



The following information resources have been selected by the National Health Library and Knowledge Service Evidence Virtual Team in response to your question. The resources are listed in our estimated order of relevance to practicing healthcare professionals confronted with this scenario in an Irish context. In respect of the evolving global situation and rapidly changing evidence base, it is advised to use hyperlinked sources in this document to ensure that the information you are disseminating to the public or applying in clinical practice is the most current, valid and accurate. For further information on the methodology used in the compilation of this document—including a complete list of sources consulted—please see our [National Health Library and Knowledge Service Summary of Evidence Protocol](#).

YOUR QUESTION

What evidence is there for mandatory flu vaccination for healthcare workers?

IN A NUTSHELL

The World Health Organisation (WHO) and other international bodies strongly recommend the flu vaccination for health care workers (HCWs) yet vaccination uptake remains low. During the 2018/2019 influenza season in Ireland, the uptake of the influenza vaccination among all hospital HCWs was 53.2% and 42.2% for HCWs working in long term care facilities. This was below the uptake target of 65%². In response to a low uptake of the flu vaccination in HCWs, the Royal College of Physicians in Ireland called for an introduction of a mandatory seasonal flu vaccination for HCWs in high risk clinical settings³.

Mandatory vaccination is the most effective intervention for improving vaccine uptake^{13,14,19}. Mandatory influenza vaccination policies are increasingly common in the United States but there are substantial barriers to adopting such policies. Qualitative data reveal multiple reasons why HCWs disapprove of mandated vaccination. These include beliefs that the decision to be vaccinated is personal, fears of side effects, and concern that influenza vaccines are ineffective^{20,22}.

The National Institute for Health and Care Excellence (NICE) do not recommend mandatory flu vaccination. In guidance published in 2018, the committee expressed concerns about the challenges that mandatory vaccination of staff would have, including evidence indicating that such policies can negatively affect staff morale and undermine autonomy¹⁰.

Lytras [et al] conducted a systematic review and meta-regression analysis to explore interventions to increase seasonal flu vaccination coverage¹³. Mandatory vaccination was the most effective intervention followed by 'soft' mandates such as declination statements, indicating that they could be an important element in a vaccination programme. Other intervention components, such as increased access, increased awareness and incentives – for which the difference did not reach statistical significance – were found to be less effective; in combination though, their cumulative effect could match that of declination statements and be offered as an alternative to a mandatory flu vaccination programmes.

Bechini [et al] found that there was no definitive evidence of which types of interventions would be more useful for improving flu vaccine uptake among HCWs although mandatory vaccination seems to be the most useful single intervention and educational campaigns alone do not have an impact on vaccination coverage¹⁹. Jenkin [et al] noted that it was hard to separate the benefit of one intervention as distinct from the others when a part of multi-faceted interventions¹⁴.

NICE point out that the quantitative evidence relating to interventions to increase flu vaccine uptake was of variable quality with most rated low or very low¹⁰. Downgrading was largely due to risk of bias and evidence of serious heterogeneity in pooled analyses. NICE explored the use of declination statements but noted that the qualitative evidence indicated that employees have mixed feelings about declination policies¹⁰.

NICE endorse a multi-faceted approach and recommend a range of interventions so that organisations can tailor their approach to local needs, targeting demand (by increasing awareness, education and incentives) and supply (for example using mobile vaccination carts and off-site or out-of-hours access). They recommend a full participation vaccination strategy, with nationally agreed opt out criteria¹⁰.

IRISH AND INTERNATIONAL GUIDANCE

What does the Health Protection Surveillance Centre (Ireland) say? **[HPSC \(2019\) Health care workers and seasonal influenza vaccine: 2019-2020 influenza season¹](#)**

The seasonal influenza vaccination is recommended for all healthcare workers, to be administered as early as possible each season for best protection (usually from early October). Pregnant women are at increased risk of influenza-related complications. Pregnant healthcare workers should receive the seasonal influenza vaccine, regardless of the stage of pregnancy. The HPSC highlight the potential risk of transmission in health care settings to vulnerable groups. Healthcare workers frequently provide care for the elderly or immunosuppressed who tend not to be able to mount as good an immune response to the vaccine as younger, healthy individuals. Healthcare workers have been potentially implicated as the source of influenza transmission in health care settings. Employees continue to work while sick with influenza. Unvaccinated workers who are not sick can still spread the virus (viral shedding can begin 1-2 days before until 5-7 days after symptom onset). Potential benefits of influenza vaccination for healthcare workers include reduced risk of outbreaks in healthcare facilities, decreased staff illness and costs resulting from loss of productivity, protecting younger and older members of their own family and friends. Finally, the HPSC make recommendations for organisations and departments to improve the vaccination uptake rate.

