



UK Health  
Security  
Agency

# Seasonal influenza vaccine uptake in children of school age

## Winter season 2021 to 2022

Final data for 1 September 2021 to 31 January 2022

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## Executive summary

This document describes the final influenza vaccine uptake for the school-age influenza vaccination programme targeted at all school children aged 4 to 16 years old (Reception to Year 11) in England from 2021 to 2022.

All data in this report represents data returned from 100% (152 out of 152) of local authorities (LA) in England on cumulative influenza vaccinations administered from 1 September 2021 to end of 31 January 2022.

- 51.7% (4,129,981 out of 7,986,411) of all school aged children in Reception to Year 11 combined
- 57.4% (2,698,427 out of 4,701,000) of primary school children (Reception to Year 6) combined, compared to 62.5% during the 2020 to 2021 season
- 43.6% (1,431,554 out of 3,285,411) of secondary school children (Year 7 to Year 11) combined

Cumulative influenza vaccine uptake by academic year for the national programme in England compared to the previous 2020 to 2021 season where comparable data is available<sup>1</sup>.

- 56.9% (364,816 out of 640,974) of children in Reception (aged 4 rising to 5 years) compared to 64.2% during the 2020 to 2021 season
- 58.9% (388,137 out of 658,699) of children in school Year 1 (aged 5 rising to 6 years) compared to 64.5% during the 2020 to 2021 season
- 58.8% (388,453 out of 660,811) of children in school Year 2 (aged 6 rising to 7 years) compared to 63.7% during the 2020 to 2021 season
- 58.0% (387,068 out of 667,526) of children in school Year 3 (aged 7 rising to 8 years) compared to 63.2% during the 2020 to 2021 season
- 57.3% (391,122 out of 682,552) of children in school Year 4 (aged 8 rising to 9 years) compared to 61.8% during the 2020 to 2021 season
- 56.2% (391,338 out of 696,578) of children in school Year 5 (aged 9 rising to 10 years) compared to 61.1% during the 2020 to 2021 season
- 55.8% (387,493 out of 693,860) of children in school Year 6 (aged 10 rising to 11 years) compared to 59.2% during the 2020 to 2021 season

<sup>1</sup> In 2020 to 2021 season, the programme was offered to school children Reception to Year 7 (aged 4 rising to 12 years old).

- 48.5% (328,168 out of 676,277) of children in school Year 7 (aged 11 rising to 12 years) compared to 56.2% during the 2020 to 2021 season
- 45.8% (306,079 out of 668,527) of children in school Year 8 (aged 12 rising to 13 years)
- 42.2% (282,862 out of 669,853) of children in school Year 9 (aged 13 rising to 14 years)
- 42.0% (271,286 out of 645,659) of children in school Year 10 (aged 14 rising to 15 years)
- 38.9% (243,159 out of 625,095) of children in school Year 11 (aged 15 rising to 16 years)

Please note that the 2021 to 2022 season represents the first time in which all children in Year 8 to Year 11 were offered the vaccine through the school delivery model. This was expansion of 4 additional year groups (whereas previous seasons have seen an expansion of 1 additional year group only). Concurrent pressures on school aged delivery included both staff and pupil absences due to COVID-19, and for the first time, delivery of the school aged COVID-19 vaccination programme.

## Notes on the report

### Intended audience

This report is aimed at professionals directly involved in the delivery of the influenza vaccine to children such as GPs, pharmacy leads, screening and immunisation teams, local commissioners involved in the planning and financing of local health services, the wider public health community, governmental organisations and researchers with an interest in the influenza vaccination programme in England.

### Aim of the report

This report provides an evaluation of the national childhood influenza vaccination programme in school aged children (from school years Reception to Year 11) at national and sub-national levels.

## 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
DHSC	Department of Health and Social Care
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.
IIV	Inactivated Influenza Vaccine
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.
IQR	Interquartile Range
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	The flu vaccine uptake survey that collects data on all adult cohorts and children in clinical risk groups.
NHS	National Health Service
OHS	Other healthcare settings
ONS	Office for National Statistics
PHE	Public Health England

<b>Term</b>	<b>Explanation</b>
PHEC	PHE Centres
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
SAIS	School aged immunisation service
School-age year	The school age year is determined by their age on the 31 August. 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
UKHSA	UK Health Security Agency
WHO	World Health Organization

# Background

## Childhood Influenza Programme roll-out timeline

Following the recommendations of the Joint Committee on Vaccination and Immunisation (JCVI) in 2012<sup>23</sup>, the Department of Health and Social Care (DHSC) (formerly the Department of Health) in partnership with UKHSA (formerly Public Health England (PHE) and NHS England) began the phased roll-out of the national influenza vaccination programme to ultimately cover all 2 to 16 year olds (inclusive) in the UK. This programme uses the licensed live attenuated influenza vaccine (LAIV), with the aim of providing direct protection for those immunised as well as indirectly protecting the remaining population by reducing transmission. Children in clinical risk groups who are contraindicated for LAIV would most likely be offered the injectable vaccine through their GP.

