CAMBRIDGESHIRE COUNTY COUNCIL

ANNUAL HEALTH PROTECTION REPORT 2017

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Annual Health Protection Report for Cambridgeshire 2016-2017

1. INTRODUCTION

This report provides an annual summary of activities in Cambridgeshire to ensure health protection for the local population.

The services that fall within Health Protection include:

i. communicable (infectious) diseases – their prevention and management
ii. infection control
iii. routine antenatal, new born, young person and adult screening
iv. routine immunisation and vaccination
v. sexual health
vi. environmental hazards.

It is important that there is publicly available information that demonstrates that statutory responsibilities for health protection have been fulfilled; to have the means to seek assurance of this; and to have processes in place to address and escalate any issues that may arise.

The Director of Public Health (DPH) produces an annual health protection report to the Health Committee, which provides a summary of relevant activity. This report covers multi-agency health protection plans that are in place to establish how the various responsibilities are discharged. Any other reports will be provided on an ad hoc or exceptional basis where a significant incident, outbreak or concern has arisen.

Details of the legislative background to the role of DPH and the role of the County Council in relation to health protection have been included in previous annual health protection reports and will not be reproduced here.

2. CAMBRIDGESHIRE AND PETERBOROUGH STEERING GROUP

To enable the DPH to fulfil the statutory responsibilities in relation to health protection, the Cambridgeshire Health Protection Steering Group (HPSG) was established in October 2013 and is chaired by the DPH or nominated deputy. This committee was replaced in October 2016 by a joint committee for Cambridgeshire and Peterborough that recognised the wider geography covered by many of the member organisations and the closer working on Public Health between the two local authorities. The Cambridge shire and Peterborough Health Protection Steering Group (CP HPSG) enables all agencies involved to demonstrate that statutory responsibilities for health protection are being fulfilled; to have the means to seek assurance of this; and to have processes in place to address and escalate any issues that may arise. In addition, a memorandum of understanding (MOU) has been agreed with partner organisations.

To ensure that the shared membership fully protected confidentiality of any sensitive items discussed, a Confidentiality / Non-disclosure Agreement was included with the terms of Reference.

3. SURVEILLANCE

3.1 Notifications of Infectious Diseases (NOIDs)

Doctors in England and Wales have a statutory duty to notify suspected cases of certain infectious diseases. These notifications along with laboratory and other data are an important source of surveillance data. The table below shows the main notifiable diseases reported to the Public Health England (PHE) Health Protection Team (HPT) from 2014 - 2017.

Table 1: Notifiable Diseases in Cambridgeshire 2014-2017

Notifiable Disease*	**2014†**	**2015†**	**2016†**	**2017†**
Acute infectious hepatitis	20	25	20	39
Acute meningitis	8	8	12	10
Enteric fever	<5	<5	<5	<5
Food poisoning (excluding campylobacter**, but including the organisms below)	174	205	226	195
Botulism	0	0	0	0
E. coli O157 VTEC	<5	5	<5	<5
Cryptosporidium	48	90	85	90
Giardia	13	16	22	23
Salmonella	92	80	101	77
Infectious bloody diarrhoea	6	5	11	12
Invasive group A streptococcal disease	23	18	20	34
Legionnaires' disease	0	<5	6	<5
Malaria	10	9	13	7
Measles*	23 (<5)	13 (<5)	17 (6)	18 (0)
Meningococcal septicaemia	<5	9	11	8
Mumps*	44 (15)	24 (<5)	39 (<5)	55 (10)

Rubella*	11	5	5	5
Scarlet fever	89	159	239	161
Whooping cough	108	80	203	157

SOURCE: East of England HPT HPZone

***** *These are notifications of infectious disease and are not necessarily laboratory confirmed. Numbers in brackets indicate confirmed cases. Figures for 2017 are provisional.*

† *Because of the confidentiality risk associated with reporting very small numbers, where there are fewer than 5 cases they are reported as <5.*

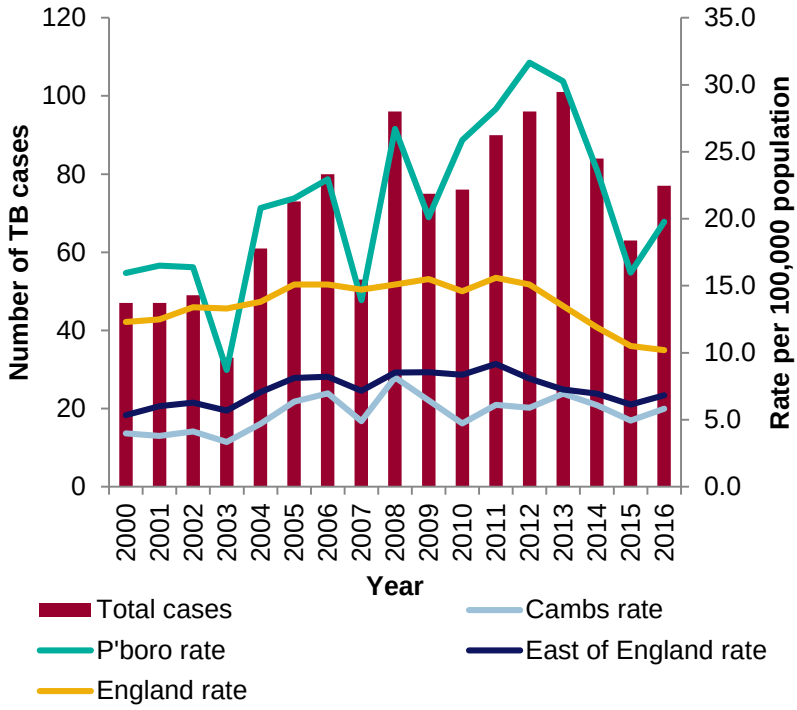
** *During 2016, the HPT stopped importing laboratory reports of campylobacter into its HPZone database as public health follow up is not undertaken for individual cases and there is a national system for laboratory surveillance.*

3.2 Tuberculosis surveillance

The minimal dataset collected through the NOIDs system affords no possibility to monitor trends within subgroups in the population. The increasing incidence of TB in E&W, particularly affecting subgroups within the population, led to the introduction, on 1 January 1999, of continuous Enhanced Tuberculosis Surveillance (ETS). This aims to provide detailed and comparable information on the epidemiology of TB by collecting a minimum dataset on all cases of TB reported by clinicians.

Official TB statistics are based on data extracted from ETS in April each year. The time to process and analyse this data takes a further six months, therefore the latest official statistics are for data to the end of 2016.

Figure 1: Annual TB notifications 2000-2016



- In 2016, 77 cases of TB were notified among residents of Cambridgeshire and Peterborough local authorities (Fig. 1). The TB rate in Cambridgeshire (5.8 per 100,000) remains below the East of England average (6.8 per 100,000), whereas the rate in Peterborough (19.8 per 100,000) has declined since 2012 (31.7 per 100,000) but remains substantially higher than average. TB cases increased in both areas in 2016 compared to 2015.
- The majority of cases were aged 15-44 years, with a mean age of 41.7 years.
- 77.6% of cases were non-UK born, with India, Pakistan, Timor-Leste and Lithuania being the most common non-UK countries of birth. In 2016, substantially more cases were UK born than in 2015.
- A larger proportion of patients in Peterborough had social risk factors (34.4%) compared to the national average (15.4%), whereas Cambridgeshire cases showed no notable difference (15.6%).

3.3 Outbreaks and Incidents

Table 2: Cambridgeshire, January - December 2017

Gastroenteritis	Respiratory virus	TB	Other
23*	14**	2†	4††

SOURCE: East of England HPT HPZone

* *These include 19 care home norovirus outbreaks (4 laboratory confirmed and 15 suspected), 1 confirmed prison norovirus outbreak, a household cluster of cryptosporidiosis and 2 food poisoning outbreaks*

** *These include 11 outbreaks in care homes (2 influenza A, 2 respiratory syncytial virus, 1 metapneumovirus and 1 rhinovirus, 2 suspected influenza A and 3 cause unknown). Others are confirmed Flu A in a prison and 2 healthcare associated outbreaks*

† *TB screening undertaken in healthcare and school settings following identification of a smear-positive TB case in each of these settings*

†† *These include a toxigenic Corynebacterium diphtheriae case and a cluster of Group A streptococcus infections among people who inject drugs (PWID), see below*

3.4 Toxigenic *Corynebacterium diphtheriae* case

A UK born individual presented to their GP with sore throat, enlarged tonsils and two skin ulcers on the right foot three weeks after returning from a trip to Ghana. The case was fully immunised against diphtheria and had last received a diphtheria containing vaccine in 2013.

A swab from the ulcer identified *C. diphtheriae* at the local laboratory. The PHE reference laboratory confirmed the species and demonstrated expression of toxin.

The East of England HPT investigated the case and undertook contact tracing to inform a risk assessment. Public health actions included organising pre-antibiotic screening (nasopharyngeal and throat swabs), chemoprophylaxis and booster immunisation with a diphtheria toxoid containing vaccine for identified contacts.

The case was treated with clarithromycin and given a booster vaccination. Six close contacts (family and household) were initially identified: one (a person of uncertain immunisation status who had not recently travelled) had a positive swab for toxigenic *C. diphtheriae* and reported a history of mild coryzal symptoms. Seven GP staff screened negative for *C. diphtheriae*.

This is the first documented case of transmission of toxigenic diphtheria within the UK in 30 years, where diphtheria remains a rare disease due to an effective immunisation programme. While diphtheria immunisation of the UK population remains high, the risk of large outbreaks remains low. Transmission from cases of cutaneous infection can occur to individuals without up-to-date immunization, including people born prior to the introduction of routine diphtheria immunisation.

3.5 Group A streptococcus infection among people who inject drugs (PWID)

Group A streptococcus (*Streptococcus pyogenes*; GAS) commonly causes skin infections, pharyngitis and scarlet fever. It can also cause more serious invasive infection (iGAS), including necrotising fasciitis, toxic shock syndrome, septicaemia, pneumonia and myositis.

First identified in September 2016, there is an ongoing outbreak of invasive and non-invasive disease due to GAS type *emm* 66.0 among homeless and PWID in England and Wales.

In February 2017, 2 cases of iGAS among PWID were identified by the East of England HPT, one each in Cambridgeshire and Peterborough. Key public health messages were

disseminated to local drug and alcohol teams that aimed to raise awareness among staff and PWID.

In total, in 2017, there were 34 laboratory-confirmed cases of iGAS infection in Cambridgeshire. Of these, 12 cases were among PWID. Ten of the 12 isolates were typed and there were 7 type *emm* 66.0, 2 type *emm* 81.0 and 1 type *emm* 11.0. Ten of the 12 cases were homeless.

