



Public Health
England

Protecting and improving the nation's health

Seasonal influenza vaccine uptake in healthcare workers (HCWs) in England: winter season 2020 to 2021

Final data for 1 September 2020 to
28 February 2021

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Executive summary

This document reports on the uptake of seasonal influenza vaccination among frontline healthcare workers (HCWs) during the 2020 to 2021 vaccination campaign in England, for vaccinations administered from 1 September 2020 up to 28 February 2021.

Frontline HCWs involved in direct patient care are encouraged to receive seasonal influenza vaccination annually to protect themselves and their patients from influenza¹. All 259 NHS organisations participated in this collection, with 98.5% returning data for the final survey on cumulative influenza vaccines administered from 1 September 2020 to 28 February 2021. NHS organisations comprise acute, ambulance, care, mental health and other NHS Trusts, and primary care (GPs or Independent Sector Healthcare Providers (ISHCP), aggregated by Sustainability and Transformation Partnership (STP)).

Data were collected by staff cohorts (doctors, qualified nurses, other professionally qualified clinical staff and clinical support staff) from each organisation and aggregated by Trust, Sustainability and Transformation Partnership (STP), region and nationally. The 2020 to 2021 season saw 76.8% of all frontline HCWs (from all organisations) with direct patient care receiving the influenza vaccine in England, up from 74.3% in the 2019 to 2020 season.

Seasonal influenza vaccine uptake in NHS Trusts ranged from 53.0% to 100.0%, with one trust achieving 100% vaccine uptake. 59.4% (129 out of 217) NHS Trusts achieved vaccine uptake of 75% or more.

Seasonal influenza vaccine uptake in GP practices and ISHCPs (aggregated by STP), ranged from 60.8% to 92.6%. A total of 76.2% (32 out of 42) of STPs reported uptake of 75% or greater.

The highest seasonal influenza vaccine uptake in England was achieved among qualified nurses in GP practices, with an uptake of 84.8%. The lowest uptake was 75.0% in support to clinical staff.

¹ National influenza vaccination programme 2020 to 2021

Notes on the report

Intended audience

This report is aimed at professionals directly involved in the delivery of the influenza vaccine in frontline healthcare workers, Screening and Immunisations Teams, governmental organisations and researchers with an interest in the influenza vaccination programme in England.

Aim of the report

This report provides an update on influenza vaccine uptake (%) in frontline healthcare workers involved in direct patient care. The data is presented to understand the progress of influenza vaccine uptake amongst frontline healthcare workers by staff group compared to the previous seasons. This report will also support the future planning of seasonal influenza vaccination amongst frontline healthcare workers.

Background

Frontline healthcare workers (HCWs) involved in direct patient care are encouraged to receive a seasonal influenza vaccine annually, to protect themselves and their patients from influenza². To assess vaccine uptake for the 2020 to 2021 winter season among HCWs, a seasonal influenza vaccine uptake survey of all 259 NHS organisations in England was undertaken. NHS organisations comprise acute, ambulance, care, mental health and other NHS Trusts, and primary care (GPs or Independent Sector Healthcare Providers (ISHCP), aggregated by Sustainability and Transformation Partnership (STP)).

Public Health England (PHE) co-ordinated and managed the data collection, and produced monthly provisional data on vaccinations allowing the National Health Service (NHS) and Department of Health and Social Care (DHSC) to track the progress of the programme during the 2020 to 2021 influenza season. This collection received approval as a mandatory collection from Data Standards Assurance Service (DSAS) formally known as Burden Advice Assessment Service (BAAS) under license ROCR/OR/2209/001MAND.

The Commissioning for Quality and Innovation (CQUIN) scheme was introduced in the 2016 to 2017 season with the intention to deliver clinical quality improvements and drive transformational change. One of the indicators under the NHS Staff health and wellbeing is improving the uptake of influenza vaccination for frontline staff within providers by introducing payment incentives to Trusts who reach high uptake rates. Due to the coronavirus (COVID-19) pandemic, the CQUIN scheme was suspended for the 2020 to 2021 season.

The aims and objectives of the 2020 to 2021 seasonal influenza vaccine uptake campaign amongst HCWs in England were to:

- monitor vaccine uptake amongst HCWs to inform the management and progress of the national vaccination programme
- allow DHSC, NHS England, Screening and Immunisation Teams, NHS Trusts and STPs to review national, regional, and local vaccine programme performance and identify staff groups and local or regional areas where coverage is high (to identify best practice to inform activities to increase uptake) and low (to increase uptake further)
- gather epidemiological data to support the evaluation and future planning of seasonal influenza vaccinations amongst frontline HCWs

² National influenza vaccination programme 2020 to 2021

Methods

Cumulative data on seasonal influenza vaccine uptake was collected from all NHS Trusts³, using the ImmForm website. Data was collected on frontline HCWs involved in direct patient care in monthly surveys for vaccinations administered between 1 September 2020 and 28 February 2021 (inclusive). This included doctors, qualified nurses, other professionally qualified clinical staff and clinical support staff, and are the same groups that were monitored in previous seasons. Staff group definitions used were identical to NHS Workforce Census definitions and are described in detail in [Appendix A](#). Trusts identify frontline HCWs eligible to receive seasonal influenza vaccine (the denominator) and record all those that are vaccinated (the numerator) to calculate their overall vaccine uptake.

