



Public Health
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NHS England and Public Health England

Nottinghamshire Joint Health Scrutiny Committee

Childhood Immunisation Programme: Nottingham County and City Annual
data 2015-2016

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The Screening and Immunisation Team presented a paper on childhood immunisation in January 2016. At the request of the Joint Health Scrutiny Committee this paper provides an update on childhood immunisations in Nottingham City and Nottinghamshire County. Annual data for 2015 – 2016 will be presented plus Q2 16/17 data.

Routine Childhood Immunisation Programme (see appendix 1)

Information on childhood immunisation coverage is collected at ages 1, 2 and 5 years. It is collected through the Cover of Vaccination Evaluated Rapidly (COVER) data collection for Upper Tier Local Authorities (LAs) on a quarterly basis. Data is collated by Child Health Records Departments from General Practice Information Systems. Data is reviewed locally by local Screening and Immunisations Teams and presented quarterly at the NHS England Immunisation Programme Board.

Immunisation coverage at 12 months of age:

Table 1: Completed primary immunisations at 12 months by Local Authority Area, Derbyshire & Nottinghamshire and England: Annual 2015/16 & Q1 2016/17

Upper Tier LA Name	12m DTaP/IPV/Hib %		12m MenC %		12m PCV %		12m Rota %	
	annual 15/16	Q2 16/17	annual 15/16	Q2 16/17	annual 15/16	Q216/17	Annual 15/16	Q2 16/17
England	93.6	93.0	95.1	95.2	93.4	93.1	89.7	89.5
East Midlands Region	95.6	93.9	-	95.7	95.5	94.2	-	91.5
Nottingham	91.1	91.6	95.1	95.5	90.2	91.8	89.4	86.4
Nottinghamshire	95.8	95.4	-	97.2	95.7	95.4	-	93.0

Source: Quarterly Cover data (<https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data>)

NHS Digital <http://content.digital.nhs.uk/catalogue/PUB21651>

England coverage figures reported for most routine childhood vaccinations at 1 and 2 years a slight decrease in 2015-16 for the third consecutive year.

Key Facts for Nottinghamshire Local Authority - 95.8% of children received a three dose course of DTaP/IPV/Hib, also known as 5-in-1 vaccine, by their 1st birthday in 2015-16. This is above the World Health Organisation (WHO) target of 95% and higher than the England average of 93.6% and East Midlands average of 95.6%.

Key Facts for Nottingham Local Authority - 91.1% of children received a three dose course of DTaP/IPV/Hib, also known as 5-in-1 vaccine, by their 1st birthday in 2015-16. This is below the WHO target of 95% and also below the England and East Midland's average uptake.

This compares to 95.6% in the East Midlands Region and 93.6% nationally.

To note: for Q2 16-17 the uptake for Nottingham has increased to 91.6%

Rotavirus has also seen a decrease in uptake in Nottingham that is below the national average.

Immunisation coverage at 24 months of age

Table 2: Completed immunisations at 24 months by Local Authority Area, Derbyshire & Nottinghamshire and England: Annual 2015/16 & Q2 2016/17

Upper Tier LA Name	24m DTaP/IPV/Hib3 %		24m PCV Booster %		24m Hib/MenC %		24m MMR1 %	
	Annual 15/16	Q2 16/17	Annual 15/16	Q2 16/17	Annual 15/16	Q2 16/17	Annual 15/16	Q2 16/17
England	95.2	95.1	91.5	91.4	91.6	91.5	91.9	91.4
East Midlands Region	97.0	96.1	94.0	92.8	94.0	92.8	94.1	92.7
Nottingham	94.1	95.3	89.2	90.5	89.3	90.3	89.7	89.2
Nottinghamshire	97.5	95.9	94.1	92.1	94.1	92.0	93.9	91.9

Source: Quarterly Cover data (<https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data>)

NHS Digital <http://content.digital.nhs.uk/catalogue/PUB21651>

In England, the first dose of the Mumps, Measles and Rubella (MMR) vaccine for children reaching their second birthday decreased slightly to 91.9% in 2015-16. This continues a downward trend in recent years. Coverage was 92.3% in 2014-15 and 92.7% in 2013-14.

Key Facts for Nottinghamshire Local Authority - 93.9% of children received the first dose of the MMR vaccination by their 2nd birthday in 2015-16.

This is below the World Health Organisation (WHO) target of 95% and higher than the England average of 91.9%.

Key Facts for Nottingham Local Authority - 89.7% of children received the first dose of the MMR vaccination by their 2nd birthday in 2015-16.