4. PREVENTION

4.1. Immunisation programmes

The tables below detail uptake of the various vaccination programmes over time and compared to the regional level of uptake. Overall uptake is stable or has increased for most of the childhood programmes and for the seasonal influenza vaccination programme, which appears to indicate some success from the work we have undertaken with partner organisations to improve uptake. The aim for all childhood programmes is to achieve at least 95% uptake, the level which ensures Herd Immunity. However the target uptake as outlined in the Public Health Outcomes Framework is 90%.

Herd immunity occurs when the vaccination of a significant portion of a population provides a measure of protection for individuals who have not developed immunity. It arises when a high percentage of the population is protected through vaccination, making it difficult for a disease to spread because there are so few susceptible people left to infect.

This can effectively stop the spread of disease in the community. It is particularly crucial for protecting people who cannot be vaccinated. These include children who are too young to be vaccinated, people with immune system problems, and those who are too ill to receive vaccines (such as some cancer patients). Details of the UK vaccination programme and what each vaccine protects against are included at Annex 1 at the end of this report.

4.1.1. Childhood Primary Vaccinations

Table 3: Diphtheria, Tetanus, Pertussis, Polio and Haemophilus Influenza B

12 months DTaP/IPV/Hib [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**93.1**	**94.7**	**93.6**	**94.2**
East Anglia	95.6	95.6	95.4	95.5
	Q1 2016/17 %	Q2 2016/17 %	Q3 2016/17 %	Q4 2016/17 %
Cambridgeshire	**93.8**	**94.1**	**94.2**	**94.2**
East Anglia	95.0	95.2	95.2	95.0

Source: Cover, Public Health England

Figure 2: 12m DTaP/IPV/Hib % in Cambridgeshire and Surrounding Geographical Area

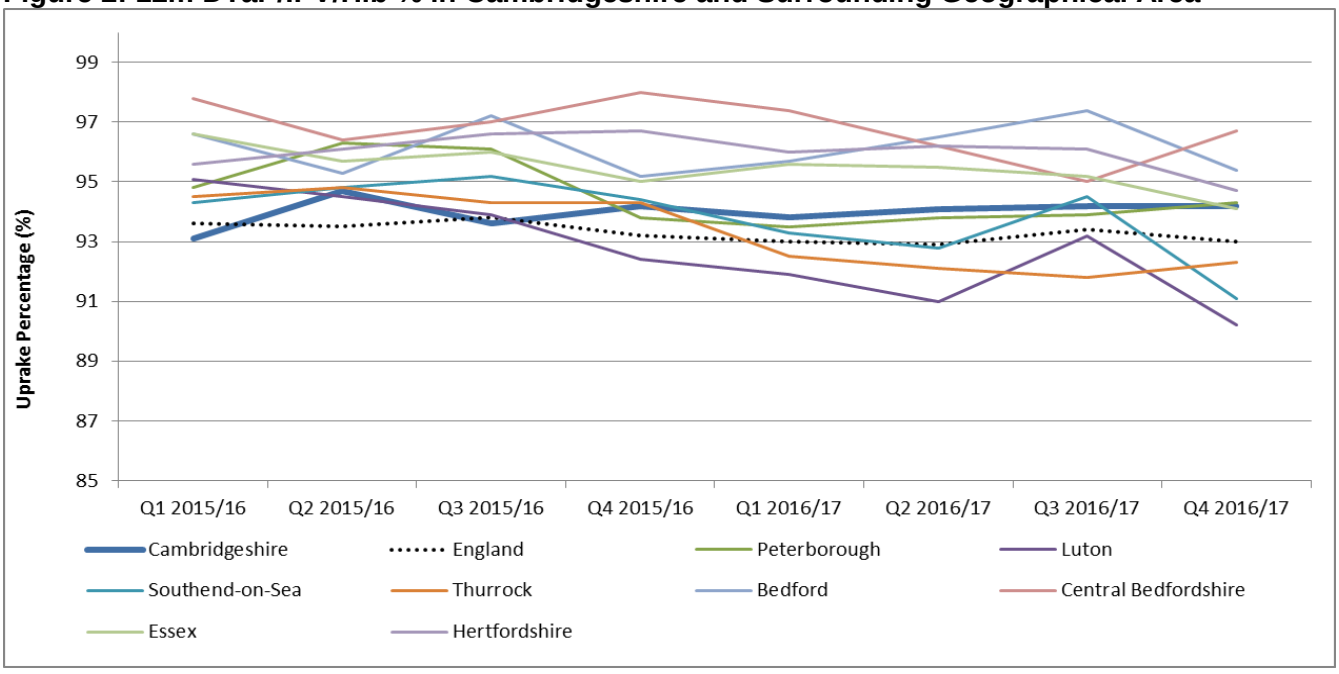


Table 4: **Pneumococcal Vaccine**

12 months PCV [target 95%] [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**92.9**	**94.4**	**93.7**	**94.6**
East Anglia	95.4	95.4	95.5	95.6
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**94.3**	**94.3**	**94.3**	**95.2**
East Anglia	95.4	95.3	95.3	95.1

Source: Cover, Public Health England

Figure 3: 12m PCV % in Cambridgeshire and Surrounding Geographical Area

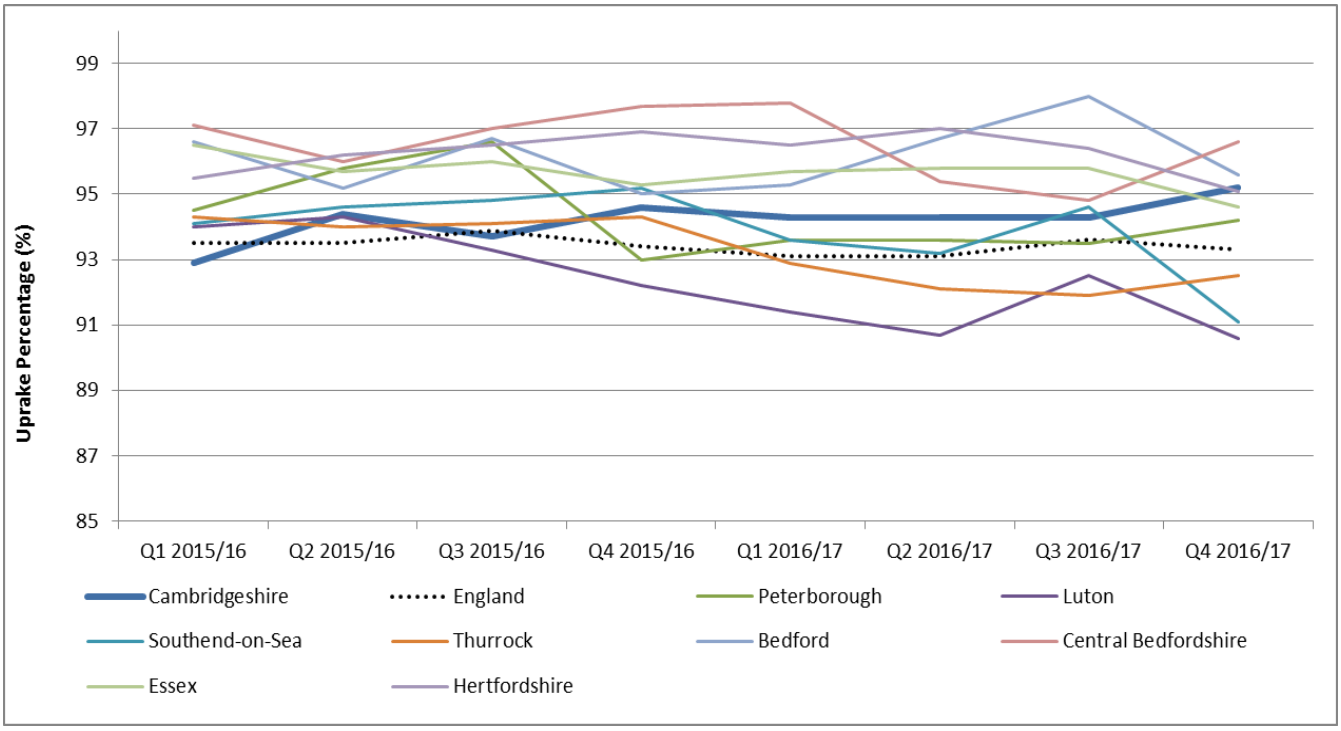


Table 5: Diphtheria, Tetanus, Pertussis, Polio and Haemophilus Influenza B

24 months DTaP/IPV/Hib [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**95.6**	**93.3**	**93.6**	**93.5**
East Anglia	96.5	95.7	96.2	96.0
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**93.7**	**95.4**	**94.8**	**95.6**
East Anglia	96.1	96.2	96.4	96.3

Source: Cover, Public Health England

Table 6: Pneumococcal vaccine

24 months PCV Booster [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**91.3**	**90.0**	**90.5**	**90.7**
East Anglia	93.6	93.0	93.5	93.3
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**89.9**	**92.0**	**92.9**	**93.0**
East Anglia	92.9	94.3	94.1	94.0

