NIHR | Applied Research Collaboration North East and North Cumbria

Evidence briefing: How can we increase uptake of flu vaccinations amongst health care workers?

Quick read summary

Flu vaccination rates are in decline in England. Only 37.5% of health care workers in NHS trusts received a vaccine in the 2024-2025 season (down from 42.8% the previous year), and 51.5% of health care workers in GP practices (down from 61.8%). This puts staff and patients at risk for seasonal influenza, potentially increasing staff sickness rates and workload pressure to maintain services during periods of high demand. Young people, females, and nurses were less likely to be vaccinated. Older people with more time in the profession were most likely to be vaccinated.

Our evidence review found that barriers to uptake to flu vaccination by healthcare workers relate to a lack of confidence, motivation and access.

Confidence

Limited confidence is caused by **lack of knowledge** about flu, risks and transmission, **beliefs around ineffectiveness**, **concerns about side-effects** and missing time of work, and misinformation on social media.

Educational interventions can improve confidence, including materials such as leaflets, posters and videos. These should include information on the benefits of the vaccine for staff, their families and patients. Issues around misinformation should be addressed and available before vaccinations are being offered.

Motivation

Motivation is strongly **linked to trust in the organisation**, with **leadership** (including lead nurses) **setting the example** in promoting and taking vaccines. **Open and honest conversations** with management should be prioritised, and opportunities for workers to **talk to a reliable person** in their organisation (e.g. doctors) about their vaccination concerns, side-effects and uncertainties.

Rewards and (financial) incentives also help, such as paid time off, free refreshments, or other reward items such as badges, pens and mugs.

Access

Poor supply of vaccines and **lack of time** are key barriers to access.

To improve access, vaccinations should be offered at **different work sites** including canteens and entrances, at a **range of times on several days**, include evenings, night shifts, and weekends. **Drop-in sessions** without appointment, **mobile vaccinators** (trolleys), and **peer vaccination** (providing toolkits to departments) also maximise ease of vaccination.

Although effective in driving uptake, there is **strong opposition to mandatory vaccination**, with concerns around autonomy and ethical implications, reducing trust in the organisation and motivation to get vaccinated in the longer term.

Finally, **publishing vaccination rates by team**, displaying posters in their department when they reach their required uptake motivated staff and helps to target areas with low uptake.

Key recommendation: **Combining interventions that target confidence, motivation and access is most effective. Even where health care workers are both confident and motivated to get vaccinated, there needs to be barrier-free access to result in actual uptake.**

Eight practical suggestions

1. **Vaccine ambassadors** (featured on posters/desktop screensavers) to communicate key messages on importance of getting vaccinated.
2. **Vaccination champions** – Recruit trusted staff peers to act as vaccination advocates. Provide them with tailored training and messaging to engage with hesitant colleagues.
3. **Pop up clinics and roving teams** including early starts and late finishes
4. **Bespoke sessions** offered for hard-to-reach staff groups.
5. Offering **paid time off for vaccination appointments** or **extra day of annual leave** offered when vaccinated.
6. **Canteen vouchers** given out following vaccination or entered into a raffle for £50 voucher.
7. **Data-driven targeting**; using workforce analytics to identify departments and clinics with poor uptake. Tailor communications and vaccination times to address specific barriers.
8. **Not counting vaccine-related absences** in absence records or towards any 'trigger' system.

About this briefing

This briefing is aimed at professionals involved with winter pressure planning in NHS providers or commissioners, or those with responsibility for flu vaccination roll-out in the health and care system.

It was produced by the NIHR Applied Research Collaboration (ARC) North East and North Cumbria (NENC).

This policy brief was developed as part of a Knowledge Mobilisation sprint over August-September 2025 by the NIHR ARC NENC Knowledge Mobilisation team, in collaboration with Integrated Care Board in the North East and North Cumbria, to support their winter pressure planning.

For more information about the ARC NENC Knowledge Mobilisation team, get in touch at arcnenc@cntw.nhs.uk

Further information about how this briefing was developed, and more detailed findings and recommendations, can be found on the following pages.

