3 September 2013	ITEM: 7
Health and Well-Being Overview and Scrutiny Committee	
VACCINATION AND IMMUNISATION UPDATE	
Report of: Dr Pam Hall, Consultant Lead for Screening and Immunisation, NHS England – Essex Area Team / Public Health England	
Wards and communities affected: All wards	**Key Decision:** No decision
Accountable Head of Service: Dr Andrea Atherton, Director of Public Health	
Accountable Director: Roger Harris, Director of Adults, Health and Commissioning	
This report is public	
Purpose of Report: To provide an update on current issues relating to vaccination programmes for the Thurrock population.	

EXECUTIVE SUMMARY

This paper provides an update on current issues relating to vaccination programmes for the Thurrock population, including:

- New arrangements for commissioning vaccination programmes
- MMR vaccination catch-up campaign
- Changes to the routine vaccination schedule
- Vaccination uptake

1. RECOMMENDATIONS:

1.1 The Health and Well-Being Overview and Scrutiny Committee is invited to note the report.

2. INTRODUCTION AND BACKGROUND:

2.1 Background

Immunisation is one of the most effective public health interventions in the world in terms of saving lives and protecting health. The primary aim of vaccination programmes is to protect the individual who receives the vaccine. Vaccinated individuals are also less likely to be a source of infection to others, reducing the risk of unvaccinated individuals being exposed to infection. This means that individuals who are not vaccinated for whatever reason can still benefit from the routine vaccination programme. This concept is called population (or 'herd') immunity. The

World Health Organization (WHO) recommends vaccination uptake of at least 95% of the eligible population to achieve 'herd' immunity.

2.2 New arrangements for commissioning vaccination programmes since 1st April 2013

Under the Health and Social Care Act (2012), from 1st April 2013, organisations took up new Public Health roles and responsibilities for vaccination programmes:

The **Department of Health** will continue to hold overall responsibility for the strategic oversight and direction of the national vaccination and immunisation programmes:

- Strategic oversight and setting national policy based on independent, expert advice from the Joint Committee on Vaccination and Immunisation
- Securing the necessary funding, delegating further responsibilities to its Agency, Public Health England
- Holding Public Health England and NHS England to account for their roles in ensuring delivery of immunisation programmes through their respective framework agreements.

NHS England is now responsible for commissioning routine immunisation programmes under the terms of the Section 7a agreement. In addition, if a mass or targeted immunisation programme was needed (e.g. in response to an outbreak), NHS England would be responsible for ensuring that this was delivered. Any additional measures regarding immunisation programmes would be decided by the Department of Health, taking advice from Public Health England and in consultation with NHS England.

Public Health England has taken over responsibilities previously held by the Health Protection Agency, including providing advice and leadership on infectious diseases and vaccination, including:

- Surveillance of infectious diseases
- Advising on the epidemiology of infectious diseases (patterns, causes and effects)
- Developing and providing national communication strategies for immunisation
- Procuring, storing and distributing vaccines and immunoglobulins
- Supporting the Joint Committee on Vaccination and Immunisation.

The responsibilities of **Directors of Public Health** have changed from providing leadership for commissioning of vaccination programmes to seeking and providing assurance that the population is appropriately protected. This includes:

