

HEALTH SCRUTINY COMMITTEE
DATE OF MEETING 19/07/2018
TITLE OF AGENDA ITEM INFLUENZA(FLU) VACCINATION 2017-18



19 July 2018

NHS England North Midlands Screening and Immunisation Team

Review of Seasonal Influenza (Flu) Immunisation Programme 2017-2018

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Purpose

This paper describes the performance of the seasonal influenza (flu) immunisation programme in Nottingham City which falls under NHS England North Midlands footprint. The paper outlines the strategies implemented to improve quality and performance in 2017/18 and plans to increase uptake in 2018/19.

Action Required

The Committee is asked to scrutinize the local strategic approach to flu vaccination in Nottingham and recommend ways to increase uptake in target groups.

The Screening and Immunisation Team will outline how partners across Nottingham City are working together to increase uptake in order to inform discussion.

Background Information

Flu is a common infectious viral illness spread by droplets from coughs and sneezes. Whilst it can be very unpleasant, most individuals begin to feel better within about a week. Conversely older people, those with long-term conditions such as heart and lung disease, pregnant women and young children can develop more serious symptoms requiring hospitalisation and can, in some instances, lead to death.

Groups eligible for flu vaccination are based on the advice of the Joint Committee on Vaccination and Immunisation (JCVI). The national flu immunisation programme aims to provide direct protection to those who are at higher risk of flu associated morbidity and mortality. The objective of the national flu plan is to actively offer flu vaccination to 100% of those in eligible groups.

Frontline health and social care workers should be provided with flu vaccination by their employer. This should form part of the organisations' policy for the prevention of transmission of infection (flu) to help protect patients, residents, and service users.

A Flu Plan⁵ is developed each year which sets out a coordinated and evidence-based approach to planning for, and responding to, the demands of flu across England. In November 2017 NHS England announced that there would be funding up to £10m for the 2017/18 flu season to support the delivery of flu immunisation for social care workers that

offer direct patient/client care. This was delivered by community pharmacies that were registered to deliver the seasonal flu advanced service.

In 2017/18 the following were eligible for flu vaccination:

- all children aged two to nine (with LAIV)
- all primary school-aged children in former primary school pilot areas (with LAIV), non in Nottingham City
- those aged six months to under 65 years in clinical risk groups
- pregnant women
- those aged 65 years and over
- those in long-stay residential care homes
- carers
- morbidly obese patients (defined as BMI of 40 and above)

Commissioning Arrangements and Responsibilities

NHS England is responsible for commissioning all of the national immunisation programmes. Details of the national commissioning arrangements for immunisation programmes are described in NHS public health functions agreement 2016-17² and NHS public health functions agreement 2017-18³

Table 1: The flu programme was commissioned and delivered via various providers and is described in table 1.

Service Provider	Cohort
GP Practices	<ul style="list-style-type: none"> • Healthy Children aged 2, and 3 years • Those in an 'at risk' category (long term condition) aged 6 months -65 years • Over 65's • Pregnant women • Morbidly obese
School Aged Providers	<ul style="list-style-type: none"> • Children in school reception, years 1, 2, 3 and 4 (4-9 years of age)
Pharmacies	<ul style="list-style-type: none"> • Over 18's in an 'at risk' category (long term condition) • Over 65's
	<ul style="list-style-type: none"> •

Local Initiatives to increase flu vaccination uptake in 2017/18

Maternity/Pregnant women

Flu vaccination was offered in maternity services at Nottingham University Hospitals NHS Trust (NUH). NUH used a model with designated midwives offering Flu and pertussis immunisation in the antenatal clinic.

Children

The Child Health Record Department piloted an initiative in Derby City, Nottingham City CCG and Mansfield and Ashfield CCG. An invitation letter was sent to parents of the eligible children aged 2 and 3 year olds in November 2017 inviting them to attend their GP practice for flu vaccination.

School Aged Immunisation

NHS England (North Midlands) commissioned Nottinghamshire County Health Partnership (Nottingham County & City), Derbyshire Community Health Services (Derbyshire County) and Nottingham City Care (Derby City) to provide School Aged Immunisation Services.

In addition to the increased cohorts the school aged immunisation service had to cover for this season (Reception and year 4 cohort) an initiative targeting the special schools was undertaken across Derbyshire County and Nottinghamshire. The estimated number of children in special schools to be vaccinated was 1,805. All children outside of the National Healthy Children's Flu Programme in Special Schools (Y5-14) were identified and offered flu vaccination. Home schooled children were also prioritised working closely with the local authorities.