### 2021 to 2022

During the 2021 to 2022 season, the national programme was extended to include children of Year 8 (aged 12 rising to 13 years), Year 9 (aged 13 rising to 14 years), Year 10 (aged 14 rising to 15 years) and Year 11 (aged 15 rising to 16 years) with no pilot areas. This was the first season where all children aged 2 through to 16 years old had been offered the vaccine. The mode of vaccination remained primarily through school delivery, with eligible children in the Isles of Scilly and all children aged 2 and 3 years offered the vaccine in GP practices. Please note that the programme will have been affected by the COVID-19 related pupil and immunisation staff absences.

This report describes influenza vaccine uptake for children of school age in England from 1 September 2021 to 31 January 2022. The eligible school cohorts under survey are children in school years Reception to Year 11 aged 4 rising to 12 years old based on age on 1 September 2021.

### 2020 to 2021

During the 2020 to 2021 season, the national programme was extended to include children of Year 7 (aged 11 rising to 12 years old), with no pilot areas. The mode of vaccination

<sup>2</sup> Joint Committee on Vaccination and Immunisation meeting minutes 5 October 2011 (1)

<sup>3</sup> JCVI statement on the annual influenza vaccination programme – extension of the programme to school-aged children 25 July 2012 (8)



remained primarily through school delivery, with eligible children in the Isles of Scilly and all children aged 2 and 3 years offered the vaccine in GP practices. Please note that the programme will have been affected by the second and third national COVID-19 restrictions ('lockdowns') in England that began on the 31 October 2020, and 6 January 2021. The third lockdown included school closures except for vulnerable children and children of key workers.

Data in this report covers all reported vaccinations given that season and is compared to data from from the season before where this is available.

## Methods

UKHSA provides screening and immunisation teams in England a standard protocol describing the inclusion criteria and method of collecting the data. Data providers must use a suitable data source to identify eligible school cohorts in the locality which are decided locally usually by the screening and immunisation team or the school aged immunisation service (SAIS). Most children are offered a single dose of vaccine. Eligible children in clinical at-risk groups without prior vaccination history under the age of 9 years of age are recommended 2 doses of vaccine and are counted as one vaccination in the numerator<sup>4</sup>.

Cumulative data on seasonal influenza vaccine uptake were collected for all 152 local authorities (LAs) between 1 September 2021 to 31 January 2022 using the ImmForm website managed by UKHSA. ImmForm provides a secure online platform for vaccine uptake data collection for nearly all the national immunisation programmes, including the seasonal influenza vaccine uptake collections.

End-of-season programme vaccine uptake was calculated based on the number of children in the target population reported as having received the influenza vaccine (either LAIV or inactivated influenza vaccine (IIV)) during the campaign period. Therefore, vaccine coverage reflects all children in school years Reception to Year 11 that received an influenza vaccine between 1 September 2021 and 31 January 2022.

<sup>4</sup> The Green Book Chapter 19 (2)

## Target population

The target population for the national school age childhood influenza vaccination programme is defined by school age cohorts born between 1 September 2005 and 31 August 2017, as defined by the child's age on 31 August 2021 (Table 1). This season all children in Reception to Year 11 (aged 4 rising to 16 years old) were offered the vaccine.

**Table 1. Year group cohort definitions**

Academic year group	Age range on 31 August 2021	Birth date range	
		Born from date	Born to date
Reception	Aged 4 to 5 years	1 September 2016	31 August 2017
1	Aged 5 to 6 years	1 September 2015	31 August 2016
2	Aged 6 to 7 years	1 September 2014	31 August 2015
3	Aged 7 to 8 years	1 September 2013	31 August 2014
4	Aged 8 to 9 years	1 September 2012	31 August 2013
5	Aged 9 to 10 years	1 September 2011	31 August 2012
6	Aged 10 to 11 years	1 September 2010	31 August 2011
7	Aged 11 to 12 years	1 September 2009	31 August 2010
8	Aged 12 to 13 years	1 September 2008	31 August 2009
9	Aged 13 to 14 years	1 September 2007	31 August 2008
10	Aged 14 to 15 years	1 September 2006	31 August 2007
11	Aged 15 to 16 years	1 September 2005	31 August 2006

Data in this report is a school-aged collection, predominantly delivered in schools and also a GP based delivery model for some cohorts (such as 2 and 3-year olds). Children who reside in one locality attending schools in neighbouring localities would be captured by the schools in the neighbouring locality to avoid double counting. Data providers can use single or multiple sources as appropriate to identify their eligible population.

For the 151 LAs where the programme was delivered through a school model, the denominator was based on both all the eligible children in schools<sup>5</sup> in the LA geography and those children who were educated out of school in the LA geography. This was defined by child age on 31 August 2021 using routine data sources such as the local education authority (LEA) school registers. Data were submitted by data providers and/or screening and immunisation coordinators at the LA level. Data were submitted on the ImmForm reporting website<sup>6</sup> via manual upload.

For the Kernow LA (which comprises Cornwall and the Isles of Scilly), most children were offered the vaccine through school delivery programmes, except for the Isles of Scilly, where the programme was delivered through GPs. The denominators for the Isles of Scilly were derived from GP systems that are based on the number of patients registered with a GP practice located within the LAs geographical boundary, as defined by a child's age on 31 August 2021. Data were submitted on the ImmForm reporting website either via an automated extraction (XML bulk upload or a web service) or provided by GP IT software suppliers who extract data directly from GP computer systems as described in full in the GP flu vaccination annual report<sup>7</sup>. Data were submitted at GP practice level and then aggregated at LA level by GP postcode for reporting purposes.