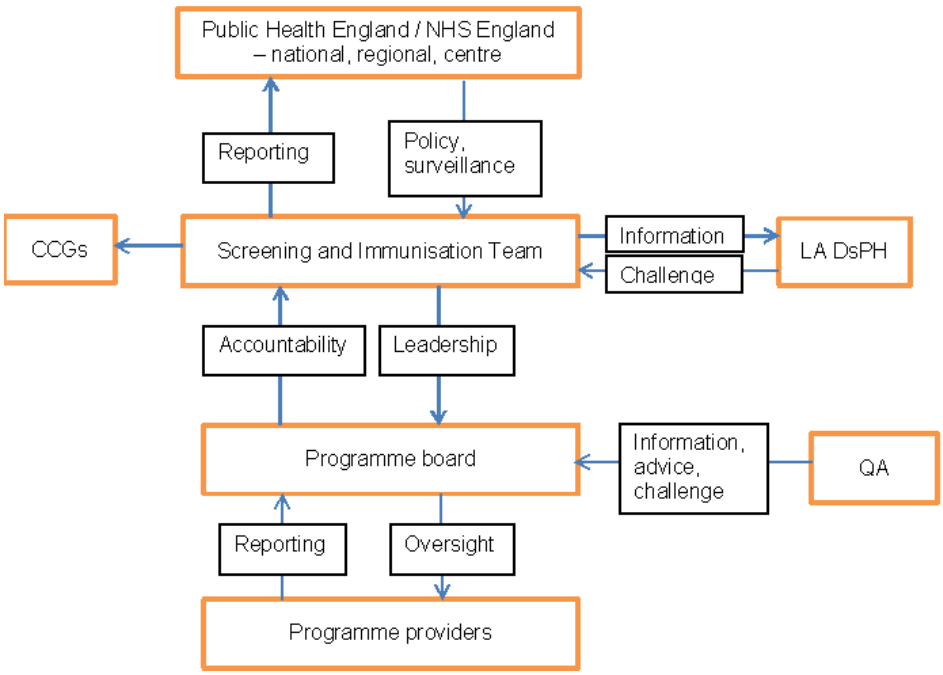
- Providing independent scrutiny and challenge of plans
- Being assured that plans are in place to achieve immunisation targets
- Being assured that discussions are taking place to inform decisions on any emerging local and national actions

Screening and Immunisation Teams have been in place since 1st April 2013. They are employed by Public Health England and embedded in the NHS England Area Teams. The Screening and Immunisation Teams are responsible for ensuring that the national screening and immunisation programmes are commissioned under the

terms of the Section 7A agreement and the national service specifications that support it.[1 2 3]
Thurrock Council links with the Screening and Immunisation Team based in the NHS England Essex Area Team.

Figure 1 details the key relationships in screening and immunisation governance.

Figure 1 Key relationships in screening and immunisation governance



The information exchange between the Screening and Immunisation team and Thurrock Council occurs through the Public Health Strategy Board, which in turn will provide information to the Health and Well Being Board.

1. Department of Health / NHS Commissioning Board. Public health functions to be exercised by the NHS Commissioning Board. November 2012
2. Department of Health / NHS England. Public health functions to be exercised by NHS England. Variation to the 2013-14 agreement. April 2013
3. Department of Health / Public Health England. Immunisation and screening. National delivery framework and local operating model. May 2013

2.3 MMR vaccination catch-up campaign

A national catch-up programme to increase MMR vaccination uptake in children and young people was announced in April 2013, in response to an increase in the number of confirmed measles cases in England and localised outbreaks in North-east England and Swansea. The age distribution of cases peaked in children aged 10 - 14 years.

The aim of the programme is to prevent measles outbreaks by vaccinating as many unvaccinated and partially vaccinated 10 - 16 year olds as possible in time for the 2013/14 school year. The Essex Area Team has partly implemented a local plan to deliver the following actions:

- Identification of children and young people at risk
- Offering MMR vaccine to children and young people at risk
- Improving and sustaining the current MMR programme

The Occupational Health providers for local Acute, Community and Foundation Trusts have been asked to ensure that healthcare workers working with vulnerable patients or delivering MMR vaccination are protected against measles.

Thurrock is not in an outbreak situation and there have been only 2 recorded clinical cases of measles in the last year.

2.4 Changes to the routine vaccination schedule in 2013/14

Following advice and recommendations by the Joint Committee on Vaccination and Immunisation, Public Health England has announced a series of changes to the existing national vaccination schedule during 2013/14. These are described in detail in the 'Green Book': *Immunisation against Infectious Disease* (see Table 1):

- **Meningococcal C vaccine**

The second priming dose of meningococcal C conjugate vaccine (previously given at 4 months of age) was removed from the routine schedule on 1st June 2013. This will be replaced by a booster dose given in adolescence and to start from January 2014. The second dose was removed because recently published studies show that vaccination against meningococcal serogroup C disease in early childhood provides a short-term protective immune response and that vaccination later in childhood provides higher levels of antibodies that persist for longer. As a result, a booster in adolescence will be added to the routine vaccination schedule.

- **Rotavirus**

An oral vaccine against rotavirus was introduced into the infant immunisation programme on 1st July 2013, to be given at 2 and 3 months of age.