At Risk Patients

Nottingham University Hospitals NHS Trust renal and gastroenterology services were commissioned to offer flu immunisation to all renal dialysis patients and some patients with cirrhosis. Notification of patients' vaccinations was sent to the GPs within two days electronically to avoid double vaccination.

National Context

Higher levels of flu activity were observed in 17/18, especially in November/December/January. The impact of influenza was predominantly seen in older adults, with a consistent pattern of outbreaks in care homes noted. Admissions to hospital and ICU/HDU particularly amongst older adults were observed and the impact on general practice was high during the months of November 2017 to January 2018.

National Vaccine Uptake 2017/18

Influenza vaccine uptake in 2017 to 2018 in England was higher than the 2016 to 2017 season in under 65 year olds in a pre-defined clinical risk group (48.7% vs 48.6%), in pregnant women (47.1% vs 44.9%) and higher in the over 65 year olds (72.5% vs 70.5%).

In 2017 to 2018, the universal childhood influenza vaccine programme with live attenuated influenza vaccine (LAIV) was offered to all healthy two, and three year olds across the UK, uptake achieved in these groups was 42.6% vs 38.9% in 2016/17 and 44% vs 41.5% in 2016/17. The school based childhood flu programme achieved uptake of 59.5% which is an increase from last year's uptake of 53.5%.

Influenza Vaccination Uptake in Nottingham City in 2017/18

Based on the national Annual Flu Plan for 2017/18 and previous year uptake rates, the Screening and Immunisation Team developed a local Derbyshire and Nottinghamshire Flu Assurance plan, which aimed to increase uptake rates amongst children 2 and 3 year olds; pregnant women and patients with underlying health conditions. The tables and figures below describe uptake in eligible groups.

Table 2: Flu vaccination uptake rates in Nottingham City between 1st September 2017 and 31st January 2018 (2016/17 data are in brackets).

CCG	65 and over	Under 65 (at-risk only)	All Pregnant Women	All Aged 2	All Aged 3
Nottingham City	72.4(70.6)	47.2 (46.5)	41.8 (37.7)	43.7 (35.2)	44.5(37.5)
All Derby/Notts CCGS	75.3 (73.3)	51.1(47.4)	50.2(45.3)	50.1(44.1)	50.1(46.9)
England Average	72.4(70.5)	48.7(48.6)	47.1(44.9)	42.6(38.9)	44.0(41.5)

Source: Seasonal Flu Vaccine Uptake in GP patients: Final data from 1st September 2016 – 31st January 2017
<https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-in-england-winter-season-2016-to-2017>

In Nottingham, the Flu vaccination uptake during the 2017/18 programme **increased** in all of the above groups.

The following figures compare Nottingham's flu vaccination uptake in comparison to England and other core cities and the national target/ambition for each of the vaccination cohorts where comparators are available:

- Adults aged 65 years and older
- At risk groups excluding pregnant women
- Pregnant women
- Children aged 2 and 3 years

Figure 1 illustrates that the proportion of adults aged 65 years and older receiving the flu vaccination in Nottingham increased in 2017/18 in line with the England average. An additional 1069 citizens aged 65 years and over in Nottingham would require vaccination in order to reach the 75% target. It is worth noting the gap between Nottingham and the England average is at the lowest level since 2011/12. Closing the gap with the national uptake is a big achievement for Nottingham City.