<sup>5</sup> All state funded primary schools, special schools, academies, faith schools, free schools, pupil referral units, and independent schools.

<sup>6</sup> [ImmForm reporting website](#).

<sup>7</sup> Seasonal flu vaccine uptake in GP patients: winter 2020 to 2021. June 2021 (3)

## Data limitations

The identification of school aged population may differ between localities depending on the data sources consulted. Depending on the characteristics of the local school-age population, it may be necessary that providers use multiple data sources to identify eligible school age cohorts, such as the school roll call and the local Child Health Information Services (CHIS) system. Where the denominators (total number of children for the influenza vaccine) were not amended, denominators from the school census survey from January 2021 were used<sup>8</sup> (this is provided to data providers at the start of the data collection as not all will have a complete school roll call whilst consent forms are still being collected). Some of the school data providers will only be indicating those children that have returned information on their vaccination status in consent forms (those who have already received the vaccine at the GP).

Although every effort is made to capture vaccinations delivered in other settings within this data collection, where data providers have indicated that they have included additional children that were vaccinated in other settings, it should be noted that the completeness of these figures may vary. It is important to note not all data providers may be able to access information on children vaccinated through other settings such as GP practice. Most of the children vaccinated in GP practice are at-risk children that have been called in by their GP to receive the vaccination. Healthy children in school years Reception to Year 11 who are not in a clinical risk group should not ordinarily be offered vaccination by their GP practice unless commissioned to vaccinate these children.

For these reasons, some caution is advised when making direct comparisons of vaccine coverage between localities and historic data as delivery models and timing of vaccine supply will affect any comparisons.

Throughout the 2021 to 2022 season, provisional uptake data by school year cohort were published on UKHSA's website<sup>9</sup> on a cumulative monthly basis. Last year (2021) was the first time that data was collect and published for any vaccinations given in September therefore there is no previous comparative data for that month.

<sup>8</sup> Schools, pupils and their characteristics: January 2020 [\(4\)](#)

<sup>9</sup> Seasonal flu vaccine uptake in children of school age: monthly data, 2021 to 2022 [\(5\)](#)

## Results

Full data tables and graphs showing final influenza vaccine uptake for children in school years Reception to Year 11 at NHS region and LA level are described and shown throughout this section. Data for this season and prior seasons are also available at [vaccine uptake guidance and the latest coverage data](#).

### National uptake

An estimated 4,129,981 children from school years Reception to Year 11 in England were vaccinated with an influenza vaccine between 1 September 2021 to 31 January 2022. Cumulative influenza vaccine uptake based on combined data for the target populations (Reception to Year 11) was 51.7% (4,129,981 out of 7,986,411) and the median uptake is given in [Table 2](#).

**Table 2. Total number of children in primary school, in secondary school and overall between Reception to Year 11 eligible for influenza vaccination, total number who received vaccination, vaccine uptake and median vaccine uptake in England for the 2021 to 2022 season.**

2021 to 2022				
	Total number of eligible children in the LA geography	Total number of children vaccinated with influenza vaccine	Influenza vaccine uptake (%)	Median influenza vaccine uptake (%)
Primary school aged children (Reception to Year 6)	4,701,000	2,698,427	57.4	56.0% (IQR 48.7% to 65.5%)
Secondary school aged children (Year 7 to Year 11)	3,285,411	1,431,554	43.6	41.1% (IQR 33.6% to 51.0%)
<b>All school aged children in Reception to Year 11</b>	<b>7,986,411</b>	<b>4,129,981</b>	<b>51.7</b>	<b>50.0% (IQR 43.3% to 59.6%)</b>