[HPSC \(2019\) Uptake of the seasonal influenza vaccine in acute hospitals and long term/residential care facilities in Ireland in 2018-2019 a report by the Health Protection Surveillance Centre. June 2019²](#)

During the 2018/2019 influenza season in Ireland, the uptake of the influenza vaccination among all hospital HCWs was 53.2% and uptake among long term care facilities based HCWs was 42.2% which was below the uptake target of 65% set for that year.



What does the Royal College of Physicians of Ireland say?

[RCPI \(2018\) Influenza vaccination of healthcare workers³](#)

The seasonal influenza vaccination is widely recommended worldwide. The RCPI calls for mandatory seasonal flu vaccination for healthcare workers in high risk clinical settings. Voluntary vaccination programmes have failed to achieve high rates of vaccination uptake in clinical healthcare workers. In the interest of patient safety, the Faculties of Occupational Medicine, Pathology and Public Health Medicine endorse the introduction of mandatory seasonal influenza vaccination for certain categories of health care workers using a risk assessment framework.

What does the World Health Organization say?

[WHO \(2020\) Guiding principles for immunization activities during the COVID-19 pandemic: interim guidance⁴](#)

This document provides guiding principles and considerations to support countries in their decision-making regarding provision of immunisation services during the COVID-19 pandemic and is endorsed by the WHO's Strategic Advisory Group of Experts on Immunisation. There are seven guiding principles outlined in this document. The seventh principle specifically mentions the influenza vaccine, stating that where feasible, influenza vaccination of health workers, older adults and pregnant women is advised.

[WHO \(2020\) Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19: interim guidance⁵](#)

This documents describes the principles to consider when deliberating the implementation of mass vaccination campaigns for prevention of vaccine-preventable diseases and high impact diseases (VPD/HID), and when assessing risks and benefits of conducting outbreak-response vaccination campaigns to respond to VPD/HID outbreaks.

[WHO \(2019\) How to implement seasonal influenza vaccination of health workers: an introduction manual for national immunization programme managers and policy makers⁶](#)

Health workers are at higher risk of influenza infection than the general population. In addition to morbidity among health workers, influenza infection may also lead to increased absenteeism and disruption of medical services. Moreover, influenza infected health workers may contribute to nosocomial transmission of infection to their patients, including those at

high risk for developing severe influenza disease and complications. WHO considers health workers to be a priority target group for seasonal influenza vaccination. In addition, influenza vaccination of health workers contributes to influenza pandemic preparedness. Finally, studies have shown that health workers who are vaccinated against influenza are more likely to recommend vaccination to their patients.

This manual serves as a resource to assist users in establishing a national policy for seasonal influenza vaccination of health workers. It provides guidance along with a catalogue of available tools to facilitate policy development, planning, implementation, monitoring and evaluation of influenza vaccination of health workers.

What does the European Centre for Disease Prevention and Control say? [ECDC \(2020\) European Vaccination Information Portal⁷](#)

The ECDC launched the European Vaccination Information Portal in April 2020. The purpose of this website is to provide accurate, objective, up-to-date evidence on vaccines and vaccination in general. It also provides an overview of the mechanisms in place in the EU to ensure that available vaccines conform to the highest standards of safety and effectiveness. The website contains information on influenza, including vaccination and disease fact sheets, vaccination schedules and surveillance data.

[ECDC \(2019\) Influenza communication guide: how to increase influenza vaccination uptake and promote preventive measures to limit its spread⁸](#)

The influenza vaccination communication guide provides advice, guidance and campaign materials to support national influenza vaccination campaigns with the purpose of increasing the influenza vaccination uptake in the EU Member States. The materials are designed to direct key messages on seasonal influenza and its prevention at two specific, pre-identified audiences for whom information on influenza and preventive measures can be particularly relevant:

- Healthcare professionals (HCPs) are key players in advising and delivering influenza vaccination. Despite being widely recommended, influenza immunisation coverage among healthcare workers is exceptionally low in EU countries.
- High-risk groups such as older people (often defined as 65 years and over) and those suffering from chronic diseases are at higher risk of serious flu-related complications.