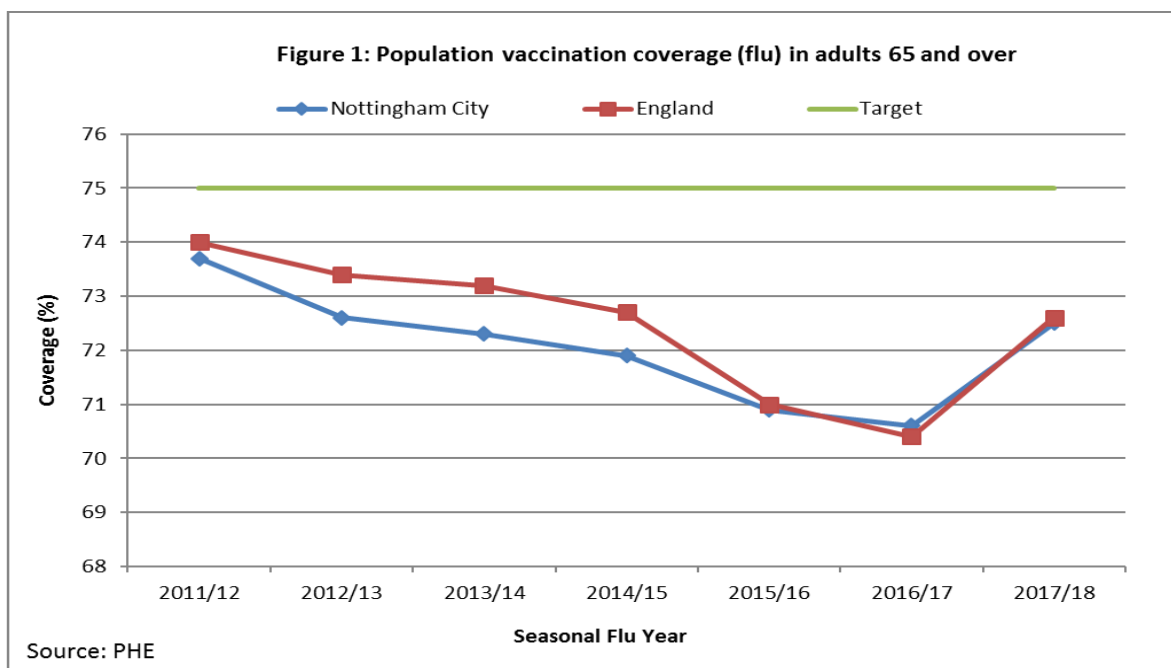


Figure 2 illustrates that the proportion of at risk individuals aged 6 months to 65 years (excluding pregnant women) receiving the flu vaccination in Nottingham increased in 2017/18 in line with the England average. An additional 3,572 'at risk' citizens in Nottingham would require vaccination in order to reach the 55% ambition/target.

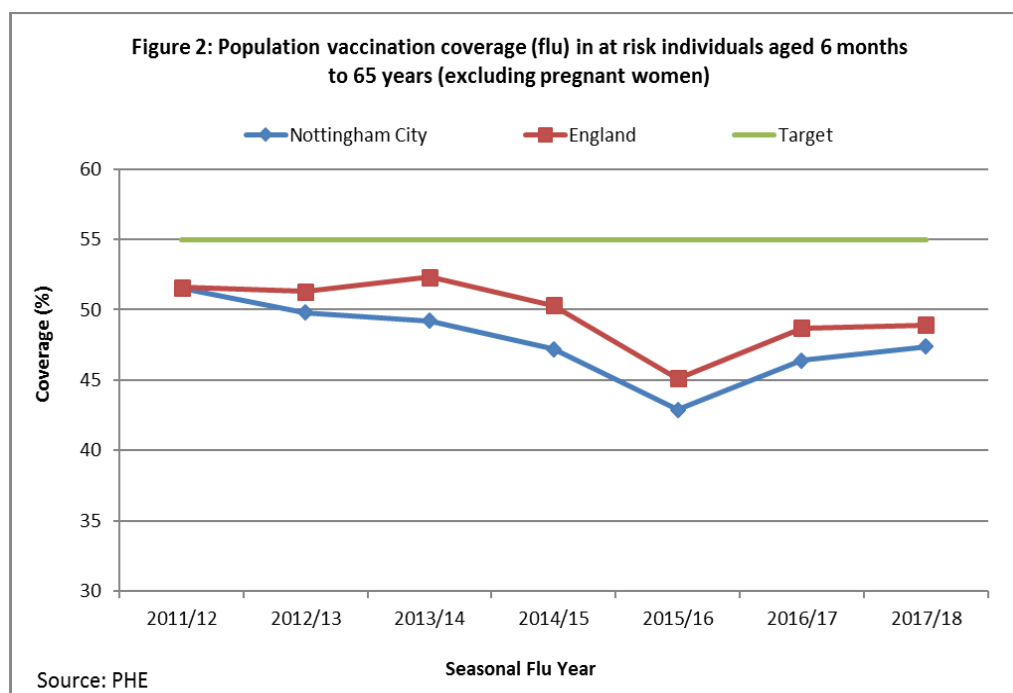


Figure 3 below illustrates a 4.1 percentage point (pp) increase in uptake amongst pregnant women in Nottingham (from 37.7% in 2016/17 to 41.7% in 2017/18) which mirrors the increase in the national average. The gap between Nottingham and the England average has reduced from 7.2pp (2016/17) to 5.5pp (2017/18). An additional 627 pregnant women in Nottingham would require vaccination in order to reach the 55% ambition/target.