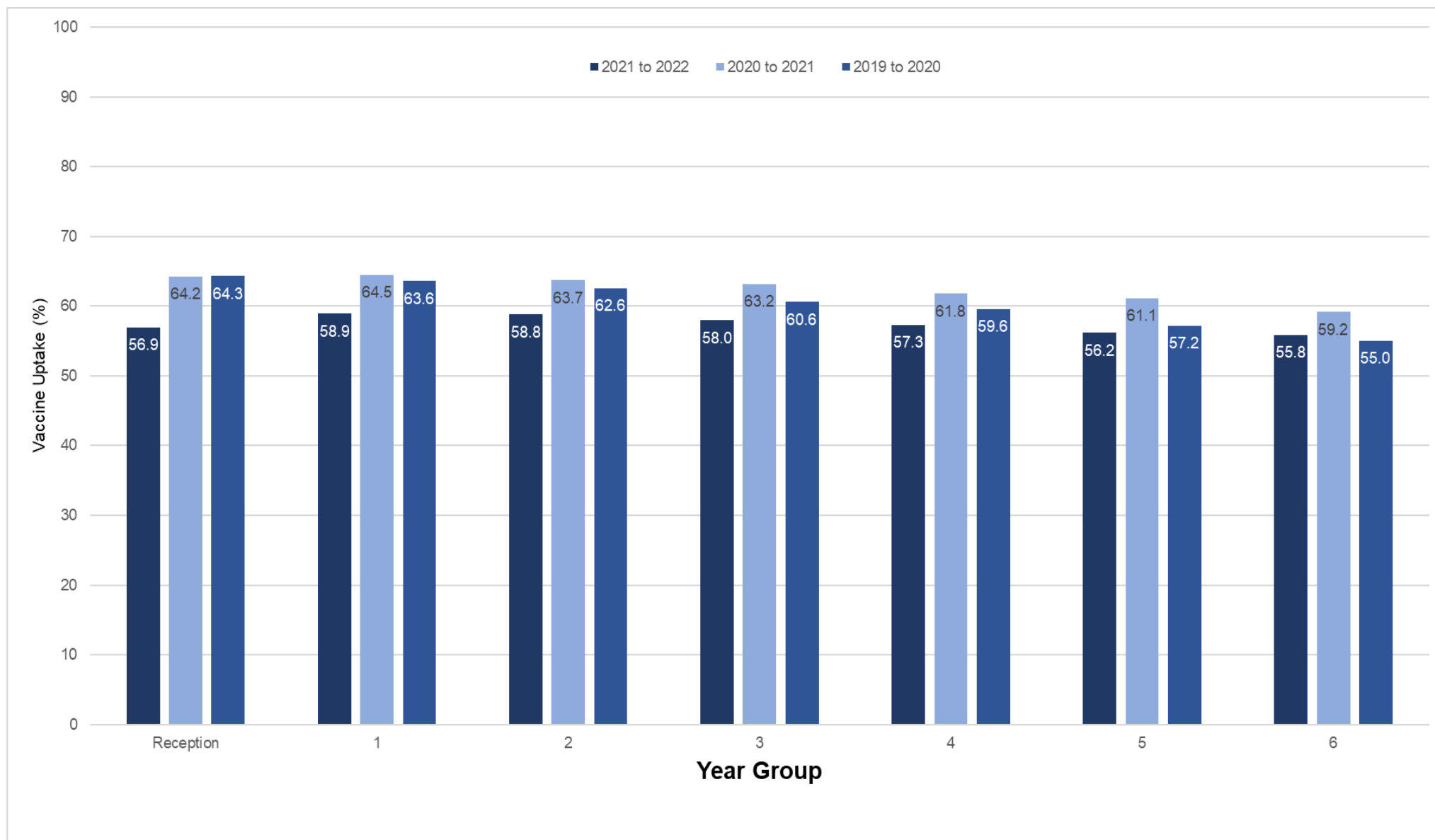
Seasonal influenza vaccine uptake in children of school age

The cumulative uptake and the median uptake for primary school aged children is shown below by year group (Reception to Year 6) is shown below (Table 3, Figure 1).

**Table 3. Total number of children in school years Reception to Year 6 eligible for influenza vaccination, total number who received vaccination, vaccine uptake and median vaccine uptake in England for 2021 to 2022 and 2020 to 2021 seasons.**

2021 to 2022					2020 to 2021		
School year	Total number of eligible children in the LA geography	Total number of children vaccinated with influenza vaccine	Influenza vaccine uptake (%)	Median influenza vaccine uptake (%)	Total number of eligible children in the LA geography	Total number of children vaccinated with influenza vaccine	Influenza vaccine uptake (%)
Reception	640,974	364,816	56.9	55.7% (IQR 49.5% to 64.3%)	651,250	418,386	64.2
Year 1	658,699	388,137	58.9	57.9% (IQR 50.5% to 67.3%)	658,806	425,000	64.5
Year 2	660,811	388,453	58.8	57.8% (IQR 50.5% to 66.4%)	664,462	423,391	63.7
Year 3	667,526	387,068	58.0	56.1% (IQR 49.7% to 65.9%)	679,318	429,239	63.2
Year 4	682,552	391,122	57.3	55.0% (IQR 47.6% to 65.2%)	697,077	430,890	61.8
Year 5	696,578	391,338	56.2	54.8% (IQR 47.2% to 64.5%)	699,153	427,342	61.1
Year 6	693,860	387,493	55.8	53.8% (IQR 47.0% to 64.2%)	689,978	408,246	59.2
<b>Total</b>	<b>4,701,000</b>	<b>2,698,427</b>	<b>57.4</b>	<b>56.0% (IQR 48.7% to 65.5%)</b>	<b>4,740,044</b>	<b>2,962,494</b>	<b>62.5</b>

**Figure 1. Influenza vaccine uptake (%) for children in school years Reception to Year 6 by year group and season**





For Figure 1, please note that due to supply issues for this group in the 2019 to 2020 season, data is not wholly comparable<sup>10</sup>. The cumulative uptake and the median uptake for secondary school aged children (Year 7 to Year 11) are shown below (Table 4)<sup>11</sup>.

Please note that there is no comparable data for Year 8 to Year 11 in 2020 to 2021 as the programme was offered up to those in school Year 7.