In recognition of the varying level of prior knowledge and opportunities for responding to the threat of seasonal influenza among these groups, the materials have been adapted, while preserving consistency in the messaging. Specific materials have been pre-tested in focus group studies and then revised by communication experts, taking into consideration the inputs of the focus group and the most recent evidence-based studies on communicating health issues. These materials are intended to deliver clear and simple messages in a visually interesting way to capture the audience's attention. The aim of communications targeting healthcare practitioners is to encourage healthcare professionals to get immunised against seasonal influenza every year. Based on a systematic literature review on effective immunisation campaigns and the latest social marketing theories, instead of highlighting the benefits of vaccination it was decided to focus on risk-taking behaviour, acknowledging existing fears and sharing information on the risks associated with vaccination.

What do the Centers for Disease Control and Prevention (United States) say?

[CDC \(2020\) Influenza vaccination information for health care workers⁹](#)

CDC, the Advisory Committee on Immunization Practices (ACIP) and the Healthcare Infection Control Practices Advisory Committee (HICPAC) recommend that all US health care workers be vaccinated annually against influenza. The findings of a CDC review of related published literature indicate that influenza vaccination of health care personnel can enhance patient safety. CDC conducts science-based investigations, research, and public health surveillance both nationally and internationally. CDC adopts recommendations made by the Advisory Committee for Immunization Practices. These recommendations may be considered by state and other Federal agencies when making or enforcing laws. CDC also has infection control recommendations for health care settings. However, CDC does not issue any requirements or mandates for state agencies, health systems, or health care workers regarding infection control practices, including influenza vaccination or the use of masks. Some employers require certain immunisations. Hospitals, for example, may require some staff to get a flu vaccine or hepatitis B vaccine or take other precautions such as the use of masks.



What does the National Institute for Health and Care Excellence (NICE) say?

[NICE \(2018\) Flu vaccination: increasing uptake: NICE guideline \[NG103\]¹⁰](#)

Immunisation should be provided by occupational health services, infection prevention and control teams, or using arrangements with private healthcare providers. Provide flu vaccination to all front-line health and social care staff who have direct contact with patients or clients. This includes employees who provide community-based care services to people in their own homes, or who care for people in residential care homes or other long-stay care facilities. Consider the following as part of a multicomponent approach to increasing uptake of flu vaccination among front-line health and social care staff:

- A full participation vaccination strategy, with nationally agreed opt out criteria. This strategy has a range of approaches for maximising uptake with the expectation that all front-line staff should be vaccinated. The full participation approach includes agreed mechanisms, enabling staff to opt out if they wish.
- Extending on-site vaccination clinic hours to fit in with staff work patterns.
- Using outreach or mobile services to offer flu vaccination in locations and at times where large numbers of staff congregate, such as staff canteens or during shift changeovers.
- Offering opportunities for off-site and out-of-hours access, for example, by providing vouchers for flu vaccination at a community pharmacy.

POINT-OF-CARE TOOLS

What does BMJ Best Practice say?

[BMJ Best Practice \(2020\) Influenza vaccination¹¹](#)

The Advisory Committee on Immunization Practices of the US Centers for Disease Control and Prevention recommends that all healthcare workers receive an annual influenza vaccination to limit the spread of infection. Influenza outbreaks in hospitals and long-term care facilities have been attributed to low vaccination rates among healthcare professionals. The goal is to prevent transmission of the virus to a high-risk population.



Inactivated influenza virus vaccine is preferred over live virus vaccine for household members, healthcare workers and others coming into close contact with severely immunosuppressed people requiring care in a protected environment.

What does UpToDate say?

[UpToDate \(2020\) Immunizations for health care providers¹²](#)

Patients with influenza have led to nosocomial transmission of disease and infected staff have transmitted the virus to patients and other staff. Acquisition of influenza in health care staff results in absenteeism and disruption of health care. In addition, nosocomial outbreaks have been responsible for significant morbidity and mortality in nursing homes and other long-term facilities. These problems can be reduced by vaccination. This was illustrated in a study in which patients in facilities where influenza immunisation rates of staff were greater than 60% had less influenza-related morbidity and mortality than patients in facilities where less than 60% of the staff were vaccinated. Since influenza infection in staff and patients is common, ranging between 25 and 80 percent, the Centers for Disease Control and Prevention (CDC) has published extensive guidelines for the prevention and control of nosocomial influenza. The American Academy of Pediatrics, American College of Physicians, American Public Health Association, Infectious Diseases Society of America, and Society of Healthcare Epidemiology of America have all endorsed mandatory influenza vaccination for all health care workers. A central part of the prevention strategy is annual immunization – e.g. between mid-October and mid-November – of health care providers, particularly clinicians, nurses, employees of nursing homes or other long-term health facilities who have contact with patients or residents, and providers of home care to high-risk patients. In both adults and paediatric health care providers, influenza vaccine is cost effective and, in one study, reduced absenteeism by 28%. In general, inactivated vaccines are routinely used in health care settings. The Advisory Committee on Immunization Practices (ACIP) recommended against the use of the intranasal live attenuated influenza vaccine (LAIV) during the 2016 to 2017 and 2017 to 2018 seasons for any population given its poor effectiveness against H1N1 in children in the 2013 to 2016 seasons. The LAIV is now an option in the 2018 to 2019 season for healthy non-pregnant adults up to 49 years of age, since the 2018 to 2019 vaccine results in higher H1N1 antibody titers than the earlier strain. However, the ACIP recommends that health care providers caring for severely immunosuppressed