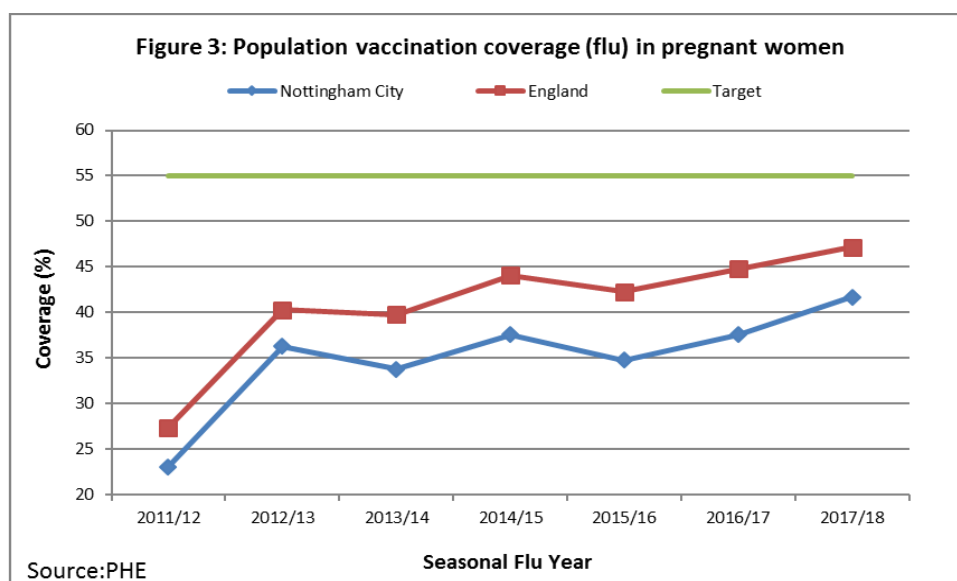
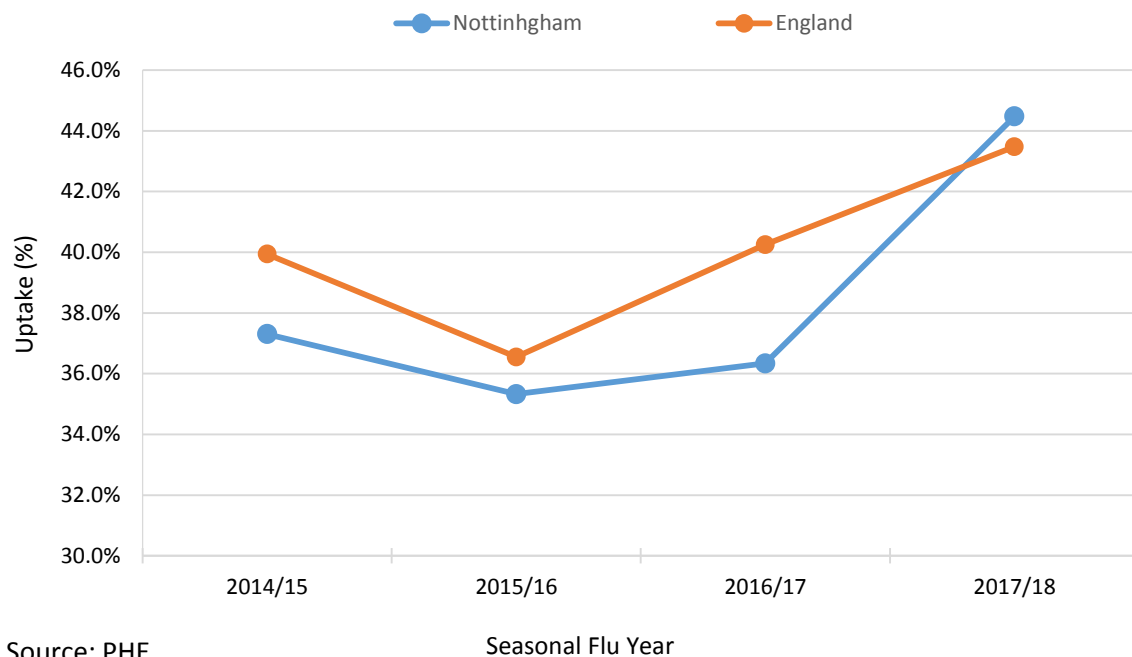


Figure 4 illustrates an increase in uptake rate for two to three year olds in Nottingham in 2017/18 mirroring the increase in the national average. Nottingham's uptake rate for two to three year olds has risen above the National average for the first time since 2014/15.