**Table 4. Total number of children in school years Year 7 to Year 11 eligible for influenza vaccination, total number who received vaccination, vaccine uptake and median vaccine uptake for England for the 2021 to 2022 and 2020 to 2021 seasons (where applicable).**

2021 to 2022					2020 to 2021		
School year	Total number of eligible children in the LA geography	Total number of children vaccinated with influenza vaccine	Influenza vaccine uptake (%)	Median influenza vaccine uptake (%)	Total number of eligible children in the LA geography	Total number of children vaccinated with influenza vaccine	Influenza vaccine uptake (%)
Year 7	676,277	328,168	48.5	46.8% (IQR 38.9% to 57.0%)	676,626	380,084	56.2
Year 8	668,527	306,079	45.8	43.8% (IQR 35.3% to 53.2%)	-	-	-
Year 9	669,853	282,862	42.2	39.2% (IQR 32.2% to 48.6%)	-	-	-
Year 10	645,659	271,286	42.0	39.4% (IQR 30.9% to 48.5%)	-	-	-
Year 11	625,095	243,159	38.9	36.2% (IQR 26.4% to 46.2%)	-	-	-
<b>Total</b>	<b>3,285,411</b>	<b>1,431,554</b>	<b>43.6</b>	<b>41.1% (IQR 33.6% to 51.0%)</b>	-	-	-

<sup>10</sup> Seasonal flu vaccine uptake in GP patients: winter 2020 to 2021. June 2021 (3)

<sup>11</sup> This season 2021 to 2022 was the first in which vaccine rollout was extended to include school children in Year 8 to Year 11

The national ambition set in the [national flu letter](#) for the 2021 to 2022 flu season is an average uptake of at least 70% across all school years (Reception to Year 11)<sup>12</sup>. Influenza vaccine uptake decreased by 5.1 percentage points to 57.4% (2,698,427 out of 4,701,000) in the 2021 to 2022 season for children in school years Reception to Year 6 combined, compared to the corresponding group in the previous season<sup>13</sup>.

## Year Group

For the seventh consecutive season vaccine uptake largely decreased as age increased in school aged children (except between Reception and Year 1 where there was an increase in vaccine uptake). The highest uptake was among children in Year 1 (58.9%) and the lowest in children in Year 11 (38.9%).

The total number of children vaccinated in the school-aged programme in 2021 to 2022 (Reception to Year 11) was 4,129,981. The total number of children vaccinated in the school-aged programme in 2020 to 2021 (Reception to Year 7) was 3,342,578. 787,403 more children were vaccinated in 2021 to 2022 season than the 2020 to 2021 season.

<sup>12</sup> National flu immunisation programme 2021 to 2022 letter. August 2021 (6)

<sup>13</sup> Seasonal flu vaccine uptake in children of school age: winter 2020 to 2021. June 2020 (7)