This is below the World Health Organisation (WHO) target of 95% and below the England average of 91.9% and the East Midlands average of 94.1%

Immunisation coverage at 5 years of age

Table 3: Completed immunisations at 5 years by Local Authority Area, Derbyshire & Nottinghamshire and England: Annual 2015/16 & Q2 2016/17

Upper Tier LA Name	5y DTaP/IPV/Hib%		5y MMR1%		5y MMR2%		5y Hib/MenC%		5y DTaP/IPV/Hib% Booster	
	annual 15/16	Q2 16/17	annual 15/16	Q2 16/17	annual 15/16	Q2 16/17	annual 15/16	Q2 16/17	annual 15/16	Q2 16/17
England	95.6	96.0	94.8	95.0	88.2	87.5	92.8	92.6	86.3	94.9
East Midlands Region	97.0	95.7	96.5	95.6	90.5	87.2	93.4	92.4	89.2	89.2
Nottingham	81.8	95.3	95.9	96.1	84.2	83.4	88.8	90.1	81.8	82.4
Nottinghamshire	90.9	97.7	96.2	96.8	89.9	87.0	95.1	95.0	90.9	88.1

Source: Quarterly Cover data (<https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data>)

NHS Digital <http://content.digital.nhs.uk/catalogue/PUB21651>

Uptake in England of the first dose of the MMR vaccine (MMR1) for children aged 5 years old was at a record high of 94.8 % in 2015-16. Coverage was above the World Health Organisation (WHO) target of 95% in seven of the nine government office regions.

UK MMR2 coverage decreased by 0.4% to 88.2%, and is now back to a similar level reported in 13/14.

National coverage figures reported for the Diphtheria, Tetanus, Pertussis and Polio (DTaP/IPV) booster as measured at 5 years show a decrease in 2015-16 for the third year in a row.

Key Facts for Nottinghamshire Local Authority – A decrease in MMR 2 uptake has been observed for the past few years and is below WHO target. This is also the case for 5y DTaP/IPV/Hib% Booster (pre-school booster)

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Local initiatives:

MMR will be used by the Screening and Immunisation Team as an indicator of poor GP practice performance. Practices will be identified and targeted by their local CCG primary care managers to identify any issues that could be causing the poor uptake of MMR.

Local Authorities will be instrumental in this piece of work with their local knowledge and links. Nottingham City have committed to doing a piece of work looking at MMR uptake and unimmunised children. Updates will be provided via the quarterly NHS England Immunisation Programme Boards.

Childhood Flu Programme

Information on children aged 2, 3 and 4 years of age immunised against seasonal flu are collected from GPs through PHE's ImmForm system. Data was collected at CCG level for last year's programme. This year's data (16/17) can be presented at both CCG and Local Authority level.

Information on the school age programme is also collected via PHE's ImmForm system.

1. Children aged 2, 3 and 4 years

Table 4

CCG	2015/16			2014/15		
	All 2 year olds	All 3 year olds	All 4 year olds	All 2 year olds	All 3 year olds	All 4 year olds
Mansfield and Ashfield	44.2	43.8	36.1	44.4	44.1	36.5
Newark and Sherwood	43.0	44.8	35.3	45.4	46	35.9
Nottingham City	34.9	36.2	29.7	35.3	39.2	29.7
Nottingham N/E	40.1	44.2	32.1	39.7	43.9	31.9
Nottingham West	46.2	48.8	39.8	48.4	51.9	43.5
Rushcliffe	51.5	53.9	44.5	56.7	55.3	49.8
All Derby/Notts CCGS	43.7	45.0	37.6	45.4	48.4	38.5
England Average	35.4	37.7	30.0	38.5	41.3	32.9

Source: Public Health England Report on Seasonal influenza vaccine uptake amongst GP Patients in England Final monthly data for 1 September 2015 to 31 January 2016 (Immform Surveys)

Nationally, a decrease in the uptake of the healthy children's flu programme was observed in 15/16. This was also observed across Nottinghamshire.

Table 5: Provisional end of November 2016 cumulative uptake data for England on influenza vaccinations given from 1 September 2016 to 30 November 2016

	All 2 year olds	All 3 year olds	All 4 year olds
Nottingham City	31.1	33.5	26.6
Nottingham County	38.7	40.5	32.5
England	33.8	35.5	29

Source: <https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-1-september-2016-to-30-november-2016>

Provisional data to date is showing an increase in childhood flu vaccinations across nearly all CCGs

Local initiatives:

Work with Nottingham City and Nottingham County Local Authorities has helped to increase awareness and promote uptake. Communication plans and links with children's services have helped to achieve this. Both Local authorities are members of the NHS England Flu Planning Group.

