



HEALTH AND WELLBEING BOARD

16th January 2020

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of Public Health
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ITEM 10

Vaccination programme effectiveness

Purpose

1.1 The purpose of this report is to:

- Provide an overview of vaccination and the current NHS life course vaccination schedule.
- Describe delivery in Derby of the national vaccination programme commissioned by NHS England and NHS Improvement (NHSE&I).
- Provide assurance that the local vaccination programmes are delivering positive outcomes for eligible residents, including groups where uptake may be historically low.
- Raise awareness of the performance, achievements and challenges associated with the vaccination programmes and how Board members can support the work.

Recommendation(s)

2.1 To note the arrangements, achievements and challenges relating to the local immunisation programmes in Derby.

2.2 To contribute to the successful delivery of the immunisation programmes by:

- Promoting local and national immunisation messages to their staff and service users, in particular those from under-served communities Provide an overview of vaccination and the current NHS life course vaccination schedule.
- Supporting initiatives to increase uptake and address inequalities in collaboration with the local immunisation teams.

Reason

3.1 To support the Health and Wellbeing Board in meeting its responsibilities to improve and protect the health of the local population.

Supporting information

4.1 Overview of vaccination

Vaccination is the most important thing we can do to protect our health. Since vaccines were introduced diseases like smallpox, polio and tetanus that used to kill or disable millions of people have been almost eradicated.

In England, vaccinations are offered throughout the life course, from 2 months of age to over 70 years. Widespread vaccination can reduce rates of illness and protect vulnerable people such as young infants or people with certain illnesses who cannot be vaccinated themselves. High vaccination rates can also help to reduce our reliance on antibiotics, by promoting protection from infections.

However, if vaccine coverage rates drop, it's possible for infectious diseases to re-emerge. Measles cases, in both adults and children, have nearly doubled in recent years leading to some life-threatening complications.

Vaccines lead to antibody production through the introduction of either dead or weakened live organisms. This is much safer than contracting the disease and can protect for many years.

Being vaccinated also benefits the whole community through "herd immunity". If vaccination rates are sufficient this leads to a reduced risk of contracting the condition for those who are unable to be vaccinated.

All vaccines undergo a rigorous development process, including thorough testing, to gain a license to be used in the UK. Once a vaccine is being used it's also monitored for any rare side effects by the Medicines and Healthcare Products Regulatory Agency (MHRA).

4.2 Local Commissioning arrangements

The National Vaccination programme is commissioned by NHSE & I on a national basis under Section 7A of the National Health Service Act 2006.

Delivery of screening programmes to residents of Derbyshire is overseen by two screening and immunisations teams (SIT) – one covering the majority of Derbyshire County (Derbyshire and Nottinghamshire) and the other covering Glossop (Greater Manchester). The SIT provide local system leadership for immunisation services, ensuring that local providers of services deliver against national service specifications and meet agreed population uptake & coverage levels as specified in Public Health Outcome Indicators and Key Performance Indicators.

4.3 Local Governance arrangements

Actions for improving the outcomes of particular providers or in certain populations are regularly reviewed at quarterly immunisation programme boards, which offer an opportunity for discussion and shared learning, including quality, risks and

performance, as well as regular contract meetings with providers. A specific immunisation programme board is run to accommodate seasonal influenza.

The Derbyshire Health Protection Board, a sub group of the Health and Wellbeing Board, receives quarterly reports providing an overview of current challenges, risks and changes to immunisation programmes, as well as a rolling programme of detailed reports covering issues of quality and risk, inequalities and equity of access.

4.4 Local action to address inequalities

The SIT are responsible for ensuring accurate and timely data is available for monitoring uptake and coverage for immunisation programmes.

NHS public health functions agreement 2018-19 Core service specification National immunisation programme statesⁱ; the Director of Public Health (DPH), based in local authorities, would be expected to provide appropriate support and also to advocate within the LA and with key stakeholders to improve access and uptake to immunisation programmes. NHS England, PHE and DsPH need to work together to understand and address poor uptake, for example vaccine coverage within underserved communities, this may include sharing knowledge and information and best practice

The SIT have developed close working relationships with Derby and Derbyshire Local Authority Public Health teams and Clinical Commissioning Group. Collaborative working has enabled a range of projects to be undertaken to promote immunisation, address inequality and improve access including;

- i. Establishment of a local MMR working group
- ii. Membership of a PHE MMR improvement group
- iii. Establishment of a Shingles working group
- iv. Establishment of vaccination clinics within maternity services at acute trusts
- v. Targeted work with GP practices to increase uptake of the Shingles vaccine
- vi. Community engagement work in relation to increasing MMR uptake.

These projects have focussed on the areas of the immunisation programmes with the greatest opportunity for improvement.

4.5 Performance Update- Routine Childhood vaccinations

The statistics relating to the routine vaccinations offered to all children up to the age of five years (Appendix 1) are derived from the Cover of Vaccination Evaluated Rapidly (COVER) programme. Data is required by law under the programme, to allow the evaluation of childhood immunisation in England. The data is collated for children at ages 1, 2 and 5 by upper tier local authority geographical boundaries.

Vaccination coverage is the best indicator of the level of immunity a population will have against vaccine-preventable communicable diseases. The coverage target is 95%, advised by the World Health Organization (WHO)

PHE (2019)ⁱⁱ (Appendix 2), Childhood Vaccination Coverage Statistics, shows Derby City mirror the national picture with regard to childhood vaccination uptake. Whilst

coverage for most vaccines, especially primary courses of childhood immunisations, is high, there has been a small but steady decline in the last few years.