Each monthly survey on the ImmForm website was opened for data submission over the first 9 working days of each survey month, (with adjustments and extensions made to allow for public holidays in some weeks). The 2020 to 2021 monthly data collection schedule with original survey deadlines is provided in [Appendix B](#). Trusts had 7 working days to submit data manually onto the ImmForm website. NHS England and Screening and Immunisation teams were allocated an additional 2 working days to amend and validate data, and to follow up with non-responding Trusts, GP practices and ISHCPs to ensure data were submitted. Additional follow-up was undertaken by PHE of non-responding Trusts or for data validation as required.

The data in this report is as submitted by Trusts and NHS England and Screening and Immunisation Teams and has not been altered except by specific request from nominated representatives of the Trust.

ImmForm website

One of the functions of the [ImmForm website](#) is to provide a secure platform for vaccine uptake data collection for several immunisation surveys, including this collection. It allows data providers to:

- provide information on the trust type, trust status and survey coverage
- view vaccine uptake rates by staff group allowing data providers to review and assess progress for their own organisation
- allow local NHS England and Screening and Immunisation teams to view a 'non-responder' report that highlights trusts and primary care providers in their region that have not yet submitted data, thus allowing follow-up

³ This included acute acute, ambulance, care, community, mental health and other NHS Trusts, and primary care (GP/ISHCP, aggregated by STP).

Data limitations

All the data needed to calculate vaccine uptake were entered manually directly onto the ImmForm website by Trusts. All Trusts were asked to submit cumulative data monthly over 5 months. As none of these data were extracted from information systems there is the possibility of human error or misinterpretation. The ImmForm survey form has basic automated validation checks to ensure logical consistency. For example, ensuring that the sum of the figures for individual staff group match the total for all frontline HCWs, and that the number vaccinated must be less than or equal to the number of reported frontline HCWs. As part of an exercise to improve data quality and remove input errors, the submitted data were then manually checked and validated.

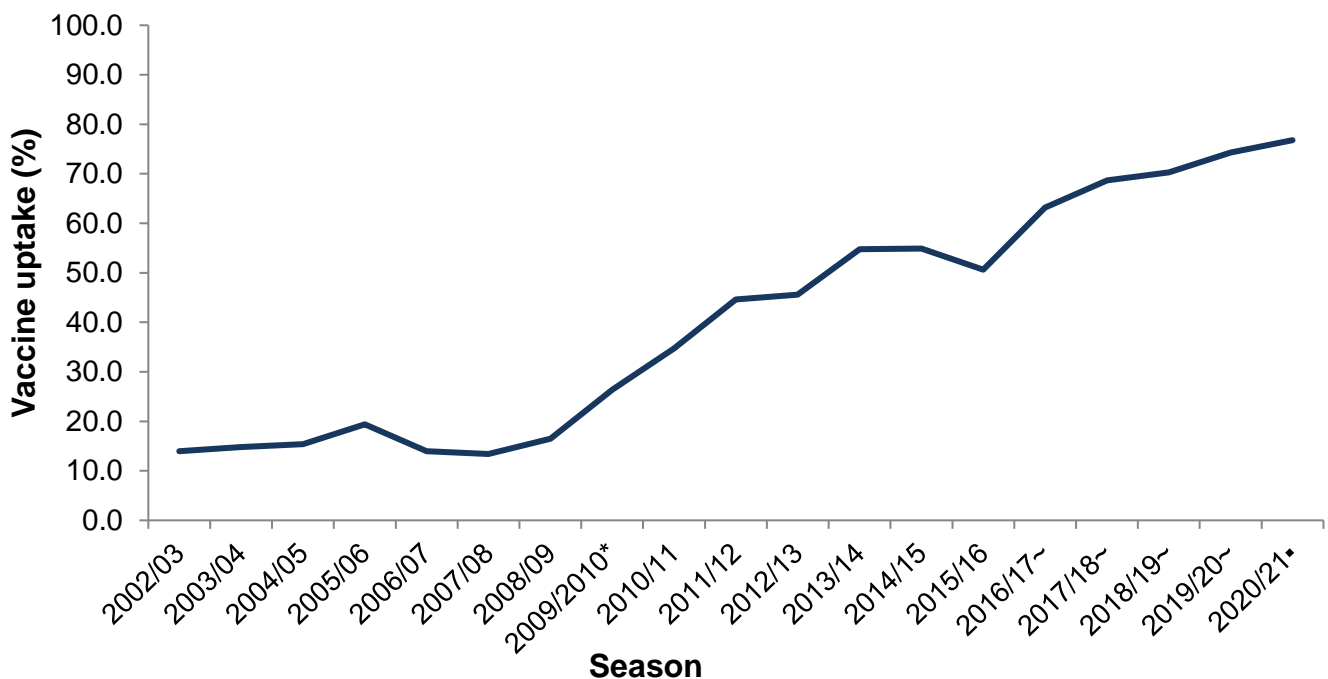
Results

A total of 255 out of 259 organisations (98.5% response rate) submitted data on seasonal influenza vaccinations administered up to 28 February 2021. A 98.7% response rate (234 out of 237) was seen in the 2019 to 2020 season. Since the 2019 to 2020 influenza season, the total number of organisations has increased from 237 to 259 organisations due to trusts merging and separating, and the introduction of Sustainability and Transformation Partnerships (STPs). A summary of main results are outlined below.