An additional 1379 two to three year olds in Nottingham would require vaccination in order to reach the 60% target. The national target is set at 40-60%. This may seem low but vaccinating over 30% of children will provide the community with a high level of herd immunity

Figure 4: Population vaccinated coverage 2 to 3 year olds



Pharmacy Flu Provision

Pharmacies were commissioned at a national level last year and continue to deliver the seasonal flu vaccination to those eligible, over the age of 18 years. National data is still not available but locally we know that in Derby/Nottinghamshire 43,973 were administered up to the end of February 2018. Anecdotally, we are being informed by the Local Pharmacy Council that most of these vaccines were given to people who had not accessed the seasonal flu programme before.

Core Cities

Comparison with core cities, rather than the England average, is arguably a better comparison of Nottingham's performance.

Liverpool, City of Bristol and Sheffield local authorities are co-terminus with CCGs which is the reporting format for 2017/18; consequently they may allow a more

sensible comparison. As table 3 illustrates Nottingham City has a lower proportion of the population vaccinated than these core cities For example, flu vaccination uptake in pregnant women is 4.7% lower than Liverpool. The only exception is the two to four year old patient group, where Nottingham City performance is better than it is in Liverpool.

Table 3: Uptake of influenza vaccine for the over 65s, under 65s at risk, pregnant women and children aged 2, and 3 years for Nottingham Local authority and 'core cities' and England for seasonal flu period 1 September 2017 to 31 January 2018 (2016/17 in brackets)

Country & Local Authority	% over 65 years	Under 65 (at risk only)	Pregnant women	All 2 year olds	All 3 year olds
England	72.6(71.4)	48.9(48.7)	47.2 (44.8)	42.8 (38.9)	44.2 (41.5)
Newcastle upon Tyne	75.6 (74.6)	50.2 (50.1)	50.0 (46.8)	42.9 (36.6)	45.4 (40.6)
Liverpool^{1*}	73.7 (73.0)	49.2 (51.7)	45.0 (43.7)	37.6 (29.8)	39.3 (35.5)
Manchester	70.7 (63.8)	50.0 (50.1)	47.2 (41.9)	37.2 (33.5)	39.5 (36.8)
Leeds	76.2 (73.9)	50.3 (41.9)	53.9 (53.8)	45.1 (41.9)	48.0 (45.7)
Nottingham	72.5 (70.6)	47.4 (46.4)	41.7 (37.6)	44.0 (35.2)	44.9 (37.4)
Birmingham	69.3 (67.3)	47.7 (45.3)	41.8 (39.8)	38.5 (37.8)	38.0 (39.4)
Bristol, City of*	74.8 (72.2)	49.8 (49.4)	48.2 (45.3)	44.6 (38.6)	46.9 (41.9)
Sheffield*	76.0 (74.1)	51.4 (50.3)	56.4 (56.1)	45.1 (42.1)	47.5 (42.8)

Source: Public Health England Seasonal influenza vaccine uptake amongst GP Patients

Table 4 shows that the proportion of children vaccinated against flu in Nottingham City in 2017/18 has increased by 0.7% in school year one and by 3.9% in school year two since 2016/17. This is a great achievement for the School Age Immunisation Service and shows their hard work and dedication to the programme

Table 4: Uptake of influenza vaccine for children of school years 1, 2, 3 and 4 for Nottingham Local authority and 'core cities' and England for seasonal flu period 1 September 2017 to 31 January 2018 (2016/17 uptake in brackets)

Country & Local Authority	Reception (age 4-5 years)	Cohort Y1 (5-6 years)	Cohort Y2 (6-7 years)	Cohort Y3 (7-8 years)	Cohort Y4 (8-9 years)	Total
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* Newcastle, Liverpool, City of Bristol and Sheffield local authorities are co-terminus with CCGs which is the reporting format for 2016/17