Source: Cover, Public Health England

Figure 4: 24m PCV Booster % in Cambridgeshire and Surrounding Geographical Area

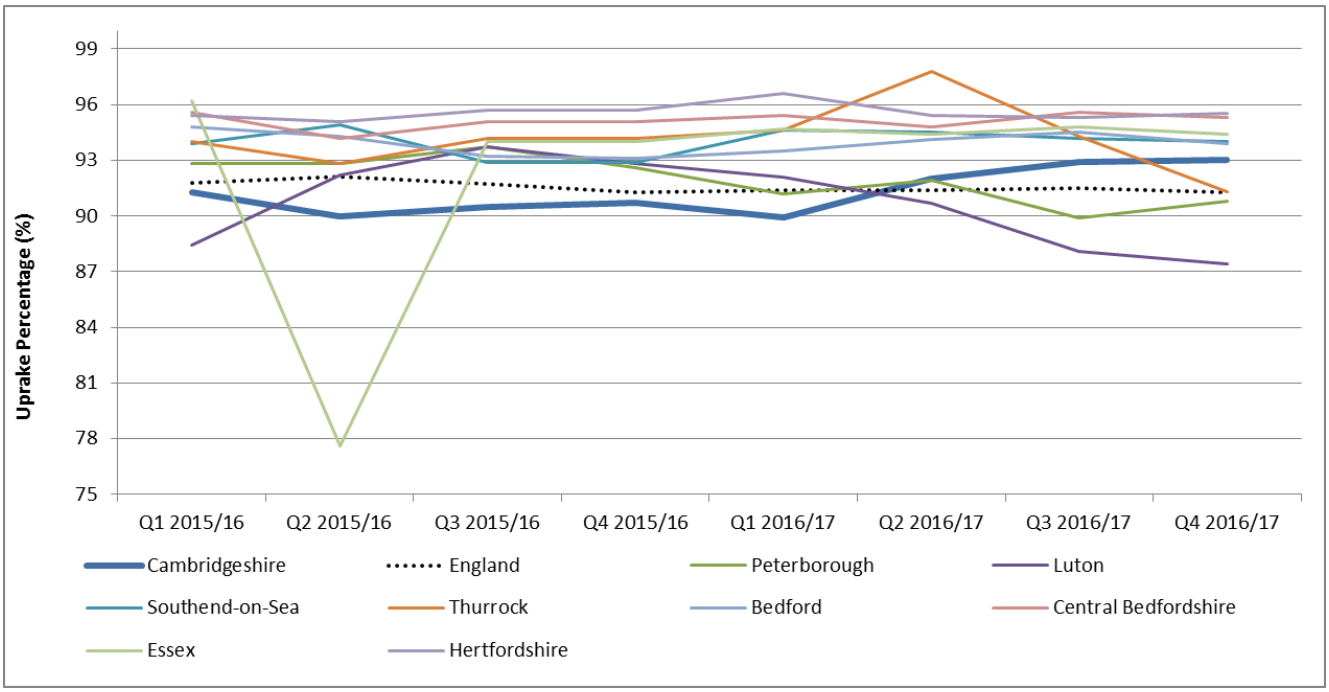


Table 7: Haemophilus Influenza B and Meningoccus C

24 months Hib/Men C [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**91.9**	**89.4**	**90.2**	**91.0**
East Anglia	93.8	92.5	93.4	93.3
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**89.6**	**92.0**	**92.7**	**93.0**
East Anglia	92.8	94.3	94.1	94.0

Source: Cover, Public Health England

Table 8: Measles, Mumps and Rubella

24 months MMR 1 [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**91.7**	**89.1**	**90.2**	**91.0**
East Anglia	93.4	92.3	93.1	93.4
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**89.4**	**91.6**	**92.9**	**92.8**
East Anglia	92.7	93.8	93.9	94.0

Source: Cover, Public Health England

Table 9: Diphtheria, Tetanus, Pertussis, Polio and Haemophilus Influenza B

5 years DTaP IPV Hib [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**94.7**	**93.8**	**94.1**	**93.4**
East Anglia	96.2	95.3	95.6	96.2
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**93.1**	**93.7**	**93.9**	**95.0**
East Anglia	96.0	96.9	96.2	96.2

Source: Cover, Public Health England

Table 10: Measles, Mumps and Rubella (first dose)

5 years MMR 1 [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**92.3**	**90.9**	**91.4**	**93.2**
East Anglia	94.2	93.1	93.8	95.2
	Q1 2016/17	**Q2 2016/17**	**Q3 2016/17**	**Q4 2016/17**
Cambridgeshire	**92.4**	**93.7**	**93.5**	**95.2**
East Anglia	95.4	96.0	95.5	95.6

Source: Cover, Public Health England

Figure 5:5yr MMR1 Percentage Uptake in Cambridgeshire & Surrounding Geographical Area

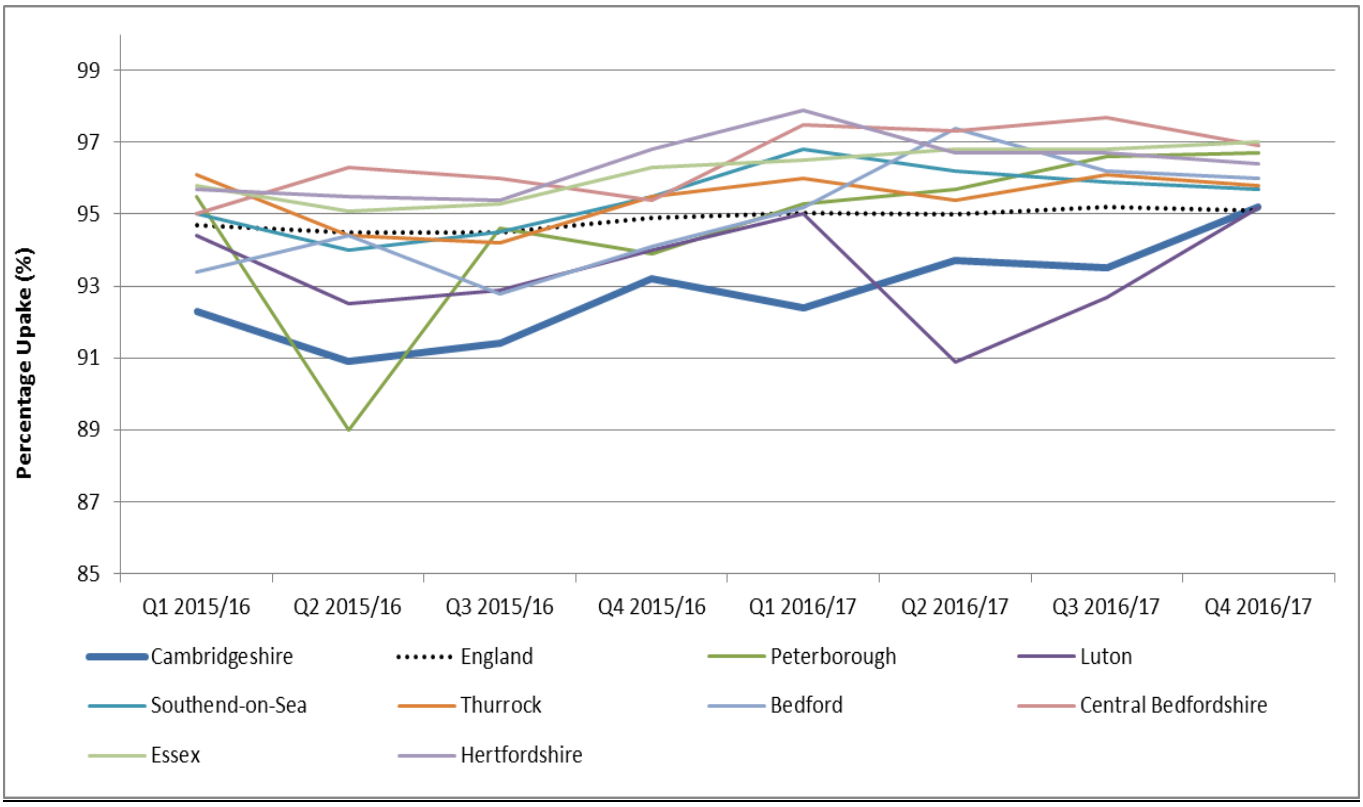


Table 11: Measles, Mumps and Rubella (second dose)

5 years MMR 2 [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**89.8**	**84.7**	**84.8**	**84.9**
East Anglia	91.4	88.8	89.4	90.8
	Q1 2016/17	**Q2 2016/17**	**Q3 2016/17**	**Q4 2016/17**
Cambridgeshire	**82.7**	**83.8**	**85.1**	**88.8**
East Anglia	88.2	89.8	90.1	90.1

Source: Cover, Public Health England

Figure 6:5yr MMR2 Percentage Uptake in Cambridgeshire & Surrounding Geographical Area

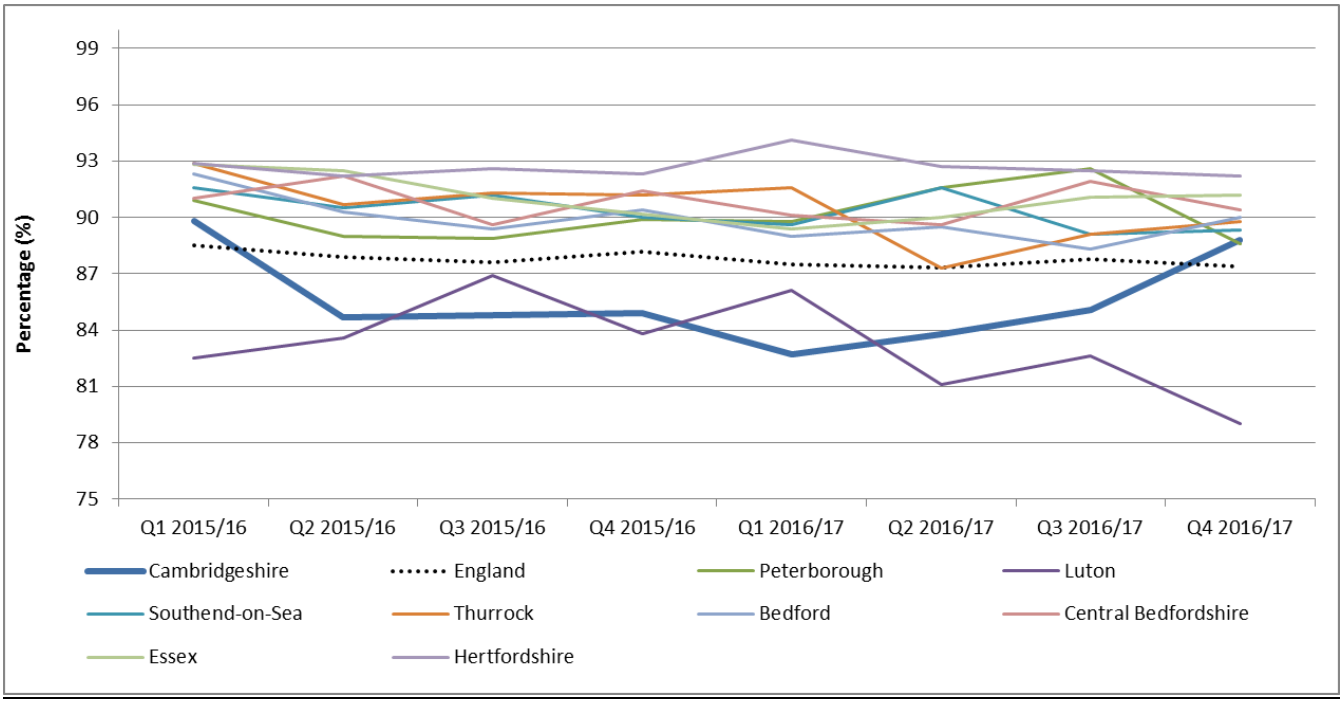


Table 12: Diphtheria, Tetanus, Pertussis, Polio

5 years DTaP/IPV Booster [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**85.7**	**85.4**	**86.0**	**84.5**
East Anglia	90.7	89.5	90.4	89.0
	Q1 2016/17	**Q2 2016/17**	**Q3 2016/17**	**Q4 2016/17**
Cambridgeshire	**82.6**	**82.1**	**84.1**	**86.4**
East Anglia	87.6	88.7	88.8	89.1