National vaccine uptake rates

Overall, 76.8% (869,061 out of 1,131,683) of frontline HCWs received the seasonal influenza vaccine during the 2020 to 2021 season, compared with 74.3% in the previous season (2019 to 2020), 70.3% in 2018 to 2019 and 68.7% in 2017 to 2018⁴ (Figure 1). Supplementary tables 1,2 and 3 show national seasonal influenza vaccine uptake figures for the 2020 to 2021 season by STP, Trust and Trust type.

Figure 1. Seasonal influenza vaccine uptake in HCWs in England for season 2020 to 2021, compared with previous seasons

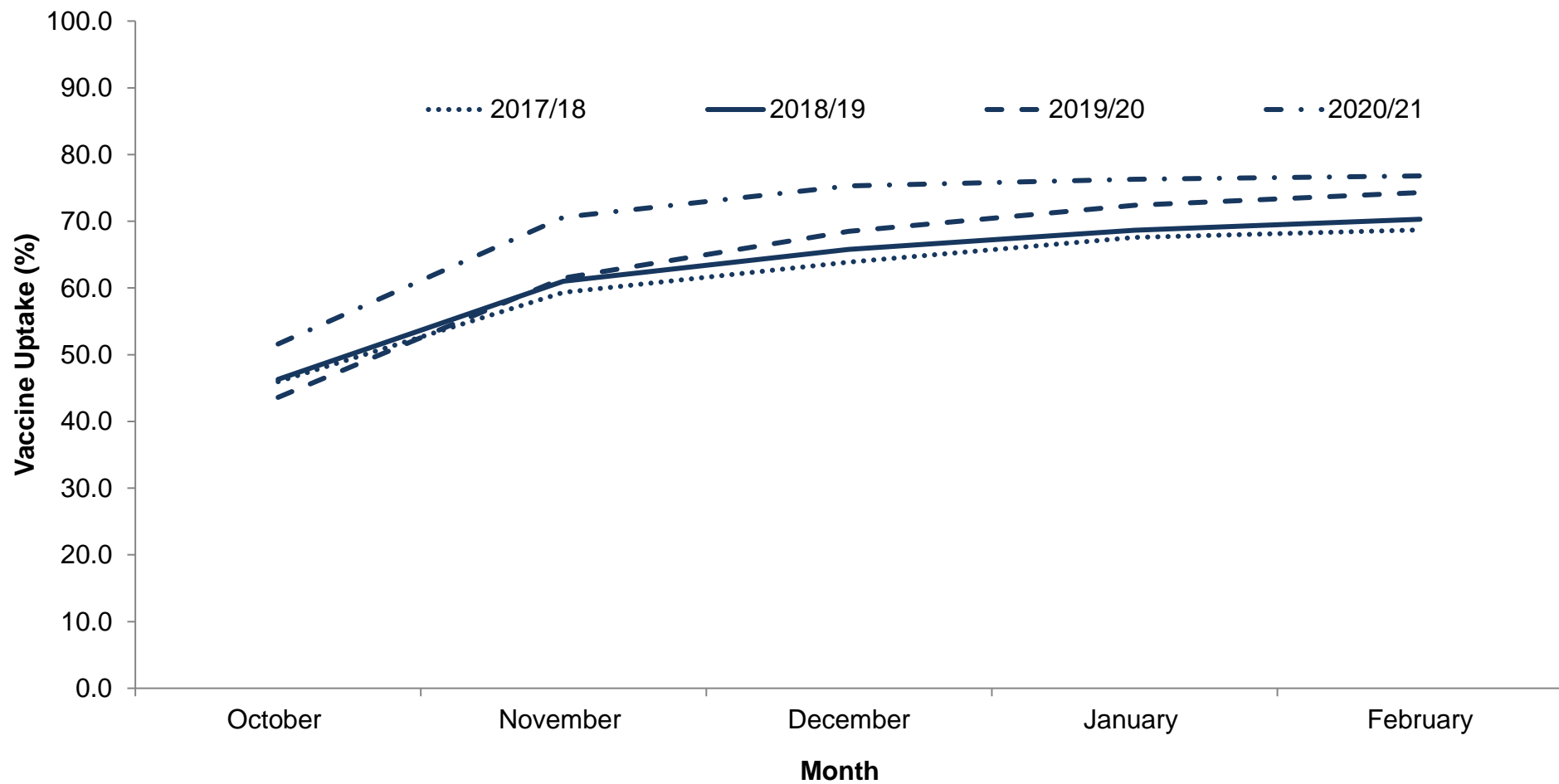


* Pandemic year in which the HCWs vaccine uptake survey expanded from acute trust only to include other Trusts, such as ambulance, mental health, and primary care trusts.
 ~ CQUIN scheme was introduced or continued.
 ▪ CQUIN scheme was suspended.

⁴ Seasonal influenza vaccine uptake amongst frontline healthcare workers (HCWs) in England, 2012 to 2020

Uptake of the seasonal influenza vaccine increased significantly during the first 3 months of vaccination and then began to plateau from December onwards. At all points in the season, uptake was higher than corresponding times in previous seasons (Figure 2).