individuals NOT receive the LAIV. If a health care provider receives intranasal vaccine, he or she should not have contact with severely immunosuppressed patients for seven days after vaccination.

INTERNATIONAL LITERATURE

What does the international literature say?

[Lytras et al \(2016\) Interventions to increase seasonal influenza vaccine coverage in healthcare workers: A systematic review and meta-regression analysis¹³](#)

Influenza vaccination is recommended for healthcare workers (HCWs), but coverage is often low. We reviewed studies evaluating interventions to increase seasonal influenza vaccination coverage in HCWs, including a meta-regression analysis to quantify the effect of each component. Forty-six eligible studies were identified. Domains conferring a high risk of bias were identified in most studies. Mandatory vaccination was the most effective intervention component (Risk Ratio of being unvaccinated [RR_{unvacc}] = 0.18, 95% CI: 0.08-0.45), followed by 'soft' mandates such as declination statements (RR_{unvacc} = 0.64, 95% CI: 0.45-0.92), increased awareness (RR_{unvacc} = 0.83, 95% CI: 0.71-0.97) and increased access (RR_{unvacc} = 0.88, 95% CI: 0.78-1.00). For incentives, the difference was not significant, while for education no effect was observed. Heterogeneity was substantial ($\tau(2) = 0.083$). These results indicate that effective alternatives to mandatory HCWs influenza vaccination do exist and should be explored in future studies.

[Jenkin et al \(2019\) A rapid evidence appraisal of influenza vaccination in health workers: an important policy in an area of imperfect evidence¹⁴](#)

Findings from a rapid review appraisal on successful and practical interventions for increasing HCW influenza vaccine uptake show that mandatory vaccination it is by far the most effective intervention in increasing vaccine uptake quickly, usually to levels in excess of 94 – 96%. Other successful interventions include:

- Multi-faceted
- Sustained over time
- Free and easy to access

- Use behaviour change components: reminders, incentives, education
- Use targeted, multi-faceted interventions using baseline data collection to identify barriers in the population
- Vaccine promotion from the highest level
- Vaccine organiser (and champion) from within the organisation
- Other 'soft mandate' policies such as opt-out programs, declination statements or alternatives such as masks.

[Pitts et al \(2014\) A systematic review of mandatory influenza vaccination in healthcare personnel¹⁵](#)

Context: Influenza is a major cause of patient morbidity. Mandatory influenza vaccination of healthcare personnel (HCP) is increasingly common yet has uncertain clinical impact. This study systematically examines published evidence of the benefits and harm of influenza vaccine mandates.

Evidence acquisition: MEDLINE, Embase, the Cochrane Library, Cumulative Index to Nursing and Allied Health Literature, Science Citation Index Expanded, and Conference Proceedings Citations Index were searched and analysed in 2013. Studies must have assessed the effect of a requirement of influenza vaccination among HCP for continued employment or clinical practice. Studies were not limited by comparison group, outcome, language, or study design. Two reviewers independently abstracted data and assessed bias risk.

Evidence synthesis: Twelve observational studies were included in the study from 778 citations. Following implementation of a vaccine mandate, vaccination rates increased in all eight studies reporting this outcome, exceeding 94%. Three studies documented increased vaccination rates in hospitals with mandates compared to those without ($p < 0.001$ for all comparisons). Two single-institution studies reported limited, inconclusive results on absenteeism among HCP. No studies reported on clinical outcomes among patients. Medical and religious exemptions and terminations or voluntary resignations were rare.

Conclusions: Evidence from observational studies suggests that a vaccine mandate increases vaccination rates, but evidence on clinical outcomes is lacking. Although challenging, large healthcare employers planning to implement a mandate should develop a strategy to evaluate HCP and patient outcomes. Further studies documenting the impact of HCP influenza vaccination on clinical outcomes would inform decisions on the use of mandatory vaccine policies in HCP.



