



Public Health
England

Protecting and improving the nation's health

Seasonal influenza vaccine uptake in GP patients: winter season 2020 to 2021

Final data for 1 September 2020 to 28 February 2021

Contents

Notes on the report	3
Executive summary	4
Glossary	5
Background	7
Methods	9
Data limitations	12
Results	16
Discussion	47
Acknowledgements	49

Notes on the report

Intended audience

This report is aimed at health professionals directly involved in the delivery of the influenza vaccine or those with an interest in the influenza vaccination programme in England.

Aim of the report

This report provides an overview of the end of season data on influenza vaccination uptake in General Practice (GP) registered patients in England. Data are stratified by clinical risk groups and age to identify groups where vaccine uptake can be improved in future seasons.

Executive summary

The Public Health England (PHE) Influenza Surveillance Team has responsibility to co-ordinate and facilitate the national collection and reporting of influenza vaccine uptake data. This report describes the final data for GP registered patients in England from 1 September 2020 to 28 February 2021.

Survey response

The response rate from GP practices in England were:

- 97.6% for the main GP survey compared to 99.3% last season
- 97.2% for the child GP survey compared to 99.3% last season

Both automated and manual responses were requested for the end of February 2021 survey.

National vaccine uptake

Cumulative influenza vaccine uptake in GP registered patients from 1 September 2020 to 28 February 2021 in England was:

- 80.9% for patients aged 65 years and over compared to 72.4% in 2019 to 2020.
- 53.0% for patients aged 6 months to under 65 years old in one or more clinical risk group(s) compared to 44.9% in 2019 to 2020
- 43.6% in all pregnant women compared to 43.7% in 2019 to 2020
- 56.7% for patients aged 2 and 3 years compared to 43.8% in 2019 to 2020
- 35.2% for patients aged 50 to 64 years and not in a clinical risk group, a new cohort added this season, who became eligible from 1 December 2020

87.4% (118 out of 135) Clinical commissioning groups (CCGs) achieved the World Health Organization (WHO) target uptake rate of 75% or more in those aged 65 and over compared to 20.9% (40 out of 191) of CCGs last season. 61.5% (83 out of 135) of CCGs achieved an uptake rate of 80% or more compared to 1% (2 out of 191) last season.

Vaccine uptake increased in all groups apart from pregnant women. Uptake in patients aged 65 years and over and uptake, children aged 2 and 3 years old and at risk groups was the highest on record. This is likely due to the COVID-19 pandemic and the lack of a COVID-19 vaccine until early December 2020. It is also important to note that there were supply issues for the live attenuated influenza vaccine (LAIV) vaccine in the 2019 to 2020 season.

Glossary

Term	Explanation
aTIV	Adjuvanted trivalent influenza vaccine
At-risk	Patients with clinical risk group(s) as listed in the Green Book
CCG	Clinical Commissioning Group
Child GP survey	Name of the flu vaccine uptake survey that collects all the child cohorts
CHIS	Child Health Information Systems
dm+d	Dictionary of medicines and devices
GP	general practice
GPSS	GP System Suppliers
Green Book	The Green Book 'Immunisation against infectious disease' has the latest information on vaccines and vaccination procedures, for vaccine preventable infectious diseases in the UK. Chapter 19 refers to influenza.
ImmForm	ImmForm is a website that provides a secure online platform for vaccine uptake data collection for several immunisation surveys, including the seasonal influenza vaccine uptake collection.
JCVI	Joint Committee on Vaccination and Immunisation
LA	Local authority
LAIV	live attenuated influenza vaccine, (nasal spray suspension)
LT	NHS Local Team
Main GP survey	Name of the flu vaccine uptake survey that collects all the main adult and child cohorts
MiQuest	Morbidity Information Query and Export Syntax, enables the collection of health data from GP computer systems in a common computer-readable format.
NHS	National Health Service
OHS	Other healthcare settings
ONS	Office for National Statistics
PHE	Public Health England
PHEC	PHE Centres

Term	Explanation
QIVc	Quadrivalent influenza vaccine, cell-grown
QIVe	Quadrivalent influenza vaccine, egg-grown
QIVr	Quadrivalent influenza vaccine, recombinant
Read codes	Read codes are a coded thesaurus of clinical terms. This is used by clinicians in primary and secondary care to record patient findings and procedures
School-age year	The school age year is determined by their age on the 31August. This will be correct for the majority of children.
SNOMED CT codes	Systematized Nomenclature of Medicine Clinical Terminology. This is a structured clinical vocabulary for use in electronic health records.
STP	Sustainability and Transformation Partnership
WHO	World Health Organization

Background

The purpose of the seasonal influenza immunisation programme in England is to offer protection to those who are most at risk of serious illness or death should they develop influenza.

In 2012, the Joint Committee on Vaccination and Immunisation (JCVI) recommended the roll-out of a universal childhood influenza vaccine programme with a newly licensed live attenuated influenza vaccine (LAIV)¹. The childhood LAIV programme, was introduced in 2013 to 2014. In the 2020 to 21 season, LAIV was offered to all 3 and 3 year olds through primary care and to all children of school age years' Reception to Year 7 through a school-based programme. Year 7 was included for the first time during the 2020 to 2021 season in England. The aim of the childhood programme is to both directly protect children and reduce influenza transmission, providing indirect protection to the rest of the population, including those at increased risk of the severe consequences of influenza infection.

NHS England, through CCGs and regional public health commissioning teams, has responsibility for commissioning the influenza programme with general practices, midwives, and other healthcare professionals. Public Health England (PHE) immunisation managers and co-ordinators embedded in NHS teams play a key role in delivery within their Clinical Commissioning Group (CCG) and Sustainability and Transformation Partnership (STP) boundaries.

GP practices provide monthly coverage data between October and February, with most practices providing this through automated uploads from their electronic clinical systems. This provides near-complete data, with many practices also contributing data weekly, and gives consistent data for comparisons over time. The PHE Influenza Surveillance Team has responsibility for collating the data and reporting on the progress in the uptake of the seasonal influenza vaccine. We use the [ImmForm website](#) to enable us to monitor, track and report on provisional vaccine uptake on a weekly and monthly basis during the influenza season.

The seasonal influenza vaccine uptake survey in GP registered patients was first split into the 'Main GP Survey' and the 'Child GP survey' in the 2017 to 2018 season. Data presented in this report and accompanying tables is for the end-of-season data, up to the end of February in England.

¹ Joint Committee on Vaccination and Immunisation. Meeting minutes, 5 Oct 2011. London

The data counts the cumulative number of GP registered patients² who have had at least one dose of influenza vaccine from 1 September 2020 to 28 February 2021. This end-of-season report provides the final influenza vaccine uptake figures in GP registered patients. These data are collated for surveillance purposes only and this system is not designed to support GP payments.

The programme for 2020 to 2021 was announced in the annual flu letter jointly issued to the NHS by PHE, the Department of Health and Social Care (DHSC) and NHS England on 14 May 2020³. An update was then published on 5 August 2020 outlining the expansion of the programme due to the COVID-19 pandemic⁴. It was recommended that influenza vaccine be offered to the following eligible GP patient groups:

- all patients aged 65 years and over
- all patients aged 6 months to under 65 years, in a clinical at-risk group
- all patients aged 2 and 3 years
- all pregnant women
- carers (aged under 65 years, not at-risk, not pregnant and fulfils the carer definition⁵)
- those in long-stay residential care homes
- household contacts of those on the NHS Shielded Patient List⁶
- all patients aged 50 to 64 (phased introduction from December 1 2020)
- social care and hospice workers that offer direct patient or client care⁷
- all patients of school age⁸ in years Reception to Year 7 (aged 4 rising to 12 years old), delivered through schools (with the exception of the Isle of Scilly who deliver the vaccine via the GP practice)

The ambition for vaccine coverage in 2020 to 2021 was to reach or exceed 75% uptake for people aged 65 years and over as recommended by the WHO. In addition, a national ambition to reach or exceed 75% uptake was also set for: i) those aged 6 months to under 65 years and in one or more clinical risk group(s), ii) all pregnant women and iii) pre-school children aged 2 and 3 years old.

² People who are currently registered at the GP practice on the day of data extraction. Therefore, the survey will not include vaccinations given to patients who have since moved practice or who have died, but will include those vaccinated by another healthcare provider (provided the GP patient electronic record is updated).

³ [The annual flu letter 14 May 2020](#)

⁴ [The annual flu letter update on GOV.UK](#)

⁵ The definition of a carer can be found in [the influenza chapter of the Green Book](#)

⁶ The [Shielded Patient List](#) is a record of vulnerable patients thought to be at high risk of complications from COVID-19. NHS and social care organisations use the list to identify vulnerable patients in their local area. Once identified, these patients are sent a letter with advice on how to protect themselves and how to access NHS services when required.

⁷ This scheme is intended to complement, not replace, any established occupational health schemes that employers have in place to offer the flu vaccination to their workforce. See [‘Extension of NHS seasonal influenza vaccination to social care workers and staff in the voluntary managed hospice sector’ 11 September 2018.](#)

⁸ [The National Childhood Influenza Vaccination Programme](#)

Methods

Prior to the start of the seasonal data collection, the Influenza Surveillance Team produce a dataset for the collection. The team commission PRIMIS to write an accompanying coding specification for GP System Suppliers (GPSS) to extract the data from GP practices. The PRIMIS specification provides rules for the extraction of the data from GP systems using the following clinical code terminologies; Read 2; Clinical Terminology Version 3 (CTV3) or Systematized Nomenclature of Medicine Clinical Terminology (SNOMED CT⁹) (clinical codes).

Cumulative data on seasonal influenza vaccine uptake were collected for all GP practices in England between 1 September 2020 to 28 February 2021 using the ImmForm website. ImmForm provides a secure online platform for vaccine uptake data collection for several immunisation surveys, including the seasonal influenza vaccine uptake collection.

The data collections consist of:

- a weekly sentinel survey using an automated extraction only (XML bulk upload or a web service)
- 5-monthly surveys starting with a collection covering the 1 September 2020 up to end of October which is then refreshed each month up until the end of February 2021¹⁰

GP practice level data were submitted to the ImmForm website either via an automated extraction provided by GPSS (who extract data directly from GP practice systems¹¹) or via manual upload, across England. Automated data extraction results in an almost zero burden on GP practices providing the data. The weekly data allows near 'real-time' monitoring of the programme at a national level from calendar week 36 (week ending 6 September 2020) to calendar week 4 (week ending 31 January 2021)¹².

The user guide for the survey can be found at [Seasonal influenza vaccine uptake \(GP patient survey\) data collection](#).

This report includes extrapolated estimates of the total eligible population and the total number vaccinated in each cohort if there was a 100% response rate to the survey.

⁹ Section 11. Read codes and SNOMED CT codes, [Seasonal influenza vaccine uptake \(GP patient survey\) data collection: user guide](#)

¹⁰ All monthly vaccine uptake data are published at [Seasonal flu vaccine uptake in GP patients: monthly data, 2020 to 2021](#)

¹¹ The source of data is from GP practice systems only. It is assumed that vaccinations given in other settings by other healthcare providers (eg pharmacies, schools, special clinics) will be recorded onto GP systems in a timely manner. However, some vaccinations may be missed by the survey when recording onto a GP system, which may be more challenging or slow (eg vaccinations of travelling communities or homeless) or where patients are not registered.

¹² Weekly vaccine uptake data are published as part of the weekly [national flu and COVID-19 report](#).