Rotavirus is the most common cause of gastroenteritis in young children. Most children will experience at least one infection with rotavirus by the time they are five years old, with some requiring hospitalisation for dehydration.

- **Childhood flu**

From September 2013, the seasonal flu vaccination programme will be extended to healthy children. All pre-school children aged 2 to 3 years will be offered vaccination. The vaccine is administered as an intranasal spray and will be delivered in general practice. The flu vaccination programme will be rolled out over a number of years to include all children aged 2 to 16 years inclusive.

Seven areas around the country are running pilot programmes to offer flu vaccination to healthy 4 to 10 year olds. The pilots will test a range of delivery methods, including school-based and community programmes.

The extended programme is expected to appreciably lower the public health impact of flu by directly averting a large number of cases of disease in children. In addition, through lowering flu transmission in the community it will indirectly prevent flu in unvaccinated children, people in clinical risk groups, and older adults. This is expected to substantially reduce flu-related illness and deaths, and will also have an impact on GP consultations and hospital admissions. Extending the flu immunisation programme to all children will also raise awareness of the benefits of flu immunisation among parents and children.

- **Shingles**

Shingles (herpes zoster) is caused by the reactivation of a latent varicella zoster virus (chickenpox) infection, sometimes decades after initial infection. Shingles can occur at any age, with the highest incidence seen in older people. Around one in four adults will experience shingles in their lifetime. The severity of shingles generally increases with age and can lead to post-herpetic neuralgia that can require hospitalisation.

From September 2013, people aged 70 years will be offered vaccination to provide protection against shingles. A catch-up vaccination programme for people aged 79 years will also commence in September 2013. The efficacy of the vaccine declines with age and so it is not recommended for people aged 80 years or older.

Table 1 Summary of changes to National immunisation programmes in 2013/14

Date	Change	Rationale
June 2013	Meningococcal C (Men C) vaccine: removal of one primary dose	Second primary dose is being replaced by booster dose in adolescence.
July 2013	Rotavirus vaccine: introduced at 2 months and 3 months	Protects infants against rotavirus infection – common cause of gastrointestinal infection and infants.
Sept. 2013	Men C vaccine: adolescent dose introduced via school-based programme	Protects children and young people against illnesses caused by meningococcal (group C) infection.
	Flu vaccine: introduced for 2 and 3 year olds	Protects children against flu, and reduces circulating flu in the community.
	Flu vaccine: pilot for 4 to 10 year olds in 7 areas	Protects children against flu, and reduces circulating flu in the community.
	Shingles vaccine: introduced for 70 year olds with catch-up programme for 79 year olds.	Reduces risk of shingles in older people.

2.5 Vaccination uptake in Thurrock

- **Childhood and school-based vaccinations**

The effectiveness of the national childhood routine immunisation programme is carefully monitored by Public Health England through COVER (cover of vaccination evaluated rapidly) data e.g. the percentage of the population that has received each vaccination by ages one year, 2 years and 5 years within certain timeframes (i.e. quarter and annual).

Tables 2 and 3 detail the latest uptake figures for childhood and school-based immunisations in Thurrock compared with the national targets for uptake. Figure 2 shows trends in uptake for childhood immunisations in SW Essex.