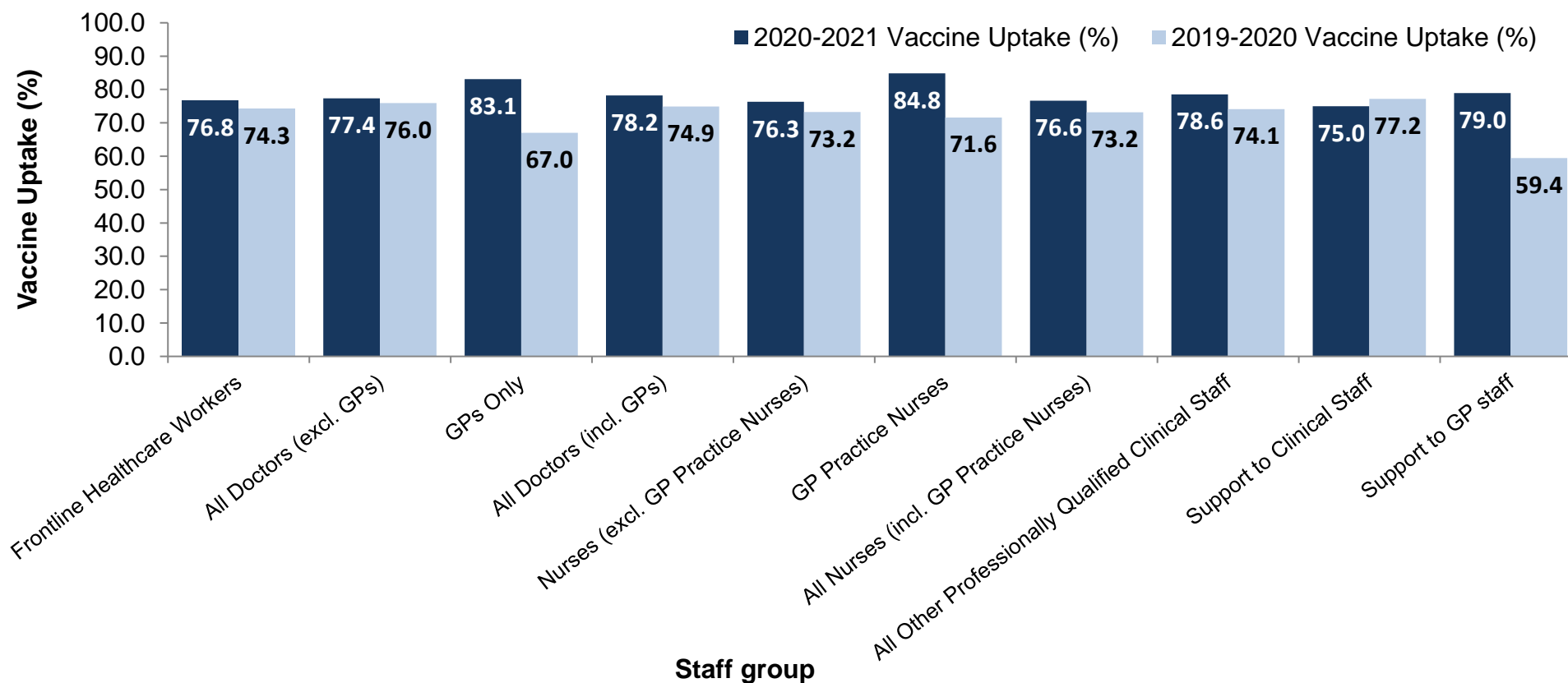
Figure 2. Seasonal influenza vaccine uptake in HCWs by month for England during the 2020 to 2021 season, compared with the previous 3 seasons



National vaccine uptake rates by staff group

The highest seasonal influenza vaccine uptake by staff group was amongst qualified nurses in GP practices at 84.8%, up from 71.6% in the previous season (2019 to 2020). The lowest uptake was among support to clinical staff at 75.0%, compared to 77.2% in the 2019 to 2020 season. The 2019 to 2020 season saw a much greater variation and a lower minimum vaccine uptake by staff group compared to the 2020 to 2021 season, ranging from 59.4% to 77.2%.

