Improving influenza vaccination uptake among frontline healthcare workers

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Christine Jessop¹, Joyce Scrutton² and Annette Jinks³

Abstract

Vaccination of healthcare workers against seasonal influenza is recommended to protect staff, their families and patients. This study reports the findings of a survey conducted to explore how to improve uptake of influenza vaccination among staff at a specialist NHS hospital Trust. Responses to the survey were received from 376 members of staff (a 38.6% response rate). Reasons reported by respondents for not being vaccinated included lack of access and beliefs about the efficacy of vaccination. The findings suggest that uptake could be improved by ensuring convenience and flexibility in vaccination provision.

Keywords

Vaccination, influenza, improving uptake

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Background literature

Seasonal influenza is described by the World Health Organization (2014) as an important public health problem that often causes acute illness in non-immune people and possible death in high-risk populations. It can also have an economic impact because of workforce sickness and absence. Each year, the National Health Service (NHS) in England launches a seasonal influenza vaccination campaign with frontline healthcare workers (HCW) being specifically targeted. Achievement against a target of 75% vaccination uptake by HCWs is monitored by Public Health England (PHE).

The seasonal influenza vaccination uptake in the 2014–2015 season was 54.9% of frontline NHS workers in England (PHE, 2015). However, there are wide variations of uptake. For example, PHE (2015) describes how only small numbers of Trusts achieved the national goal of 75% or more. A few Trusts had an uptake rate of less than 40% with many more having less than 50%. The Specialist Hospital Trust, which is the focus of this report, provides neurology, neurosurgery and pain services and employs around 970 frontline HCW. Of these, over 76% staff received the influenza vaccine in 2014–2015.

Some authors report poor availability of immunisation sessions as one of the main reasons why NHS staff do not

get vaccinated. For example, Lewthwaite et al. (2014) found junior doctors reported unavailability of vaccination sessions was one of the main reasons why they had not been vaccinated. Misconceptions about influenza vaccination are also reported by some authors as responsible for staff failing to be vaccinated. For example, ‘the influenza jab gives you influenza and I can’t afford to be ill’ and ‘the influenza vaccination doesn’t work, so what’s the point?’ (Staniforth, 2014).

Some researchers raise concerns about the effectiveness of influenza vaccination. Pebody et al. (2015a) in a mid-term review found the low vaccination effectiveness of the 2014–2015 campaign reflected a mismatch between circulating viruses and vaccine strains. Similarly, a meta-analysis conducted by Ahmed et al. concluded that the evidence is ‘not strong that influenza vaccination prevents influenza

¹The Walton Centre NHS Foundation Trust, Lower Lane, Fazakerley, Liverpool. UK

²Adult Nursing, Edge Hill University, Ormskirk, UK

³Edge Hill University, Ormskirk, UK

Corresponding author:

Annette Jinks, Edge Hill University, St Helen’s Road, Ormskirk L39 4QP, UK.

Email: jinksa@edgehill.ac.uk

Table 1. Main elements of the NHS Trusts' influenza campaign.

Focus	Examples
1. Flexibility of vaccination opportunities. For example, using a 'wherever and whenever' approach' in providing opportunities when staff can be vaccinated.	23 flu vaccinators appointed in order that: vaccination opportunities can be offered over the 24-h period; vaccinations can be given in places of work including on the wards and at clinics; vaccinations can be offered at in-service training events and at patient review meetings such 'Grand Rounds'.
2. Demystification of common beliefs about influenza and flu vaccination.	Challenging myths that influenza is not a serious illness through: flu champions; giving personal stories of the sometimes tragic events ensuing after family had contracted influenza.
3. Communication and promotion. For example, giving strong messages about personal and professional reasons why staff should be vaccinated.	Vaccination posters displayed prominently throughout the hospital; all-staff electronic communications and inclusion in hospital bulletins.
4. Incentives for staff to be vaccinated.	Giving modest prizes in a prize draw raffle for vaccinated staff.

transmission to patients' (Ahmed et al., 2013). However, these studies have been criticised. For example, the findings of Ahmed et al. are based on data obtained from nursing home studies that are very different environments to those of acute hospitals (Osterholm et al., 2013). Nevertheless, both Ahmed et al. (2013) and Pebody et al. (2015a, 2015b) do not discount the importance of influenza vaccination but also recommend early use of antivirals for prophylaxis and treatment of vulnerable populations. For example, in an end-of-year review, while a 34% vaccine effectiveness was found by Pebody et al. (2015b), it was still reported that 'there was still evidence of significant protection'. These conclusions reinforce advice offered by PHE (2015) who stress the protection vaccination provides to staff and their families and ultimately to patients to whom HCW have a duty of care.

It is recognised that 100% vaccination uptake is unachievable for a variety of reasons. The right of staff to decline vaccination must also be acknowledged. However, it is possible that a hard-to-reach minority, if approached directly, may agree to be vaccinated. We therefore conducted a survey to obtain the views of staff and determine how the effectiveness of our influenza campaign could be further improved.