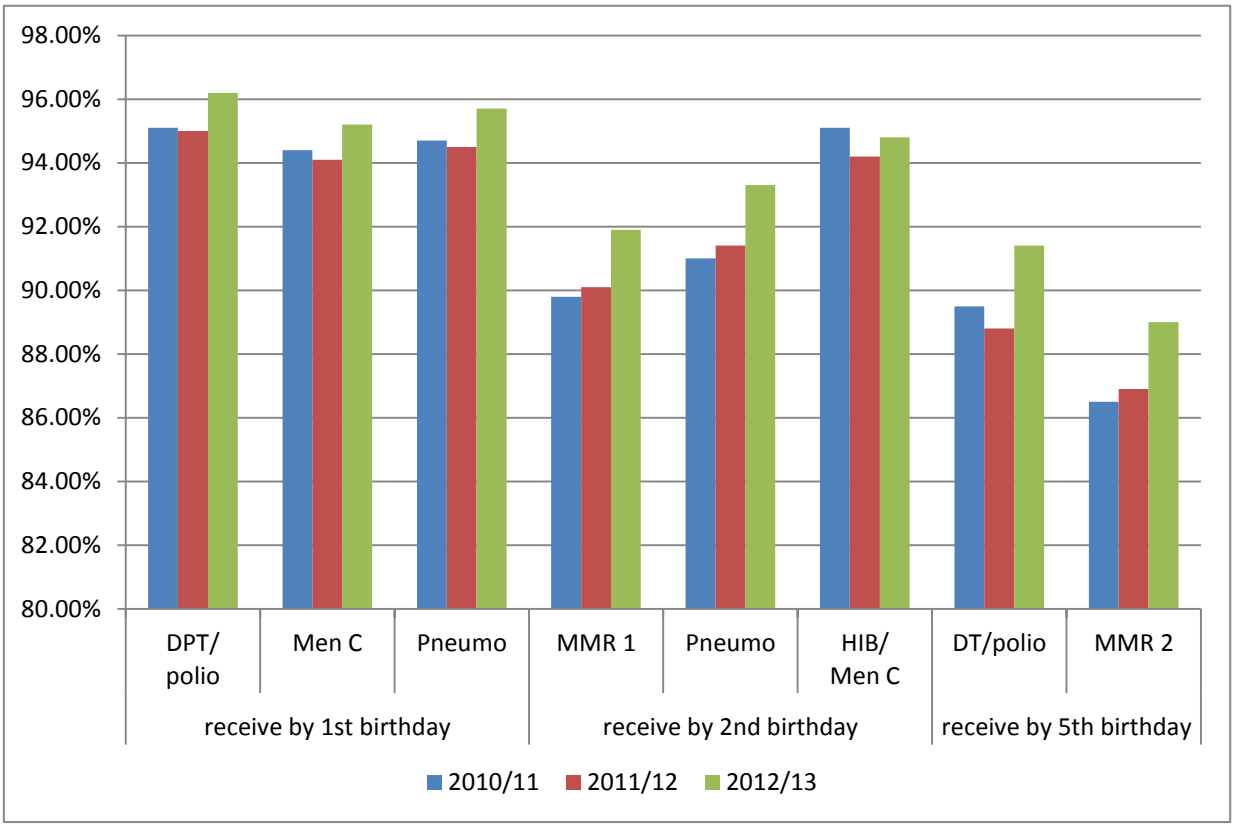
Table 2 Uptake of childhood vaccinations in Thurrock, 2012-13

	Target 2012-13	Performance 2012-13
Diphtheria, Tetanus, Polio, Pertussis, Haemophilus influenza type b (DTaP/IPV/Hib) at age 1	95%	96.4%
Haemophilus influenza type b, meningitis C (Hib/MenC) at age 2	95%	95.1%
Measles, mumps and rubella (MMR) at age 2	95%	92.1%
Diphtheria, Tetanus, Polio, Pertussis (DTaP/IPV) at age 5	90%	91.2%
Measles, mumps and rubella (MMR) at age 5	95%	88.8%

Table 3 Uptake of school-based immunisations

	Target 2012-13	Performance School Year 2012-13
Human papillomavirus vaccine for girls aged around 12-13 years (Data collected on NHS SW Essex basis only in 2012/13)	90%	1st dose: 88.3% 1st & 2nd doses: 87.5% All 3 doses: 84.5%
Booster dose of tetanus, diphtheria and polio in children aged 13-18 years	90%	To be tabled.

Figure 2 Trends in uptake of childhood vaccinations in SW Essex, 2010-13



- **Seasonal influenza vaccination programme**

In the winter of 2012/13, the NHS was asked to plan to reach 70% uptake of flu vaccination in people aged under 65 years in clinical risk groups. This is important because people in these groups are at increased risk from severe complications of flu. Pregnant women are particularly vulnerable to severe complications of flu. Nationally uptake in clinical at risk groups was around 50%, in Thurrock this was 45.5%.