Source: Cover, Public Health England

Figure 7: 5yDTaP/IPV Booster % in Cambridgeshire and Surrounding Geographical Area

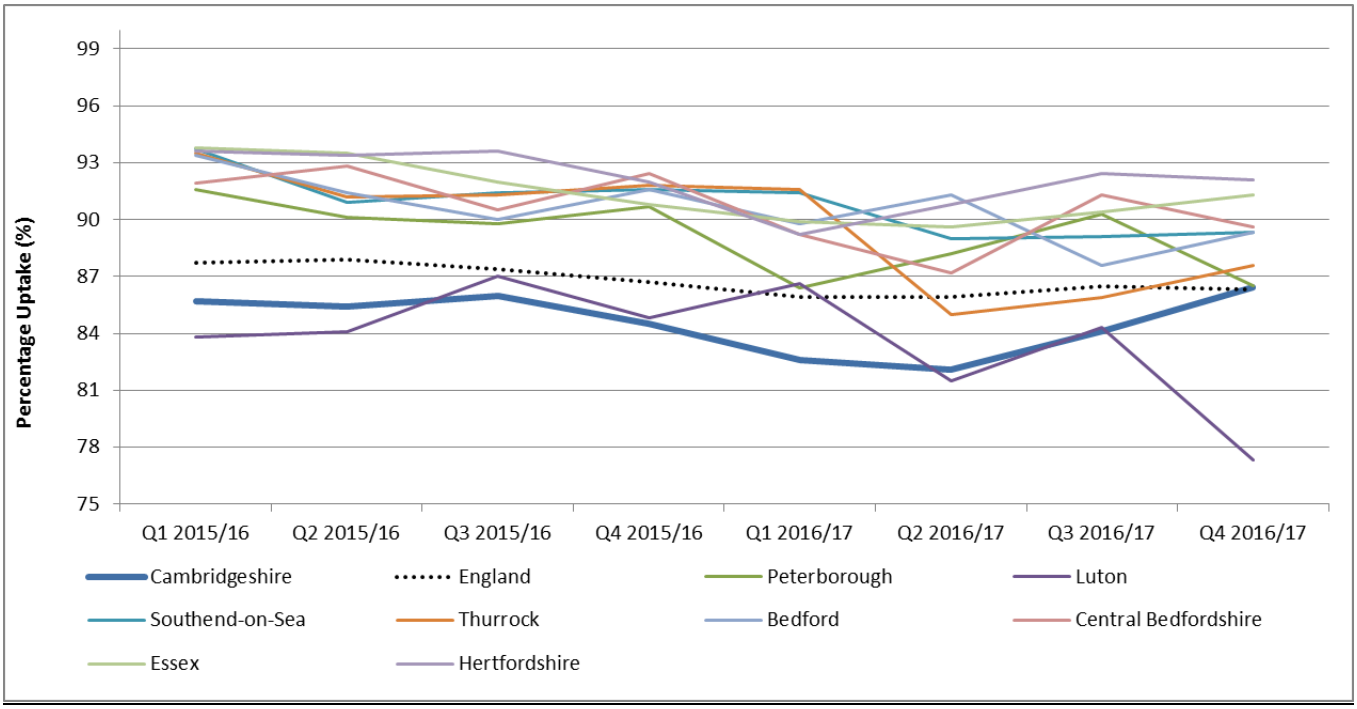


Table 13: Haemophilus Influenza B and Meningococcus C

5 years Hib/Men C [target 95%]	Q1 2015/16 %	Q2 2015/16 %	Q3 2015/16 %	Q4 2015/16 %
Cambridgeshire	**91.3**	**90.0**	**90.6**	**89.5**
East Anglia	93.1	93.0	92.9	92.2
	Q1 2016/17 %	**Q2 2016/17 %**	**Q3 2016/17 %**	**Q4 2016/17 %**
Cambridgeshire	**87.6**	**88.6**	**90.2**	**92.1**
East Anglia	91.2	93.4	93.0	93.2

Source: Cover, Public Health England

https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2013-to-2014-quarterly-figures
https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2014-to-2015-quarterly-data
https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2015-to-2016-quarterly-data

4.1.2. Meningitis B

New vaccines introduced include **Meningitis B** vaccine as part of the primary vaccination for infants. This commenced **1st September 2015**. It is offered to all babies when they attend for their first and third routine vaccinations, at 2 months and again at 4 months. A booster is offered at 12/13 months.

Table 14: Meningitis B

12 months Men B [target 95%]	Q1 2016/17 %	Q2 2016/17 %	Q3 2016/17 %	Q4 2016/17 %
Cambridgeshire	**Data not collected**	**93.4**	**93.0**	**94.6**
East Anglia	**Data not collected**	93.7	94.4	94.6

Source: Cover, Public Health England

4.1.3. Men ACWY

Men ACWY was introduced following an increase in Men W infections. This is being delivered to adolescents by school immunisation providers. The 17-18 year old catch up offered through primary care started in August 2015.

Table 15: Men ACWY

Org Name	Vaccine uptake – December 2017					
	Becoming 18 (born 1st Sep 1997 to 31st Aug 1998	**No. of patients that have received the MenACWY**	**% Uptake**	**Becoming 19 (born 1st Sep 1996 to 31st Aug 1997 inclusive)**	**No. of patients that have received the MenACWY**	**% Uptake**
Cambridgeshire & Peterborough CCG	11839	3799	32.0%	12099	4686	38.7
East Anglia Total	**29607**	**8880**	**30.0**	**30253**	**11710**	**38.7**

Source: ImmForm

Table 16: Annual HPV Vaccine Coverage Data September 2016-17

Local Authority		Cambridgeshire County Council	England
Cohort 13: 13-14 Year Olds (Year 9) Birth Cohort: 1 September 2002 - 31 August 2003	Number of females in Cohort 13 (Year 9)	3122	289499
	No. vaccinated with HPV Vaccine at least one dose by 31/08/2017	2833	257201
	% Coverage	**90.7%**	**88.8%**
	No. vaccinated with two doses by 31/08/2017	2671	240590
	% Coverage	**85.6%**	**83.1%**
Cohort 12: 13-14 Year Olds (Year 10) Birth Cohort: 1 September 2001 - 31 August 2002	Number of females in Cohort 12 (Year 10)	3005	281685
	No. vaccinated with HPV Vaccine at least one dose by 31/08/2017	2862	254554
	% Coverage	95.2	90.4
	No. vaccinated with two doses by 31/08/2017	2682	240929
	% Coverage	**89.3%**	**85.5%**

Source: Public Health England

4.1.4. Seasonal Flu Vaccination

Flu vaccination uptake improved this year for most groups but especially for the younger at risk groups and for NHS staff

Table 17: Flu vaccination uptake by key groups

Area	Summary of flu vaccine uptake %					
	65 and over		Under 65 (at risk)		Pregnant women	
	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17
Cambridgeshire & Peterborough CCG	**72.4**	**72.1**	**42.7**	**47.2**	**32.2**	**46.7**
East Anglia	71.3	71	42.8	47.1	36.7	47.9

Source: ImmForm

Table 18: Seasonal flu vaccination uptake by age 2, 3 and 4 year olds

Area	Summary of flu vaccine uptake %					
	All aged 2		All aged 3		All aged 4	
	2015/6	2016/7	2015/6	2016/7	2015/6	2016/7
Cambridgeshire & Peterborough CCG	**37**	**39.7**	**39.3**	**42.0**	**29.7**	**33.3**
East Anglia	39.1	42.1	40.8	43.9	32.0	35.4

Source: ImmForm

Table 19: Front line healthcare workers in Trusts

Org Name	No. of HCWs with Direct Patient Care	Seasonal Flu doses given since 1st September 2016		% Seasonal flu doses given since 1st September 2015
		No.	%	%
Papworth Hospital NHS Foundation Trust	1510	1114	73.8	64.9
Cambridge University Hospitals NHS Foundation Trust	7833	5400	68.9	41.8
Hinchingbrooke Health Care NHS trust	1215	920	75.7	63.6
Cambridgeshire and Peterborough NHS Foundation Trust	3375	1358	40.2	35.8
Cambridgeshire Community Services NHS Trust	1041	568	54.6	54.8
East Anglia Total	**50249**	**29012**	**57.7**	**43.1**

Source: ImmForm

4.1.5. Prenatal Pertussis Vaccination

Following increased pertussis activity in all age groups, including infants under three months of age, and the declaration of a national pertussis outbreak in April 2012, pertussis vaccine has been offered to pregnant women since 1 October 2012. The prenatal pertussis vaccination programme aims to minimise disease, hospitalisation and deaths in young infants, through intra-uterine transfer of maternal antibodies, until they can be actively protected by the routine infant programme with the first dose of pertussis vaccine scheduled at eight weeks of age.

Reported pertussis activity was higher in 2016 than in any year between 2013 and 2015 but did not reach the overall peak levels recorded in 2012. The increase in 2016 was consistent with pre-existing cyclical trends with peaks in disease every 3 or 4 years.

(Source: Public Health England, Health Protection Report Volume 12 Number 1 5 January 2018)

Pregnant women should be offered the prenatal pertussis vaccination between 20 and 32 weeks of pregnancy, as this is a safe and highly effective way to protect their baby from birth.

Table 20: Prenatal Pertussis Vaccination Uptake

Pertussis	Apr 2015 %	May 2015 %	Jun 2015 %	Jul 2015 %
Cambridgeshire & Peterborough CCG	49.8	45.9	52.7	50.5
East Anglia	**56.8**	**53.8**	**58.9**	**56.3**
Pertussis	Aug 2015 %	Sept 2015 %	Oct 2015 %	Nov 2015 %
Cambridgeshire & Peterborough CCG	51.2	50.5	54.1	52.5
East Anglia	**58.5**	**67.2**	**60.3**	**61.4**
Pertussis	Dec 2015 %	Jan 2016 %	Feb 2016 %	Mar 2016 %
Cambridgeshire & Peterborough CCG	50.7	50.3	NA	NA
East Anglia	**60.3**	**59.3**	**NA**	**NA**
Pertussis	Apr 2016 %	May 2016 %	Jun 2016 %	Jul 2016 %
Cambridgeshire & Peterborough CCG	52.7	73.8	73.3	71.9
East Anglia	**60.2**	**73.6**	**74.4**	**74.7**
Pertussis	Aug 2016%	Sept 2016 %	Oct 2016 %	Nov 2016%
Cambridgeshire & Peterborough CCG	70.6	72.8	71.4	72.3
East Anglia Total	**74.1**	**76.4**	**78.7**	**78.0**
Pertussis	Dec 2016 %	Jan 2017 %	Feb 2017%	Mar 2017 %
Cambridgeshire & Peterborough CCG	76.2	78.9	76.2	75.5
East Anglia Total	**79.8**	**82.3**	**79.8**	**77.0**

Source: ImmForm

4.1.6. Rotavirus Vaccination

Rotavirus is a highly infectious stomach bug that affects babies and young children. Infections are routinely reported in surveillance data provided by PHE which demonstrates the effectiveness of this programme as cases have dropped to tiny numbers since the vaccine was introduced.