Visit our website: About us - ARC

Visit our Evidence Hub to explore short and easy-to-read summaries of health and care research findings: Evidence Archive - ARC

More detailed findings from the rapid evidence review.

Methods

Connections were made with known experts in this area, including members of the NIHR Policy Research Unit in Behavioural and Social Sciences and the research team from the North East Ambulance Service NHS Foundation Trust. A search was conducted for existing evidence reviews on this topic and two relevant documents were retrieved.[1,2] A focussed database search was then conducted to identify recent systematic reviews (published since 2020) using search terms in the title only on terms relating to vaccination AND influenza AND healthcare workers. 25 articles were retrieved and 21 of these were relevant. Information was extracted from these papers on the themes shown below and collated alongside information gained from the conversations described above.

Findings

Relevant literature suggests three important domains related to the uptake of flu vaccinations amongst health care workers: Confidence, Motivation and Access. Evidence suggests that the most impactful interventions combine multiple strategies to address these.[1-11] For each of these domains, key enablers and barriers from the literature and discussions with experts in the field, are outlined below:

Confidence

Barriers

- Not all health care workers believe flu is a big concern,[1,3,12-23] or that flu vaccines are effective in preventing flu.[3,4,13-15,17-25] For both these reasons health care workers may doubt the benefits that getting vaccinated might bring.[1,3,12-19,21,22,26] Other measures, such as PPE or regular hand-washing are considered more effective by some staff.[16]
- An overall lack of understanding of flu and flu transmission,[3,14,16-19,22,24] as well as the lack of understanding around vaccination (including frequency and previous immunisation)[3,14-22,24] may further limit the uptake of the vaccine. For some health care workers, confidence in their own immunity[3,14-19,22] or the fact they are young and/or healthy[2,3,6,14-19,22,27] further reduces the motivation to get vaccinated. In some cases, staff may also worry that the vaccine weakens their own immunity.[16] Side effects, both anticipated, or previously experienced negatively impact uptake,[1,3,14-19,22,28] with some health care workers being worried about catching flu from the vaccine[1,15-19,22] and missing work as a result.[1]
- Individual health care workers may have a fear of needles[3,14,18,22] or have allergies or other conditions (including pregnancy) that are considered incompatible with vaccination, even though vaccination is recommended during pregnancy and for many with chronic conditions.[3,6,9,14]
- Lack of transparency about vaccine side effects (not limited to flu vaccine) has increased hesitancy,[16,17,19] as well as misinformation around COVID vaccination[12,29] and misinformation in general.[13] Linked to this, some health care workers lack trust in pharmaceutical companies.[13,16-20,22]

Enablers

- To overcome these barriers, evidence suggests that training and other educational interventions can be effective in building increased understanding of flu and how flu spreads (even when asymptomatic),[1-3,14,15,17,19,30] as well as increasing recognition of the risk associated with flu infections.[1-3,14,15,17,19] Through an increased understanding, health care workers are also more likely to see the benefits from the vaccine in terms of protecting themselves, their family, patients and reducing sickness absence.[1-3,9,12-15,17,19-22,29]
- For training and other educational interventions to be most effective they need to include a range of materials (e.g., leaflets, posters and videos), highlight the benefits of the vaccine for staff, their families and patients, and information should ideally be available prior to vaccinations being offered.[1-6,8,9,11,17,19,21,23,26,28,29,31,32] It can be effective to show examples of staff who have been vaccinated.[7,16] Furthermore, it is important for material to be positively framed,[1,17,19] and be tailored to healthcare workers, rather than aimed at the general public.[2]
- Campaigns are most effective if they focus on the benefits to the organisation other than cost,[10] use trusted sources,[13] and are delivered using different methods and across number of platforms such as smart phone apps,[29] screensavers,[1] social media,[7,13] educational quizzes[7,9] and lectures (pre-recorded or live) which may be delivered during staff meetings.[1,7,9]
- For some healthcare workers, a more personal approach might be beneficial, such as personalised information and invites[3,5] through staff champions[1] and one to one discussions,[7,9,11,19] in some cases with individuals outside their group of close co-workers.[1] Leaflets that are handed-out directly, rather than just left for staff to pick up are more likely to be read[1], and a telephone hotline may be useful to provide more information about vaccines.[6,19]
- When targeting particular groups of health care workers for educational interventions it is important to note that health care workers who are vaccinated are more likely to recommend vaccination to others,[29] older staff with more time in the profession are more likely to be vaccinated[6,18,22] and doctors are more likely to be vaccinated than nurses.[8]
- Where organisational leaders, and occupational health physicians express strong confidence in the vaccine this leads to increased uptake.[16,30] Leaders also have a role in ensuring that where vaccination leads to side effects, employers are compassionate and provide support to the individual.[1]

