

**Children's Clinical Network
and the
Children's Influenza Programme
2016-17**



Introduction

This report summarises the children's influenza immunisation programme for 2016/17 in the Oxford AHSN region. It includes data on uptake rates in both the GP Practice-based service for 2-4 year olds and the schools' programme for children in Years 1-3.

This is the third year Oxford AHSN's Children's Clinical Network has offered support to the children's influenza immunisation programme. In previous years, this work was led by two Children's Clinical Network Nurses. For the 2016/7, these posts were largely unfilled which restricted the opportunity to undertake a comprehensive programme of work. Notwithstanding, the Children's Clinical Network has initiated and supported an innovative approach to offering the influenza vaccine in children's outpatients of one of the hospitals within our region, focussing in particular on those children who are at risk of developing more serious symptoms if they contract influenza. This is described below.

Why is influenza a problem?

Influenza is a viral infection and a potentially serious disease. It affects the lungs and airways. Symptoms appear quickly and can include headache, fever, cough, sore throat and aching muscles and joints. In children, vomiting, diarrhoea and abdominal pain may also occur. Complications include bronchitis and bacterial pneumonia, and these can be life-threatening especially in older people and those with certain underlying health conditions.

Influenza occurs every year, normally starting around November and continuing throughout the winter months. Influenza activity varies year to year and is reported weekly in England within national influenza reports.¹

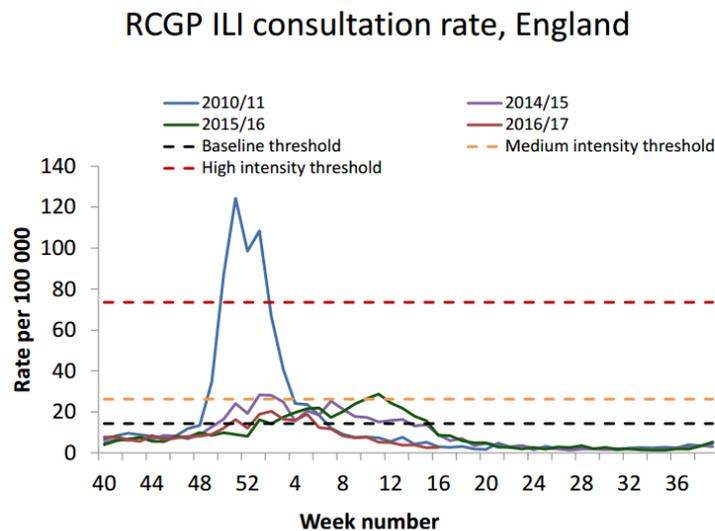
At the start of the 2016/17 season, in the week ending 9th October, overall weekly influenza like illness (ILI) GP consultation rates was 7.7 per 100,000 in England. These peaked in the week ending 15 January 2017 to 20.3 per 100,000 above the baseline threshold of 14.3 per 100,000 for the season, consistent with influenza circulating in the community. In the week ending 30th April 2017, ILI GP consultation was 2.9 per 100,000; in this same week, there were five admissions to intensive care/high dependency units with confirmed influenza.

¹ <https://www.gov.uk/government/statistics/weekly-national-influenza-reports>



Weekly national influenza reports

This graph shows GP ILI consultation rates in England through four influenza seasons.



Public Health England [National influenza report surveillance: 27 April 2017 \(week 17\)](#)²

Seasonal influenza affects all age groups and causes considerable morbidity and mortality. One study found that in England & Wales, as a result of influenza-like symptoms, an estimated 779,000–1,164,000 GP consultations, 19,000 – 31,200 hospital admissions and between 18,500 – 24,800 deaths annually are attributable to influenza infections.³

Influenza symptoms and complications from influenza are a major contributor to NHS winter pressures: influenza not only leads to increased expenditure on healthcare resources, including hospitalisations, but also to absence from work (including parents who may have to stay at home to look after their children) leading to lost income.⁴

²https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611382/PHE_influenza_surveillance_graphs_16_17_week_17_2017.pdf

³ Pitman RJ, Melegaro A, Gelb D, Siddiqui MR, Gay NJ and Edmunds WJ. Assessing the burden of influenza and other respiratory infections in England and Wales. *The Journal of Infection*. 2007;54: 530-538

⁴ Szucs T. The socio-economic burden of influenza. *J Antimicrob Chemother*. 1999; 44: Topic B 11–15.