The extrapolated number of vaccinations is derived by multiplying the mean number of vaccinations per practice by the total number of practices. This calculation assumes that the GP practice population is the same across all practices and that the uptake rate is the same as that seen nationally.

Median calculations are based on CCG level data. 74 CCGs in the 2019 NHS hierarchy were reconfigured and merged into 18 CCGs in 2020. These were manually reconfigured into the 2020 NHS CCGs in the accompanying data tables, the reconfigurations can be found in [the appendix](#).

February surveys were introduced as an experimental collection in in 2017 to 2018, extending the data collection period by a month in order to allow for better inclusion of data returning from outside the practice and later in-practice vaccinations. Following evaluation, the February collection was adopted for our end of season figures. During the 2018 to 2019 season only automated extractions were expected however manual upload was added to the end of February data return from the 2019 to 2020 season.

The seasonal influenza vaccine uptake surveys in GP patients (Main and Child survey) have received full approval from the Data Coordination Board for the 2020 to 2021 influenza season¹³.

ImmForm

Influenza vaccine uptake data are submitted via the [ImmForm website](#). Data are submitted at GP practice level and can then be aggregated as required to the different hierarchies such as STP or Local Authority LAs.

During the season, specific functions were available weekly and monthly on ImmForm to enable local management of the vaccination programme. These functions include the ability to:

- view and evaluate influenza vaccine uptake rates by cohort and age band for their area down to GP practice level
- compare GP practice level data within the CCG and to previous seasons
- validate data at point of data entry
- download 'non-responder' reports to aid local areas following up GP practices that have yet to respond to the survey

¹³ DCB approval for these surveys can be [found online](#).

Data validation

Data validations are built into the ImmForm website to validate at point of entry. Data is then further validated by the PHE Influenza Surveillance Team on a weekly and monthly basis. PRIMIS are commissioned by PHE to write the clinical code specification for the surveys and commissioned to conduct 2 data validation reports using MiQuest extracts and native GPSS extracts to check alignment with the clinical code specification.

Data limitations

Denominator data for some localities and at-risk groups should be interpreted with caution due to data validation and data quality issues. A summary of these limitations is provided below. Further information on definitions and data limitations can be found in [the user guide](#).

Snapshot of influenza vaccine uptake data

Influenza vaccine uptake data presented in this report is a snapshot of GP registered patients vaccinated at the time of data extraction. The annual report includes data up until the end of February in order to allow time for data to flow from other services to the GP record when vaccines are delivered in other settings. Patients who are vaccinated, but have not had their electronic patient record updated by the time of data extraction, will be included within the denominator, but will not be included in the count of 'number vaccinated'. This data will, therefore, not include patients in the numerator or denominator who have received the vaccine but have subsequently died; or changed clinical status (for example, 'joining' or 'leaving' a clinical risk group); or patients changing carer status; and 'temporary' patients who may have received the vaccine but were not registered on the date of data extraction. The extract will also exclude the prison population, unless the individuals were registered with a GP practice at the time of data extraction and their vaccination details were recorded on their primary care electronic record. Healthcare workers and social care workers will only be counted in the number vaccinated if they were vaccinated at the GP practice or their vaccination details were entered on their GP practice's electronic record.

Transition to SNOMED CT

In the 2019 to 2020 season all GP System Suppliers (GPSS) in England moved over to Systematized Nomenclature of Medicine Clinical Terminology (SNOMED CT¹⁴). However, some GPSS are still working off older versions of SNOMED. Due to the transition, mapping errors between SNOMED CT and previous clinical terminologies are being identified and corrected across GPSS but small numbers of mapping issues may remain. Previously seen issues with the data affecting the risk groups last year have been resolved.

Despite these data limitations, the granular data is considered valid with a degree of caution; especially when drawing comparisons to historical data where they may be affected by the SNOMED transition.

¹⁴ Section 11. Read codes and SNOMED CT codes, Seasonal influenza vaccine uptake (GP patient survey) data collection: user guide.

Pregnant women: denominator variance

Determining an accurate denominator for eligible pregnant women is challenging because of the complexities in the way pregnancy is recorded and coded on local clinical systems in primary care. In addition, in recent years, flu vaccine for pregnant women has increasingly been delivered through midwifery services and pharmacy and so vaccination data need to flow back to the GP record in the appropriate format to allow capture in the ImmForm collection.

Reported influenza vaccine coverage in pregnant women is likely to be an underestimate for the following reasons:

- the dynamic nature of the denominator with women continually entering and leaving the cohort throughout the season through conception, miscarriage, abortion or delivery
- there are multiple ways to record 'pregnancy' in the GP record with a range of Read codes available that are not applied consistently
- the delay in updating the individual's electronic GP clinical record following birth or loss of pregnancy
- delay or gaps in data flows that allow capture of vaccines delivered outside the GP practice

The scale of the underestimation is not clear and could vary between GP practices and regions¹⁵.

Vaccination in other healthcare settings

The number of patients vaccinated in a school, pharmacy and other healthcare setting was captured by the survey. It is important to note that the evaluation of vaccines delivered outside of GP practice does not come under an existing information standard therefore the quality of location recording may vary between GP practices and GP System Suppliers. In 2020 to 2021 pharmacies were commissioned to administer influenza vaccinations to:

- those aged 65 and over
- any patient aged 18 to under 65 years in a clinical risk group
- pregnant women
- those aged 50 to 64 years old
- carers
- household contacts of immunocompromised or shielding individuals
- people living in long-stay residential care homes or other long stay care facilities

¹⁵ For further details of pregnancy data limitations, please see [the GP survey user guide](#).

- social care workers and hospice workers¹⁶

Whilst the number of vaccinations reported as given in pharmacies can be taken as correct because there is a specific clinical code associated with this, there is likely to be a lag in data being fed back into the GP record.

As expected, vaccination delivered in other healthcare settings is much higher for the pregnant cohort due to increasing administration by midwifery services.

The vast majority of children of school ages' Reception to Year 7 (aged 4 rising to 12 years old) are vaccinated in school and therefore in the survey vaccines recorded in these age groups are assumed to be school-delivered in the survey unless specifically coded as 'vaccinated in a pharmacy'. As data flows from school immunisation services and the Child Health Information Systems (CHIS) to the GP record are not yet well established, flu vaccination data for the school-aged cohorts in the GP survey remain experimental¹⁷.

Improved data flows from other healthcare settings to the GP record are important to to both reduce the administrative burden on GP practices and ensure timely and accurate coverage can be reported for all eligible cohorts .

Vaccine type

Vaccine type can be coded using Dictionary of medicines and devices (dm+d) codes and SNOMED CT codes. All GP System Suppliers (GPSS) in England have now moved over to SNOMED CT clinical terminology. Vaccine type was introduced to the GP survey in the 2018 to 2019 season and the experimental data collected thus far show that this information is not routinely recorded in the required coded format to allow extraction. The information is likely to be recorded in the GP record as free text and therefore not extractable using a clinical code specification. We expect this variable to become better recorded in the future

Social care workers

Vaccine uptake in social care workers was included for the first time in the 2019 to 2020 data collection. The SNOMED CT codes for this workforce were introduced on the 1 April 2018 but appear to be a poorly applied in the GP record therefore the denominator estimate in the survey is not currently reliable.

¹⁶ More information on pharmacy flu vaccination advanced service can be found on the [Pharmaceutical Services Negotiating Committee website](#).

¹⁷ Results for the LAIV programme in primary school aged children will be available in a separate report based on manual returns from Local NHS Teams. The National Childhood Influenza Vaccination Programme report is available [online](#).

There are a range of options for employers offering the vaccine to social care workers,¹⁸ which makes this cohort particularly difficult to evaluate. Only a minority will get vaccinated through their GP practice. Data flows for vaccinations delivered to social care workers outside of the GP setting are not well established, therefore, caution should be used when interpreting the data.

Learning disability

Vaccine uptake in those with wider and severe learning disability was included for the first time in this year's data collection. The clinical coding specification is defined within the PRIMIS specification. The wider learning disability cohort includes all those on the QOF learning disability register and a small number of additional patients with other learning disability coding. The clinical codes related to severe learning disability are also still included within the chronic neurological disease clinical risk group and therefore comparable to previous years.

Please note that the breakdown of severe learning disability and wider learning disability (which includes severe learning disability) are experimental cohorts. Therefore those who have a wider learning disability with no other clinical risk group are not included in the overall at risk category data.

¹⁸ PHE flu immunisation social care staff leaflet 2019.

Results

Data tables showing final influenza vaccine uptake for each of the eligible groups accompany the publication of this report and are available at NHS Region, Sustainability and Transformation Partnership (STP) and clinical commissioning group (CCG) level; as well as Local Authority (LA).

GP practice response rate

GP response rate for the main GP survey was 97.6% (6,438 out of 6,596). The GP response rate for the Child GP survey was 97.2% (6,406 out of 6,592). Data represents both automated and manual uploads.

The extrapolated number of GP registered patients that were recorded as vaccinated in 2020 to 2021 season was 19,629,095 ([Table 1](#)).

Weekly versus monthly vaccine uptake comparison (provisional data)

Weekly and monthly data were overall in good agreement, with the provisional national results from the 4 monthly returns closely matching their weekly equivalent, confirming that the weekly sentinel collection is an excellent indicator of uptake at a national level.

The weekly sentinel survey only used automated extracts, the response rate ranged between 65% in week 46 to 96.2% in week 48 for the GP Main survey; and from 91.3% in week 52 to 97.5% in weeks 40, 42 and 43 for the GP Child survey.

Table 1. Observed and extrapolated estimate of number of patients registered and numbers who received influenza vaccine

Target groups for vaccination in one or more clinical risk group(s)	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
Aged 65 and over	10,448,410	8,449,159	80.9	10,523,854	7,621,505	72.4
Aged 65 and over extrapolated	10,704,833	8,656,516		10,594,769	7,672,863	
All patients aged 6 months to under 65 years*	48,594,875	10,709,742	22.0	49,241,074	6,847,160	13.9
All patients aged 6 months to under 65 years extrapolated	49,787,480	10,972,578		49,572,887	6,893,300	
Total observed (65+ and all patients under 65 years)*	59,043,285	19,158,901	32.4	59,764,928	14,468,665	24.2
Total extrapolated (65+ and all patients under 65 years)	60,492,312	19,629,095		60,167,656	14,566,163	

*Note that these denominators include patients not eligible as part of the NHS funded flu vaccination programme.

Patients aged 65 years and over

Vaccine uptake in patients 65 years and over was 80.9% in the 2020 to 2021 season, an 8.5% increase compared to 72.4% last season (Table 1). The extrapolated estimate of the number of patients aged 65 years and over registered at a GP practice who would have been vaccinated by end of February 2021 was 8,656,516, which is 983,653 patients more than the previous season.

The end of season uptake level reached the ambition of 75% based on the WHO target for this cohort for the first time since the 2005 to 2006 season (Figure 1).

‘At-risk patients’ aged 6 months to under 65 years in one or more clinical risk groups
 Vaccine uptake in patients aged 6 months to under 65 years in one or more clinical risk group(s) was 53.0% compared to 44.9% in 2019 to 2020 (Table 2).

The extrapolated estimate of the total number of patients aged 6 months to under 65 years in a clinical at-risk group who would have been vaccinated was just under 4.4 million (n=4,398,780); Table 2, Figure 1, Figure 2 and Figure 3). This is a large increase compared to the total vaccinated in 2019 to 2020.

The end of season uptake level did not reach the national uptake ambition of 75% or more.