Table 21: Rotavirus vaccination

12 months Rotavirus 2 doses [target 95%]				
	Q1 2016/17	**Q2 2016/17**	**Q3 2016/17**	**Q4 2016/17**
Cambridgeshire	**87.6**	**89.5**	**87.5**	**89.1**
East Anglia	92.5	92.6	91.6	92.1

Source: ImmForm

4.1.7. School Immunisation Service

Table 22: Data for end of school year 2016-17

	Target	**Cambridgeshire**
HPV vaccination by end of school year nine dose 2	90%	85%
School leaver booster (Td/IPV) by end of school year 9 and 10	80%	83%
Men ACWY by end of school year 10.	80%	84%
Childhood Flu vaccination school years 1 and 2 and 3	60%	61%
Schools participating in the programme	100%	99%

Source: CCS

4.1.8. Shingles

The data for the Shingles vaccination programme is shown in the table below. The data is cumulative and is up to end August 2017. This is the fourth year of the shingles vaccination programme in England and data from September 2016 to August 2016 shows a continued decline in coverage in the routine (70 year old) and catch up (78 years old) cohorts (from 59.0% in 2015/16 to 54.0% in 2016/17 and from 59.8% in 2015/16 to 57.2% in 2016/17, respectively). PHE note several factors may have contributed to the decline, including:

- difficulties in practices identifying the eligible patients – during busy influenza immunisation clinics
- lack of call/re-call in the service specification to allow mop up of those who missed immunisation during the flu season
- possible lowering of patients' awareness of the vaccine since its introduction in 2013.

PHE are promoting the need for shingles vaccine through professional channels and considering a range of possible approaches to simplify the programme and associated eligibility criteria.

Table 23: Shingles vaccination uptake August 2017

Area	**Vaccine coverage for the Routine Cohort since 2013**			**Vaccine coverage for the Catch-up Cohort since 2013**		
	Registered Patients aged 70	**Received Shingles vaccine**		**Registered Patients aged 78**	**Received Shingles vaccine**	
		No of patients	**% of patients**		**No of patients**	**% of patients**
Cambridgeshire & Peterborough CCG	8284	4389	53.0	5110	2842	55.6
East Anglia Total	**29332**	**14947**	**51.0**	**18338**	**9753**	**53.2**

Source: ImmForm

4.1.3 Cambridgeshire and Peterborough Immunisation network

This groups meets 3 – 4 times per year to discuss all issues relating to immunisations and to take forward the recommendations of a previous Immunisation 'Task and Finish' group that reported two years ago. That group had been set up to identify the reasons for lower immunisation uptake for childhood immunisation. Ongoing work includes close working with GP practices in some areas with particularly low uptake.

Immunisations are being targeted in a Healthy Peterborough campaign in March / April 2018 with specific focus on the pre-school booster, MMR2 and HPV vaccines.

5. SCREENING PROGRAMMES

5.1. Antenatal and Newborn Screening

From Q1 there have been some changes to the Key Performance Indicators (KPIs). The parameters for acceptable/achievable levels have been revised for some KPIs, resulting in some KPIs that may have been previously achieved, now moving to acceptable.

A new KPI FA2 has been introduced; Fetal Anomaly Screening coverage (at 18+0 to 20+6 weeks of pregnancy a Fetal Anomaly ultrasound examination is carried out) and is reported on for the first time with all Trusts able to report and achieving the achievable standard.

Table 24: ID1 Antenatal infectious disease screening HIV Coverage + ID2 Hep B timely referral for women found to be Hepatitis B

2015-2016								2016-2017			
Indicator	**Accpt.**	**Ach.**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
ID1 Antenatal HIV test coverage	>95%	99%	CUH	97.0	97.8	96.7	98.0	97.3	99.5	99.4	98.9
	>95%	99%	HHT	99.5	99.3	99.0	99.2	99.8	98.9	99.6	99.7
ID2 Hep B timely referral for women found to be Hepatitis B	>70%	99%	CUH	100	100	83.3	33.3	No cases	100	100	No cases
	>70%	99%	HHT	No cases	100	100	No cases	0	100	100	100

Source: Maternity Unit

Table 25: Fetal anomaly screening – Coverage

				2016-2017			
FA2: Fetal anomaly screening fetal anomaly ultrasound) – coverage *	**Accpt.**	**Ach.**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**
	>90%	>95%	CUH	100	94.4	93.4	86.6
	>90%	>95%	HHT	Not reported	99.5	99.7	99.7

Source: Maternity Unit

CUH have addressed the issue of timely scan appointments to meet the requirements of the standard.

Table 26: ST1 Coverage, ST2 Timeliness of Test, ST3 Completion of FOQ

				2015/-2016				2016/-2017			
Indicator	**Standard**	**Achievable**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
ST1 Antenatal sickle cell and thalassaemia screening – coverage	>95%	99%	CUH	97.3	98.0	97.6	96.9	91.4	98.5	98.8	96.1
	>95%	99%	HHT	98.5	98.5	98.4	99.0	98.9	99.0	97.7	97.1
ST2 Antenatal sickle cell and thalassaemia screening Timeliness of Test	>50%	75%	CUH	29.6	31.6	32.1	30.1	31.7	*43.3	43.5	60.3
	>50%	75%	HHT	No data	No data	No data	29.9	49.4	52.0	55.2	98.6
ST3 Antenatal sickle cell and thalassaemia completion of FOQ	>95%	99%	CUH	89.8	80.2	96.9	77.3	76.6	90.9	97.8	98.2
	>95%	99%	HHT	No data	No data	No data	96.8	98.6	97.5	97.7	100

Source: Maternity Unit

CUH have addressed the issues around early booking and now meet the acceptable standard for ST2. Data extraction has been improved to accurately reflect activity.

Table 27: Newborn Bloodspot Screening Coverage, Avoidable Repeats, Coverage (movers in)

				2015-16				2016-17			
Indicator	**Standard**	**Achievable**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
NB1 Newborn blood spot screening coverage	>95%	99.9%	CCS	98.0	98.0	98.1	99.4	98.1	98.2	98.9	91.39
NB2 Newborn blood spot screening avoidable repeats	<2%	0.5%	CUH	No data	2.7	2.7	4.9	2.4	*3.1	3.1	2.4
	<2%	0.5%	HHT	No data	9.0	3.6	4.5	3.4	**2.1	3.4	2.8
NB4 Newborn blood spot screening coverage- movers in	>95%	99.9%	CCS	80.0	78.6	89.5	72.7	88.2	*80.1	84.1	85.0

Source: Maternity Unit

Both Trusts have avoidable repeat rates exceeding the acceptable level. Both Trusts have action plans in place and are being monitored by the screening and immunisation team.

NB4 -This KPI is impacted by the small denominator and refers to children who move into the area being seen and offered the NBBS within 3 weeks of being notified to CHIS. The numerator is impacted by declines of babies who have received screening in their own country, those transferring in very near to the cut off for screening and those experiencing slight delays whilst appropriate interpreter arrangements are made to facilitate the appointment.

Table 28: Newborn Hearing – Coverage, Referral to Assessment

				2015-16				2016-17			
Indicator	**Accpt.**	**Ach.**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
NH1 Newborn hearing screening coverage	>97%	99.5%	CUH	98.6	98.0	98.7	99.4	99.2	98.6	98.3	99.0
	>97%	99.5%	HHT	99.9	100	99.8	99.5	99.7	99.2	99.9	99.8
NH2 Newborn hearing screening timely referral for assessment	>90%	95%	CUH	78.9	78.9	72.7	94.1	77.8	*93.8	88.0	94.4
	>90%	95%	HHT	100	100	100	60	100	No case	83.3	100

Source: Maternity Unit

CUH: Attendance rates in audiology have been addressed with an improvement in the way appointments are arranged prior to discharge and compliance has improved.

Low denominators impact on this KPI and actual figures are monitored by the screening and immunisation team.

Table 29: Newborn and Infant Physical Examination – Coverage and Timely Assessment

				2015-2016				2016-17			
Indicator	**Accpt.**	**Ach.**	**Provider**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
NP1 Newborn and Infant Physical Examination- coverage newborn	>95%	99.5%	CUH	93.2	94.0	96.4	94.6	97.3	94.5	94.5	95.2
	>95%	99.5%	HHT	95.9	95.4	93.3	92.8	99.7	96.5	95.8	95.2
NP2 Newborn and Infant Physical Examination timely assessment	>95%	100%	CUH	57.1	0.0	50	75	100	*66.7	28.6	66.7
	>95%	100%	HHT	No Case	100	0	20	25	No cases	No cases	100

Source: Maternity Unit

CUH: The newborn infant physical programme has been under close scrutiny and recommendations for the implementation of the NIPE failsafe: NIPE SMART.

5.1.1. Programme Updates

Cambridge university hospital had a Quality assurance visit in January 2017, with a resultant action plan that is being monitored by the quality assurance team. Improvements specifically in the KPIs ST2, NB2 and NP2 have been targeted and improvements have now been achieved.

5.1.1.1. FASP

A new KPI (FA3) is being piloted to monitor coverage of trisomies 13 and 18.

All maternity units are required to report fetal & congenital anomalies to the National congenital anomaly and rare disease registration service. (NCARDRS). A further KPI on referral for prenatal diagnosis is also being piloted on this programme.

5.1.1.2. Infectious Diseases

Coverage KPIs for Hepatitis B and Syphilis will be collected from April 2017.
The use of NIPE SMART became mandatory; the Trusts are compliant.

5.1.1.3. Newborn hearing

A new screener qualification was launched and is a mandatory requirement for all new unregistered staff from April 2017.

5.1.1.4. Non Invasive Prenatal Testing

It is likely that the new non- invasive screening test for Downs, Edwards and Patau's syndrome will be commissioned in 2018/19. The highly sensitive screening test will be offered to all women who have a high risk result following the combined test. It is expected that the rates of diagnostic procedures will fall as a result. Further information is still awaited from the national team.

5.2. Cancer Screening programmes

5.2.1. Breast Screening

Uptake of breast screening is satisfactory and had reached a much improved level in 2016/7. We will continue to closely monitor uptake.