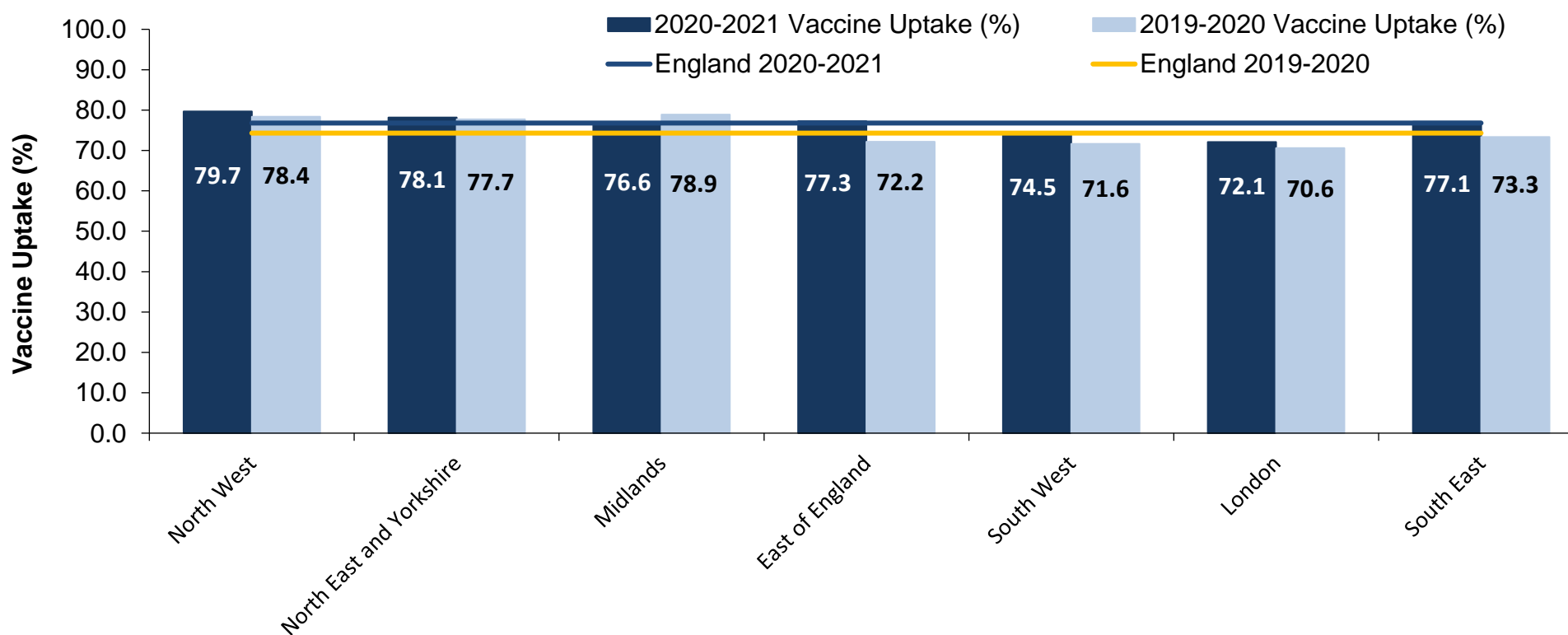
Figure 3. Seasonal influenza vaccine uptake in HCWs by staff groupings in England for 2020 to 2021, compared with 2019 to 2020



Vaccine uptake for all trusts

The median seasonal influenza vaccine uptake for all Trusts was 77.7%. The highest seasonal influenza vaccine uptake reported by a Trust was 100.0%, with 59.4% of all Trusts (129 out of 217) achieving vaccine uptake rates of 75% or more. The lowest seasonal influenza vaccine uptake reported by a Trust was 53.0%. Seasonal influenza vaccine uptake (from all Trusts) aggregated by commissioning region ranged from 72.1% in London to 79.7% in the North West, with 5 out of 7 commissioning regions recording overall uptake of 75% or greater (Figure 4).

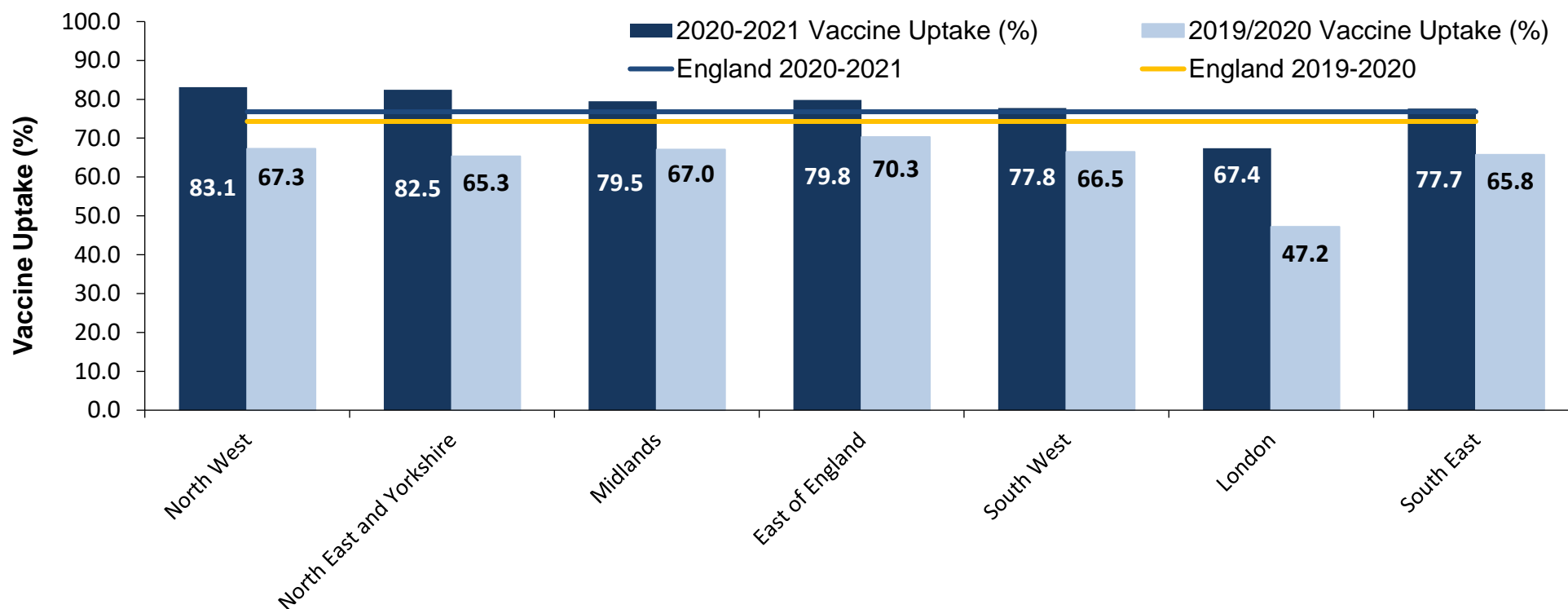
Figure 4. Seasonal influenza vaccine uptake in HCWs in all Trusts by commissioning region in 2020 to 2021, compared to 2019 to 2020



Vaccine uptake for GP practices and independent sector health care providers (ISHCPs)

Seasonal influenza vaccine uptake in primary care organisations (from GP Practices and ISHCPs) aggregated by STP ranged from 60.8% to 92.6%, with 32 out of 42 STPs reporting uptake of 75% or over. When aggregated subsequently by commissioning region, vaccine uptake ranged from 67.4% in London to 83.1% in the North West, with 6 out of 7 commissioning regions reporting uptake of 75% or greater (Figure 5).