Table 2. Observed and extrapolated estimate of number of registered patients aged 6 months to under 65 years old and in one or more clinical risk group(s) (excluding pregnant women without other risk factors and carers), who received an influenza vaccine

Target groups for vaccination	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
Aged 6 months to under 65 years in a clinical risk group	8,098,035	4,293,412	53.0	7,086,331	3,182,752	44.9
Aged 6 months to under 65 years in a clinical risk group extrapolated	8,296,775	4,398,780		7,134,083	3,204,199	

Figure 1. Influenza vaccine uptake for those aged 65 and over and 65 at-risk from 2004 to 2005 to 2020 to 2021 in England (data prior to 2018 to 2019 is data up to the end of January)

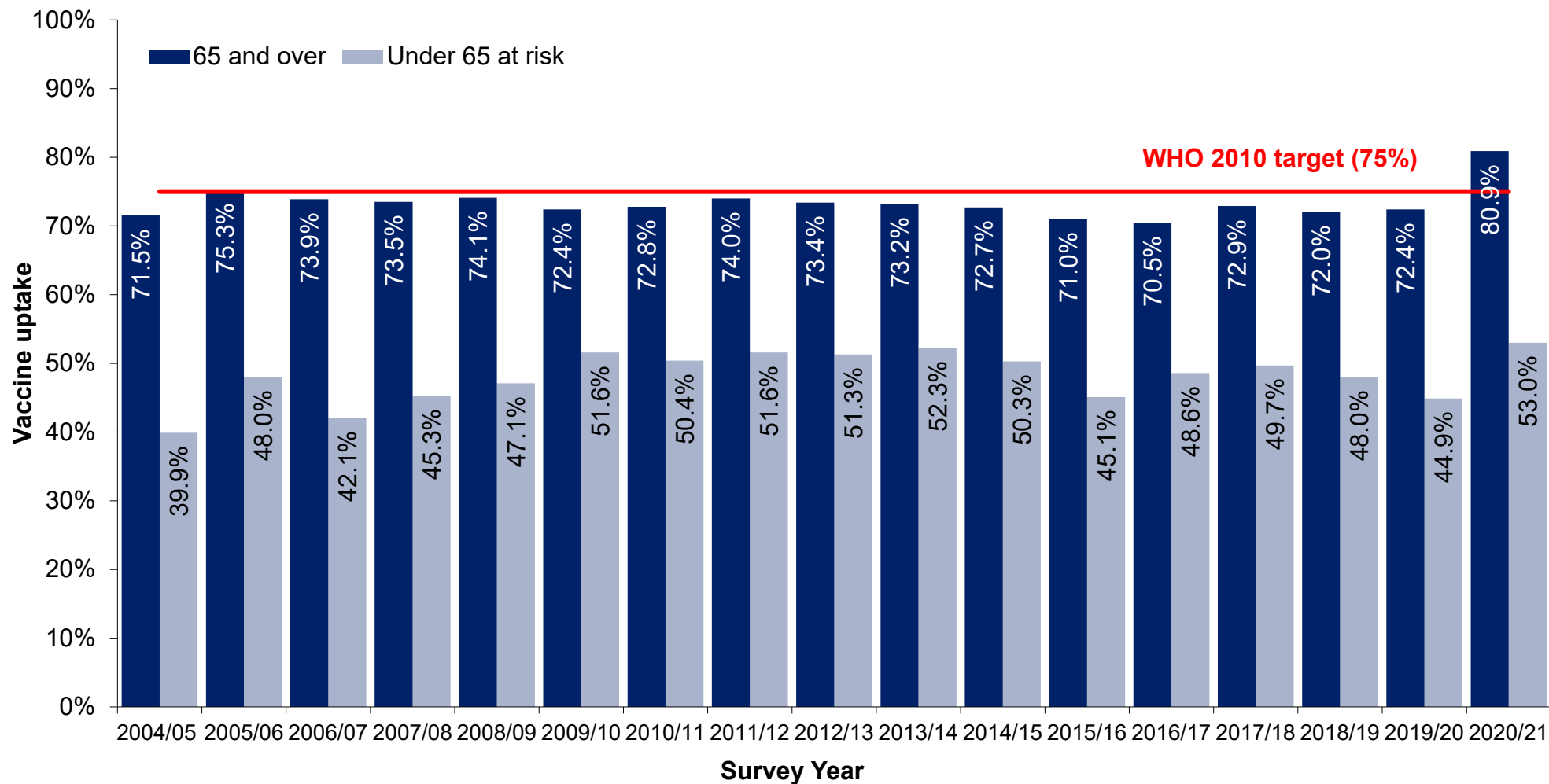
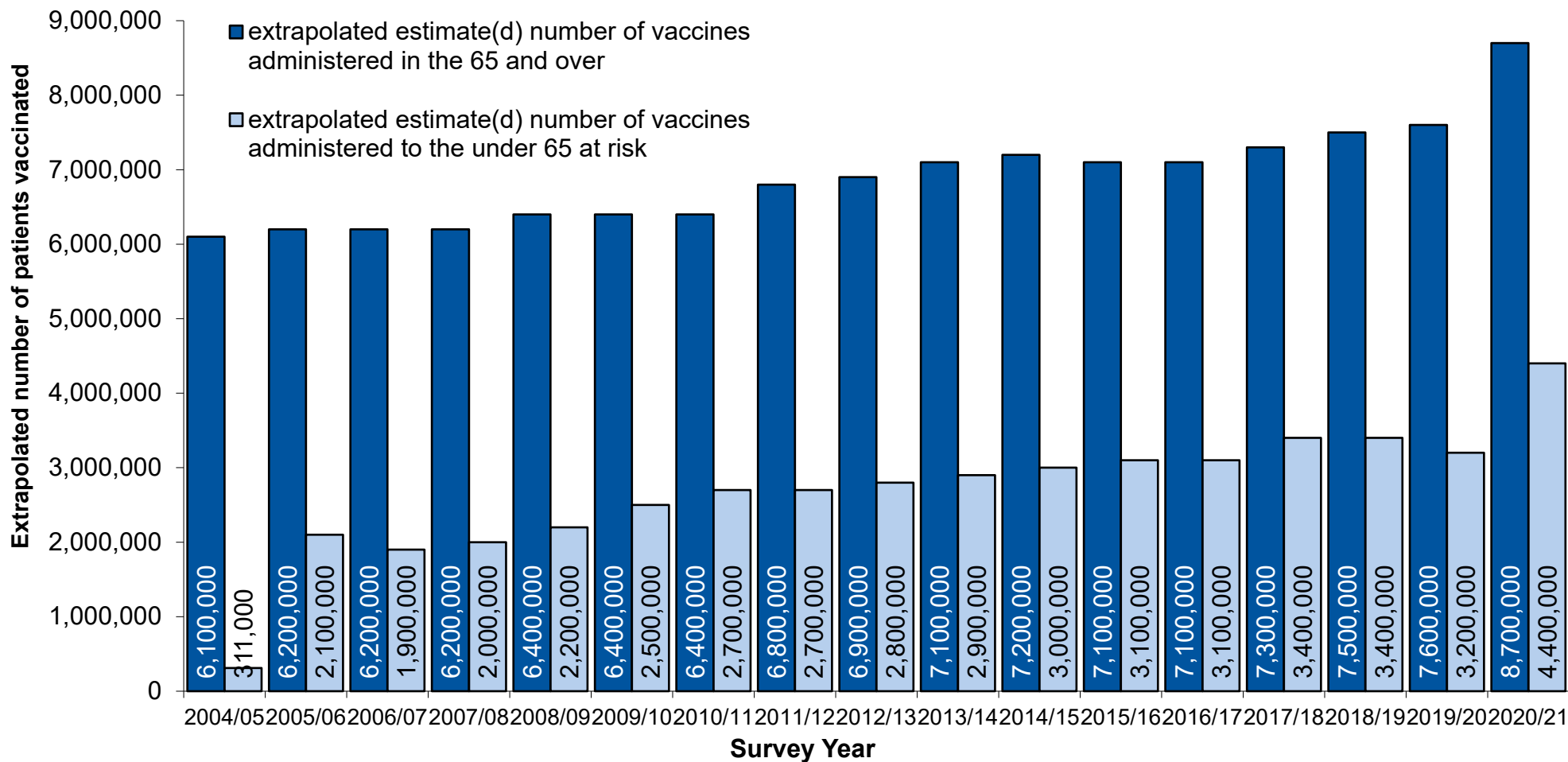


Figure 2. Extrapolated estimated number of vaccines administered in the 65 and over, and under 65 years at-risk from 2004 to 2005 to 2020 to 2021 in England (data prior to 2018 to 2019 is data up to the end of January)



'At-risk patients' aged 6 months to under 65 years in one or more clinical risk groups by age band

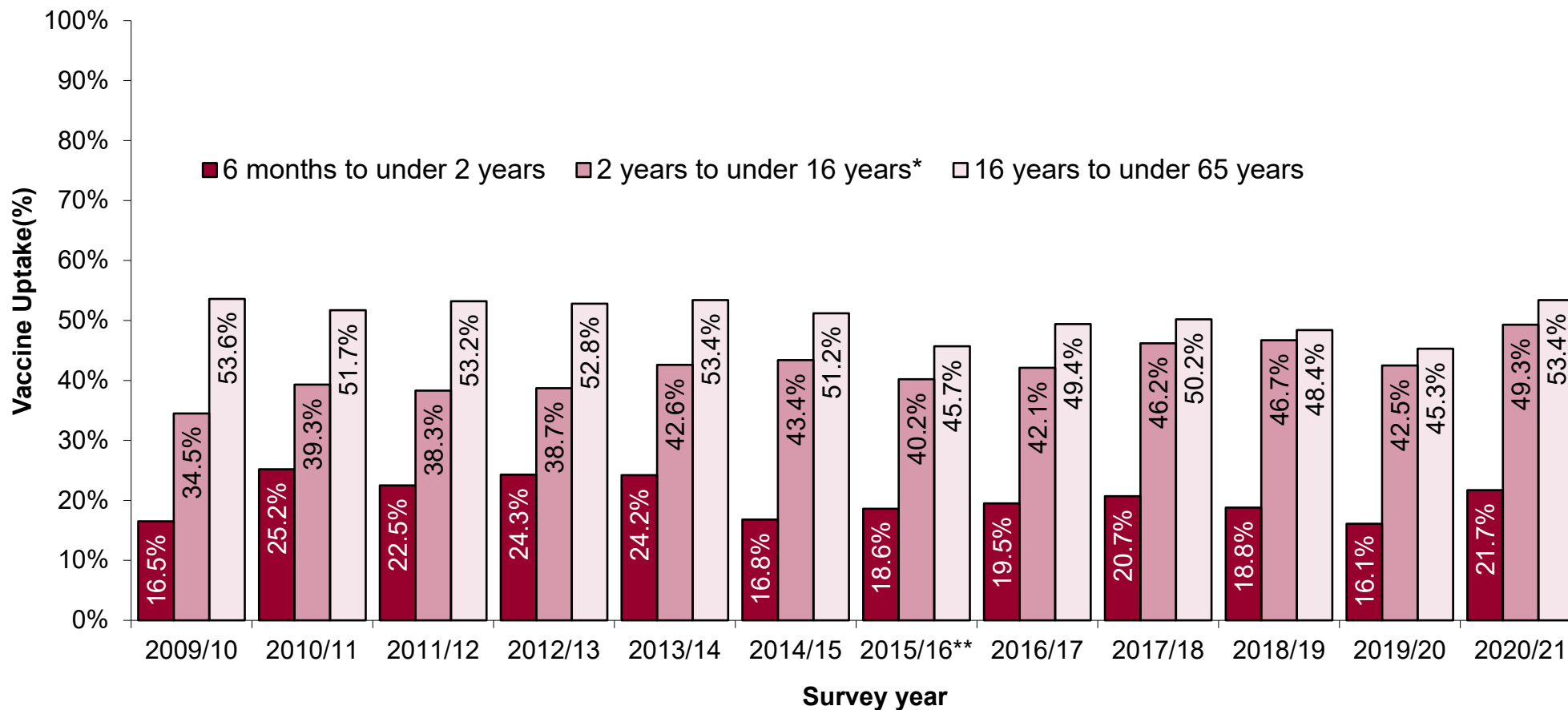
Uptake remains lowest in those aged 6 months to under 2 years (21.7% up from 16.1% in 2019 to 2020) in a clinical risk group whereas uptake is highest in those aged 2 years to under 5 years (55.9% up from 49% in 2019 to 2020) in a clinical risk group (Table 3 and Figure 3).