[Honda et al \(2013\) A successful strategy for increasing the influenza vaccination rate of healthcare workers without a mandatory policy outside of the United States: a multifaceted intervention in a Japanese tertiary care center¹⁶](#)

Objective: Although mandatory vaccination programs have been effective in improving the vaccination rate among healthcare workers, implementing this type of program can be challenging because of varied reasons for vaccine refusal. The purpose of our study is to measure improvement in the influenza vaccination rate from a multifaceted intervention at a Japanese tertiary care centre where implementing a mandatory vaccination program is difficult.

Design: Before-and-after trial.

Participants and setting: Healthcare workers at a 550-bed, tertiary care, academic medical center in Sapporo, Japan.

Interventions: We performed a multifaceted intervention including: (1) use of a declination form; (2) free vaccination; (3) hospital-wide announcements during the vaccination period; (4) prospective audit and real-time telephone interview for healthcare workers who did not receive the vaccine; (5) medical interview with the hospital executive for noncompliant (no vaccine, no declination form) healthcare workers during the vaccination period; and (6) mandatory submission of a vaccination document if vaccinated outside of the study institution.

Results: With the new multifaceted intervention, the vaccination rate in the 2012-2013 season increased substantially, up to 97%. This rate is similar to that reported in studies with a mandatory vaccination program. Improved vaccination acceptance, particularly among physicians, likely contributed to the overall increase in the vaccination rate reported in the study.

Conclusions: Implementation of comprehensive strategies with strong leadership can lead to substantial improvements in vaccine uptake among healthcare workers even without a mandatory vaccination policy. The concept is especially important for institutions where implementing mandatory vaccination programs is challenging.

[Feemster et al \(2011\) Employee designation and health care worker support of an influenza vaccine mandate at a large pediatric tertiary care hospital¹⁷](#)

Aim: Determine predictors of support of a mandatory seasonal influenza vaccine program among health care workers (HCWs).



Scope: Cross-sectional anonymous survey of 2443 (out of 8093) randomly selected clinical and non-clinical HCWs at a large pediatric network after implementation of a mandatory vaccination program in 2009-10.

Results: 1388 HCWs (58.2%) completed the survey and 75.2% of respondents reported agreeing with the new mandatory policy. Most respondents (72%) believed that the policy was coercive but >90% agreed that the policy was important for protecting patients and staff and was part of professional ethical responsibility. When we adjusted for attitudes and beliefs regarding influenza and the mandate, there was no significant difference between clinical and nonclinical staff in their support of the mandate (OR 1.08, 95% C.I. 0.94, 1.26).

Conclusions: Attitudes and beliefs regarding influenza and the mandate may transcend professional role. Targeted outreach activities can capitalize on beliefs regarding patient protection and ethical responsibility.

[Looijmans-van den Akker et al \(2010\) Effects of a multi-faceted program to increase influenza vaccine uptake among health care workers in nursing homes: a cluster randomised controlled trial¹⁸](#)

Despite the recommendation of the Dutch association of nursing home physicians (NVA) to be immunized against influenza, vaccine uptake among HCWs in nursing homes remains unacceptably low. Therefore, we conducted a cluster randomised controlled trial among 33 Dutch nursing homes to assess the effects of a systematically developed multi-faceted intervention program on influenza vaccine uptake among HCWs. The intervention program resulted in a significantly higher, though moderate, influenza vaccine uptake among HCWs in nursing homes. To take full advantage of this measure, either the program should be adjusted and implemented over a longer time period or mandatory influenza vaccination should be considered.



[Bechini et al \(2020\) Utility of healthcare system-based interventions in improving the uptake of influenza vaccination in healthcare workers at long-term care facilities: a systematic review](#)¹⁹

Healthcare workers (HCWs) in long-term care facilities (LTCFs) can represent a source of influenza infection for the elderly. While flu vaccination coverage (VC) is satisfactory in the elderly, HCWs are less likely to be vaccinated. There is no definitive evidence on which types of healthcare system-based interventions at LTCFs would be more useful in improving the vaccination uptake among HCWs. We performed a systematic review in different databases – PubMed, Cochrane Database of Systematic Reviews, Health Evidence, Web of Science, CINAHL – to provide a synthesis of the available studies on this topic. Among the 1,177 articles screened by their titles and abstracts, 27 were included in this review. Most of the studies reported multiple interventions addressed to improve access to vaccination, eliminate individual barriers, or introduce policy interventions. As expected, mandatory vaccinations seem to be the most useful intervention to increase the vaccination uptake in HCWs. However, our study suggests that better results in the vaccination uptake in HCWs were obtained by combining interventions in different areas. Educational campaigns alone could not have an impact on vaccination coverage. LTCFs represent an ideal setting to perform preventive multi-approach interventions for the epidemiological transition toward aging and chronicity.