England	62.6 (33.9)	61.0 (57.6)	60.4 (55.3)	57.6 (53.3)	55.8	59.5
Newcastle upon Tyne	59.9 (30.3)	56.9(47.3)	58.88 (44.3)	57.3 (42.7)	55.1	59.8
Liverpool	54.1 ((24.9)	50.5 (56.8)	52.8 (55.8)	49.3(54.1)	48.8	51.1
Manchester	53.7 (25.7)	51.6 (39.6)	51.3 (36.6)	48.3 (34.4)	46.5	50.3
Leeds	64.4 (34.1)	61.3 (52.8)	61.3 (53.1)	59.5 (50.0)	57.5	60.8
Nottingham	55.5 (29.8)	52.0 (51.3)	52.0 (48.1)	48.2 (48.7)	47.4	51.0
Birmingham	47.1 (31.5)	46.2 (47.3)	45.8 (44.3)	43.1 (42.7)	41.8	44.8
Bristol, City of	56.0 (34.5)	50.4 (46.3)	47.1 (38.7)	44.6 (38.0)	38.7	47.1
Sheffield	61.2 (35.1)	61.9 (63.6)	60.2 (57.7)	58.2 (54.5)	56.2	59.5

Source Public Health England National childhood influenza vaccine programme coverage in England 2017-18

Summary of successes

A 10% increase in flu vaccinations delivered to children aged 2 and 3 years old was seen this year. In addition to this, the school age vaccination service offered flu vaccination to all children in special schools

Targeting ‘at risk’ groups via hospital services was also successful. NHS England North Midlands commissioned Nottingham University Hospitals to offer flu vaccinations via their liver and kidney out-patients clinics. This has been a successful addition to the flu programme in Nottingham City and has been welcomed by patients and staff alike. Of the 360 dialysis patients, 338 were offered the vaccine of which 163 already had the vaccination. Eighty five percent (85%, 148/175) of the eligible patients were given the flu vaccine.

Current Challenges in Increasing Flu Vaccination Uptake and Planned Activity

Annual Activity

- Flu planning meetings take place monthly

- A local flu assurance plan has been developed
- Flu uptake data will be reviewed on a monthly basis at GP level
- The Screening and Immunization Team supports local flu training
- School Age Immunisation Programme will continue to vaccinate in schools from reception to year 4, and for 2018/19 year 5.
- Flu messages will be promoted nationally by Public Health England (PHE) and NHS England. These are filtered to local comms teams.
- Nationally commissioned pharmacy flu service.
- Vaccination of front line staff: Nottingham University Hospitals NHS Trust, Nottinghamshire Healthcare NHS Foundation Trust and Nottingham City Council are responsible.

Ambitions for next flu season.

Eligible Group	Ambition
Aged 65 years and over	75%
Aged under 65 'at risk', including pregnant women	At least 55%
Preschool children aged 2 and 3 years	At least 48%
School aged children (in reception class & years 1	An average of at least 65% to be attained by every provider across all years.

Planned initiatives to improve uptake for next flu season

- Astra Zeneca pilot to increase childhood uptake in GP practices – we are working with AstraZeneca, the sole manufacturer of the nasal flu vaccine to increase flu

vaccine uptake for the forthcoming flu season. We have agreed a programme of work which will commence in August 2018.

- Letters will be sent to parents of 2 & 3 year olds by Child Health. A reminder letter was sent out to all parents of two and three year olds in Nottingham City during the 2017/18 flu season. This reminder had a positive effect and NHSE intend to repeat this for the next flu season.
- Continue with commissioned services at NUH for pregnant women and 'at risk' patients. Pregnant women received their flu vaccine when they attended their antenatal appointments in hospital. It is believed that this is responsible for the increase in uptake compared to 2016/17.
- Introduction of a new vaccine for over 65's which is evidenced as being more effective in the elderly
- Training packages for health care professionals in the run up to flu season
- Maintain close working relationships with all stakeholders
- Continue with monthly flu meetings

Conclusion

A successful annual flu programme was observed in 2017/18 with more vaccines being delivered nationally than in any other European country. Nottingham City saw an increase in flu vaccinations in all cohorts. Through joint working, NHS England and Nottingham City Council, in conjunction with other stakeholders such as the CCG, worked together to ensure that all citizens eligible for flu vaccination received their offer of vaccination. It is hoped that the planned initiatives outlined above will increase uptake in 2018/19 to keep the circulation of influenza at a minimum, which in turn will reduce the pressure on our NHS services through the busy winter season. Ongoing support of the annual flu vaccination programme, by all stakeholders, is vital to ensure its success.

Additional Information

Influenza and the importance of vaccination is well described at:

<http://www.nhs.uk/conditions/flu/Pages/Introduction.aspx>

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