Table 30: Breast screening Uptake

BS1 - Percentage of eligible women who attend for screening (aged 50-70)									
Cambs. & Hunts. Screening Centre		**2015-2016**				**2016-2017**			
Acceptable	**Achievable**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
≥ 70.0%	≤ 80.0%	66.2	71.3	67.0	76.9	73.3	75.1	72.8	74.0

Source: OBIEE (Oracle Business Intelligence Enterprise Edition)

Table 31: Breast Screening Round Length

BS3 - Percentage of women first offered an appointment within 36 months									
Cambs. & Hunts. Screening Centre		**2015-2016**				**2016-2017**			
Acceptable	**Achievable**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
≥ 90.0%	≤ 100.0%	98.89	99.37	99.0	99.2	99.5	98.9	98.6	95.6

Source: OBIEE (Oracle Business Intelligence Enterprise Edition)

Table 32: Waiting Time for Assessment

BS11 – Percentage of women who attend for assessment within 3 weeks of attending for screening									
Cambs. & Hunts. Screening Centre		**2015-2016**				**2016-2017**			
Acceptable	**Achievable**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
≥ 90.0%	≤ 100.0%	87.01	84.04	87.4	99.4	93.6	93.0	97.2	94.0

Source: OBIEE (Oracle Business Intelligence Enterprise Edition)

5.2.2. Cervical Cancer Screening

We have been advised by NHSE that actual uptake data for the cervical screening programme is only available annually although process data for the programme are available quarterly, see below. The most recent uptake data for Cambridgeshire shows that 63.0% of women aged 25–49 have taken up their invitation to be screened.

Table 33: CS2, CS2a and CS2b - Coverage of eligible population

Acceptable	Achievable	Provider	Q1 2016-17	Q2 2016-17	Q3 2016-17	Q4 2016-17
CS2 - Coverage of eligible population (all women) every 5 years						
≥ 80%	≥ 95.0%	Cambridgeshire Upper Tier LA	68.2	68.1	67.4	66.8
CS2a - Coverage of eligible population, all women aged 25-49 every 3 years						
≥ 80%	≥ 95.0%	Cambridgeshire Upper Tier LA	64.5	64.5	63.7	63.0
CS2b - Coverage of eligible population, all women aged 50-64 every 5 years						
≥ 80%	≥ 95.0%	Cambridgeshire Upper Tier LA	76.1	75.9	75.5	75.0

Source: Screening Quality Assurance Service (SQAS) and Open Exeter

5.2.2.1. Improving uptake in Cancer screening programmes

We are currently working on a project where we are looking to improve Cervical Screening uptake in the Cambridgeshire and Peterborough area for 25 to 49 year olds. Nationally, the uptake for cervical screening is decreasing and we are working with GP Practices, McMillian GPs, Cancer research UK and the local CCG to try and improve uptake in this area. We will be focusing on two separate areas, how to improve knowledge of cervical screening in 25 to 49 year olds and how to develop and improve GP surgeries procedures.

5.2.3. Bowel Cancer Screening

The Cambridge Bowel cancer screening service has been performing well over the last two years. The diagnostic waiting times have been affected recently due to workforce pressures within the endoscopy services. This is being addressed jointly by the providers and commissioners.

Table 34: Bowel screening data

Cambridgeshire Screening Centre			**2015-2016**				**2016-2017**			
	Acc.	**Ach.**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
BCS4 – Uptake	≥52%	≥70%	61.5	59.2	53.8	58.2	61.7	59.9	59.1	60.0
BCS7– SSP Waiting Times	100% within 14 days ≤1.0%		100	100	100	100	100	100	100	100
BCS8 - Diagnostic test waiting times	100% within 14 days		100	100	100	100	100	94.8	87.8	70.1

Source: OBIEE (Oracle Business Intelligence Enterprise Edition)

6. Adult and Young People Screening

6.1. Diabetic Eye Screening Programme

Diabetic retinopathy is one of the most common causes of sight loss among people of working age. It occurs when diabetes affects small blood vessels, damaging the part of the eye called the retina. Diabetic retinopathy doesn't usually cause any noticeable symptoms in the early stages. If retinopathy is detected early enough, treatment can stop it getting worse. Otherwise, by the time symptoms become noticeable, it can be much more difficult to treat. This is why the NHS Diabetic Eye Screening Programme was introduced.

Table 35: Diabetic Eye Screening

Cambridgeshire & Peterborough CCG through East Anglia DESP								
Indicator & Target	**2015-2016**				**2016-2017**			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Acceptable 70% Achievable 80%								
DE1-Uptake of routine digital screening event	91.0	90.5	78.3	77.1	85.7	87.6	85.6	83.8
Acceptable 70% Achievable 80%								
DE2-Results issued within 3 weeks of screening	99.9	100	99.0	99.0	99.8	99.7	99.8	99.8
Acceptable 80% Achievable 95%								
DE3 - Timely assessment for R3A screen positive	50.0	77.8	65.3	63.2	80.0	75.0	58.3	70.0

Source: Health Intelligence

Achievement of the KPI DE3 is affected by the capacity issues in Hospital eye services within the acute Trusts in the region and is also affected by low numbers.

6.1.1. Abdominal Aortic Aneurysm (AAA) Screening Annual Data

Table 36: Annual Data AA1 Completeness of Offer

AAA Annual Data - Cambridgeshire and Peterborough population					
Indicator	**Acceptable**	**Achievable**	**2014-15**	**2015-16**	**2016-17**
AA1 Completeness of Offer	≥ 52%	≥ 70%	100	99.9	99.9

7. Healthcare Associated Infection (HCAI) and Antimicrobial Resistance (AMR)

7.1 Methicillin Resistant Staphylococcus Aureus (MRSA)

Nationally the rate of MRSA bacteraemia for 2016/17 remained steady at 1.5 cases per 100,000 population and in the two years prior. Reductions have been seen in the time to onset for admitted patients, with a greater proportion of cases having a time to onset that would be considered community onset. This is likely to reflect improved clinical awareness by NHS staff but could also be an artefact of declining durations of hospital stay (PHE, 2017).

The introduction of third party cases in April 2014 recognised the complexity of some MRSA cases and where no breach in key policy was evident as part of that patient's care. These cases are not reflected against an acute Trust or CCG on the data capture system but recorded separately within the system as part of the ongoing surveillance and identification of themes and trends of causes.

Table 37: MRSA bacteraemia

Assigned	National No. 2016/17	Local No. 2016/17	National No. 2017 (Apr 17 to Nov 17)	Local No. 2017/18 (to 31/12/17)
	823	11	547	10
CCG		1		0
Trust		4		4
Third Party		6		6

7.2 Clostridium difficile

During 2016/17, 12,840 cases were reported nationally, a decrease of 9.2% on the previous year. Of these 36% were trust-apportioned and mirrors the trend of incidence of all cases declining, though overall the decline in rate has slowed. The separation of cases into trust-apportioned and non-trust apportioned is recognized to ignore relevant information on prior health exposure. For example, some cases classed as community onset are likely to be among patients who were recently discharged from hospital. The current algorithms do not take into account complex healthcare pathways patients may have.

Locally each individual case is discussed at Scrutiny panel meetings held by the Trust's. The recognition of the fact that some cases occur even if best practice is followed and the patient receives flawless care, these are non-sanctioned cases, i.e. not counted against the annual Trust objective.

In line with the national findings, the rate of local cases has slowed down however at the same time we have seen an increase. Between April and December 2016 there were a total of 104 cases reported. In the period April to December 2017 this has risen to 142. Of these cases only 21 from

our Trusts have been identified to have breached some element of key policy and sanctioned against the annual objective.

The annual objectives have not been changed by the Department of Health for the past three years but we do expect this to be reviewed prior to the 2018/19 guidance being released around February/March 2018.

7.3: *Escherichia coli* bacteraemia

Between 2012/13 and 2016/17 the national rate of e coli cases has risen from 22% to 73.9% with a total of 40,580 cases reported in 2016/17. The highest rates were among patients over the age of 85 years and greater in men than among women. The most likely primary focus over time continues to be urinary tract infections accounting for 47% in 2016/17.

April 2017 saw the introduction of a Quality Premium for CCGs to reduce the number of E coli cases by 10% during the period of 2017/18 which equates to 53 cases for Cambridgeshire and Peterborough CCG.

All CCGs have been faced with a number of challenges due to resource limitations, patient identifiable data access and engagement from primary care to collect core data for the national data capture system.

The CCG is to lead on a project from January 2018 working across the whole health economy to develop and implement a bladder bundle toolkit alongside the specialist continence and urology nurses, community and primary care services and to engage with patients, in order to address the local population needs. Removing unwarranted variations of care will identify where patient risks of infection are reduced.

Between April and December 2017 we have 403 cases reported against 407 in the same period of 2016. To reach the Quality Premium we would need to have a maximum of 481 cases by the end of March 2018. Measures put in place by in-patient settings for all types of healthcare associated infections are able to have a more significant impact than when patients are in the community setting, hence the work to be undertaken will be to identify all patients with urinary catheters and frequent non-catheter related infections across our local health economy.

References:

1. Annual Epidemiological Commentary Mandatory MRSA, MSSA, *E coli* bacteraemia and *C difficile* infection data 2016/17. Public Health England. 6 July 2017
2. Technical guidance for NHS planning 2017/18 and 2018/19 – Annex B, Reducing Gram Negative Bloodstream Infections (GNBSIs) and inappropriate antibiotic prescribing in at risk groups

7.4 Antimicrobial Resistance

Antimicrobial resistance has been described as one the greatest threats to human kind. The overuse and incorrect use of antibiotics are major drivers of the development of antimicrobial resistance. The continued threat from the development of antimicrobial resistance and a drastic reduction in the number of new antibiotics being developed, make the need to preserve the antimicrobials we currently have a local, national and global priority. Local targets, set nationally, for reducing the amount and

certain types of antimicrobial drugs prescribed across all health care sectors are in place and achieving these requires co-operation from prescribers, patients and the public.

Research has shown that antibiotic stewardship programmes could halve the number of infections due to antibiotic-resistant bacteria compared with unguided prescribing. Locally, there has been a reduction in the number of antibiotics prescribed by GPs which will contribute to conserving the antibiotics we currently use. This has been achieved through the introduction of antibiotic stewardship programmes across all health sectors, use of educational materials for GPs and patients, provision of comparative antibiotic prescribing data to GP practices, peer group review, and public education programmes.

Trimethoprim, an antibiotic used to treat infections such as urinary tract infections, is an effective treatment where infections have been shown to be susceptible and in situations where alternatives would be less suitable. However, the inappropriate use of trimethoprim, has been associated with the development of serious, life-threatening gram-negative bloodstream infections, particularly in vulnerable patients where their urine infection has been resistance to trimethoprim. 33.2% of urine community E. coli (or coliform) samples tested between October and December 2017 in the Cambridgeshire and Peterborough CCG area were found to be resistant to trimethoprim. This figure was higher than other Clinical Commissioning Groups (CCGs) in the East region. Local and national targets have been introduced aimed at reducing the inappropriate use of this trimethoprim compared to alternatives and specifically for use in in patients over 70 years old who are the most vulnerable. Local targets for reducing the use of trimethoprim have been met through effective antibiotic stewardship initiatives and the addition of new antibiotic formulary choices which offer prescribers more alternatives to trimethoprim. Focusing on reducing inappropriate use of trimethoprim in urinary tract infections continues into 2018-19.