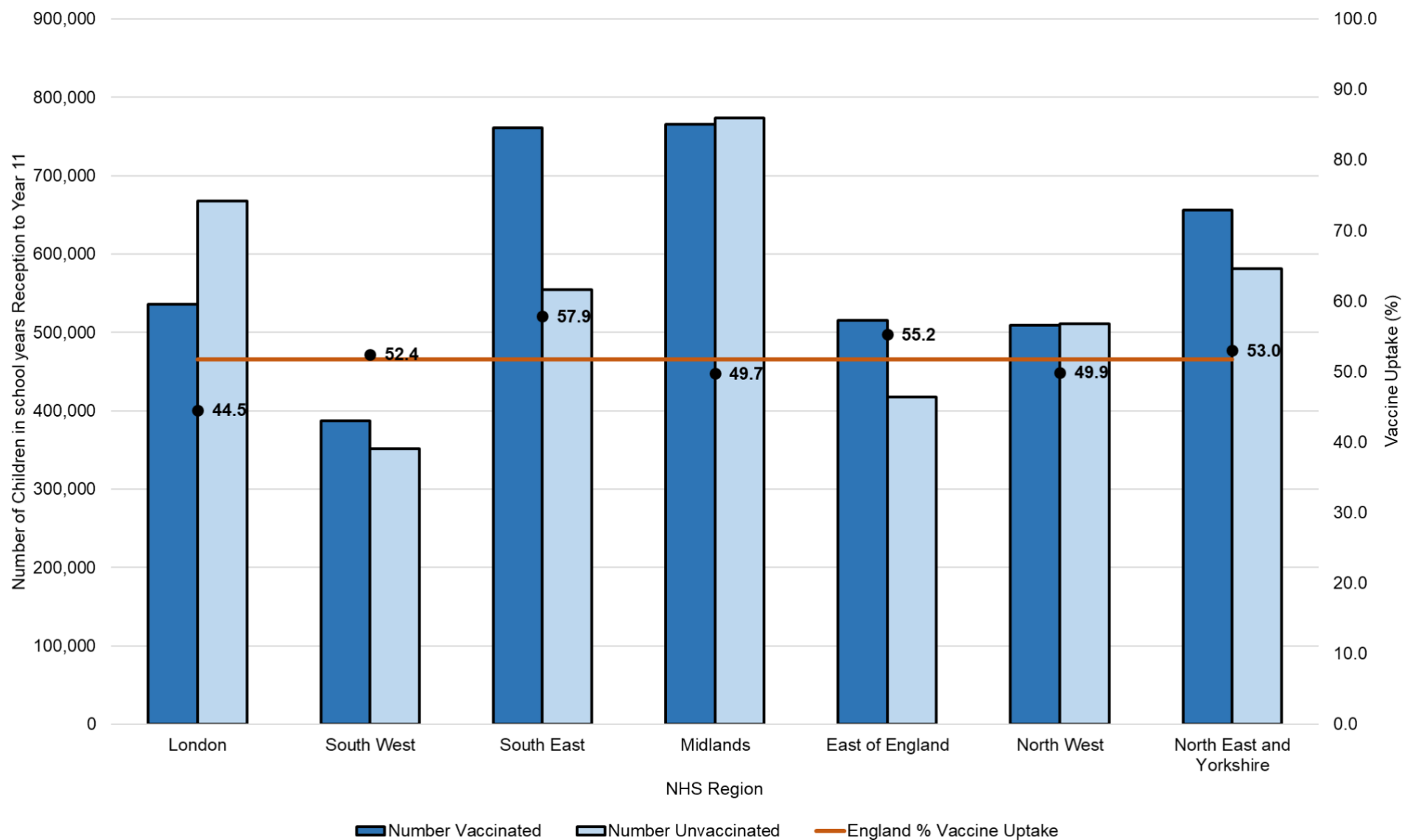
## NHS region

Variation in vaccine uptake was observed between the 7 NHS England Regions, ranging from 44.5% (London) to 57.9% (South East). The South West, South East, East of England and North East and Yorkshire were all above the national average uptake of 51.7% (Table 5, Figure 2.).

**Table 5. Estimated number and proportion of children in school years Reception to Year 11 who were vaccinated with influenza vaccine by NHS Region from 1 September 2021 to 31 January 2022**

NHS Commissioning Region	Number of children eligible for vaccination	Number of children vaccinated with at least 1 dose of influenza vaccine	Vaccine uptake (%)
London	1,203,352	536,076	44.5
South West	738,300	387,111	52.4
South East	1,315,227	760,909	57.9
Midlands	1,539,872	765,938	49.7
East of England	933,283	515,523	55.2
North West	1,019,698	508,750	49.9
North East and Yorkshire	1,236,679	655,674	53.0
<b>Total</b>	<b>7,986,411</b>	<b>4,129,981</b>	<b>51.7</b>

**Figure 2. Number and estimated proportion of children in school years Reception to Year 11 who were vaccinated with influenza vaccine by NHS region between 1 September 2021 to 31 January 2022, with line showing the England average uptake of 51.7%.**



## Local authority

Overall vaccine uptake for children in school years Reception to Year 11 combined by LA varied across England, ranging from 27.0% in Leicester to 72.3% in North Yorkshire. 23 LAs had uptake in the range of 0 to 39%, 52 were in the range of 40 to 49%, 38 were in the range of 50 to 59%, 34 were in the range of 60 to 69%, 2 were in the range of 70 to 79% and none had uptake of over 80% (Figure 3). For Reception to Year 6 combined, 17 LAs (11.2%) achieved uptake of 70% or over.

Vaccine uptake by year group and LA ranged from:

- 28.1% to 75.2% in Reception
- 32.2% to 83.7% in Year 1
- 32.8% to 85.5% in Year 2
- 32.4% to 77.8% in Year 3
- 32.1% to 79.8% in Year 4
- 31.1% to 76.9% in Year 5
- 30.3% to 77.3% in Year 6
- 20.4% to 74.7% in Year 7
- 19.8% to 70.5% in Year 8
- 18.7% to 67.3% in Year 9
- 17.6% to 67.3% in Year 10
- 13.6% to 70.6% in Year 11

The number and proportion of LAs that achieved 70% or more uptake in the 2021 to 2022 season by each cohort are as follows:

- 14 (9.2%) for Reception (32.2% in the 2020 to 2021 season)
- 21 (13.8%) for Year 1 (32.2% in the 2020 to 2021 season)
- 21 (13.8%) for Year 2 (32.2% in the 2020 to 2021 season)
- 23 (15.1%) for Year 3 (28.3% in the 2020 to 2021 season)
- 19 (12.5%) for Year 4 (23.7% in the 2020 to 2021 season)
- 13 (8.6%) for Year 5 (21.7% in the 2020 to 2021 season)
- 16 (10.5%) for Year 6 (18.4% in the 2020 to 2021 season)
- 1 (0.7%) for Year 7 (8.6% in the 2020 to 2021 season)
- 1 (0.7%) for Year 8<sup>14</sup>

