

## Interventions to engage people aged 60 years and over in influenza, shingles and pneumococcal immunisation programmes: Executive summary

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The three-year Vaccination Transformation Programme (VTP) aims to modernise how vaccination is delivered across Scotland. It is also an opportunity to identify ways to improve vaccination coverage across certain populations and immunisation programmes where uptake is low, as well as to close the inequalities gap. Older adults benefit from vaccination because vaccine-preventable diseases, such as seasonal influenza, pneumococcal infections and shingles can lead to increased hospital admission, worsening of co-morbidities and, in some cases, they can be life threatening.

### What we did

This rapid review summarises recent literature on interventions to improve uptake of influenza, shingles and pneumococcal immunisation programmes among adults aged 60 years and over.

A total of nine bibliographic databases were searched for studies published since 2013. A search of unpublished literature was also undertaken. Studies were selected if they were undertaken in high-income countries and assessed an intervention to improve immunisation uptake or change an intention to vaccinate.

Some populations may experience barriers to accessing vaccination and be at greater risk of vaccine-preventable diseases. Therefore, the review also looked for interventions to engage the following communities in adult immunisation programmes:

- those in nursing homes, care homes, assisted living or sheltered housing
- those with reduced cognitive ability (for example, people with dementia and people with Alzheimer's disease)
- those with reduced mobility or housebound individuals
- those living in remote/rural areas
- carers.

Healthcare providers play an influential role in a patient's decision to get vaccinated. Barriers to a recommendation from a healthcare provider can include a lack of awareness and knowledge and low perception of risk. Therefore, the review looked for interventions to improve their knowledge about vaccination to improve adult vaccination uptake.

## What we found

A total of 34 studies of varying research designs were included in this review. Much of the evidence focused on influenza as an immunisation programme. The quality of studies varied but the systematic reviews were generally well conducted and the primary research studies were low or moderate quality. The evidence base was more developed for patient-focused interventions than provider-focused interventions, and is summarised for each population.

## Patient-focused interventions

Interventions to engage older adults in immunisation programmes were identified in 24 studies. These aimed to increase vaccination uptake or change the intention to vaccinate by improving patient access to vaccination, reminding patients about appointments and increasing awareness of vaccination. Key findings around these areas are summarised here.

### Enhancing patient access to vaccination

- Nine studies were identified that assessed interventions to improve patient access to vaccination.
- There was some evidence from one well-conducted systematic review that patient outreach (such as home visits and group visits to health professionals) can increase influenza vaccination rates.
- Pharmacy-based delivery of vaccination in community settings by pharmacists or nurses was evaluated in eight studies. There is some evidence to suggest modest increases in influenza and pneumococcal vaccination from four studies evaluating national policies in the US and Canada for pharmacy-led vaccination services, although this was not seen in a UK-based study.
- Evidence from two studies featuring multicomponent interventions suggests that pharmacy-based services, with flexibility in the number of clinics offered and hours of operation, as well as additional support such as training, reminders, promotion or education can help to reduce barriers to vaccination in an older population, particularly in remote and island communities.
- An appointment-based model delivering vaccination at the time of assessed need by a pharmacist was evaluated in one study and showed some improvement in the uptake of shingles vaccination.

## Reminding patients about vaccination appointments

- A range of communications were used in reminder and recall interventions about vaccination appointments in five studies.
- There is evidence from one systematic review of randomised trials and three additional randomised trials that reminders for influenza vaccination in a variety of formats work. Effective reminder communications can include: postcards, personalised postcards, letters or phone calls, personalised letters or phone calls to a standard letter, a letter plus leaflet or postcard to reminder, phone calls to clients and questionnaires to prompt recall.
- Newer recall/reminder methods, such as text messaging and a centralised service to send out reminders, may have the potential to improve vaccination uptake but evidence of effect was limited to single individual trials.

## Raising patient awareness about the importance of vaccination

- Strategies to raise awareness of vaccination through education and promotional communications were identified in 12 studies.
- Educational-based interventions featured in five studies and involved written, visual and verbal communications or a combination of these. Randomised trial-level evidence from a large systematic review suggests that health-risk appraisal, nurse or pharmacist-led education and brief face-to-face interventions are effective in increasing influenza vaccination. Three further individual studies which featured patient education, either alone or as part of a multicomponent intervention, showed some improvement in pneumococcal vaccination uptake.
- Six studies evaluated interventions that featured promotional communications ranging from small-scale local promotions to national campaigns, and these showed mixed effectiveness on vaccination uptake. There is evidence from one systematic review suggesting that

promotional communications for older adults largely involved mass communications (for example leaflets, posters, media), or personalised communications, either alone or in combination with other strategies.

- Ongoing research into an evidence-informed campaign is underway in one study with a non-randomised design.

## Provider-focused interventions

In total, 12 studies were identified that looked at interventions targeting healthcare providers to increase their knowledge about vaccination to improve adult vaccination uptake. Key findings are summarised here.

- Evidence to support the use of health information technology, such as a web-based decision support tool and electronic medical records, in improving shingles vaccination rates was limited to two individual studies. In both studies, it helped to identify patient eligibility for vaccination.
- There was some evidence from two observational studies in a systematic review to suggest that a case manager may help to facilitate influenza vaccination uptake.
- Evidence from a large systematic review suggested that effective provider-based interventions for improving influenza uptake were: payment to physicians, posters in clinics as reminders, facilitator encouragement to vaccinate, performance review and feedback to physicians plus benchmarking, and physician feedback and education.
- There was some support from individual studies that featured interventions with an education or training component, alone or in combination with other strategies, to improve provider knowledge of adult immunisation programmes and improve adult uptake of influenza and pneumococcal vaccination.

## Conclusions

The review highlights a range of approaches to engage adults aged 60 years and over in influenza, pneumococcal and shingles immunisation. Although much of the evidence focused on influenza, it is likely that effective approaches may be applicable to other vaccination programmes. Combining more than one type of approach in a multicomponent intervention may help to promote vaccination uptake in older adults.

There was a lack of evidence for interventions among the selected populations who may experience barriers to accessing vaccination. Flexible pharmacy-based services may be important in enhancing access to vaccination, but more research is needed on community-based provision to inform future interventions.

The VTP is an opportunity to develop and pilot interventions as part of the transformation process. Individual Health Boards may wish to:

- assess the applicability of effective interventions and their resource implications
- select those interventions that best meet the needs of their local populations of older adults and their circumstances
- consider adopting a comprehensive approach involving patient- and provider-focused interventions to optimise vaccination uptake.