Broad spectrum antibiotics include the groups of antibiotics the quinolones, cephalosporins, and co-amoxiclav. They should normally only be used when narrow-spectrum antibiotics have not worked or are resistant to the infection being treated. Inappropriate use increases the risk of producing a resistant type of bacteria known as MRSA, other resistant urinary tract infections and may cause an unpleasant life-threatening infection, Clostridium difficile, to develop. Local and national targets have been set aimed at reducing the amount of broad spectrum antibiotics prescribed compared to all types of antibiotics. Locally, use of broad spectrum antibiotics has been higher than the local target. A system wide approach using antibiotic stewardship programmes has addressed this along with provision of prescribing data, peer group review and support to GPs in reducing their use of unwarranted broad spectrum antibiotics. Some success has been seen, but this still needs to be improved during 2018-19 and will require the co-operation of prescibers, patients and the public.

7.5 AMR References:

The UK AMR Strategy High Level Steering Group. UK 5 Year Antimicrobial Resistance (AMR) Strategy 2013-2018. Third Annual progress report, 2016. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/662189/UK_AMR_3rd_annual_report.pdf and accessed 25/2/18,

National Institute for Healthcare and Clinical Excellence (NICE). Key therapeutic topic [KTT9] Antimicrobial stewardship: prescribing antibiotics. Published date: January 2015. Last updated:

January 2017. Available at: https://www.nice.org.uk/advice/ktt9/chapter/evidence-context and accessed 25/2/18.

Public Health England. East Region. AMR Local Indicators. Available at: http://fingertips.phe.org.uk/ and accessed 25/2/18.

8. Environmental Health

8.1 Membership of the Health Protection Steering Group includes a senior environmental health lead from a district council, who meets regularly with colleagues in the other councils and reports, by exception, on environmental health issues

8.2 Environmental health has a strong focus on health protection and is a responsibility of city and district councils and unitary authorities. The roles of the environmental health staff in each council can vary considerably but most include:

- food safety and inspection of food premises
- Health and safety.
- Statutory nuisance – including noise nuisance
- Licensing
- Contaminated land
- issues around private sector housing and houses in multiple occupation

8.3 Food Safety, Health and Safety, Pollution Control, Licensing and Trading Standards are part of Regulatory Services. The purpose of the service is to carry out interventions to check compliance with legal requirements and where appropriate take enforcement action. The service also has a role supporting businesses to help them comply with the law. The work of Regulatory Services helps to keep people healthy and safe, reduces health inequalities and contributes to the national and local economy.

8.4 Some of this work includes food inspections, investigating food complaints and infectious diseases and regulating private water supplies. District and city councils operate the National Food Hygiene Rating scheme which helps consumers choose where to eat or shop for food by providing information about hygiene standards. .

8.5 Licensing staff regulate the carrying on of all licensable activities by the appropriate control of licensed premises, temporary events and personal licence holders. Areas of licensing include alcohol, gambling, pet shops, petroleum sites, tattooists and skin piercing, dangerous animals and adult entertainments.

8.6 Trading Standards deal with product safety, animal health and fair trading and credit. A Joint Eastern Region Illicit Tobacco Control Project aims to increase the understanding of and raise awareness of illicit tobacco. Roadshows have been carried out with detection dogs to show the public how they find concealments and with experts on hand to offer help to those who wish to quit smoking. The project will provide support visits to businesses, intelligence led surveillance and follow up investigations and will result in seizure operations and prosecutions where necessary.

8.7 Pollution control incudes investigation of a wide range of statutory nuisances, air quality assessment, hoarding and infestations of vermin in domestic and commercial premises and the issuing of permits for industrial processes.

8.8 Air quality is a significant public health issue and responsibility for air quality rests with city and district councils but is not always within the remit of the environmental health staff in view of the major contribution of traffic to reducing air quality. A recent paper was presented to the Health Committee on air quality in Cambridgeshire, highlighting the main areas of concern and actions being taken.

8.9 Membership of the Health Protection Steering Group includes a senior environmental health lead from a district council, who meets regularly with colleagues in the other councils and reports, by exception, on environmental health issues

9. Air Quality

9.1 The air quality agenda in Cambridgeshire is not owned by a single organisation or department. Instead the districts and city have statutory requirements to assess, monitor and develop action plans on air quality where required; they also have plan making powers which can effect air quality. The county council, combined authority and Greater Cambridgeshire Partnership are responsible for actions and intervention's (mainly relating to transport) which can mitigate or reduce air pollution.

9.2 The role of the public health team is to provide the health based implications of air quality at a population level. We facilitate this by bringing together key stakeholders who may not normally meet for air quality issues or may only be considering the environmental aspects, for example Public Health are now contributing to the Transport needs review of the Cambridge Biomedical Campus (one of the Greater Cambridge Partnership Projects) following concerns raised by members of the Cambridgeshire County Council Health Committee and officers at the Cambridge City Council.

9.3 There are number of challenges which need to be considered when developing a more joined up county wide approach to air quality. The ownership of the air quality agenda is fragmented, and is not owned by a single organisations or group with responsibility for monitoring and mitigation held by different organisations, this makes a system wide response more challenging.

9.4 The burden of air quality varies across Cambridgeshire with levels of recorded air pollution varying across Cambridgeshire with Air Quality Management Areas (AQMA) declared in Cambridge City, South Cambridgeshire, Huntingdonshire and Fenland; East Cambridgeshire currently does not have an AQMA. By nature this means that air quality does not have the same level of focus for all authorities.

9.5 The knowledge of air quality and its impact among transport and planning officers is a gap as transport planners and local planners are not experts in air quality, and in two tier areas do not have access to air quality expertise in their organisations, therefore Public Health are commissioning a training programme for these officers to raise awareness of air quality and to foster closer working relationships.

9.6 There is a lack of air quality specialist capacity in many of the district councils, which means the majority of their focus is on their statutory duties, with little capacity for broader advocacy work or influencing planning and transport decisions.

9.7 There are co-benefits from wider interventions, as air quality should not be seen in isolation as health modelling shows that interventions to increase active travel can result in significantly greater benefits from increased physical activity, compared to direct interventions targeting air quality overall – so greater health benefits will be achieved by people switching to walking and cycling than by switching to electric cars.

9.8 The approach therefore is to focus on those areas of the county most effected by poor air quality whilst at the same time directly informing broader strategic plans and programmes, such as transport plans and local plans, which have considerable impact on air quality across the whole of the county.

9.9 In Districts with declared Air Quality Management Areas (AQMA) the focus is continuing to support the authorities to bring forward measures to improve air quality and ensure that the most vulnerable are protected e.g. children and those with health conditions.

9.10 At a strategic level the Combined Authority will be developing a new Cambridgeshire and Peterborough Local Transport Plan (LTP). As transport is one of the main contributors to air quality this will be considered in the LTP. Public Health will play a role in bringing together stakeholders on air quality to provide a more comprehensive joined up response. The development of the LTP would also provide an opportunity to champion and influence opportunities for more active travel within the plan.

9.11 The combined authority is also developing a Non Statutory Spatial Plan which will focus on providing a county perspective on infrastructure, linking up local plans and the LTP. Air quality will be considered as part of this process and could be a consideration for a new Quality Charter for Growth which is currently being considered.

9.12 These plans will enable Public Health to indirectly influence air quality in those localities where air quality is not deemed to be a priority.

10 NATIONAL TUBERCULOSIS STRATEGY

10.1 Latent TB Identification Project

The aim of this project is to continue to support the early diagnosis of Latent TB and offer treatment of active disease.

10.2 NHS England and Public Health England jointly published the collaborative tuberculosis strategy on 19 January 2015. NHS England has committed £10 million for the establishment of testing for, and treatment of, latent tuberculosis (TB) in new entrants from countries of high TB incidence. Public Health England has committed £1.5 million for the establishment of the national TB office and support teams to the nine TB control boards. It is likely that the majority of TB cases in the UK are the result of 'reactivation' of latent TB infection (LTBI), an asymptomatic phase of TB which can last for years. There is a 5% risk of a patient with LTBI

developing active TB infection. LTBI can be diagnosed by a single, validated blood test and treated effectively with antibiotics, preventing TB disease in the future.

10.3 Following the publication of the national strategy a review of TB services was undertaken in Cambridgeshire and Peterborough. The key Epidemiological findings are summarised below and provide an overview of the impact of TB on the resident population of the CCG.

- There were 999 cases of TB reported in Cambridgeshire and Peterborough residents between 2004 and 2014.
- Almost three quarters (73%) of TB cases between 2004 and 2014 were in non-UK born individuals.
- The most common countries of origin of TB cases in Cambridgeshire & Peterborough in the last three years were UK, India, Pakistan, Lithuania, East Timor and Kenya. PHE recommend screening people who were born in or who had spent >6 months in high TB incidence country (150 cases per 100,000 or more)

10.4 The eligibility criteria for the service are any new patient registering with a practice or retrospectively identified by the practice as being:

- Born or spent > 6 month in a country of high TB incidence
- Entered the UK within the last 5 years
- Aged 16-35 years
- No history of TB either treated or untreated
- Never screened for TB in the UK

10.5 Cambridgeshire and Peterborough Clinical Commissioning Group (CCG) led this work supported by representatives from:

- North West Anglia Foundation Trust (NWAFT)
- 18 Greater Peterborough GP Practices because the incidence of TB is much higher in Peterborough
- 2 Cambridgeshire GP Practices
- Public Health England (PHE)
- Cambridgeshire and Peterborough Foundation Trust
- Cambridgeshire County Council – Public Health

10.6 GP Practices with a high crude rate of TB cases were identified by PHE. Of these, practices with a crude annual rate of active TB ≥ 20 cases/100,000 have been prioritised for the LTBI screening programme.

10.7 The project commenced in March 2016 and to date 18 Peterborough Practices have been identified and have signed up, and 2 practices in Cambridgeshire. Using a Local Enhanced Service (LES) agreement. Training was provided by Oxford Immunotec, the provider for blood sample analysis as part of the screening.

10.8 Practices are expected to identify new patients on registration. PHE have provided the CCG with materials and letters to support the project.

10.9 There is a comprehensive action plan to cover the communication and engagement elements of this project. This aims to:

- Raise awareness of Latent TB and the need for screening
- Get people to visit their GP practice for screening
- Get people to register with a practice if not already
- To dispel myths and beliefs about TB

10.10 Communications work so far has included an article and social media posts targeted at encouraging prospective patients to come forward. These were sent to specific community contacts obtained through partnership working with the councils, as well as posted from the CCG's social media channels.