2. School Age Flu Programme

The school age flu programme delivered a routine immunisation programme in primary schools for the first time in 2015/16, to children in school years 1 and 2. A lower uptake was observed for Nottingham City schools. This, we think, was due to it being a new school based programme; a new service provider was commissioned to go in to schools in Nottingham and the cities demographics, with porcine content in the vaccine being cited as an issue for some parents.

Table 6: School age flu programme final data 2015/16

Source: <https://www.gov.uk/government/collections/vaccine-uptake#seasonal-flu-vaccine-uptake:-figures>

Area	Cohort Y1 (5-6years)	Cohort Y2 (6-7 years)
Nottingham	45.4	44.7
Nottinghamshire	71.3	71.1
Derby/Notts	59.9	60.5
England	54.4	52.9

Table 7: Provisional monthly data for 1 September 2016 to 30 November 2016

Area	Cohort Y1 (5-6years)	Cohort Y2 (6-7 years)	Cohort Y3 (7-8 years)
Nottingham	36.6	35.7	36.0
Nottinghamshire	47.6	51.0	48.5
Derby/Notts	45.8	45.4	43.7
England	45.8	45.4	43.7

Source: <https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-children-of-primary-school-age-1-september-2016-to-30-november-2016>

Data to date shows a higher uptake rate for both City and County and will be shared once published by Public Health England.

The Local Authorities assisted with the schools based programme by helping Nottinghamshire Healthcare NHS Trusts to link in with schools and Headteachers. A joint letter was sent to schools from NHS England and the relevant Local Authority to help promote the programme.

Adolescent Immunisations

1. School based meningococcal ACWY (MenACWY)

MenACWY immunisation was added to the national immunisation programme in August 2015 following advice from the Joint Committee on Vaccination and Immunisation (JCVI) in response to the rising number of meningococcal W (MenW) cases [1].

The objective of the MenACWY immunisation programme is to immunise all teenagers in school years 9 to 13 before they complete academic year 13. This is being met through replacing the routine adolescent MenC booster given in years 9 or 10 with the MenACWY vaccine since September 2015, and through a series of school and general practice (GP) based catch-up campaigns targeting older teenagers.

Approximately half of teenagers in Years 9 and 10 in 2015/16 were offered MenACWY vaccine in 2015/16; the remaining half (now in Years 10 and 11) are currently being offered vaccine in 2016/17.

Additionally, MenACWY is offered to older students aged up to 25 who are in university as part of the existing time-limited 'freshers' programme.

Table 8: MenACWY adolescent vaccine coverage data by Local Authority, England, Sep 2015 to Aug 2016

	Cohort Y9 - Routine 13-14 years	Cohort Y11 –Catch-up 15-16 years
Nottingham City	77.7	62.9
Nottingham County	87.6	65.6
England	84.1	71.8

Source: <https://www.gov.uk/government/publications/meningococcal-acwy-immunisation-programme-vaccine-coverage-estimates>

This was an increase on the previous year's data for Men C in Y9 with Nottingham City reporting 56% and Nottingham County 72% uptake.

2. School Based HPV

2015/16 is the first year HPV vaccine coverage for the two-dose schedule has been calculated in school Year 9 females in England. Most areas have, for the first time seen a decrease in the uptake of HPV vaccinations but Nottinghamshire saw an increase. This was due to the hard work and dedication of Nottinghamshire Healthcare NHS Foundation Trust who are commissioned to provide the service.

Table 9: HPV vaccine coverage data by Local Authority, Sep 2015 to Aug 2016 and Sep 2014 to Aug 2015

	Cohort Y8 – 2014-15 12-13 years, one dose	Cohort Y8 – 2015-16 12-13 years, one dose	Cohort Y9 – 2015-16 13-14 years, two doses
Nottingham City	85.1	87.7	83.9
Nottingham County	90	91.8	90.1
England	89.4	87	85.1

Source: <https://www.gov.uk/government/statistics/annual-hpv-vaccine-coverage-2015-to-2016-by-local-authority-and-area-team>

3. Tetanus, Diphtheria and Pertussis (Td/IPV –School Leaving Booster)

This programme is also provided by Nottinghamshire Healthcare NHS Foundation Trust to school children in year 9. Data is not currently collated at a national level but local data shows an increase on previous year's uptake.

Key points and recommendations:

Nationally, a decrease in most childhood vaccinations is being observed. A national steering group involving wide range of professionals has been established to explore the reasons of the downwards trend of 12 and 24 months immunisation uptake rates over the last three year. It has been raised that one potential explanation could be the reduced capacity of the Screening and Immunisation Team. It has also been noted that immunisation uptake rates are very much dependant on other local factors, such as primary care engagement and approach towards immunisation. There is not a national IT system, which would be able to capture the life-long immunisation status of individuals. Immunisation records often become inaccurate if a patient moves from one area to another.