Table 3. Observed and extrapolated number of registered patients aged 6 months to under 65 years at-risk by age band who received an influenza vaccine

Target groups for vaccination	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
Total observed 6 months under 65 years in a clinical risk group	8,098,035	4,293,412	53.0	7,086,331	3,182,752	44.9
Total extrapolated 6 months under 65 years in a clinical risk group	8,296,775	4,398,780		7,134,083	3,204,199	
6 months to under 2 years in a clinical risk group	16,583	3,600	21.7	18,523	2,978	16.1
6 months to under 2 years in a clinical risk group extrapolated	16,990	3,688		18,648	2,998	
2 years to under 5 years in a clinical risk group	60,739	33,929	55.9	72,709	35,649	49.0
2 years to under 5 years in a clinical risk group extrapolated	62,230	34,762		73,199	35,889	
5 years to under 16 years in a clinical risk group	603,499	293,236	48.6	612,982	255,649	41.7

Target groups for vaccination	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
5 years to under 16 years in a clinical risk group extrapolated	618,310	300,433		617,113	257,372	
16 to under 65 years in a clinical risk group	7,417,214	3,962,647	53.4	6,382,117	2,888,476	45.3
16 to under 65 years in a clinical risk group extrapolated	7,599,246	4,059,897		6,425,123	2,907,940	

Figure 3. Vaccine uptake in the under 65 years at-risk by age group comparing recent survey years



*From the 2014 to 2015 season, this was broken down into those aged 2 years to under 5 years old and 5 years to under 16 years old.

** From the 2015 to 2016 season, patients with morbid obesity with no other clinical risk groups was included in the denominator.

Individual risk groups

Vaccine uptake in the individual risk groups has increased for all clinical risk groups compared to last season for all patients under 65 years old. The increases range from 6.7% in patients with diabetes to 16.4% in patients with immunosuppression. Patients with diabetes remain the clinical risk group with the highest uptake while patients with asplenia or dysfunction of the spleen have become the clinical risk group with the lowest uptake, as highlighted in Table 4 and Figure 4. Only one age band decreased in uptake from the previous season, which was patients with diabetes aged 6 months to 2 years which declined by 0.1%. All other groups increased.

This season, data was collected for patients aged under 65 years with a learning disability as an experimental cohort, and vaccine uptake in this group was 58.3%. Severe learning disabilities was collected as a subset of chronic neurological disease, for which uptake was 66.4%.

Table 4. Vaccine uptake by individual clinical risk groups and age band for GP registered patients aged 6 months to under 65 years old during the last 2 seasons. The colours compare vaccine uptake by age band to last season: red = decrease; yellow = no change; green = increase; white = comparator data not available.

Risk group*	2020 to 2021					2019 to 2020				
	6 months to under 2 years	2 years to under 5 years	5 years to under 16 years	16 years to under 65	Total under 65 years	6months to under 2 years	2 years to under 5 years	5 years to under 16 years	16 years to under 65 years	Total under 65 years
Patients with Diabetes	17.3	57.8	58.5	68	67.9	17.4	57.7	51.9	61.3	61.2
Patients with Chronic Kidney Disease	28.6	55.7	44.5	61.8	61.4	15.1	43.9	36.7	50.9	50.6
Patients with Immunosuppression*	22.8	56.7	50.9	60.9	60.4	13.4	44.9	37	44.4	44
Patients with Chronic Neurological Disease (including Stroke or TIA, Cerebral Palsy or MS)*	19.6	53.8	43.9	54.7	53.7	12.4	43.8	34.7	43.1	42.3
Patients with a Severe Learning Disability (Subset of Chronic Neurological Disease)	**	62.5	49	68.3	66.4	-	-	-	-	-
Patients with any Learning Disability (including severe)	37.8	60.2	47.5	59.8	58.3	-	-	-	-	-
Patients with Chronic Respiratory Disease	37	62.4	53	58.5	57.9	23.5	54.9	45.5	49.3	48.8

Risk group*	2020 to 2021					2019 to 2020				
	6 months to under 2 years	2 years to under 5 years	5 years to under 16 years	16 years to under 65	Total under 65 years	6months to under 2 years	2 years to under 5 years	5 years to under 16 years	16 years to under 65 years	Total under 65 years
Patients with Chronic Heart Disease*	25.4	55.8	45	56.8	55.8	17	46.2	36.9	41.7	41.1
Patients with Chronic Liver Disease*	23.6	53.9	41.9	47.6	47.5	21.3	50.5	35.8	37.3	37.3
Patients with Asplenia or dysfunction of the spleen*	24.4	56.7	42.3	44.2	44.1	21.0	47.6	32.1	33.2	33.2
Patients with morbid obesity (BMI>=40)*	N/A			45.1	45.1	N/A			30.9	30.9

* There were adjustments to classification in clinical coding of these groups in the [SNOMED CT transition](#) and caution should be applied in historical comparisons.

** Indicates data was suppressed due to small numbers.

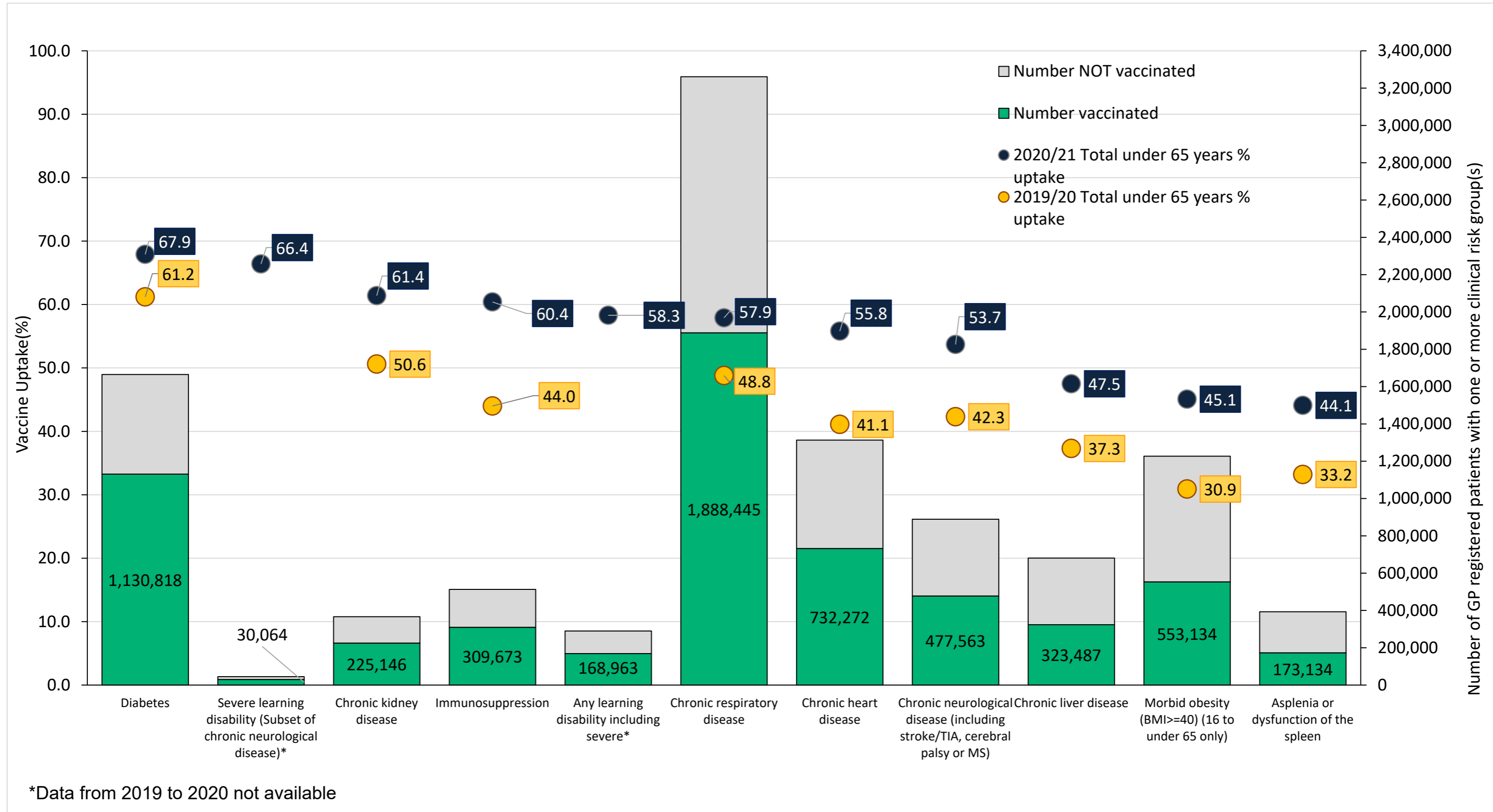
- Indicates data was not available

The prevalence of individual at risk groups can vary from year to year depending on current definitions of persons at risk and the quality of the data capture, see [SNOMED CT transition](#) for further context. See [Table 5](#) for the changes to the prevalence of each risk group in the at-risk population aged 6 months to under 65 years old.

Table 5. Percentage of each risk group in the at-risk population in the GP record compared to last season for all those aged 6 months to under 65 years

Risk Group	Prevalence per 100 in at risk population 2020 to 2021	Prevalence per 100 in at risk population 2019 to 2020	Difference
Patients with diabetes	19.3	22.8	-3.5
Patients with chronic kidney disease	4.2	4.9	-0.7
Patients with immunosuppression	5.9	6.0	-0.1
Patients with chronic neurological disease (including stroke or TIA, cerebral palsy or MS)	10.3	12.5	-2.2
Patients with a severe learning disability (subset of chronic neurological disease)	0.5	-	-
Patients with any learning disability (including severe)	3.4	-	-
Patients with chronic respiratory disease	37.7	44.1	-6.4
Patients with chronic heart disease	15.2	14.8	0.4
Patients with chronic liver disease	7.9	8.0	-0.1
Patients with asplenia or dysfunction of the spleen	4.5	5.4	-0.9
Patients with morbid obesity (BMI \geq 40) (aged 16 to under 65 years only)	15.5	8.3	7.2

Figure 4. Vaccine uptake in 2020 to 2021 and 2019 to 2020 seasons and extrapolated number of registered patients who received an influenza vaccine by individual clinical risk group for all those aged 6 months to under 65 years for 2020 to 2021 (data up to end of February 2021)



Pregnant women¹⁹

Vaccine uptake in all pregnant women (healthy and in at-risk groups combined) was 43.6% in the 2020 to 2021 season, decreasing 0.1% from 43.7% in 2019 to 2020 (Table 6). However, uptake in pregnant women in a clinical risk group increased from 56.9% in the 2019 to 2021 season to 57.7% in the 2020 to 2021 season.