There are multiple factors which could be influencing this small decline. Vaccines are provided by NHSE through a complex system of; providers, contracts, payments, data, delivery and accessibility. Therefore it is likely there is not just one solution to increasing uptake.

There has been much attention placed on Measles in particular with the WHO stating that in the first six months of 2019 reported measles cases globally were almost three times as many as the period last year. NHSE report that measles cases have nearly doubled in recent years: 2016, 530 cases 2018, 970 cases. Public Health England have reported cases of measles in Derby residents. These were individual cases associated with partially vaccinated residents, who have travelled overseas to countries where the incident of measles is high, or non-immunised foreign travellers coming to Derby. No large outbreaks of measles in Derby have been reported.

Two doses of the measles, mumps and rubella (MMR) vaccine is required to give full immunity to measles infection. The first at one year of age and a second dose is normally given before school entry (3-5 years). The statistics for Derby City MMR uptake show (Appendix 3) the uptake rate for of the first dose of MMR in Derby at 94.8% is higher than the national figure 94.5%, but lower than the East Midlands regional 95.9%. With regard to the second dose, 84.6% of children received their second dose of MMR vaccine by their 5th birthday, which is lower than both the regional 88.5% and national 86.4%. Public Health England (2019)ⁱⁱⁱ. Fingertips Data for the Derby area give a good summary of current vaccine coverage (Appendix 3).

Recent national media has reported the low uptake is associated with the influence of negative social media messages relating to vaccine safety. The Royal Society for Public Health (2019)^{iv} suggests it is the logistics associated with receiving the vaccine such as; forgetting appointments, location of clinics, childcare duties and availability of appointments which impact on whether individuals are vaccinated. This is suggested by the difference in the uptake of the first and second doses of MMR.

4.6 Performance Update- Childhood Influenza

In 2012, Joint Committee on Vaccination and Immunisation recommended that the Seasonal influenza vaccine programme should be extended to include all children aged two to less than seventeen years old. A key objective is to maximise reduction of flu transmission, in addition to providing individual protection. The uptake target ambitions for flu vaccination are different from the 95% of routine childhood vaccinations. Preschool children aged 2 and 3 years old, at least 50%, primary school aged children, at least 65%. Achieving higher uptake in general practice is considered more challenging than in schools.

During the 2018-19 winter season (1 September 2018 to 31 March 2019), all GP practices in England were asked to actively invite 100% of eligible individuals by letter, email, phone call, text, to have the influenza vaccine.

PHE (2019) ^vSeasonal influenza vaccine coverage is presented, for children aged 2 and 3 years.

Percentage of children aged two vaccinated against seasonal influenza, by local authority, from 1 September 2018 to 28 February 2019		
England 43.8%	East Midlands 51.2%↑	Derby 45.5%↑
Percentage of children aged three vaccinated against seasonal influenza, by local authority, from 1 September 2018 to 28 February 2019		
England 45.9%	East Midlands 51%↑	Derby 45.9%↔

Data for this flu season, 19/20, will be available from PHE February 2020.

4.7 Performance update- Aging Population

Vaccines can help to prevent older people from becoming ill, so the NHS vaccination life course schedule (Appendix 4) includes vaccination against seasonal flu, shingles and pneumococcal infection for over 65 year olds. The combination of increased susceptibility to infection, greater severity of impact of infection and ageing populations means vaccinations for older adults are an important public health intervention.

Shingles

Shingles is a painful blistering rash caused by the same virus that causes chickenpox, known as the varicella zoster virus. The likelihood of acquiring the infection increases with age and, after the rash has cleared, there is a high risk of persistent, debilitating pain which can continue for months.

The shingles vaccination programme began in 2013 and since that time uptake has been low. The programme is complex, particularly in determining the eligibility of patients. As a result, nationally uptake of the single Shingles vaccine is low.

The SIT, in partnership with the Local Authority, have put in place a Shingles working group to improve vaccine uptake and ensure continued offer of vaccination to those in the eligible cohorts. The group, facilitated by local authority public health, brings together stakeholders to identify areas of good practice and proactive work required, to improve uptake of the vaccine.

Public/stakeholder engagement

5.1 None.

Other options

6.1 None.

Financial and value for money issues

7.1 None.

Legal implications

8.1 The local authority has a statutory responsibility to provide quality assurance of immunisation and vaccination programmes.

Other significant implications

9.1 None.

This report has been approved by the following people:

Role	Name	Date of sign-off
Legal Finance Service Director(s) Report sponsor Other(s)	Robyn Dewis, Acting Director of Public Health	06/01/2020

ⁱ NHS public health functions agreement 2018-19 Core service specification National immunisation programme, <https://www.england.nhs.uk/wp-content/uploads/2017/04/Gateway-ref-07821-180913-Service-specification-No.-00-Core-Specification.pdf>

ⁱⁱ Childhood Vaccination Coverage Statistics, England, 2018-19, Published 26 September 2019
<https://files.digital.nhs.uk/4C/09214C/child-vacc-stat-eng-2018-19-report.pdf>

ⁱⁱⁱ NHS public health functions agreement 2018-19 Core service specification National immunisation programme, <https://www.england.nhs.uk/wp-content/uploads/2017/04/Gateway-ref-07821-180913-Service-specification-No.-00-Core-Specification.pdf>

^{iv} The Royal Society for Public Health (2019) Moving the Needle – promoting vaccination uptake across the life course.
<https://www.rsph.org.uk/uploads/assets/uploaded/3b82db00-a7ef-494c-85451e78ce18a779.pdf>

^v PHE (2019) Seasonal flu vaccine uptake in GP patients: final end of season data for 1 September 2018 to 28 February 2019 by local authority
<https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-winter-2018-to-2019>