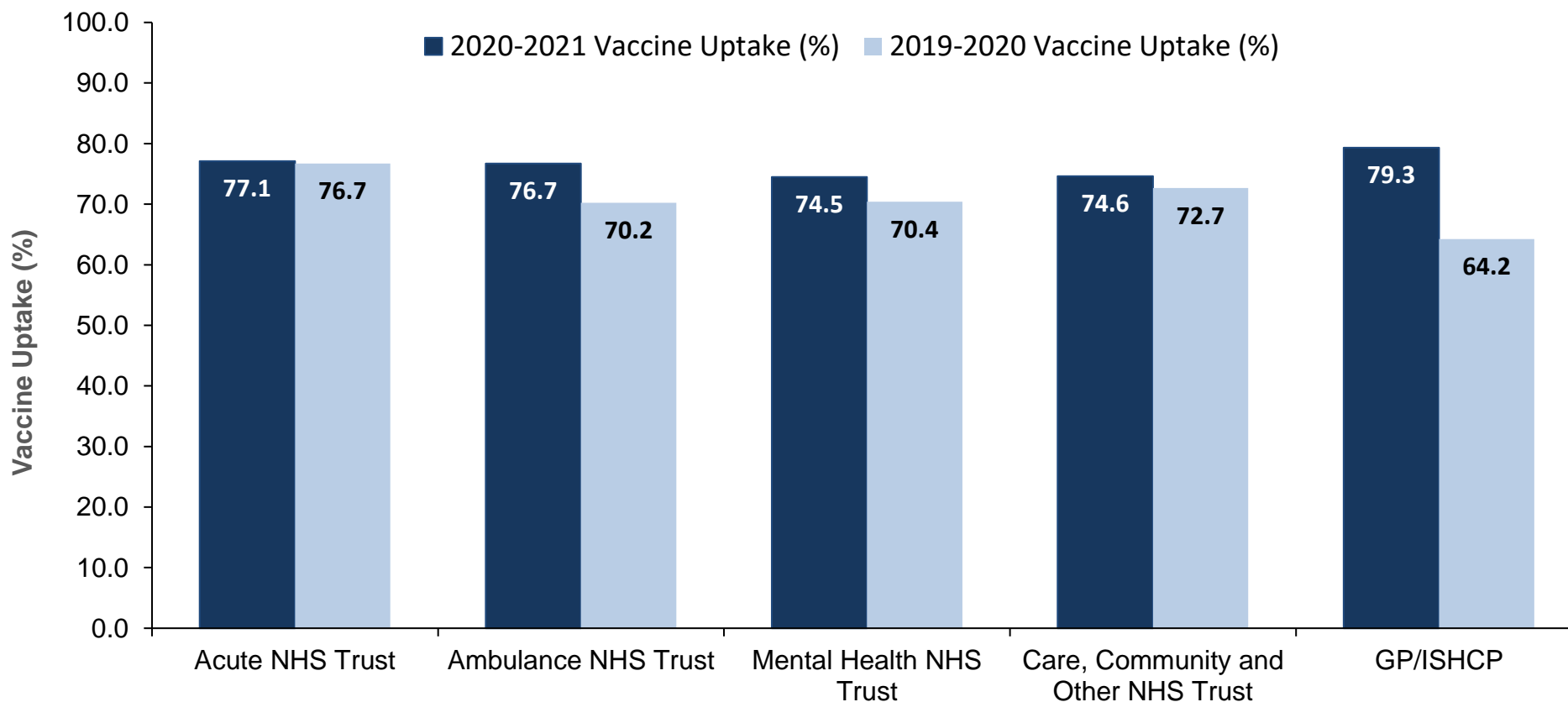
Figure 5. Seasonal influenza vaccine uptake in HCWs in primary care (GP and ISHCP) in England by commissioning region 2020 to 2021, compared to 2019 to 2020



Vaccine uptake rates by organisation type

Seasonal influenza vaccine uptake by organisation type ranged from 74.5% for staff in Mental Health NHS Trusts compared to 79.3% in those working in primary care organisations (GP/ISHCPs) (Figure 6). The uptake by all organisation types increased compared to the previous season.

Figure 6. Seasonal influenza vaccine uptake in HCWs by organisation type 2020 to 2021, compared to 2019 to 2020



Discussion

The 2020 to 2021 influenza season recorded a seasonal influenza vaccine uptake of 76.8% amongst HCWs in England, an increase in uptake by 2.5% (74.3% achieved in 2019 to 2020 season). This is the highest uptake achieved since the start of the programme, with uptake at just 14.0% in the 2002 to 2003 season. The continued increase in seasonal influenza vaccine uptake amongst HCWs remains important to lower the risk of influenza infection amongst HCWs themselves (who may be at increased risk of exposure to influenza compared with the general population), their patients who may have a suboptimal response to their own vaccinations, and their families.