In summary, health care workers' confidence in flu vaccination can be improved by:

- Providing information on how flu works, how flu is transmitted (even when asymptomatic) and how flu impacts on health care organisations (other than through cost).
- Providing education interventions explaining how flu vaccines work, in various formats and through various channels, allowing for a personal approach where necessary.
- Strong organisational leadership expressing confidence in vaccination.
- Communicating openly and transparently about vaccination, potential side effects and risk, and addressing misinformation on this topic.

Motivation

Barriers

- The literature suggests that health care workers who are not motivated to get vaccinated often cite pressure to get vaccinated as a reason,[1,16,19] as well as lack of trust in government or policy makers[3,18,19,22,24] and feeling like the organisation does not care.[3,19]
- There is mixed evidence on the link between professional responsibility and the motivation to get vaccinated, with evidence suggesting some health care workers do not see vaccination as their responsibility,[15] where others may feel an obligation.[1,3,14,19,28] Professional responsibility is a bigger driver to get vaccinated amongst doctors compared to other health care professions.[6,12-14,30]
- Mandatory vaccination policies cause damage to the trust between workforce and organisations.[2,17-19,22,28] Despite strong opposition to mandatory vaccination, they can be effective. Although it should be noted that support for mandatory vaccination is strongest among people who would not be directly impacted by mandatory vaccination.[2,3,10,15-19,26,29,33]
- Although promotional campaigns can be beneficial (see enablers) the prevention message is not always visible in vaccination promotion campaigns,[16] and fear-based messaging tends to have the opposite effect.[17,19]

Enablers

- People in leadership positions, including nurse leaders, promoting (and taking up) vaccination can increase overall uptake.[4-11,13,15,16,29] Leaders should create opportunities for health care workers to have open and honest conversations with management, acknowledging evidence on effectiveness including variations and uncertainties around vaccination.[2,3,19,28] Health care workers who are feeling strong support are more motivated to decide to get vaccinated.[3,17,19]
- Campaigns aimed at motivating health care works to take up the vaccine are more successful if they have a reliable person providing information about the vaccine,[3,5,15,19,30] include staff from different job roles in marketing materials, allowing staff to see 'people like me'.[1] Publishing pictures of vaccinated staff members, including leaders and pregnant women to promote vaccination during pregnancy can have a positive effect, although these shouldn't include images of people receiving vaccination as that might put some people off.[1,7,9]
- Recommendations by doctors, particularly those working in occupational health can increase uptake[3,15] as well as workplace support by managers and colleagues[1-3,19,29] and peer influence and organisational culture can be impactful.[1,2,4,6,13,15,19,32] Evidence also suggests that encouragement and support from family members has an impact on uptake.[3,29]

- Although mandatory vaccination comes with drawbacks (see barriers), it can be highly effective, depending on how it is enforced. Some of the literature argues that patients' rights to safe healthcare should take precedence over health care workers' rights to refuse vaccinations.[4,6,7,10,12,32] Requiring unvaccinated staff to sign declination forms and/or wear masks if they refuse vaccination can lead to staff being better informed about vaccination. This can provide data for future campaigns about vaccine hesitancy, and declination forms can highlight risks to self and others.[6,7,9,15] Declination interviews enable a one-to-one discussion and address any misunderstandings around vaccination.[7,9] Disciplinary letters added to HR files, or triggering a performance reviews carried are other incentives to support mandatory vaccination.[9]
- Short of mandating vaccination, competitions or league tables between departments can help staff feel accountable, and drive-up vaccination uptake.[6,7,9,13,34] These can take the form of published vaccination rates by team,[7,8,34] compared against an organisational target [7] providing managers with access to vaccinations status in their team to allow for focussed conversations,[7] or adding markings to ID badges (e.g. stickers) to show who has been vaccinated, with those not vaccinated having to wear masks.[9,34]
- Finally, financial incentives, in the form of bonuses were very impactful in increasing vaccine uptake.[9,19] Small rewards and incentives can also have a big impact, such as pens, mugs, stickers, free food/drinks, or additional time off.[3,6-8]