[Jackson-Lee et al \(2016\) Mandating influenza vaccinations for health care workers: analysing opportunities for policy change using Kingdon's agenda setting framework](#)²⁰

Background: The consequences of annual influenza outbreaks are often underestimated by the general public. Influenza poses a serious public health threat around the world, particularly for the most vulnerable populations. Fortunately, vaccination can mitigate the negative effects of this common infectious disease. Although inoculating frontline health care workers (HCWs) helps minimize disease transmission, some HCWs continue to resist participating in voluntary immunization programs. A potential solution to this problem is government-mandated vaccination for HCWs; however, in practice, there are substantial barriers to the adoption of such policies. The purpose of this paper is to identify the likelihood of adopting a policy for mandatory immunization of HCWs in Ontario based on a historical review of barriers to the agenda setting process.



Methods: Documents from secondary data sources were analysed using Kingdon's agenda setting framework of three converging streams leading to windows of opportunity for possible policy adoption.

Results: The problems, politics, and policies streams of Kingdon's framework have converged and diverged repeatedly over an extended period (policy windows have opened and closed several times). In each instance, a technically feasible solution was available. However, despite the evidence supporting the value of HCW immunization, alignment of the three agenda setting streams occurred for noticeably short periods of time, during which, opposition lobby groups reacted, making the proposed solution less politically acceptable.

Conclusions: Prior to the adoption of any new policies, issues must reach a government's decision agenda. Based on Kingdon's agenda setting framework, this only occurs when there is alignment of the problems, politics, and policies streams. Understanding this process makes it easier to predict the likelihood of a policy being adopted, and ultimately implemented. Such learning may be applied to policy issues in other jurisdictions. In the case of mandatory influenza vaccinations for HCWs in Ontario, it seems highly unlikely that a new policy will be adopted until perception of the problem's importance is sufficient to overcome the political opposition to implementing a solution and thus, create a window of opportunity that is open long enough to support change.

[**Frederick et al \(2018\) Protecting healthcare personnel in outpatient settings: the influence of mandatory versus nonmandatory influenza vaccination policies on workplace absenteeism during multiple respiratory virus seasons²¹**](#)

OBJECTIVE To determine the effect of mandatory and nonmandatory influenza vaccination policies on vaccination rates and symptomatic absenteeism among healthcare personnel (HCP). **DESIGN** Retrospective observational cohort study. **SETTING** This study took place at 3 university medical centers with mandatory influenza vaccination policies and 4 Veterans Affairs (VA) healthcare systems with nonmandatory influenza vaccination policies. **PARTICIPANTS** The study included 2,304 outpatient HCP at mandatory vaccination sites and 1,759 outpatient HCP at nonmandatory vaccination sites. **METHODS** To determine the incidence and duration of absenteeism in outpatient settings, HCP participating in the Respiratory Protection Effectiveness Clinical Trial at both mandatory and nonmandatory vaccination sites over 3 viral respiratory illness (VRI) seasons (2012-2015)

reported their influenza vaccination status and symptomatic days absent from work weekly throughout a 12-week period during the peak VRI season each year. The adjusted effects of vaccination and other modulating factors on absenteeism rates were estimated using multivariable regression models. RESULTS The proportion of participants who received influenza vaccination was lower each year at nonmandatory than at mandatory vaccination sites (odds ratio [OR], 0.09; 95% confidence interval [CI], 0.07-0.11). Among HCP who reported at least 1 sick day, vaccinated HCP had lower symptomatic days absent compared to unvaccinated HCP (OR for 2012-2013 and 2013-2014, 0.82; 95% CI, 0.72-0.93; OR for 2014-2015, 0.81; 95% CI, 0.69-0.95). CONCLUSIONS These data suggest that mandatory HCP influenza vaccination policies increase influenza vaccination rates and that HCP symptomatic absenteeism diminishes as rates of influenza vaccination increase. These findings should be considered in formulating HCP influenza vaccination policies.

[Halpin and Reid \(2019\) Attitudes and beliefs of healthcare workers about influenza vaccination²²](#)

Background: Annual influenza vaccination is recommended for all healthcare workers (HCWs) to help reduce the risk of contracting the virus and transmitting it to vulnerable people, especially older adults in residential care facilities. Vaccination uptake among HCWs remains low.

Aim: To investigate HCWs' attitudes towards, and beliefs about, seasonal influenza vaccination in a residential care facility for older adults in the Republic of Ireland.

Method: Data were collected using a self-administered questionnaire.

