Research in Brief

The effect of health assessments by practice nurses on uptake of influenza vaccination among older people in the UK

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Background

The effectiveness of the influenza vaccine is well established, although the uptake among older people is suboptimal (NHS Centre for Reviews and Dissemination, 1996). Few older people consider themselves to be at serious risk of adverse consequences of flu; fear of side-effects is the main reason for not being vaccinated (Cornford & Morgan, 1999). Furthermore, in primary care, influenza vaccination programmes are usually reliant on patients presenting themselves rather than being directly offered the vaccination, which may indirectly discriminate against older people (Morgan et al., 1995).

Outside of the UK, recommendation by a nurse or doctor is associated with a higher uptake of the influenza vaccination (Duclos & Hatcher, 1993; Van Essen et al., 1997). The annual over-75 health assessments are currently a contractual requirement of general practices in the UK. By offering the influenza vaccination during home-based health assessments, nurses can dispel the myths surrounding the vaccine, patients have more time to discuss their concerns, and potential barriers, such as the difficulties which older people may face in getting to their local surgery are removed. The aim of this study was to examine the effect on the influenza vaccination uptake of combining an over-75 health assessment, carried out by a practice nurse, with an offer of the influenza vaccination.

Methods

The study took place in a rural practice in Leicestershire, UK, during Autumn 1999. All patients aged 75 years and over were written to informing them that a nurse would contact them to arrange a visit to carry out a general health assessment, and (if they wished) vaccination against flu. A prepaid envelope was provided for patients who preferred to decline the offer.

The health assessment lasted approximately 30 min, during which patients were offered the vaccination against influenza if they had not already received a vaccination in 1999. If patients changed their mind they were free to report to the surgery for vaccination at a later date. To look at the relationship between health assessment and influenza vaccination uptake, comparisons were made between those who did and did not receive the health assessment. Logistic regression was used to control for potential confounders.

Results

An offer of a health assessment was made to 389 patients, of whom 83 (21.3%) declined the offer (Table 1). Those who received the health assessment were slightly older (P = 0.054), and were significantly more likely to have received the influenza vaccination 1 year previously (Autumn 1998) than those who declined the assessment (P = 0.006). All patients were able to receive the influenza vaccination independently of the practice nurse health assessment by attending one of the flu vaccination clinics. Among the sample, 138 patients (35.5%) had already been vaccinated by the time an offer of a health assessment was made.

In the previous year, when health assessments did not coincide with the vaccination season, the uptake among this group of patients was 38.3% (n = 149). During the year of the study period, the uptake was 57.6% (n = 224). Those people who received the nurse visit were four times more
likely to be vaccinated against influenza (subsequent to the health assessment offer) than those who did not (odds ratio 4.1, 95% confidence interval 1.7–9.9, $P < 0.001$), after controlling for age and vaccination status for the previous winter.

## Implications for practice

This study was not a randomized controlled trial, so it is not possible to rule out the possibility that patients who received the vaccination at their health assessment would have come forward for the influenza vaccination had the combined health assessment offer not been made. However, there was still a large effect of practice nurse health assessment on vaccination uptake after controlling for whether patients had been vaccinated in the previous year.

Whether this model of combined service delivery is viable in primary care will depend on how individual practices organize and carry out over-75 health checks. Since the introduction of over-75 health checks in 1990, practice nurses are the professional group most likely to carry out these health assessments of older people (Tremellen, 1992). However, if this activity was to be concentrated into 3 months of the year to coincide with the influenza vaccination season, then the workload might need to be shared with community nurses and health visitors. With cold weather during the winter months exacerbating the health and social problems of older people, updated information from health assessments carried out in the late autumn will help nurses and general practitioners identify their older patients most at risk. Furthermore, these encouraging findings suggest that when nurses take a more proactive and creative approach in the way they design their influenza vaccination programmes, uptake amongst those in greatest need can be improved.

## Acknowledgements

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## References


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### Table 1 Uptake of influenza vaccination in 1998 and 1999 and comparison of patients receiving and refusing health assessment

<table>
<thead>
<tr>
<th></th>
<th>Received health assessment $(n = 306)$ $n$ (%)</th>
<th>Refused health assessment $(n = 83)$ $n$ (%)</th>
<th>All $(n = 389)$ $n$ (%)</th>
<th>$P$-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccination in previous year (Autumn 1998)</td>
<td>128 (41.5)</td>
<td>21 (25.3)</td>
<td>149 (38.3)</td>
<td>0.006</td>
</tr>
<tr>
<td>Vaccination prior to assessment offer (Autumn 1999)</td>
<td>115 (37.6)</td>
<td>23 (27.7)</td>
<td>138 (35.5)</td>
<td>0.096</td>
</tr>
<tr>
<td>Vaccination at any time during study period (Autumn 1999)</td>
<td>195 (63.7)</td>
<td>29 (34.9)</td>
<td>224 (57.6)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

* Chi-squared test to compare patients receiving and refusing a health assessment.