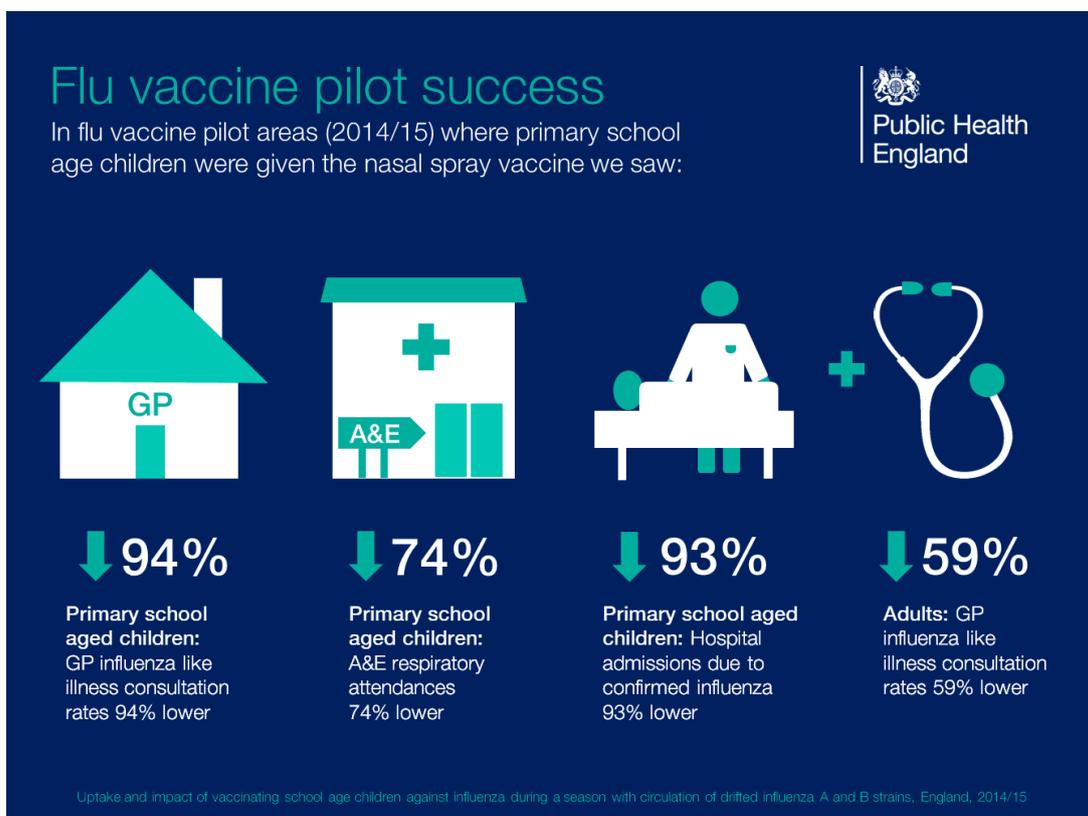


Why vaccinate children?

Healthy under-5s are more likely to be admitted to hospital with influenza than any other age group – and five times more likely than 65-year-olds.⁵

Immunising children is highly likely to reduce the burden of influenza in the community by impacting on transmission rates providing both direct and indirect protection.⁶

In pilot programmes carried out by Public Health England in 2014/5, vaccinating all primary school children had a dramatic effect on the local health economy providing compelling evidence of the value of a comprehensive child influenza immunisation programme.