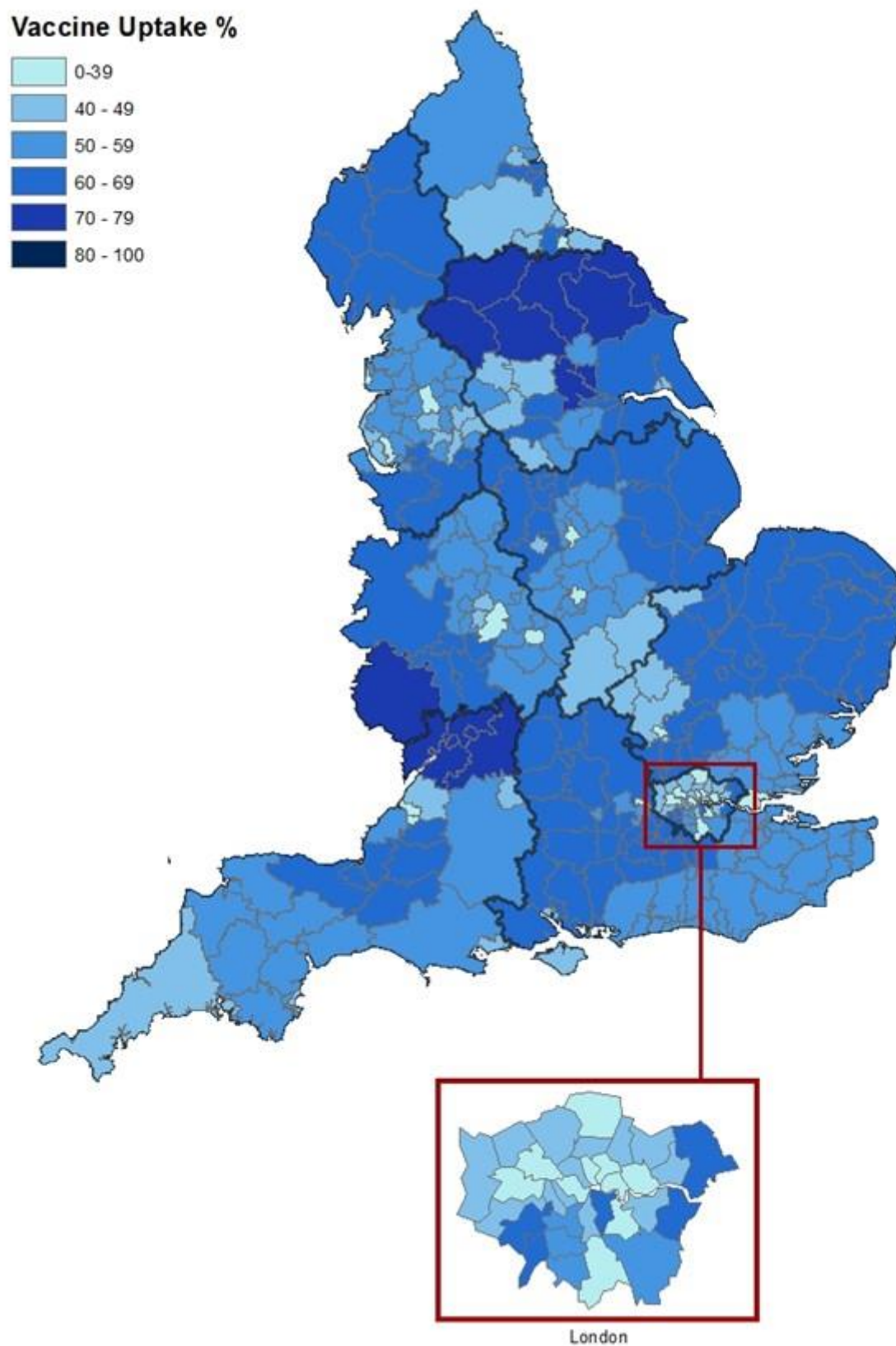
<sup>14</sup> There is no comparator data for Year 8 to Year 11 in the previous season as vaccine rollout was only offered up to Year 7 in this 2020 to 2021 season.

## Seasonal influenza vaccine uptake in children of school age

- For Year 9 and Year 10, no LAs achieved 70% or more uptake.
- 1 (0.7%) for Year 11

For all school years, 50 LAs reached an uptake of 55% or above, and 10 reached an uptake of 65% or above. 2 LAs reached an uptake of 70% or above.

**Figure 3. Vaccine uptake (%) in school years Reception to Year 11 for the 152 local authorities and 9 PHE centres collected between 1 September 2021 and 31 January 2022.**



## Discussion

This is the eighth report evaluating uptake in the national childhood influenza school aged vaccination programme across England. This season saw the extension of the childhood vaccination programme to include children up to school Year 11, (aged 15 rising to 16 years old) for the first time. From September 2021, LAIV was offered to all healthy children in school years Reception to Year 11 across the country. For all but one LA, who used the GP delivery model, this vaccine was offered through the school-based programme. All pre-school children (aged 2 rising to 3 years) were offered the influenza vaccine through GP practices<sup>15</sup>.

Across primary school age children in Reception to Year 6, the vaccine uptake of influenza vaccine was lower than it was in the 2020 to 2021 season, however the implementation challenges due to the COVID-19 pandemic should be taken into account.

The national ambition for every LA for the 2021 to 2022 flu season was an average uptake of at least 70% across all years (Reception to Year 11). Of 152 LAs in England, 2 (1.3%) had an uptake of 70% or more, 73 (48.0%) had an uptake in the range 50% to 69% and 77 LAs (50.7%) had uptake lower than 50%.

For the first time, all children in Year 8 to Year 11 were offered the vaccine through the school delivery model. This was an expansion of 4 additional year groups (whereas previous seasons have seen an expansion of 1 additional year group). Concurrent pressures on school aged delivery included both staff and pupil absences due to COVID-19 and delivery of the school aged COVID-19 vaccination programme for the first time. Vaccine uptake decreased as age increased in school aged children, this follows the trend shown in the last 7 years.

It is important that uptake in target groups of the national influenza vaccination programme improve to provide direct protection for those immunised and indirect protection for the population by reducing transmission.