Description of the influenza vaccination campaign

At the hospital where the survey was undertaken there are significant efforts made to improve year-on-year staff influenza vaccination uptake rates. It is thought important to maintain and improve on the uptake figure of 76% achieved in 2014–2015. To achieve these targets, the campaign deployed at the hospital has several elements which are shown in Table 1.

In brief, the campaign incorporates all the recommended strategies (Heinrich-Morrison et al., 2015) with additional

elements such as staffs' personal experiences of the effects of influenza. These included an account of a HCW at the hospital whose mother died after contracting influenza and how this impacted on family members. This story and others feature in the web-based information promoting the campaign and in other publicity material.

Methods

A quantitative survey approach was used which also incorporated some open questions. HCW employed at the hospital were asked to complete the short questionnaire during the influenza vaccination season of 2014–2015. Development of the questionnaire was informed by the relevant literature and included questions about why staff had decided to have the influenza vaccination or reasons why they had declined. The questionnaire was distributed to frontline staff.

Prior to commencement of the survey, the Research Governance Department at the Trust was contacted and confirmed there was no requirement to obtain NHS ethics approval as the survey was deemed to be practice development work. Consent was assumed though respondents returning the questionnaire.

Results

A total of 376 questionnaires were returned. Approximately 970 frontline staff were employed during the survey period giving a response rate of 38.6%.

Most of those who returned the questionnaire had received the influenza vaccine in the past. The greatest number of respondents were qualified nurses ($n = 101$, 27%); under-represented were allied health professionals ($n = 50$, 13%) and doctors ($n = 34$, 9%).

In total, 70% ($n = 263$) of respondents reported that they had previously taken time off work due to contracting an

influenza-like illness, most had taken over five days off sick. Respondents said they had heard about the influenza vaccination campaign through receiving an email ($n = 115$, 30%), had seen posters giving information about the campaign ($n = 76$, 20%) or a colleague had told them about it ($n = 65$, 17%). A few ($n = 12$, 3%) thought social media could be usefully deployed to better publicise the vaccination campaign. Explanations of why staff said they had decided to have the vaccination mainly related to a 'protecting others' theme and included either protecting patients or their own families. However, some said they had the vaccination because they 'felt obliged to' or they 'had it without thinking'.

Only 36 (9.9%) of the respondents have not received the influenza vaccination. Reasons cited why they had not been vaccinated related to the themes of lack of opportunity or the inconvenience of the time and venue when the vaccination was offered. For example, some said 'I wasn't offered the vaccination' and others 'I couldn't get there when it was offered'. Another theme that arose was possible misconceptions about having the vaccine including reports of 'not wanting to have the side effects' or not believing 'the vaccine to be effective'.

Discussion

The findings of the survey give some useful insights into which staff groups need to be more actively targeted in future years. Medical staff being under-represented in the present survey appear to be one such group. Similarly, publicity strategies for future campaigns will be informed by the survey's findings not least that some respondents did not know they were entitled to be vaccinated. Modes of informing staff about the campaign will also be reviewed to possibly include more use of social media such as Twitter and Facebook.

Other findings of the survey will also be valuable when planning future campaigns. For example, the lack of opportunity cited by some respondents will be addressed by increasing even more the times and venues vaccination is offered. Venues will be further extended into areas such as staff canteens and frontline delivery sites not currently covered. Times will be expanded to cover most of the 24-h period.

Generally, it is concluded that many of our findings resonate with those of other researchers. Lewthwaite et al. (2013), for example, found that some of those they studied declined to have the influenza vaccine due to fear of side effects. Many of those surveyed by Lewthwaite et al. (2013) also cited lack of availability of the immunisation sessions as one of the main reasons why they had not been vaccinated. Additionally, reasons cited by our respondents that they had declined to be vaccinated due to the perceived ineffectiveness of the vaccine are comparable to the findings of researchers such as Staniforth (2014).

As indicated earlier, the evidence concerning the desirability of having the influenza vaccination is conflicting. For example, a recent Cochrane review (Demicheli et al., 2014) reports that the preventive effect of influenza vaccine on healthy adults is small. In addition, vaccination is identified as having only a modest effect on time off work and had no effect on hospital admissions or complication rates. It is clear in view of this conflicting evidence that future campaign literature needs to be balanced but still encourage staff to be vaccinated. Of relevance are the views of Demicheli et al. (2014) who state that there is no evidence that the vaccine causes serious adverse effects and that currently vaccination is the best available defence against contracting influenza.

Limitations of the findings include that the survey was conducted at a single site, had a low response rate and those who chose not to be vaccinated are under-represented. However, several ideas have been generated to improve the way the survey is conducted. For example, greater emphasis will be placed on trying to obtain responses from unvaccinated staff and to more actively target under-represented groups such as doctors.

Conclusions

The survey was undertaken at a hospital where the uptake of influenza vaccination is relatively high; however, there is still scope for improvement. Useful ideas on how forthcoming campaigns can be improved have been generated. Convenience and flexibility appear to be the key.

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