Public Health England Childhood flu programme training slide set for health care professionals: 2016 to2017
<https://www.gov.uk/government/publications/childhood-flu-programme-training-slide-set-for-healthcare-professionals>

⁵ DOH 2014 <https://www.gov.uk/government/news/vaccinate-toddlers-against-influenza-advises-chief-medical-officer>.

⁶ PHE 2016
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/549585/Extension_of_the_Influenza_immunisation_programme_to_children_in_England.pdf

The children's influenza vaccination programme

In July 2012, the Joint Committee on Vaccination and Immunisation (JCVI) recommended that the national influenza programme should be extended to include the vaccination of healthy children aged 2 to 16 years with live attenuated influenza vaccine (LAIV).⁷

The phased introduction of this children's influenza vaccination programme started in the 2013/2014 season with vaccination offered to all those aged two and three years old on 31st August 2013 and all primary school aged children in seven geographical pilot areas. Each year the programme has been extended to include additional cohorts of children. In 2016/17, routine vaccination was offered to all children aged 2-4 and those in school years 1,2 and 3.

Throughout, children aged 6 months - 18 years in defined clinical risk groups have been included in the national influenza programme as they were prior to 2013.

The LAIV is delivered nasally, is well tolerated by young children, and has minimal side-effects.

Encouraging overall levels of protection for LAIV have been demonstrated within UK: in 2-17 year-olds, adjusted vaccine efficacy for LAIV was 57.6% (95% CI: 25.1 to 76.0) against any influenza⁸.

Children's influenza vaccine programme in Oxford AHSN region

In the Oxford AHSN region, the children's influenza vaccine is administered in both GP practices and schools, depending on the age of the child and the county. In Oxfordshire this season, Thames Valley Screening and Immunisation Area Team commissioned school health nurses to deliver the vaccine to school years 1-3, whereas last year only GP practices offered the vaccine for this cohort.

Area/County	Provider for age 2, 3 and 4 years	Provider for years 1-3
Milton Keynes	General Practice - mainly administered by practice nurse	Boots UK Ltd. (also offered vaccine in a Boots pharmacy for those missing).
Oxfordshire		SHN immunisation team – distinct from SHN core team.
Buckinghamshire		SHN immunisation team – distinct from SHN core team.
Berkshire		SHN immunisation team – distinct from SHN core team.

SHN – School Health Nurse HCA – Health Care Assistant

⁷ JCVI 2012 <http://media.dh.gov.uk/network/261/files/2012/07/JCVI-minutes-13-June-2012-revised.pdf>

⁸ Pedody et al 2016 Effectiveness of seasonal influenza vaccine for adults and children in preventing laboratory-confirmed influenza in primary care in the United Kingdom: 2015/16 end-of season results

How many children were vaccinated in the Oxford AHSN region?

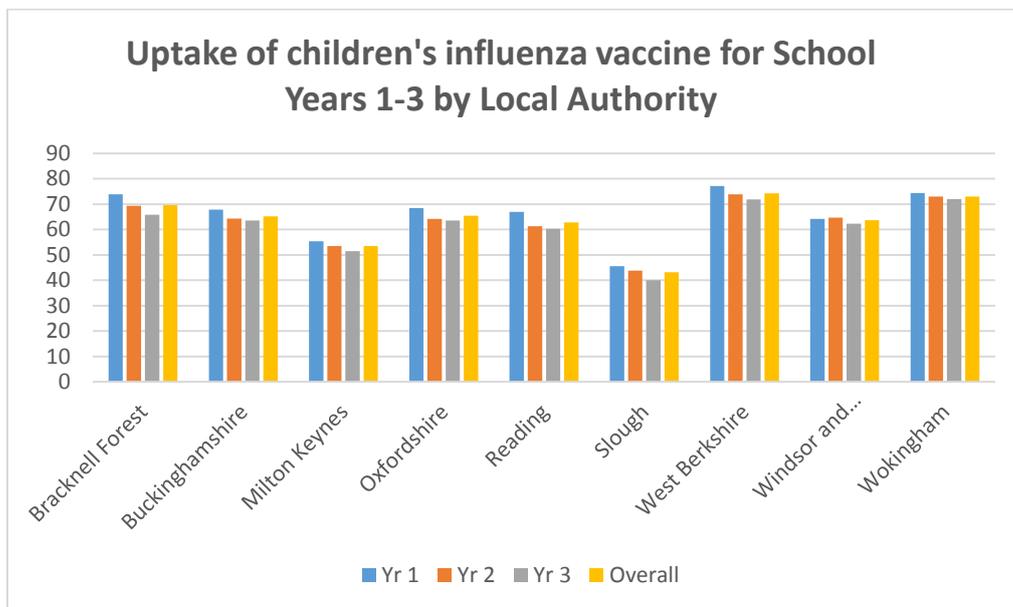
The total number of children (all 2-4 year olds and school years 1-3) *offered* the influenza vaccine in the Oxford AHSN geography increased from 161,034 in 2015/6 to 188,218 in 2016/7. The overall *uptake* in 2016/7 was 98,446 children, or 52.3%. These figures take into account the additional age range of children eligible for vaccination (school year 3).