In summary, Nottinghamshire are still performing very well in some of the routine vaccinations. The main concerns are with rotavirus, MMR and the pre-school booster. Work will commence with Local Authorities and CCGs to look in to practice level data for MMR2, as this will act as a good indicator of practice immunisation performance. This also fits with the national agenda of addressing MMR2 uptake. Work will continue with CCGs and Local Authorities to promote the offer of flu vaccinations to children. Once the final data is collated for flu vaccination uptake, the Screening and Immunisation Team can review the uptake and start to plan for next year's programme, learning from this years programme.

The schools based immunisation programme will continue to evolve and develop and support from the Local Authorities will be imperative to ensure as many young people take up the offer of vaccination in school.

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References

1. NHS Immunisation Statistics, England - 2015-16
<http://content.digital.nhs.uk/catalogue/PUB21651>
2. <https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data>)
3. PHE (2016). Introduction of MenACWY vaccine. 2015.

Appendix 1

The routine immunisation schedule from Summer 2016

Age due	Diseases protected against	Vaccine given and trade name		Usual site ¹
Eight weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio and <i>Haemophilus influenzae</i> type b (Hib)	DTaP/IPV/Hib	Pediacel or Infanrix IPV Hib	Thigh
	Pneumococcal (13 serotypes)	Pneumococcal conjugate vaccine (PCV)	Prevenar 13	Thigh
	Meningococcal group B (MenB) ²	MenB ²	Bexsero	Left thigh
	Rotavirus gastroenteritis	Rotavirus	Rotarix	By mouth
Twelve weeks	Diphtheria, tetanus, pertussis, polio and Hib	DTaP/IPV/Hib	Pediacel or Infanrix IPV Hib	Thigh
	Rotavirus	Rotavirus	Rotarix	By mouth
Sixteen weeks old	Diphtheria, tetanus, pertussis, polio and Hib	DTaP/IPV/Hib	Pediacel or Infanrix IPV Hib	Thigh
	MenB ²	MenB ²	Bexsero	Left thigh
	Pneumococcal (13 serotypes)	PCV	Prevenar 13	Thigh
One year old	Hib and MenC	Hib/MenC booster	Menitorix	Upper arm/thigh
	Pneumococcal (13 serotypes)	PCV booster	Prevenar 13	Upper arm/thigh
	Measles, mumps and rubella (German measles)	MMR	MMR VaxPRO ³ or Priorix	Upper arm/thigh
	MenB ²	MenB booster ²	Bexsero	Left thigh
Two to seven years old (including children in school years 1, 2 and 3) ⁵	Influenza (each year from September)	Live attenuated influenza vaccine LAIV ⁴	Fluenz Tetra ³	Both nostrils
Three years four months old	Diphtheria, tetanus, pertussis and polio	DTaP/IPV	Infanrix IPV or Repevax	Upper arm
	Measles, mumps and rubella	MMR (check first dose given)	MMR VaxPRO ³ or Priorix	Upper arm
Girls aged 12 to 13 years	Cervical cancer caused by human papillomavirus (HPV) types 16 and 18 (and genital warts caused by types 6 and 11)	HPV (two doses 6-24 months apart)	Gardasil	Upper arm
Fourteen years old (school year 9)	Tetanus, diphtheria and polio	Td/IPV (check MMR status)	Revaxis	Upper arm
	Meningococcal groups A, C, W and Y disease	MenACWY	Nimenrix or Menveo	Upper arm
65 years old	Pneumococcal (23 serotypes)	Pneumococcal polysaccharide vaccine (PPV)	Pneumococcal polysaccharide vaccine	Upper arm
65 years of age and older	Influenza (each year from September)	Inactivated influenza vaccine	Multiple	Upper arm
70 years old	Shingles	Shingles	Zostavax ³	Upper arm ⁶

¹ Where two or more injections are required at once, these should ideally be given in different limbs. Where this is not possible, injections in the same limb should be given 2.5cm apart. For more details see Chapters 4 and 11 in the Green Book. All injected vaccines are given intramuscularly unless stated otherwise.

² Only for infants born on or after 1 May 2015

³ Contains porcine gelatine

⁴ If LAIV (live attenuated influenza vaccine) is contraindicated and child is in a clinical risk group, use inactivated flu vaccine

⁵ Age on 31 August 2016

⁶ This can be administered subcutaneously but intramuscular is preferred.

All vaccines can be ordered from www.immform.dh.gov.uk free of charge except influenza for adults and Pneumococcal polysaccharide vaccine.



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