In summary, health care workers can be **motivated** to take up flu vaccinations by:

- Strong leadership (including nurse leaders) getting vaccinated and promoting vaccination.
- Successful campaigns by trustworthy individuals, that allow staff to recognise themselves.
- Recommendation from doctors and occupational health professions.
- Mandatory vaccination programmes, although they come with downsides if not implemented carefully.
- (Financial) incentives and internal competition.

Access

For health care workers who are confident in the flu vaccine, and motivated to get vaccinated, it is still important that they have easy access to the vaccine. The following barriers and enablers should be considered:

Barriers

- Lack of on-site vaccination for health care workers can limit uptake,[3,6,18] as well as lack of time.[6,15,18] Where there is a short time window to deliver vaccines, it is important that enough staff are available to administer vaccine effectively.[10] Some staff do not know where to go to get vaccinated,[7,18] or simply forget.[3,18,24]
- Uptake of vaccines can be limited by a poor supply of the medication.[3,18,23,24,32]

Enablers

- To remove any access barriers to vaccination it is important to offer vaccinations at work, across a range of times and days, including night shifts, weekends and remote sites,[1-5,7,8,12,13,16,17,19,28] as well as at convenient locations such as canteens or hospital entrances.[1,7,9,17,19] Any vaccination campaign needs to run long enough to allow staff to access it (considering leave)[16,19]. Permanent clinics can help staff know where to go[7,17,19] whilst use of ward/department clinics[5,17,19] or mobile vaccinators (e.g. trolleys)[6,7,17-19,24,26,28,29] can further improve access. It is important to offer both appointments[1] and drop-in sessions[1,9,17,19] where possible. Using arrows and banners to allow health care workers to find the vaccination site will help access.[7]
- Other routes to provide access to vaccination may include personalised invitations,[13] peer vaccination[5,7,9] or vaccination during staff induction[4]. Flu vaccines can also be provided alongside COVID-19 vaccines (which may increase uptake).[13]
- Sufficient vaccine should always be available,[16,32] and extended time slots or nasal vaccines should be considered for those health care workers with a fear of needles.[9,17-19,23,24,28]
- Vaccination sessions benefit from clear advertising.[1,5] Successful ways of signposting staff to vaccination sessions include text messages and email,[1,6,7,9,32] WhatsApp or Facebook groups (allowing staff to ask questions),[1] reminders in staff meetings[3,7,9,19,29] and advertising on shared calendars that staff can access.[7]
- Evidence suggest that smaller facilities have higher uptake rates compared to larger vaccination sites.[30]

In summary, **access** to vaccines can be improved by:

- Offering vaccination at work, across days, times and shift patterns, at convenient locations, and a mixture of fixed and mobile vaccination clinic models.
- Offering appointments as well as drop-in sessions to get vaccinated.
- Considering other forms of vaccination such as peer vaccination, vaccination during staff induction, and combined vaccines (e.g. COVID-19 and flu)
- Clear advertising and signage, and dissemination of these through various routes (e.g. text, email, staff meeting, chat group and social media).

Further analysis

There is a lack of high quality and long-term evidence on effectiveness of suggested interventions to increase uptake of flu vaccinations among healthcare workers, with most evaluations being small, local studies focused on short-term benefits.

Larger research projects across multiple sites comparing different interventions over a longer period of time will strengthen the evidence for future decisions about flu vaccination programmes for healthcare workers.

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