The Commissioning for Quality and Innovation (CQUIN) scheme was introduced in the 2016 to 2017 season to improve the uptake of influenza vaccination for frontline staff within providers. Since the introduction of the CQUIN scheme, vaccine uptake in all Trusts (excluding in primary care organisations) rose from 50.5% in 2015 to 2016 to 75.2% in the 2019 to 2020 season. The CQUIN scheme was suspended for the 2020 to 2021 season due to the COVID-19 pandemic.

The 'I've had my flu jab' marketing campaign⁵ was created by PHE, with support from NHS England & Improvement and the Department of Health and Social Care. The campaign was designed to encourage health and social care workers to be vaccinated against seasonal influenza, to help protect them against flu and reduce transmission to vulnerable patients and clients. There was increased appetite for the campaign, with a 63% increase in downloads of campaign assets and 11% increase in 'I've had my flu jab' stickers ordered by partners and given to colleagues after they've had their flu jab, suggesting partner engagement with the campaign was higher than previous years.

During the 2020 to 2021 season, 59.4% of all Trusts achieved vaccine uptake rates of 75% or more, with the highest vaccine uptake by staff group being achieved among GP practice nurses. Approximately 23.2% of HCWs in direct contact with patients (262,622) in organisations responding to the survey did not receive the influenza vaccine this season.

For 2020 to 2021 season, details on the inclusion and exclusion criteria of frontline healthcare workers continued to be included in the user guide. Alongside efforts by participating NHS Trusts to ensure accuracy of provided data, PHE continued to carry out additional data validation to ensure the minimisation of double counting by contributing organisations (See [Appendix A.](#))

The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance, emphasise the need to ensure so far as is reasonably practicable that HCWs are free of and are protected from exposure to infections that can be

⁵ [Health and Social Care Workers Flu Immunisation Marketing](#)

caught at work, and that all staff are suitably educated in the prevention and control of infection associated with the provision of health and social care. Registered providers should therefore ensure that policies and procedures are in place in relation to the prevention and control of infection such that:

- all staff can access occupational health services or appropriate occupational health advice
- occupational health policies on the prevention and management of communicable infections in care workers are in place
- decisions on offering immunisation should be made on the basis of a local risk assessment as described in Immunisation against infectious disease ('The Green Book')
- employers should make vaccines available free of charge to employees if a risk assessment indicates that it is needed (COSHH Regulations 2002)
- there is a record of relevant immunisations

Further information on the Code of Practice can be found on the [DHSC website](#).

Acknowledgements

The authors would like to thank everyone that contributed to the data collection, specifically:

- staff who participated in and supported the HCWs seasonal influenza vaccine uptake collection, principally Trust and NHS England and Screening and Immunisation Team data providers in England
- Influenza Surveillance Section, National Infection Service, Public Health England
- ImmForm team and the ImmForm support team

Appendix A. Staff group definitions

1. Professionally Qualified Clinical Staff, consisting of all professional staff with direct patient care

Data Item	Definitions of staff groups
All doctors	<p>All doctors – consists of all doctors and dentists working in hospital and the community and GPs (excluding retainers). The figures include all grades of hospital, community and public health doctor or dentist, including:</p> <ul style="list-style-type: none"> • consultant • registrars • senior house officers • foundation years 1 and 2 staff • staff grades • associate specialists • clinical assistants and hospital practitioners • students
Qualified Nurses	<p>Qualified nurses including practice nurses – consists of qualified nursing, midwifery and health visiting staff, working in the hospital, community services and general practice. These nurses have at least first level registration. They include:</p> <ul style="list-style-type: none"> • nurse consultants • nurse managers • bank nurses • students
<p>All other professionally qualified clinical staff</p> <p>This comprises:</p> <p>Qualified scientific, therapeutic and technical staff (ST&T)</p> <p>Qualified allied health professionals (AHPs)</p> <p>Other qualified ST&T</p>	<p>Qualified scientific, therapeutic and technical staff (ST&T) - qualified health professionals and students including:</p> <ul style="list-style-type: none"> • consultant therapists • ST&T managers • healthcare scientists <p>These staff work alongside doctors, nurses and other health professionals and are categorised into the following 2 groups:</p> <p>Qualified AHPs – qualified allied health professionals (AHP) and students are the following staff:</p>

Data Item	Definitions of staff groups
<p>Qualified ambulance staff</p>	<ul style="list-style-type: none"> • chiropodists or podiatrists • dieticians • occupational therapists • orthoptists • physiotherapists • radiographers • art, music or drama therapists • speech and language therapists <p>In primary care, AHPs work in teams with GPs, nurses and other professionals, such as social workers, to provide quick and effective care for patients without the need for them to go into hospital.</p> <hr/> <p>Other qualified ST&T – other qualified health professionals, including:</p> <ul style="list-style-type: none"> • healthcare scientists • pharmacists • students <p>These are other staff working in key professional roles</p> <p>Qualified ambulance staff</p> <ul style="list-style-type: none"> • ambulance paramedics • technicians • emergency care practitioners • ambulance service managers

2. Support Staff - staff working in direct support of clinical or GP staff, often with direct patient care, who free up clinical staff and allow them more time to treat patients