The results of the 2021 to 2022 childhood flu vaccination programme show encouraging levels of influenza vaccine uptake in school aged children in England. It is important to build on this and continue to monitor uptake in all current groups in the future.

<sup>15</sup> Seasonal flu vaccine uptake in GP patients: monthly data, 2021 to 2022 [\(6\)](#)



# Acknowledgements

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

- all NHS school age vaccination providers who participated in, delivered and supported the childhood influenza vaccination programme uptake collection for 2021 to 2022
- all data providers, the child influenza taskforce and NHS England public health commissioning team colleagues (including screening and immunisation influenza coordinators and others)
- the ImmForm helpdesk and development team that provided and supported the online survey

# Appendix

## Appendix: Childhood Influenza Vaccination Programme roll-out timeline

### 2013 to 2014

The children's programme began in the 2013 to 2014 season with all 2 and 3 year-olds being offered vaccination with LAIV through general practice and a school pilot programme was rolled out in geographically distinct areas in England, targeting all primary school-age children (aged 4 to 10, rising to 11 years old).

### 2014 to 2015

In the 2014 to 2015 season, the national programme was extended to 4 year olds through general practice in England. In addition, the school pilot programme was extended to a total of 14 pilot areas (including 6 pilots that participated in 2013 to 2014 season), targeting both primary school-age children (aged 4 to 10, rising to 11 years old) and secondary school-age children (12 rising to 13 years old).

### 2015 to 2016

In the 2015 to 2016 season, the national programme was extended to include children of appropriate age in school years 1 and 2. For most children, this was offered via a school-based programme, although in a few areas of England vaccinations were delivered through alternative schemes such as community pharmacies and general practices. The 2014 to 2015 pilot areas continued to offer vaccination to all primary school-age children (aged 5 to 10, rising to 11 years old) in 2015 to 2016.

### 2016 to 2017

In the 2016 to 2017 season, the national programme was extended to include children in school year 3, offering LAIV vaccination to all children in school years 1, 2 and 3. Most children were offered the influenza vaccine via a school-based programme. However, in a few areas vaccinations were delivered through alternative schemes such as community pharmacies and general practice. Children aged 2, 3 and 4 years (but not 5 years or older) continued to be vaccinated by GPs. Vaccination continued to be offered to primary school-aged children (aged 5 to 10, rising to 11 years old) in the areas that had participated previously as pilot areas in England.

### 2017 to 2018

In the 2017 to 2018 season, the national programme was extended to include children in Reception (4 rising to 5 years old), children in Year 4 (aged 8 rising to 9 years old) and all

children of primary school age (aged 4 to 10 rising to 11 years old) in areas that participated previously as pilot areas. The mode of vaccination remained primarily through school delivery models with children aged 2 and 3 years offered the vaccine in GP practices, the only exception being the Isles of Scilly who delivered the vaccines through GP practices.

## 2018 to 2019

In the 2018 to 2019 season, the national programme was extended to include children of Year 5 (aged 9 rising to 10 years old). For most children, the LAIV vaccine was offered via school-based programmes (with additional mop-up clinics where required), with the Isles of Scilly operating via a GP model. Children aged 2 and 3 years (but not 4 years or older on 31 August 2018) were still offered the vaccine through general practices. Vaccination continued to be offered to primary school-aged children in reception to Year 6 (aged 4 to 10 rising to 11 years old) in those areas that previously participated in primary school pilots in England.

## 2019 to 2020

During the 2019 to 2020 season, the national programme was extended to include children of Year 6 (aged 10 rising to 11 years old) and thus included all children of primary school age for the first time and no additional age cohorts were added to the previous pilot areas. It is important to note that there were supply issues for the LAIV vaccine<sup>16</sup> in this season that may have affected the programme. The mode of vaccination remained primarily through school delivery, with eligible children in the Isles of Scilly and all children aged 2 and 3 years offered the vaccine in GP practices.

## 2020 to 2021

During the 2020 to 2021 season, the national programme was extended to include children of Year 7 (aged 11 rising to 12 years old), with no pilot areas. The mode of vaccination remained primarily through school delivery, with eligible children in the Isles of Scilly and all children aged 2 and 3 years offered the vaccine in GP practices. Please note that the programme will have been affected by the second and third national COVID-19 restrictions ('lockdowns') in England that began on the 31 October 2020, and 6 January 2021. The third lockdown included school closures except for vulnerable children and children of key workers.

<sup>16</sup> Seasonal flu vaccine uptake in GP patients: winter 2020 to 2021. June 2021 (3)

## References

1. Joint Committee on Vaccination and Immunisation. Minutes of the meeting 5 October 2011.
2. Influenza: the green book, chapter 19
3. Seasonal flu vaccine uptake in GP patients: winter 2020 to 2021. June 2021
4. Schools, pupils and their characteristics: January 2020
5. Seasonal flu vaccine uptake in children of school age: monthly data, 2021 to 2022
6. National flu immunisation programme 2021 to 2022 letter. August 2021.
7. Seasonal flu vaccine uptake in children of school age: winter 2020 to 2021. June 2020.
8. JCVI statement on the annual influenza vaccination programme – extension of the programme to school-aged children. 25 July 2012

## About the UK Health Security Agency

The UK Health Security Agency (UKHSA) is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats.

It provides intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation's health secure.

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