The end of season uptake level did not reach the national uptake ambition of 75% or more.

Table 6. Observed and extrapolated estimate number of pregnant women registered and who received an influenza vaccine

Target groups for vaccination	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
All pregnant women (includes both 'healthy' and at-risk)	606,540	264,228	43.6	645,285	282,092	43.7
All pregnant women extrapolated (includes both 'healthy' and at-risk)	621,426	270,713		649,633	283,993	
Pregnant women and in a clinical risk group	77,051	44,487	57.7	70,367	40,068	56.9
Pregnant women and in a clinical risk group extrapolated	78,942	45,579		70,841	40,338	
Pregnant women not in a clinical risk group	529,489	219,741	41.5	574,918	242,024	42.1
Pregnant women not in a clinical risk group extrapolated	542,484	225,134		578,792	243,655	

Pre-school aged children

¹⁹ Data on the uptake of influenza vaccine by pregnant women need to be interpreted with caution, see Data Limitations: pregnant women section of the report.

Vaccine uptake in patients aged 2 and 3 years old was 56.7%²⁰ in 2020 to 2021, compared to 43.8% in the previous season (Table 7). This is an increase of 12.9% and the highest uptake on record. However the national uptake ambition of 75% or more was not achieved. Due to supply issues for this group in the 2019 to 2020 season data is not wholly comparable.

Table 7. Observed and extrapolated number of GP registered patients aged 2 and 3 years old who received an influenza vaccine

Target groups for vaccination	2020 to 2021			2019 to 2020		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
All 2 and 3 year olds (includes both 'healthy' and at risk)	1,279,856	725,631	56.7	1,346,654	590,041	43.8
All 2 and 3 year olds (includes both 'healthy' and at risk) extrapolated	1,317,017	746,700		1,356,147	594,200	
All 2 and 3 and in a clinical risk group	34,792	22,199	63.8	48,250	25,886	53.6
All 2 and 3 and in a clinical risk group extrapolated	35,802	22,844		48,590	26,068	
All 2 and 3 and not in a clinical risk group	1,245,064	703,432	56.5	1,298,404	564,155	43.4
All 2 and 3 and not in a clinical risk group extrapolated	1,281,215	723,856		1,307,557	568,132	

²⁰ Vaccine uptake for individual year groups can be found in the accompanying tables.

Patients aged 50 to under 65 years

Due to the COVID-19 pandemic, in the 2020 to 2021 season the influenza vaccination programme was extended to include all those aged 50 to under 65 years from 1 December 2020. This part of the programme was phased to ensure the prioritisation of those in risk groups. Some of this group will have already been eligible for other reasons, such as being in a clinical risk groups or a social care worker, so may have been vaccinated before 1 December. Vaccine uptake was 35.2% in those aged 50 to under 65 years who were not in a clinical risk group, with an estimated 2,669,568 vaccinations given.

Table 8. Observed and extrapolated figures for patients aged 50 to under 65 years old who received influenza vaccine

Target groups for vaccination	2020 to 2021		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake
All patients aged 50 to under 65 years (includes both 'healthy' and at risk)	10,892,189	4,917,923	45.2
All patients aged 50 to under 65 years extrapolated (includes both 'healthy' and at risk)	11,159,503	5,038,618	
Aged 50 to under 65 years and in a clinical risk group	3,489,986	2,312,302	66.3
Aged 50 to under 65 years and in a clinical risk group extrapolated	3,575,636	2,369,050	
Aged 50 to under 65 years not in a clinical risk group	7,402,203	2,605,621	35.2
Aged 50 to under 65 years not in a clinical risk group extrapolated	7,583,866	2,669,568	

'All patients' aged 6 months to under 65 years old

Overall vaccine uptake is higher than last season at 22%. All age bands showed an increase in uptake (see [Table 9](#)). The increase in the 5 years to under 16 years age band reflects the continued extension of the childhood influenza vaccination programme. For the first time, all those aged 11 rising to 12 years old became eligible for vaccination in the 2020 to 2021 season.

The extrapolated number of all registered patients aged 6 months to under 65 years (including those in a clinical at-risk group) who received an influenza vaccine by the end of February 2021 was just below 11 million (n=10,972,578).

Table 9. Observed and extrapolated figures for ‘All patients’ aged 6 months to under 65 years old who received influenza vaccine by age band

All GP registered patient data (includes those in a risk group and those not in a clinical risk group)	Number of patients registered	Number of patients vaccinated	2020 to 2021 % vaccine uptake	2019 to 2020 % vaccine uptake
Total observed 6 months under 65 years	48,594,875	10,709,742	22.0	13.9
Total extrapolated 6 months under 65 years	49,787,480	10,972,578		
6 months to under 2 years	885,044	5,936	0.7	0.5
6 months to under 2 years extrapolated	906,765	6,082		
2 years to under 5 years	1,922,289	847,615	44.1	36.4
2 years to under 5 years extrapolated	1,969,465	868,417		
5 years to under 16 years	7,649,272	2,311,300	30.2	24.3
5 years to under 16 years extrapolated	7,836,999	2,368,023		
16 years to under 65 years	38,138,270	7,544,891	19.8	11.0
16 years to under 65 years extrapolated	39,074,251	7,730,056		

Refused or declined²¹

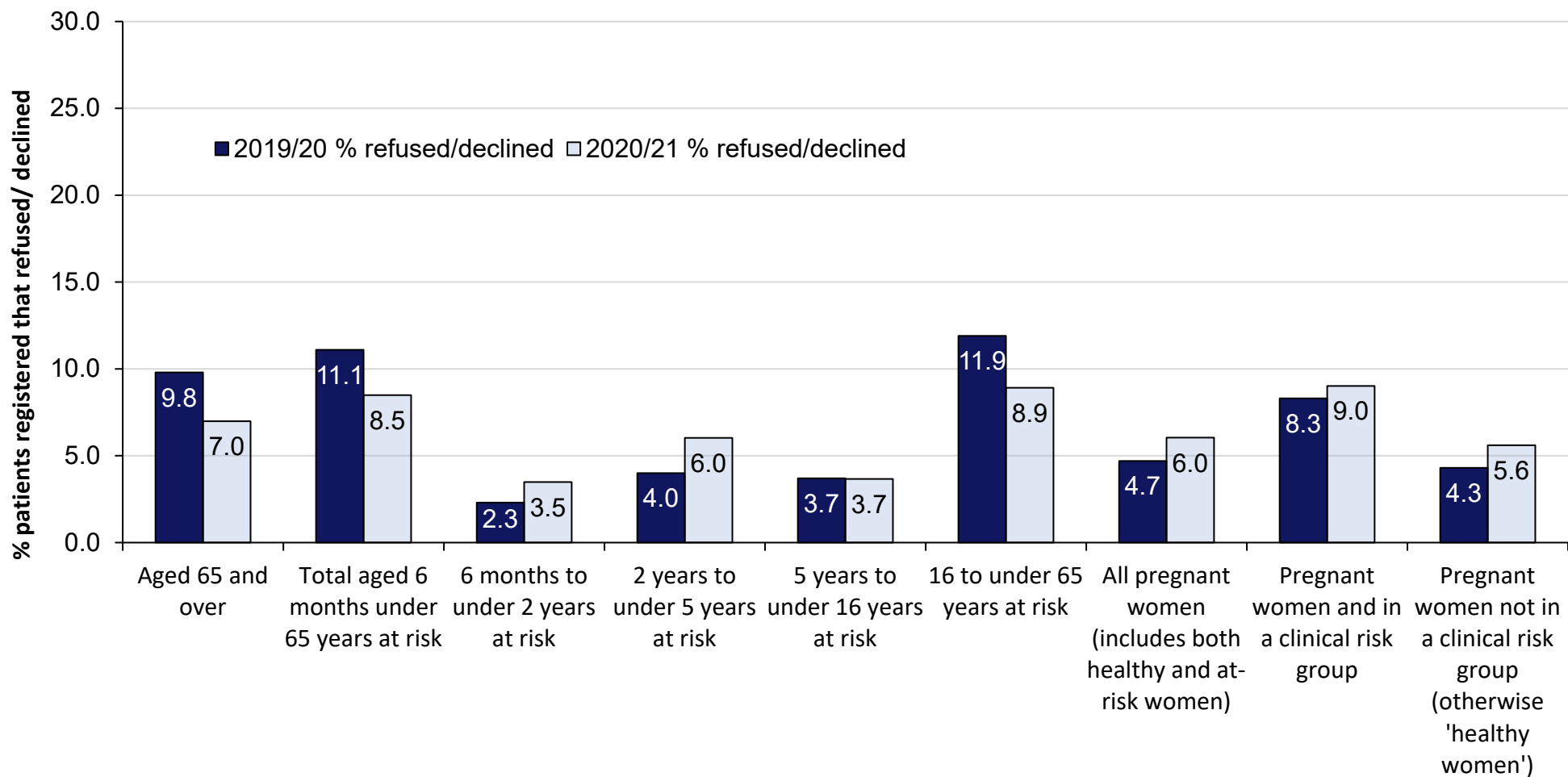
Refused or declined vaccinations have decreased in the aged 65 and over and aged 6 months to under 65 years at risk groups. The largest decrease was in the aged 16 to under 65 years and in one or more clinical risk group(s) (8.9% compared to 11.9% in 2019 to 2020), see [Table 10](#) and [Figure 5](#). However, refused or declined vaccinations increased in pregnant women by 1.3% and in at-risk infants 6 months to 2 years (by 1.2%) and in 2 to 5 year olds by 2%.

²¹ Caution should be exercised when looking at these figures as different GP System suppliers use different ways of recording this and some may be collected via non-coded mechanisms.

Table 10. Number of registered patients who refused or declined the influenza vaccine

Target groups for vaccination	Number of vaccinations refused or declined	2020 to 2021 % of population refused or declined	2018 to 2019 % of population refused or declined
Aged 65 and over	730,183	7.0	9.8
Total aged 6 months under 65 years at risk	687,587	8.5	11.1
6 months to under 2 years at risk	578	3.5	2.3
2 years to under 5 years at risk	3,662	6.0	4.0
5 years to under 16 years at risk	22,109	3.7	3.7
16 to under 65 years at risk	661,238	8.9	11.9
All pregnant women (includes both healthy and at-risk women)	36,635	6.0	4.7
Pregnant women and in a clinical risk group	6,947	9.0	8.3
Pregnant women not in a clinical risk group (otherwise 'healthy women')	29,688	5.6	4.3

Figure 5. Percentage of refused or declined vaccination by target group for 2020 to 2021 compared to 2019 to 2020



Other healthcare settings²²

Most vaccinations are still delivered within the GP practices though there continues to be a gradual increase in vaccinations delivered in pharmacies and other healthcare settings (for example, antenatal clinics, residential homes and private or occupational health) this season, particularly in the 65 years or older cohort and the pregnant women cohort (Table 11 and Figure 6).