Data Item	Definitions of staff groups
<p>Support to Clinical Staff</p> <p>This comprises:</p> <p>Support to doctors and nurses</p> <p>Support to ST&T staff</p>	<p>Support to doctors and nurses including:</p> <ul style="list-style-type: none"> • nursing assistants and auxiliaries • nursery nurses • health care assistants • support staff in nursing areas <p>Also includes clerical and administrative staff and maintenance and works staff working specifically in clinical areas, for example:</p> <ul style="list-style-type: none"> • medical secretaries and medical records officers

Data Item	Definitions of staff groups
Support to ambulance staff	<ul style="list-style-type: none"> • support workers • healthcare assistants • students and trainees in central functions, as these are mainly general porters involved in moving patients around the hospital
	<p>Support to ST&T staff – includes:</p> <ul style="list-style-type: none"> • ST&T trainees and helpers or assistants • healthcare assistants • support workers • clerical and administrative staff • maintenance works staff specifically identified as supporting ST&T staff
	<p>Support to ambulance staff – includes:</p> <ul style="list-style-type: none"> • ambulance personnel • trainee ambulance technicians • healthcare assistants • support workers • clerical and administrative staff • and maintenance and works staff specifically identified as supporting the ambulance service
Support to GP staff	<p>GP practice staff – includes a variety of staff who work in practices. These include:</p> <ul style="list-style-type: none"> • physiotherapists • occupational therapists • receptionists • practice managers • students and trainees <p>However, practice nurses are included as qualified nurses within professionally qualified clinical staff instead.</p>

3. NHS Infrastructure Support - staff directly involved in the day-to-day running of the organisation and its infrastructure

Data Item	Definitions of staff groups
N/A – not relevant to this data collection as these groups are not involved in direct patient care	<p>Central functions – includes clerical and administrative staff working in central functions:</p> <ul style="list-style-type: none"> • finance • IT • legal services

Data Item	Definitions of staff groups
	<ul style="list-style-type: none"> • library services • health education • general management support services <p>Hotel, property and estates – includes:</p> <ul style="list-style-type: none"> • clerical and administrative staff • maintenance and works staff working in areas such as laundry • catering • domestic services • gardeners • caretakers • labourers <p>Managers and senior managers – staff with overall responsibility for budgets, manpower or assets, or accountable for a significant area of work. Senior managers include:</p> <ul style="list-style-type: none"> • staff at executive level • those who report directly to the board <p>These staff are essential to the smooth running of hospitals, Trusts and Strategic Health Authorities.</p> <p>This excludes nursing, ST&T and ambulance managers in posts requiring specific clinical qualifications.</p>

Appendix B. Monthly data collection schedule for 2020 to 2021

The table below provides monthly data collection dates for Trusts and Area Teams for the 2020 to 2021 programme.

Survey month	Data up to date	Survey start date	GP and trusts survey end date (7 days)	Area team survey end date (9 days)
October	Sat 31/10/2020	Mon 2/11/2020	Tue 10/11/2020	Thu 12/11/2020
November	Mon 30/11/2020	Tue 1/12/2020	Wed 9/12/2020	Fri 11/12/2020
December	Thu 31/12/2020	Mon 4/01/2021	Tue 12/01/2021	Thu 14/01/2021
January	Sun 31/01/2021	Mon 1/02/2021	Tue 9/02/2021	Thu 11/02/2021
February	Sun 28/02/2021	Mon 1/03/2021	Tue 9/03/2021	Thu 11/03/2021

Appendix C. Survey form for 2020 to 2021

1. NHS Organisation Type

Acute NHS Trust
Ambulance NHS Trust
NHS England Healthcare Workers
Care Trust (NHS Trust based)
Mental Health NHS Trust
Other NHS Trust

2. Foundation Trust Status

Foundation Trust
Non-Foundation Trust

3. Number of Healthcare Workers by Occupation Involved with DIRECT Patient Care ONLY

Occupation (HCWs that have left the Trust should be excluded)	No. of HCWs involved with direct patient care	No. of HCWs vaccinated since 1 September 2019	Vaccine Uptake (%)
All Doctors (excluding GPs) ⓘ	<input type="text"/>	<input type="text"/>	--
GPs only	<input type="text"/>	<input type="text"/>	--
Qualified Nurses, midwives and health visitors (excluding GP Practice Nurses) ⓘ	<input type="text"/>	<input type="text"/>	--
Qualified Nurses, midwives and health visitors (GP Practice Nurses only) ⓘ	<input type="text"/>	<input type="text"/>	--
All other professionally qualified clinical staff, which comprises of:- ⓘ <ul style="list-style-type: none"> • Qualified scientific, therapeutic & technical staff (ST&T), • Qualified allied health professionals (AHPs) • Other qualified ST&T • Qualified ambulance staff 	<input type="text"/>	<input type="text"/>	--
Support to Clinical Staff, which comprises of:- ⓘ <ul style="list-style-type: none"> • Support to doctors (excluding GPs) & nurses • Support to ST&T staff • Support to ambulance staff 	<input type="text"/>	<input type="text"/>	--
Support to GP staff ⓘ	<input type="text"/>	<input type="text"/>	--
Total Number of HCWs involved with Direct Patient Care	0	0	--

4. Total Number of Healthcare Workers

Number of HCWs involved with Direct Patient Care ⓘ	<input type="text"/>
Number of HCWs NOT involved with Direct Patient Care ⓘ	<input type="text"/>

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