Results: A total of 95 questionnaires were distributed, and 35 (37%) HCWs completed and returned them. During the 2016-17 flu season, 20 (57%) respondents were vaccinated. Primary predictors of vaccination acceptance were the belief that being healthy should not mitigate against requiring the vaccine ($r = 0.7$, $P = 0.01$), protection of self and family ($r = 0.67$, $P = 0.01$), protection of patients ($r = 0.592$, $P = 0.01$) and agreement with mandatory vaccination ($r = 0.351$, $P = 0.039$). Reasons for vaccination avoidance were misconceptions about the need for vaccination among healthy HCWs (67%), efficacy of the vaccine (60%), lack of trust in the vaccine (47%) and a belief that the vaccine may cause flu (47%).

Conclusion: Addressing HCWs' beliefs relating to the personal benefits of vaccination while simultaneously correcting misconceptions may help to

increase uptake among those working in residential care settings for older adults.

[Stead et al \(2019\) Mandatory policies for influenza vaccination: views of managers and healthcare workers in England²³](#)

Introduction: Mandatory policies have the potential to increase uptake of influenza vaccination among healthcare workers (HCWs), but concerns have been expressed about their acceptability and effectiveness. We explored views on three mandatory policies (declination forms, face masks or reduced patient contact, and mandatory vaccination) among both HCWs and flu vaccination programme managers in the National Health Service (NHS) in England.

Method: A mixed method approach was employed. An online cross-sectional survey was conducted with staff responsible for implementing influenza campaigns in NHS trusts (healthcare organisations) in England (n = 72 trusts). The survey measured perceived effectiveness of the three mandatory policies and perceived support for them among HCWs.

Qualitative interviews were conducted in four trusts, with influenza campaign managers (n = 24) and with HCWs who had the opportunity to receive the influenza vaccination (n = 32). Interviews explored respondents' views of the three strategies and were analysed thematically using QSR NVivo 11. All data were collected shortly after the 2016/2017 influenza season.

Results: In the survey, views varied on the effectiveness of the three policies and none of the interventions were thought to be strongly supported by HCWs, with particularly low levels of support perceived for mandatory vaccination and for face masks or reduced patient contact. The qualitative interviews revealed substantial concerns around the practicability and enforceability of mandatory policies and the potential discriminatory effect on HCWs who made a principled decision or had medical reasons for exemption. Additional doubts were also expressed regarding the effectiveness of face masks and their potential to worry patients, and the ethics of compelling staff to accept medical intervention.

Discussion: Mandatory vaccination and face masks would not be strongly supported if introduced in the UK. If declination forms are adopted, they should be used in a constructive intelligence-gathering manner which avoids stigmatising HCWs.



[Blank et al \(2020\) Mandatory employee vaccination as a strategy for early and comprehensive health care personnel immunization coverage: experience from 10 influenza seasons²⁴](#)

Background: Influenza is responsible for thousands of deaths in the United States and presents particular challenges in health care facilities with a greater prevalence of people at increased risk for adverse outcomes. Annual influenza vaccination has long been recommended, and employer policies influence the likelihood health care personnel are immunized.

Methods: This is a review of vaccination data maintained by a large health care organization to assess the effects of a mandatory health care personnel vaccination policy implemented during 2008-2009. Vaccination rates, timing of immunizations, and requests for medical or religious exemptions were assessed from 2006-2007 to 2017-2018.

Results: The health care personnel vaccination rate was 70% during the influenza season before the mandatory policy was implemented and increased to 98.4% immediately afterward. Vaccination rates exceeded 97% during the subsequent 9 years.. Religious and medical exemptions decreased at academic medical centres and remained consistent at community hospitals. Among immunized employees, the peak date for vaccination shifted to late September or early October compared to late October or early November before the mandatory policy.

Conclusions: Requiring vaccination led to sustained increases in staff vaccination coverage at academic medical centres and community hospitals. The mandatory policy also appeared to encourage earlier vaccination.

OTHER

[The Academy of Medical Sciences \(14 July 2020\) Preparing for a challenging winter 2020/21²⁵](#)

In June 2020, at the request of the Government Office for Science, the Academy of Medical Sciences established an Expert Advisory Group to inform a clear understanding of what a challenging winter 2020/21 may look like- a likely mix of COVID-19, bad seasonal influenza and cold weather. The group completed this rapid review to define the extent of the challenges that might be faced this winter in terms of health, and health and social care

delivery, as well as potential options to mitigate these. This report considers a reasonable worst-case scenario for winter 2020/21 and identifies actions that should help to mitigate the impact of COVID-19 on the expected seasonal surge in healthcare demand.