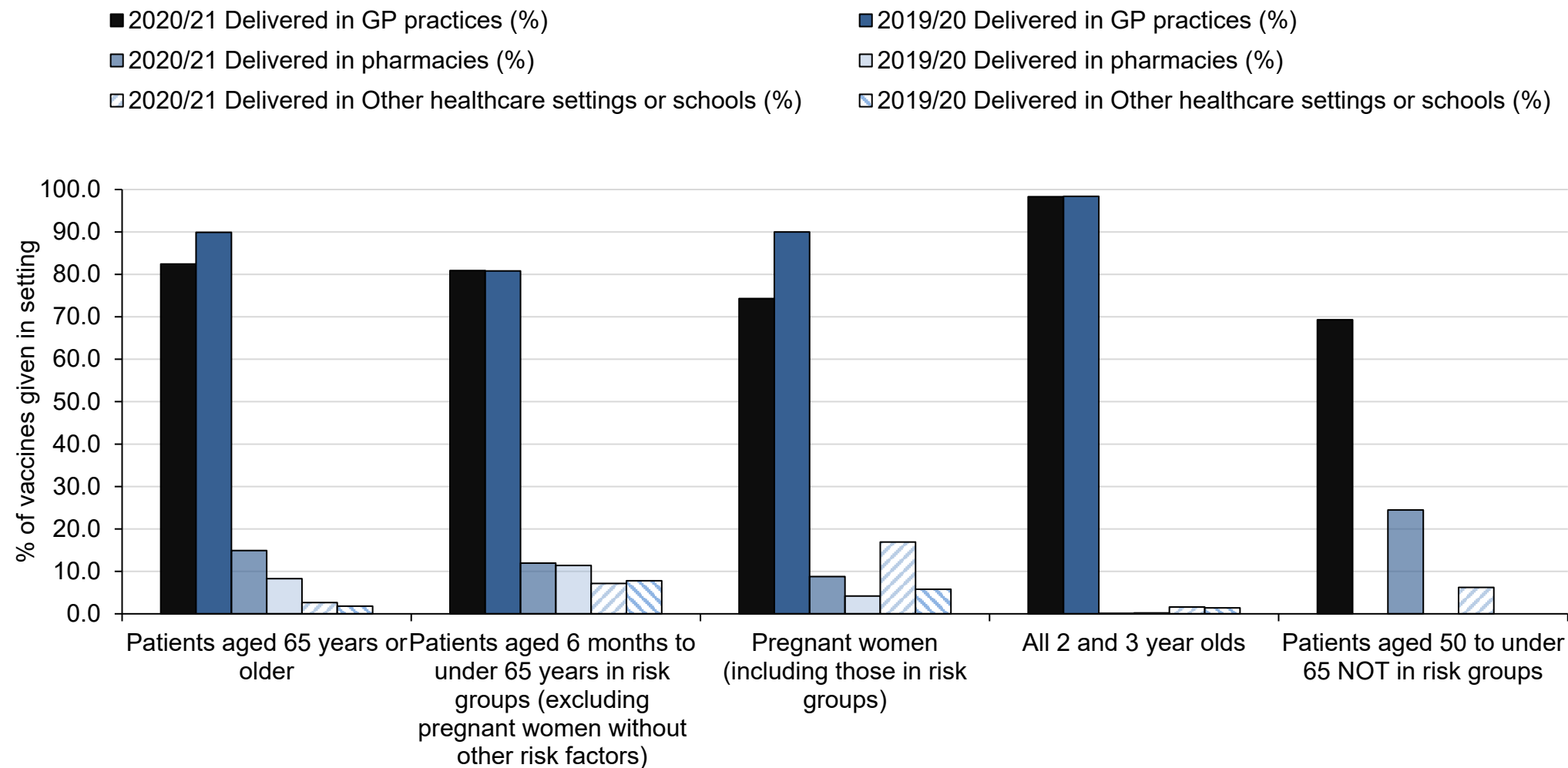
Those aged 50 to under 65 years had the highest percentage of vaccinations recorded to be given outside of the GP practice, with almost a quarter given in pharmacies. Pregnant women saw a 15.7% increase in vaccinations given outside the GP compared to the 2019 to 20 season, with an 11.1% increase in vaccinations given in other healthcare settings. Those aged 65 years and over also saw an increase, with 7.5% more vaccinations given outside the GP practice than last season.

²² Recording of vaccinations given in another healthcare setting outside of the GP practice does not come under an existing information standard, therefore location recording can be varied amongst GP practices and GP System suppliers (see data limitations section of this report).

Table 11. Percentage vaccine uptake by GP practices, pharmacies and other healthcare settings

Patient Group	2020 to 2021			2019 to 2020		
	GP practices	Pharmacies	Other healthcare settings and schools	GP practices	Pharmacies	Other healthcare settings and schools
65 and over	82.4	14.9	2.7	89.9	8.3	1.8
Six months to under 65 years at risk	80.9	11.9	7.2	80.8	11.4	7.8
All pregnant women	74.3	8.8	16.9	90.0	4.2	5.8
All 2 and 3 year olds	98.3	0.1	1.6	98.4	0.2	1.4
50 to under 65 years not in a clinical risk group	69.3	24.5	6.2	-	-	-

Figure 6. Percentage of vaccinations given by location for those aged 65 and over; patients aged 6 months to under 65 years and in one or more clinical risk group, and pregnant women



Carers

Vaccine uptake for carers aged 16 to under 65 years old and not in a clinical risk group was 46.7% compared to 36.6% in 2019 to 2020 season, an increase of 10.1% (Table 12).

Table 12. Observed and extrapolated figures for Carers who received an influenza vaccine during the 2020 to 2021 season

Target groups for vaccination	Number of patients registered	Number of patients vaccinated	2020 to 2021 % vaccine uptake	2019 to 2020 % vaccine uptake
16 years to under 65 years not at-risk who fulfil the carer definition	627,135	292,749	46.7	36.6
16 years to under 65 years not at-risk who fulfil the carer definition extrapolated	642,526	299,934		

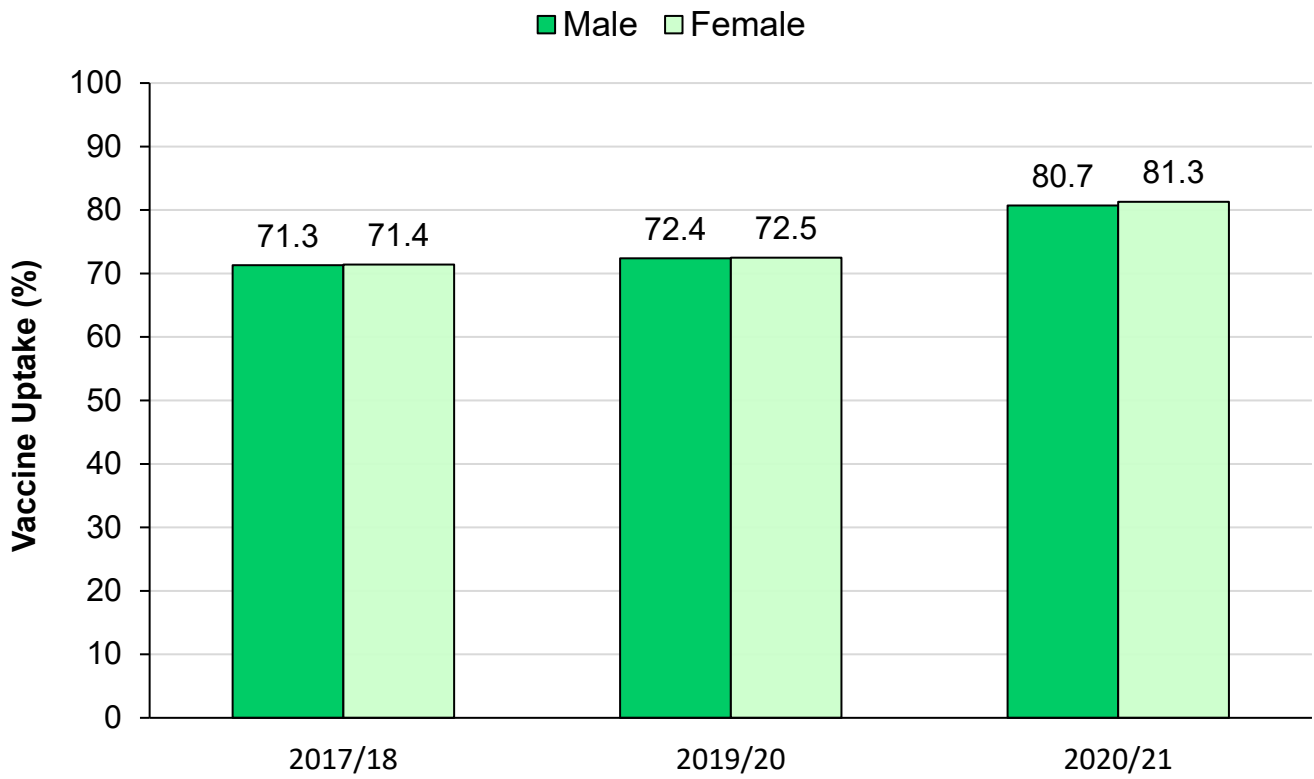
Gender

Those with gender not specified or unknown were removed due to small numbers.

65 years and over by gender

For those aged 65 years and over, there was little or no difference in uptake between genders for the last 3 seasons (Figure 7).

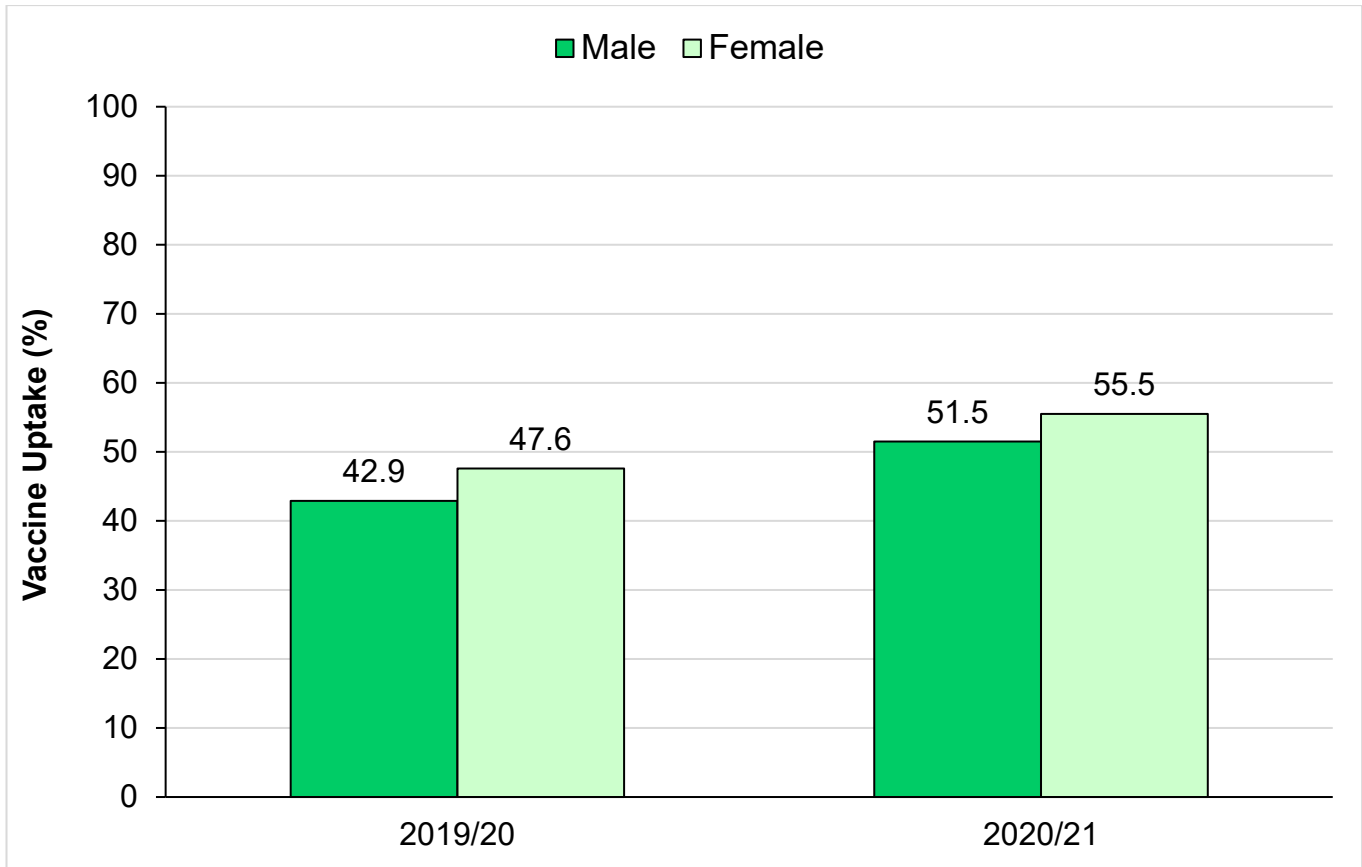
Figure 7. Influenza vaccine uptake in those aged 65 and over by gender for England from 2018 to 2019 season to 2020 to 2021 season