The school-based immunisation programme

In common with other school-based immunisations, there is a greater uptake in the school setting than where the vaccine is given through the GP practice.

The total number of children vaccinated through the school-based immunisation programme in the Oxford AHSN region was 59,862.

	Thames Valley		Milton Keynes		Total
Year 1	18,902	67.3%	2,347	55.3%	21,249
Year 2	17,664	64.0%	2,230	53.5%	19,894
Year 3	16,600	62.4%	2,059	51.4%	18,719
Total	53,226	Av 64.6%	6,636	Av 53.4%	59,862

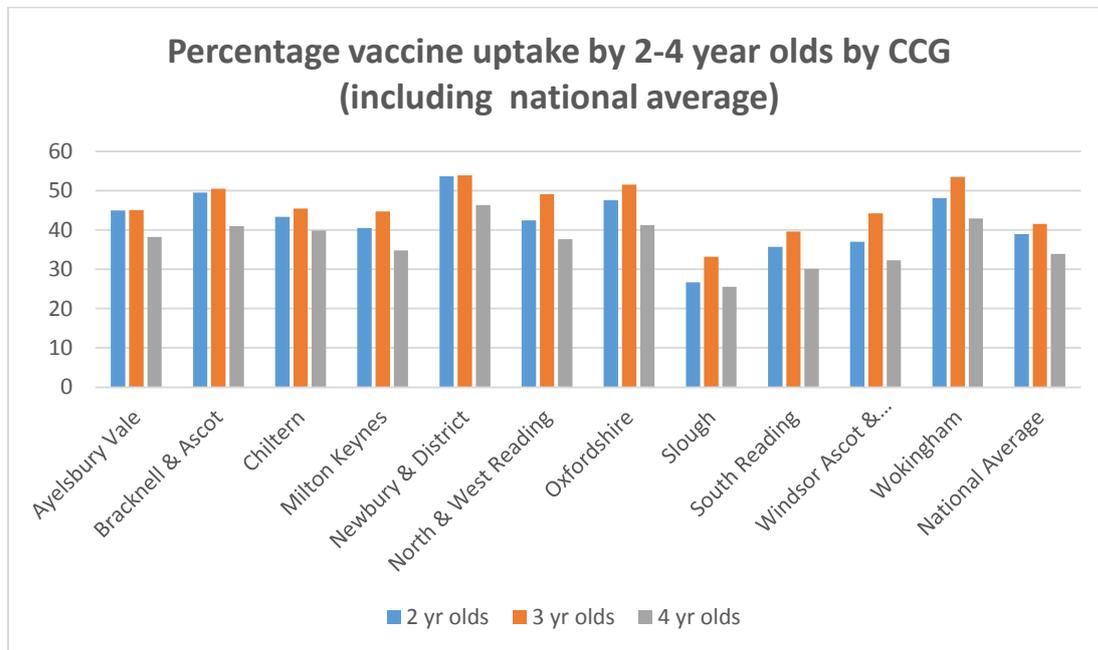


Uptake of the vaccine in the school programme by local authority area across the region varied from 43.1% in Slough to 69.6% in Bracknell Forest.

