

# Influenza vaccination uptake among people aged over 85 years: an audit of primary care practice in the UK

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## Objective

Public health research and national guidelines have advocated for seasonal influenza vaccination in the elderly. General practice has established itself as an ideal setting for the safe administration and monitoring of vaccines.<sup>1</sup> Due to waning immune systems and high levels of co-morbidities, the elderly are especially vulnerable to the acquisition of infectious diseases.<sup>2</sup> Influenza in the elderly results in increased levels of hospitalisation, morbidity and mortality. This section of society clearly benefits from annual vaccination against circulating seasonal strains of influenza virus.<sup>3</sup>

Since a major policy change in 2000 from risk-related vaccine administration to age-related vaccine administration, vaccine uptake on average has increased.<sup>1</sup> Little is known about the vaccine uptake patterns in the elderly population aged 85 years and over. The primary objective was to audit the influenza vaccination uptake in Amherst Medical Practice among individuals aged over 85 years. Secondary objectives were: to determine the proportion of recurrent non-uptake of seasonal influenza vaccination in the primary care setting, to identify the underlying factors associated with recurrent non-uptake of seasonal influenza vaccination, and provide baseline information to target and improve vaccine uptake among patients aged over 85 years.

## Design

Retrospective clinical audit and evaluation.

## Setting

Large general practice in the United Kingdom.

## Participants

We included 434 patients over 85 years of age to analyse vaccination uptake for the 2011/2012 influenza season.

## Main outcome measures

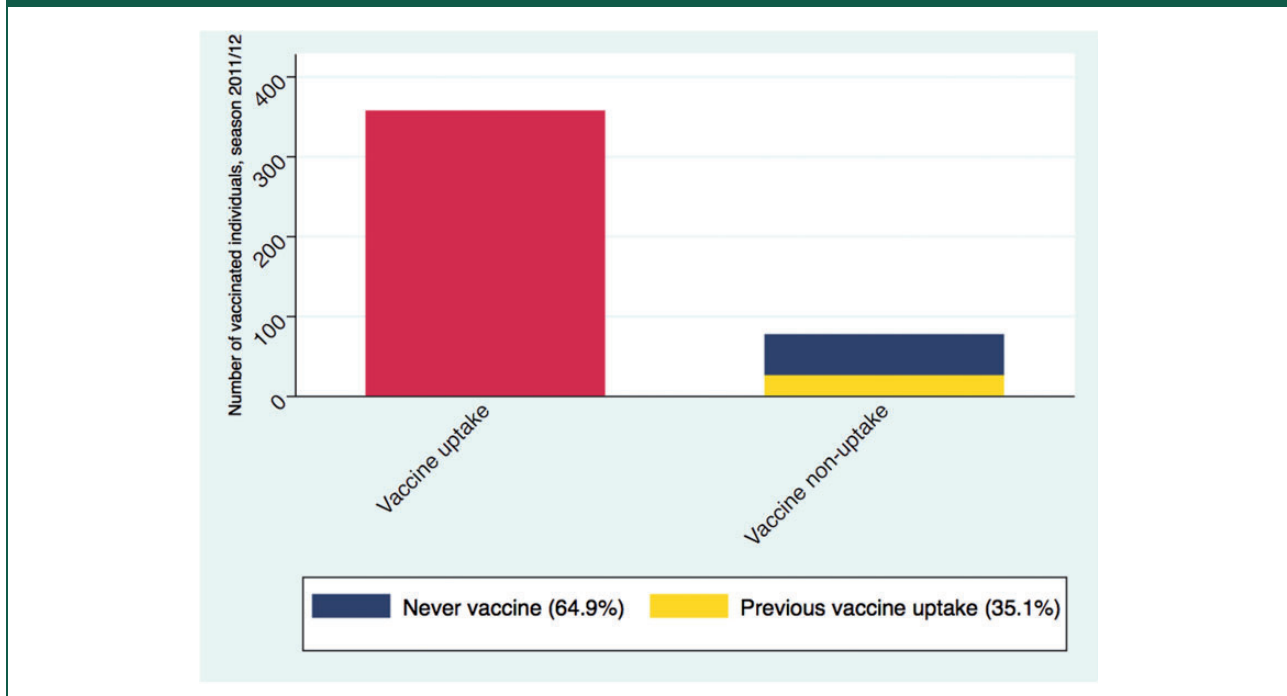
Following the 2003 World Health Assembly (WHA), the World Health Organisation (WHO) and the European Commission recommended increasing the seasonal influenza vaccination coverage to all individuals at high risk. The aim was set to achieve 50% vaccination coverage by 2006 and 75% by 2010.<sup>4</sup> The standard of 75% is therefore adopted in this audit.

## Results

From a total of 434 patients over the age of 85 years, 357 (82.3%) received the seasonal influenza vaccine and 77 (17.7%) did not receive the vaccine in 2011/2012. Of the non-immunised individuals, 50 (64.9%) never received a vaccine to protect against seasonal influenza (Figure 1).

Several factors were associated with recurrent vaccine non-uptake. Although men accounted for only 14 (18.2%) members of the subgroup, 12 (85.7%) of these had never received the influenza vaccine ( $p=0.05$ ). From a total of 23 (29.9%) patients with known allergies, 18 (78.3%) had never received the influenza vaccine ( $p=0.0135$ ). Patients living in nursing or care homes accounted for 29 (37.7%) of our subgroup. Twenty-four (82.8%) of these patients never received the influenza vaccine ( $p=0.0013$ ).

Age, total number of co-morbidities, BMI, marital status and general practitioner were not associated with recurrent non-uptake.

**Figure 1.** Vaccine uptake among people aged over 85 years.

## Conclusions

Despite the target for vaccination being met by this general practice,<sup>5</sup> we identified several factors associated with recurrent non-uptake of the seasonal influenza vaccine in patients over 85 years. Firstly, elderly men should be considered in more detail. Secondly, the experience of allergies may influence patients in their decision making, with reluctance most likely due to the fear of an adverse reaction. Thirdly, clear coordination with patients residing in nursing and care homes is warranted to ensure vaccine uptake rates are as high as possible, to minimise influenza outbreaks.

Although these results are not necessarily generalisable to the rest of the United Kingdom, it provides an insight into an often-neglected group of elderly patients.

We recommend general practitioners analyse their data, with a view of addressing inequalities in vaccine uptake in their local area.

## Declarations

**Competing interest:** None declared

**Funding:** None declared

**Ethical approval:** Not applicable

**Guarantor:** JRF

**Contributorship:** JRF designed the study and analysed the data with input from NDA. JRF wrote the manuscript with input from NDA. Both authors reviewed and approved the final version. JRF is guarantor of the work.

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