At-risk patients aged 16 to under 65 years by gender

For the current and previous season, data was collected for at-risk patients aged 16 years to under 65 years. The at-risk cohort includes pregnant women with other risk factors but excludes otherwise 'healthy' pregnant women. In the 2020 to 2021 season, vaccine uptake in at-risk patients aged 16 years to under 65 years was 4.0% higher in females than males in England (see [Figure 8](#)). This does not account for differences caused by the vaccination of pregnant women.

Figure 8. Influenza vaccine uptake in at risk patients aged 16 to under 65 years old by gender for England



Vaccine Type

Vaccine type was introduced to the GP survey in 2018 to 2019 as experimental data. Data was available again this year for 95.8% of those vaccinated aged 65 and over; and 95.1% of those vaccinated aged 16 to under 65 years and in a clinical risk group. There has been a large increase in the percentage of vaccination coded with a defined type, from 19.5% in the previous season to 48.2% this season for those aged 16 and over. Due to the extended programme, a recombinant quadrivalent vaccine (QIVr) was commissioned for use in the UK this season²³.

Where vaccine type was provided; those aged 65 years and over mostly received the first-line recommended adjuvanted trivalent vaccine (aTIV); 97.5% of those with a vaccine type recorded. 1.6% were recorded with QIVc, 0.6% with QIVe and 0.3% with QIVr. Those aged 16 to under 65 years in a clinical risk group received the recommended quadrivalent non-adjuvanted vaccines (QIVe, QIVc and QIVr). 64.7% of coded vaccinations in this group were QIVe, 31.6% were QIVc and 3.7% were QIVr. See [Table 13](#) and [Figure 9](#).

²³ Flublok vaccine given authorisation for temporary supply in the UK to meet public health need

Figure 9. Percentage of vaccine type codes in the GP record by target cohort

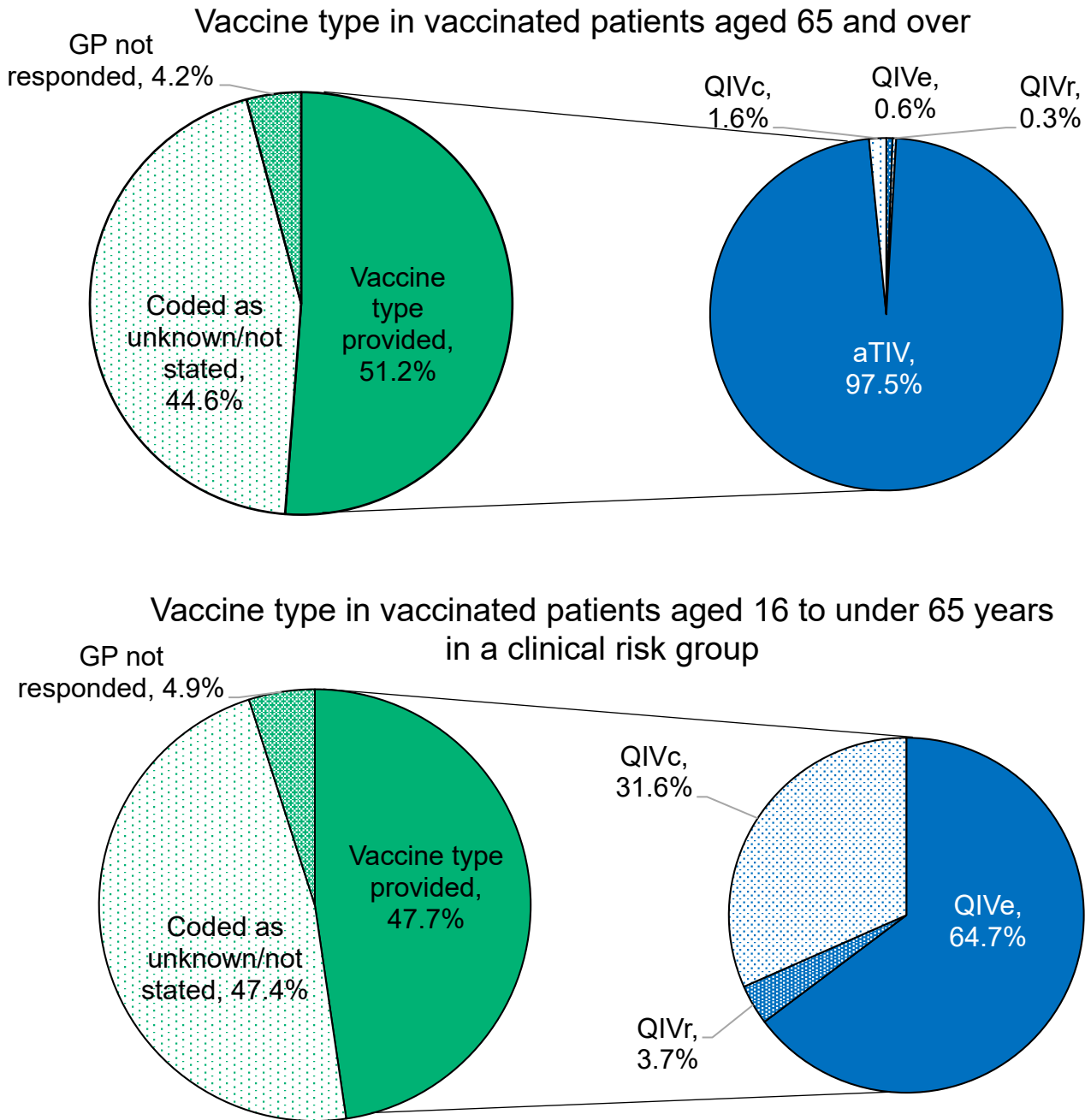


Table 13. Extrapolated number of vaccinations given by vaccine type in patients aged 65 and over; and those aged 16 to under 65 years and in one or more clinical risk group(s) during the 2020 to 2021 season

2020 to 2021	Patient Group		Patients aged 65 years or older	Patients aged 16 to under 65 years at risk
		Vaccine uptake (%)		80.9%
	Extrapolated number of people vaccinated		8.7 million	4.1 million
Vaccine type*	Adjuvanted vaccine (aTIV)	% of those vaccinated	49.9%	N/A
		Extrapolated number of people vaccinated	4.4 million	
	QIV non-adjuvanted vaccine (QIVe)	% of those vaccinated	0.3%	30.9%
		Extrapolated number of people vaccinated	26,000	1.3 million
	Cell based vaccine (QIVc)	% of those vaccinated	0.8%	15.1%
		Extrapolated number of people vaccinated	71,000	628,000
	Recombinant quadrivalent vaccine (QIVr)	% of those vaccinated	0.2%	1.7
		Extrapolated number of people vaccinated	15,000	73,000
	GP not responded, unknown or not stated	% of those vaccinated	48.8%	52.3%
		Extrapolated number of people vaccinated	4.2 million	2.1 million

* Please note that a large proportion of vaccine type is unknown or not stated, therefore the number of people vaccinated by vaccine type is likely to be larger, caution should be exercised when interpreting these figures

The number of live attenuated influenza vaccine (LAIV) vaccinations recorded for patients aged 2 and 3 years old have been collected as an experimental cohort for the last 3 years. Of vaccinated 2 and 3 year olds, an estimated 92.1% received LAIV in 2020 to 2021 compared with 96.2% in 2019 to 2020, while the overall number of LAIV vaccines given in this group increased by over 110,000.

Table 14. Influenza vaccine uptake in those aged 2 and 3 years old for England from 2018 to 2019 season to 2020 to 2021 season; and the proportion of LAIV vaccinations recorded for this cohort

All 2 and 3 years old	2020 to 2021	2019 to 2020	2018 to 2019
Vaccine uptake (%)	56.7%	43.8%	44.9%
% of those vaccinated with LAIV	92.1%	96.2%	95.4%
Extrapolated number of people vaccinated with LAIV	688,000	572,000	589,000

Social care workers

The collection of vaccination data for GP registered patients who are social care workers was introduced to the GP survey last season as an experimental cohort. Data was available for 48.0% (3,166 out of 6,596) of all GP practices in England, compared to 35.0% (2,337 out of 6,678) in the 2019 to 2020 season. The response rate ranged from 22.9% in London to 76.2% in the South West. Therefore, caution should be used when interpreting the data.

25,949 social care workers were recorded as such on data submitted by GP practices, increasing from 9,738 last season. This is likely to account for around 1.7% of social care workers (1.52 million²⁴ in adult social care). Of social care workers included in GP data, 60.4% were vaccinated, compared to 64% last season. At the regional level, vaccine uptake ranged from 26.2% (London) to 68.8% (East of England).

Ethnicity

Ethnicity data was collected for pregnant women and those aged 16 to under 65 years in a clinical risk group (see [Table 15](#)). Ethnicity is coded using the 16+1 ethnic data categories defined in the 2001 census that forms the national mandatory standard for the collection and analysis of ethnicity. 68% of patients aged 16 to under 65 years in a clinical risk group were recorded with a 2001 code, 12.5% were recorded with no code and 19.5% with a non-2001 census code. 0.1% were recorded as patient refused, and uptake in this group was 50.8%. For pregnant women, 69% were recorded with a 2001 code, 10.8% were recorded with no code and 20.1% with a non-2001 census code. 0.2% were recorded as patient refused, and uptake in this group was 39.7%.

Black or Black British – Caribbean had the lowest uptake in both groups. Asian or Asian British – Bangladeshi had the highest uptake in those aged 16 to under 65 years in a clinical risk group, whilst Other ethnic groups – Chinese had the highest for the pregnant women group.

²⁴ The number of people working in adult social care including those in non-full time equivalents who would also be eligible for vaccination. [The state of the adult social care sector and workforce in England](#), Skills for Care, October 2020.

Table 15. Influenza vaccine uptake in those aged 16 to under 65 years in a clinical risk group and pregnant women by ethnicity group. The highest (green) and lowest (red) uptake are indicated in each eligible group.

