vaccines, which contain a higher dose of the ingredients that cause the immune response (four times higher than in typical 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's 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. This assessment looked at the evidence of the effectiveness and safety of enhanced flu vaccines. It also examined the cost of such a decision and if this would be an efficient use of HSE resources. Finally it looked at the organisational, social and ethical issues of providing enhanced flu vaccines to adults aged 65 years and older through the HSE's Seasonal Influenza Vaccination Programme.

We looked to see what other European countries recommend for adults aged 65 years and older. We looked at recommendations in 31 countries. All countries recommend annual flu vaccination for this age group, but they differ in the vaccine they recommend and how it is funded. Ten countries offer an enhanced flu vaccine free of charge to some or all of this age group. In five countries, enhanced flu vaccines are only available free of charge to specific groups — for example, people aged 75 years or older or those living in residential care facilities. High-dose flu vaccines were the most common type of enhanced vaccine offered in European countries, followed by adjuvanted vaccines.

The number of people aged 65 years and older diagnosed with the flu and the number who require hospitalisation varies from year to year. In Ireland, these numbers have been increasing over time, as the number of people in this age group has increased. More testing is being done in recent years and this may explain some of the increase in people being diagnosed with the flu. For the most recent flu season (2022-2023), over 4,500 people aged 65 years and older had a confirmed flu diagnosis. Among these, there were almost 1,800 hospital admissions, of which 70 admissions included treatment in ICU, and 159 people died. Among older people, those aged 85 years and older are more likely to be diagnosed with the flu, and are more likely to be hospitalised too. This is in the context of the existing vaccination programme where almost eight out of every 10 people in this age group take up the vaccine offer. It highlights the continued burden of influenza on people and the healthcare system and the importance of finding more effective vaccine strategies and promoting vaccine uptake.

We looked at evidence of the safety and effectiveness of enhanced vaccines for people aged 65 years and older. We based this work on a March 2024 report from the European Centre for Disease Prevention and Control (ECDC). 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 cases of the flu in this age group. The effectiveness of other types of enhanced flu vaccines in older adults was not clear as the studies included a wide range of 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. Some reactions are more common after enhanced vaccines than standard vaccines, such as headache, pain at the injection site or fever. These side effects are usually mild and short-lived.

Each year in Ireland, over 800,000 adults aged 65 years and older are offered a free flu vaccine by the HSE as part of the Seasonal Influenza Vaccination Programme. As noted, this programme currently offers a standard flu vaccine to this age group. We

assessed if switching from standard to an enhanced flu vaccine for this age group would be a good use of HSE resources. We only included those vaccines for which we had found evidence that they may be more effective than standard vaccines. As such, we 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.

We estimated that switching to an adjuvanted flu vaccine for those aged 65 years and older would be the best use of resources. While the vaccine would likely cost more, this approach would be more effective and overall would cost the HSE less each year because fewer people would require hospitalisation compared with using the standard flu vaccine. Replacing the standard flu vaccine with a high-dose vaccine was estimated to be more effective again. However, this approach would likely cost the HSE more money overall, as the expected higher cost of this vaccine type would only partially be offset by cost savings. The best value option would depend on the price the HSE would need to pay for each type of vaccine. 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 standard to enhanced flu vaccines, it would be important to make information about the change available to the public and to healthcare professionals. This would help healthcare professionals to provide trustworthy advice and help people to make informed choices about vaccination.

In summary, we found that of the various vaccination options examined, offering an adjuvanted flu vaccine instead of a standard flu vaccine to people aged 65 years and older would likely reduce the burden of influenza and represent a good use of HSE resources. However, these results are very sensitive to the price that the HSE would have to pay for the enhanced flu vaccines compared with the standard flu vaccine.

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