Tables 4 and 5 detail the uptake of seasonal influenza vaccination in patients and healthcare workers

Table 4 Seasonal influenza vaccination 2012-13 – patients

	Aged 65+	Pregnant women	Under 65 in a clinical "at risk" group
Thurrock	69.4%	36.8%	45.5%
East of England	73.3%	37.0%	48.3%
England	73.4%	40.3%	51.3%
Target 2012-13	75%	70%	70%

Table 5 Seasonal influenza vaccination 2012-13 – all healthcare workers

	All HCWs involved in direct patient care	All Doctors (including GPs)	All Qualified Nurses (including GP Practice Nurses)	All Support Staff
Thurrock	43.5%	47%	50.9%	42.4%
East of England	43.7%	43.7%	39.0%	50.1%
England	45.6%	44.7%	40.1%	49.1%

There is no uptake target for healthcare workers.

- **Pertussis vaccination in pregnant women**

In 2012/13, a programme of pertussis vaccination for pregnant women began in response to a rise in the number of cases of whooping cough in the community.

3. ISSUES, OPTIONS AND ANALYSIS OF OPTIONS:

3.1 The changes to the routine vaccination schedule are a national requirement; there is not an alternative option.

4. REASONS FOR RECOMMENDATION:

4.1 The report details the current performance of national vaccination programmes within Thurrock and also highlights the proposed changes to the national programme.

5. CONSULTATION

5.1 There was wide consultation about the development of the Health and Social Care Act 2012. There has not been any consultation locally around immunisation within the new health system in Essex.

6. IMPACT ON CORPORATE POLICIES, PRIORITIES, PERFORMANCE AND COMMUNITY IMPACT

6.1 Ensuring maximum uptake of routine vaccinations will reduce levels of vaccine-preventable infectious diseases within the community.

BACKGROUND PAPERS USED IN PREPARING THIS REPORT (include their location and identify whether any are exempt or protected by copyright):

1. Department of Health / NHS Commissioning Board. Public health functions to be exercised by the NHS Commissioning Board. November 2012
2. Department of Health / NHS England. Public health functions to be exercised by NHS England. Variation to the 2013-14 agreement. April 2013
3. Department of Health / Public Health England. Immunisation and screening. National delivery framework and local operating model. May 2013

APPENDICES TO THIS REPORT:

Appendix 1: Details of routine vaccination and immunisation programmes

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Appendix 1 Routine vaccination and immunisation programmes

Routine childhood immunisations		
Target group		**Provider**
2 months:	• Diphtheria, tetanus, pertussis (whooping cough), polio and Haemophilus influenzae type b (Hib) given as a 5-in-1 single injection known as DTaP/IPV/Hib • Pneumococcal	Local general practices
3 months:	• 5-in-1, second dose (DTaP/IPV/Hib) • Meningitis C	
4 months:	• 5-in-1, third dose (DTaP/IPV/Hib) • Pneumococcal, second dose	
Between 12 and 13 months:	• Meningitis C, second dose • Hib, fourth dose (Hib/MenC given as a single injection) • MMR (measles, mumps and rubella), given as a single injection • Pneumococcal, third dose	
3 years and 4 months, or soon after:	• MMR second dose • Diphtheria, tetanus, pertussis and polio (DtaP/IPV), given as a 4-in-1 pre-school booster	
School-based immunisations		
Around 12-13 years:	• Cervical cancer (HPV) vaccine, which protects against cervical cancer (girls only): three doses given within 6 months	Community providers Local general practices
Around 13-18 years:	• Diphtheria, tetanus and polio booster (Td/IPV), given as a single injection • Men C booster (from January 2014)	
Non-routine immunisations		
High-risk groups	• BCG	Local acute trusts Community providers
	• Hepatitis B	Local acute trusts Local general practices
Seasonal flu, pneumococcal and pertussis vaccination programme		
Children aged 2 and 3	• Annual seasonal flu vaccination	Local general practices
People aged 6 months – 65 years in a clinical at risk group	• Annual seasonal flu vaccination • Pneumococcal vaccination (variable schedules for at risk children; one off vaccination for at risk adults and over 65s)	Local general practices
Over 65s		
Pregnant women	• Annual seasonal flu vaccination • Pertussis vaccination (from 28th week of pregnancy)	Local general practices Local acute trusts
People aged 70	• Shingles (one off vaccination)	

See Section 2.4 for changes to the vaccination schedule in 2013/14.