This winter it will be a priority to increase the uptake of the influenza vaccination programme for eligible groups, including high risk groups who are vulnerable to influenza, such as the elderly and clinically vulnerable; young children, who can amplify community spread; and health and social care workers. There will be challenges to this, including limited supplies and the need for physical distancing when delivering the vaccination programme. Influenza vaccination is currently opt-in for healthcare workers, and uptake of 41.2- 74.3% was achieved in 2019/20 across the UK. Increasing vaccination coverage of healthcare workers, including care home workers, social care and agency staff, to close to universal uptake will help to reduce transmission to vulnerable patients and reduce sickness absence, and should be a priority. Influenza vaccination of care home staff has been shown to reduce mortality, morbidity and admission rates of residents, but there is limited occupational health provision to this sector. Staff in these settings are eligible for vaccination in the NHS, through general practice and pharmacies, but uptake is not well monitored, and is considered to be low. Employers of health and social care staff are responsible for providing occupational influenza vaccinations.

[Public Health England \(2019\) Influenza: the green book²⁶](#)

This document contains Influenza immunisation information including updates for public health professionals. The guidance lists clinical risk groups who should receive the influenza vaccination. It recommends that vaccination should also be offered to household contacts of immunocompromised individuals, i.e. individuals who expect to share living accommodation on most days over the winter and therefore for whom continuing close contact is unavoidable. This may include carers. In addition, immunisation should be provided to healthcare and social care workers in direct contact with patients/clients to protect them and to reduce the transmission of influenza within health and social care premises, to contribute to the protection of individuals who may have a suboptimal response to their own immunisations, and to avoid disruption to services that provide their care. This would include:



- health and social care staff directly involved in the care of their patients or clients;
- those living in long-stay residential care homes or other long-stay care facilities where rapid spread is likely to follow introduction of infection and cause high morbidity and mortality;
- those who are in receipt of a carer's allowance, or those who are the main carer of an elderly or disabled person whose welfare may be at risk if the carer falls ill. Vaccination should be given on an individual basis at the GP's discretion in the context of other clinical risk groups in their practice;
- others involved directly in delivering health and social care such that they and vulnerable patients/clients are at increased risk of exposure to influenza.

[NACI \(2020\) Summary of the NACI seasonal influenza vaccine statement for 2020-2021²⁷](#)





This document summarises Canada's National Advisory Committee on Immunization's (NACI) recommendations regarding the use of seasonal influenza vaccines for the 2020-2021 influenza season and highlights new and updated recommendations. To update wording on influenza vaccination of health care workers, NACI reassessed the evidence in the context of ethics and acceptability frameworks, in accordance with their recently expanded mandate. NACI provides new recommendations based on assessment of the evidence. NACI continues to recommend that health care workers and other care providers in facilities and community settings should be vaccinated annually against influenza and that this group be included among those particularly recommended to receive the influenza vaccine.

Produced by the members of the National Health Library and Knowledge Service Evidence Team[†]. Current as at 21 JULY 2020. This evidence summary collates the best available evidence at the time of writing and **does not replace clinical judgement or guidance**. Emerging literature or subsequent developments in respect of COVID-19 may require amendment to the information or sources listed in the document. Although all reasonable care has been taken in the compilation of content, the National Health Library and Knowledge Service Evidence Team makes no representations or warranties expressed or implied as to the accuracy or suitability of the information or sources listed in the document. This evidence summary is the property of the National Health Library and Knowledge Service and subsequent re-use or distribution in whole or in part should include acknowledgement of the service.



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The following PICO(T) was used as a basis for the evidence summary:

	HEALTH CARE WORKERS
	MANDATORY FLU VACCINATION
	OTHER INTERVENTIONS TO INCREASE FLU VACCINATION UPTAKE
	

The following search strategy was used:

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((((health worker[Title/Abstract]) OR (health care worker[Title/Abstract])) OR (health
professional[Title/Abstract])) OR (health providers[Title/Abstract])) OR (health
personnel[Title/Abstract])) OR ("Health Personnel"[Mesh])
((flu[Title/Abstract]) OR (influenza[Title/Abstract])) OR ("Influenza, Human/prevention and
control"[Mesh])
((((vaccine[Title/Abstract]) OR (vaccination[Title/Abstract])) OR (immunization[Title/Abstract])) OR
(immunisation[Title/Abstract])) OR ("Influenza Vaccines"[Mesh])
((mandatory[Title/Abstract]) OR (mandate[Title/Abstract])) OR ("Mandatory Programs"[Mesh])
  
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