In 2017-18, provision of the vaccine will be extended to School Year 4.

Vaccine uptake in 2 – 4 year olds.

The table below illustrates the percentage take-up of the vaccine by 2 - 4 year olds by Clinical Commissioning Group (CCG). Most CCGs exceeded the national average for uptake for each age group.



Most CCGs in the Oxford AHSN geography were above the national average for each of the three age groups. Variation in uptake ranged from 30.1% for 4 year olds in Slough CCG to 53.9% for 3 year olds in Newbury and District CCG.

Children’s Clinical Network supporting the children’s influenza vaccine

This is the third year the Children’s Clinical Network has supported the children’s influenza vaccine. Our aim is to reduce the incidence of influenza in children and the wider community through improving uptake of the children’s influenza vaccine. We know this offers high rates of protection not just to children but also to the wider community, resulting in a decrease in GP consultations, A&E attendances and admissions to hospital.

This year the focus of our work has been to support influenza stakeholders by:

- Supporting the set-up of a pilot project to deliver the LAIV in the Children’s Outpatients Department of Milton Keynes University Hospital and writing up the evaluation of this project to share with key stakeholders
- Maintaining and updating the influenza webpages on our website for easy access to the information and promotional material
- Consulting with influenza stakeholders across the region through fortnightly teleconferences
- Producing a poster for maternity wards, encouraging pregnant women who receive the vaccine to ensure their own children are also immunised



- Providing the National Institute of Clinical and Health Excellence (NICE) with an overview and economic input of activities of Oxford AHSN to increase the uptake of LAIV across the region.

Delivering the Influenza Vaccine in Paediatric Outpatients: a new model of immunising children.



Milton Keynes University Hospital completion logo winner for “Kong Fu the Flu”; designed by a student at a local primary school

http://www.mkhospital.nhs.uk/index.php?option=com_content&view=article&id=641:flu-kung-fu-the-flu&catid=100&Itemid=101

During the 2016/7, the Children’s Clinical Network initiated, and then supported, a pilot project in which the nasal influenza vaccine was offered to children attending outpatient clinics at Milton Keynes University Hospital (MKUH).

This project was set up following the hospital’s Chief Executive meeting with the Children’s Network and reviewing uptake of the influenza vaccine in the Milton Keynes area. Currently, hospitals are not commissioned to provide the vaccine to children but both the Chief Executive and the Children’s Clinical Network recognised the potential to improve uptake by offering the vaccine to children already in a health setting, attending an outpatient clinic.

A [separate report](#)⁹ describes how the service was set up and the outcomes that resulted. It also acts as a useful guide for any other hospital paediatric department that is considering a similar service in the future.

The key message from this pilot project was that, although the service started relatively late in the season, it was able to vaccinate a number of children in clinical risk groups who had hitherto not received the vaccine and would otherwise have been at risk of serious illness had they contracted influenza.

It also served as a method to communicate to parents that the doctors and nurses at Milton Keynes University Hospital were concerned enough about influenza to offer the vaccine in children's outpatient clinics. This will have changed perception of the importance of the influenza vaccine in protecting the vulnerable and the community's responsibility to ensure they are protected.

For further information about this project, contact the Children's Matron at Milton Keynes University Hospital.

Plans for 2017/18

Funding for the Children's Clinical Network ended on June 30th 2017. Some of the work around children's influenza vaccination will continue under the aegis of the Oxford Vaccine Group and its [Vaccine Knowledge website](#) which offers independent information about vaccines and infectious diseases.

The Oxford Vaccine Group will continue the work of the Children's Clinical Network by collaborating with the Thames Valley NHS England screening and immunisation team to provide influenza update training sessions.

⁹ http://www.oxfordahsn.org/wp-content/uploads/2015/03/30901_Oxford_AHSN_MKUH_Flu_Report-FINAL.pdf