Ethnicity Group	16 to under 65 years in a clinical risk group			Pregnant women		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
White - British	3,406,566	1,993,882	58.5	233,133	114,259	49.0
White - Irish	29,864	15,994	53.6	2,543	1,153	45.3
White - Other	290,791	107,245	36.9	52,781	16,471	31.2
Mixed - White and Black Caribbean	26,978	9,214	34.2	2,965	822	27.7
Mixed - White and Black African	20,593	8,129	39.5	2,243	834	37.2
Mixed - White and Asian	16,382	7,899	48.2	1,936	830	42.9
Mixed - Any other mixed background	33,091	13,818	41.8	4,362	1,564	35.9
Asian or Asian British - Indian	187,700	105,137	56.0	19,088	9,160	48.0
Asian or Asian British - Pakistani	192,105	80,406	41.9	20,396	7,398	36.3
Asian or Asian British - Bangladeshi	71,943	42,995	59.8 (highest)	8,830	3,736	42.3

Seasonal influenza vaccine uptake in GP patients: winter season 2020 to 2021

Ethnicity Group	16 to under 65 years in a clinical risk group			Pregnant women		
	Number of patients registered	Number of patients vaccinated	% vaccine uptake	Number of patients registered	Number of patients vaccinated	% vaccine uptake
Asian or Asian British - Any other Asian background	106,660	58,316	54.7	11,132	4,951	44.5
Black or Black British - Caribbean	67,251	21,776	32.4 (lowest)	3,259	540	16.6 (lowest)
Black or Black British - African	138,877	55,097	39.7	13,636	4,388	32.2
Black or Black British - Any other Black background	36,428	12,244	33.6	2,959	714	24.1
Other ethnic groups - Chinese	22,565	10,832	48.0	2,649	1,335	50.4 (highest)
Other ethnic groups - Any other ethnic group	68,005	28,225	41.5	10,656	3,899	36.6
Ethnicity not stated	115,163	51,658	44.9	10,065	4,590	45.6
Ethnicity code not recorded (no code)	885,689	422,766	47.7	63,372	24,507	38.7
Ethnicity code is a non-2001 ethnicity code	1,384,304	754,050	54.5	117,317	53,487	45.6
Total	7,106,988	3,802,746	53.5	584,442	255,083	43.6

Discussion

The automated response rate for GP practices for the 2020 to 2021 end of season surveys remained very high at over 97%. The increase in GP practice mergers and closures resulting in an increase in GP registered populations per GP practice have meant that automated extraction of data has become more important.

Automated responses mean that there is little or no burden on the NHS to provide data already collected in the GP records. However, more needs to be done to ensure the quality of the data inputted into the GP record as well as what is extracted by the GP System Suppliers, such as vaccine type and social care worker status.

Weekly automated surveillance has again proved to be beneficial in providing rapid data at a national level to monitor the progress of the programme, especially due to the extension of the programme and pressure of the COVID-19 pandemic.

In addition, an uptake summary tool continued to be provided on the ImmForm website that allowed users to view and evaluate their uptake rates by target cohorts, comparing them against the previous season; CCG average and overall national uptake.

The uptake rate in those aged 65 years and over has remained relatively constant in the past few seasons (approximately 70%). Uptake for this season showed a large increase (80.9%) compared to 2019 to 2020 (72.4%) and is likely to reflect the increased awareness of the importance of vaccination for influenza during the COVID-19 pandemic. This is the highest ever achieved.

The national ambition for vaccination in those aged 65 years and over continues to be aligned with the WHO target of 75%. 87.4% (118 out of 135) of CCGs achieved the WHO target uptake rate of 75% or more in those aged 65 and over, a big increase from last season 20.9% (40 out of 191) of CCGs).

Vaccine uptake in pregnant women in England in the 2020 to 2021 season remained stable at 43.6%, compared to 43.7% in 2019 to 2020.

Vaccine uptake in patients aged 6 months to under 65 years in one or more clinical risk group(s) was 53.0% compared to 44.9% in 2019 to 2020, this is higher than ever previously recorded. Also for this age group, the percentage of refused or declined vaccination have decreased slightly from 11.1% to 8.5%.

Vaccine uptake in the individual risk groups has increased for nearly all clinical risk groups compared to last season for all patients aged 6 months to under 65 years old. Patients with diabetes remain the clinical risk group with the highest uptake, while the highest percentage

increase in uptake compared with 2019 to 2020 was in the morbid obesity risk group. Patients with asplenia or dysfunction of the spleen became the clinical risk group with the lowest uptake this season. Uptake in patients with learning disabilities was reported this season. In patients with any learning disability, uptake was 58.3%, and in those with severe learning disabilities uptake was 66.4%.

The childhood LAIV programme, which was first implemented in 2013 to 2014, continued its roll-out in 2020 to 2021 extending the programme to all those aged 11 years old rising to 12 years old. Vaccinations for school years' Reception to Year 7 were delivered through schools and uptake in these cohorts have all increased on last season's figures; a separate report has been published on the GOV.UK website. Uptake in those aged 2 and 3 years old increased this season from 43.8% in 2019 to 2020 to 56.7%, the highest ever achieved.

The extension of the influenza vaccination programme due to the COVID-19 pandemic meant that anyone aged 50 to under 65 years was eligible for vaccination from 1 December 2020. Vaccine uptake in for those in this group who were not in a clinical risk group was 35.2%. For those in a clinical risk group, uptake was higher than the otherwise healthy 50 to 64 year olds (66.3%), and higher than the average at risk GP population.

This year, data on vaccine uptake by gender for those aged 16 to under 65 years and in a clinical risk group was included. For those aged 65 years and over, there was little or no difference in uptake between genders. For patients aged 16 years to under 65 years old and in a clinical risk group, vaccine uptake was 4% higher in females than males, similar to the results seen in the previous season. This is higher than seen in the all patient data in the 2018 to 2019 season. Further investigation is needed to understand the difference in uptake.

Although coding of vaccine type has increased from last season, it does not appear to be coded frequently in GP systems. Where vaccine type was available, it was encouraging to see that a very high proportion of the vaccinations given were in line with recommendations for first-line vaccine types for each cohort.

Vaccine uptake data on social care workers were included this year as experimental data. Despite SNOMED CT codes for social care occupations being added in 2018, this is poorly recorded in the GP record. Data flows from social care employers and pharmacies need to improve to ensure that vaccination status is reflected accurately in the GP record.

Acknowledgements

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- the participation of GP IT software suppliers and third-party suppliers in providing the reporting tools and services for their customers in particular; EMIS Health, VISION, Microtest and The Phoenix Partnership (TPP), who enabled automated extracts of data
- the participation of the PRIMIS team based in Nottingham, who was commissioned to provide the Read and SNOMED CT Codes specification for this collection
- the ImmForm helpdesk and development team that provided and supported the online survey

Appendix. CCG changes for the 2020 to 2021 NHS hierarchy

2019 to 2020		2020 to 2021		
Old organisation code	CCG organisation name	New organisation code	CCG organisation name	STP name
00D	NHS Durham Dales, Easington And Sedgfield	84H	NHS County Durham	Cumbria And North East
00J	NHS North Durham			
00C	NHS Darlington	16C	NHS Tees Valley	Cumbria And North East
00K	NHS Hartlepool And Stockton-On-Tees			
00M	NHS South Tees			
03D	NHS Hambleton, Richmondshire And Whitby	42D	NHS North Yorkshire	Humber, Coast And Vale
03M	NHS Scarborough And Ryedale			
03E	NHS Harrogate And Rural District			
02N	NHS Airedale, Wharfedale And Craven	36J	NHS Bradford District And Craven	West Yorkshire And Harrogate Health & Care Partnership
02W	NHS Bradford City			
02R	NHS Bradford Districts			
01C	NHS Eastern Cheshire	27D	NHS Cheshire	Cheshire And Merseyside
01R	NHS South Cheshire			
02D	NHS Vale Royal			
02F	NHS West Cheshire			
05F	NHS Herefordshire	18C	NHS Herefordshire And Worcestershire	Herefordshire And Worcestershire
05J	NHS Redditch And Bromsgrove			

Seasonal influenza vaccine uptake in GP patients: winter season 2020 to 2021

2019 to 2020		2020 to 2021		
Old organisation code	CCG organisation name	New organisation code	CCG organisation name	STP name
05T	NHS South Worcestershire			
06D	NHS Wyre Forest			
03V	NHS Corby	78H	NHS Northamptonshire	Northamptonshire
04G	NHS Nene			
04E	NHS Mansfield And Ashfield	52R	NHS Nottingham And Nottinghamshire	Nottingham And Nottinghamshire Health And Care
04H	NHS Newark And Sherwood			
04K	NHS Nottingham City			
04L	NHS Nottingham North And East			
04M	NHS Nottingham West			
04N	NHS Rushcliffe			
03T	NHS Lincolnshire East	71E	NHS Lincolnshire	Lincolnshire
04D	NHS Lincolnshire West			
99D	NHS South Lincolnshire			
04Q	NHS South West Lincolnshire			
06M	NHS Great Yarmouth And Waveney	26A	NHS Norfolk & Waveney	Norfolk And Waveney Health And Care Partnership
06V	NHS North Norfolk			
07J	NHS West Norfolk			
06Y	NHS South Norfolk			
06W	NHS Norwich			
07N	NHS Bexley	72Q	NHS South East London	Our Healthier South East London
07Q	NHS Bromley			

Seasonal influenza vaccine uptake in GP patients: winter season 2020 to 2021

2019 to 2020		2020 to 2021		
Old organisation code	CCG organisation name	New organisation code	CCG organisation name	STP name
08A	NHS Greenwich			
08K	NHS Lambeth			
08L	NHS Lewisham			
08Q	NHS Southwark			
07V	NHS Croydon	36L	NHS South West London	South West London Health And Care Partnership
08J	NHS Kingston			
08P	NHS Richmond			
08R	NHS Merton			
08T	NHS Sutton			
08X	NHS Wandsworth			
07M	NHS Barnet	93C	NHS North Central London	North London Partners In Health And Care
07R	NHS Camden			
07X	NHS Enfield			
08D	NHS Haringey			
08H	NHS Islington			
09C	NHS Ashford	91Q	NHS Kent And Medway	Kent And Medway
09E	NHS Canterbury And Coastal			
09J	NHS Dartford, Gravesham And Swanley			
09W	NHS Medway			
10A	NHS South Kent Coast			
10D	NHS Swale			

Seasonal influenza vaccine uptake in GP patients: winter season 2020 to 2021

2019 to 2020		2020 to 2021		
Old organisation code	CCG organisation name	New organisation code	CCG organisation name	STP name
10E	NHS Thanet			
99J	NHS West Kent			
09N	NHS Guildford And Waverley	92A	NHS Surrey Heartlands	Surrey Heartlands Health & Care Partnership
09Y	NHS North West Surrey			
99H	NHS Surrey Downs			
09L	NHS East Surrey			
09G	NHS Coastal West Sussex	70F	NHS West Sussex	Sussex And East Surrey
09H	NHS Crawley			
09X	NHS Horsham And Mid Sussex			
09P	NHS Hastings And Rother	97R	NHS East Sussex	Sussex And East Surrey
99K	NHS High Weald Lewes Havens			
09F	NHS Eastbourne Hailsham And Seaford			
11E	NHS Bath And North East Somerset	92G	NHS Bath And North East Somerset, Swindon And Wiltshire	Bath And North East Somerset, Swindon And Wiltshire
12D	NHS Swindon			
99N	NHS Wiltshire			

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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