10.11 News of the project and its progress has also been shared with stakeholders on the CCG Newsletter distribution list, as well as with GP members of the organisation. Press releases were issued in September and December 2016. King's Lynn FM provided radio coverage in October, and the December release was picked up by BBC Radio Cambridgeshire and BBC Look East. Look East's coverage was particularly in depth, focusing on TB as well as Latent TB, and aired in January 2017. Future engagement with prospective patients and the public is planned for later in 2017.

10.12 Practices identify patients and invite them for blood screening. Bloods are taken and sent off for testing. All those with positive results are seen and treated by Secondary Care Services

Table 38: ACTIVITY TO DATE (Cumulative May 2016 – end January 2018)

Activity	**Data**
Negative	397
Positives	65
Borderline negative	8
Borderline positive	11
Indeterminate	5
Non reportable insufficient cells	4
Assay not run	2
Technical error	2
Total Screened	**494**

10.13 This activity is higher than other pilot areas in the region. There has been a positive response by the Practices to the screening programme and the CCG is receiving positive feedback regarding the activity that is being seen and treated.

10.14 The CCG is intending to roll out to other practices and will continue to work closely with the existing practices to ensure they will identify and screen eligible people.

10.15 The Communication and Engagement Plan is also being refreshed to ensure the CCG is engaging with communities and stakeholders effectively.

10.16 For 2018/19 the CCG will continue to support all the GP Practices involved, to continue with the Programme as we have a continued flow of new migrants into the area.

10.17 The CCG will also be looking to extend screening to the other populations such as student populations that meet the eligibility criteria, employees in work environments and the prison population.

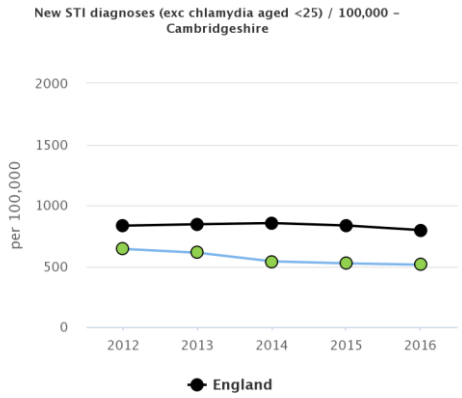
11. SEXUAL HEALTH

Overall sexual health in Cambridgeshire compares well to England with many indicators being statistically significantly better than the England average. However there are some areas for concern.

11.2. New Sexually Transmitted Infections Diagnoses (STIs) (excluding <25 chlamydia)

The rate of new diagnoses of sexually transmitted infections (excluding <25 chlamydia) is below the English average and the trend is downward.

Figure 8: New STI diagnoses (excluding <25 chlamydia)

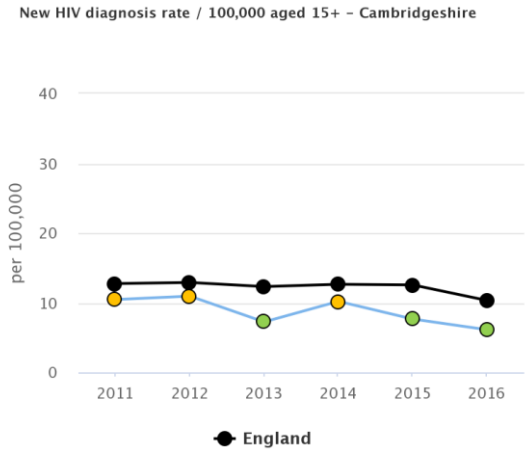


Source: Sexual Health Profiles Public Health England (2017)

11.3 New HIV Diagnosis

There has been an overall downward trend in the rate of new HIV diagnosis in Cambridgeshire and it has remained statistically significantly better than the England average.

Figure 9: New HIV Diagnosis Rate

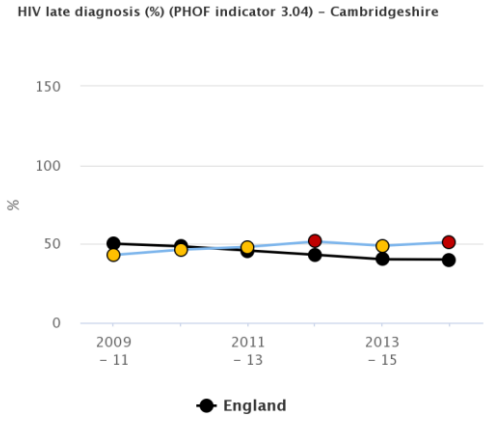


Source: Sexual Health Profiles Public Health England (2017)

11.4 Late HIV Diagnoses

Between 2009 and 2013 the rate of late HIV diagnoses per 100,000 was similar to the English figure. Between 2013 and 2016 the trend has been upwards. The latest figure which is for 2014/16 gives a rate that is statistically significantly worse than the England average, 47 compared to 40.1 per 100,000. Earlier diagnosis leads to an improved outcome of treatment and reduced risk of onward transmission.

Figure 10: HIV Late Diagnosis (%)



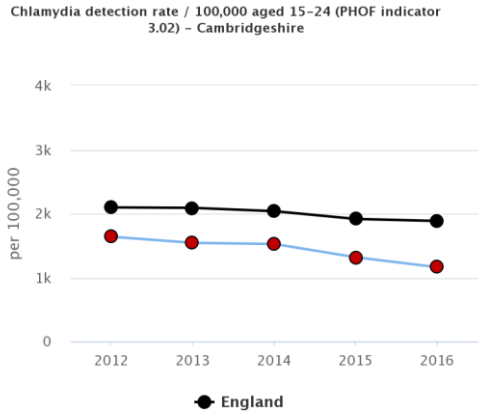
Source: Sexual Health Profiles Public Health England (2017)

11.5 Chlamydia Diagnosis

The rate of chlamydia detection amongst 15-24 year olds has remained significantly worse than the national average. In 2016 the rate was 1159 per 100,000 compared to the England average of 1882 per 100,000. This is below the Public Health England recommended target of 2,300 per 100,000, which is considered positive in term of identifying and treating the

infection in the population. However it is difficult to interpret this as the general level of STIs in the population is below the national average.

Figure 11 Chlamydia Detection Rate 15-24 years

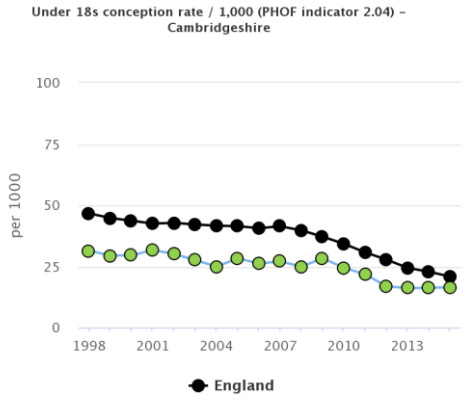


Source: Sexual Health Profiles Public Health England (2017)

11.6 Teenage Pregnancy (conceptions)

The under 18 conception rate per 100,000 has improved dramatically since 1998 in Cambridgeshire. Although it has levelled off since 2013 it remains below the national average. In 2015 the Cambridgeshire rate was 16.5 per 100,000 conceptions compared to 20.8 per 100,000 English average.

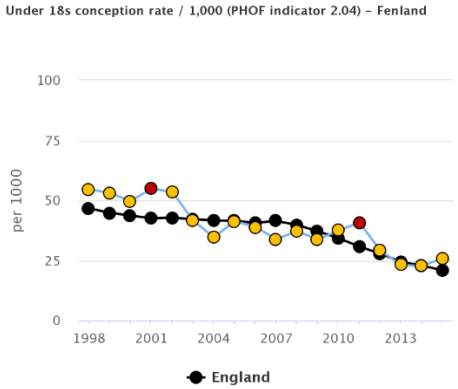
Figure12: Under 18s Conception Rate



Source: Sexual Health Profiles Public Health England (2017)

In Fenland the under 18 conception rate was in 1998 was above the national rate but since then it has improved considerably, dropping for periods to rates below or similar to the national average. However since 2012 the rate has remained similar to the England and the continuous improvement has not been sustained.

Figure 13: Under 18s Conception Rate in Fenland



Source: Sexual Health Profiles Public Health England (2017)

11.7 Sexual Health Services

The Integrated Sexual Health Service (ICaSH) provided by Cambridgeshire Community Services has seen a continuous increase in demand for its services. Currently this stands at around a circa 10% increase above the activity level commissioned in 2014. This increase in activity is found in both contraception and sexual health service activity.

Currently the Service is meeting its key access to service targets. Securing access to sexual health treatment within 48 hours or two working days is the recommended target for decreasing the onward transmission of infection by the Department of Health and professional bodies.

Chlamydia screening for 15-25 year olds is commissioned from GPs and although numbers are low they have a high positivity rate which is associated with targeted opportunistic screening.

Community pharmacies provide Emergency Hormonal Contraception and demand for this remains unchanged. Pharmacies are located in areas where access to other services is limited and where there are high risk groups are targeted

11.8 Prevention

The voluntary sector organisations DHIVERSE and the Terence Higgins Trust continue to provide a range of prevention services that range from outreach work with hard to reach/high risk groups, chlamydia screening to working in schools. Currently their service performance indicators are being net. Throughout the year a number of campaigns are also undertaken in line with the national programmes.

11.9 Sexual Health Delivery Board

The Cambridgeshire and Peterborough Sexual Health Delivery Board was established in 2017. This followed the formation of the Cambridgeshire and Peterborough Public Health Joint Commissioning Unit (JCU). The JCU is responsible for commissioning Public Health services across the two local authorities. The Sexual Health Delivery Board brings together

commissioners and providers from across the two areas to set the strategic direction for sexual health and to implement collaborative partnership interventions to address issues. A Delivery Action Plan has been developed and the two following priorities have been adopted by the Board to address initially.

- Under 18 conceptions in Peterborough and Fenland (has a trend similar to Peterborough).
- Improving pathways across different services (both clinical and non-clinical). This includes pathway design and closer alignment of commissioning across the three different commissioners of sexual health services i.e. the Local Authorities, the Cambridgeshire and Peterborough Clinical Commissioning Group and NHS England.

To complement this Public Health England has invited the Cambridgeshire and Peterborough local authorities and NHS commissioners to be one of two national pilot sites for a sexual health commissioning feasibility study. The aim is that the local sexual heath commissioning organisations will explore opportunities for future alignment and collaborative commissioning opportunities for sexual health services in the area, which would future proof, quality assure and optimise sexual health service pathways, better address needs and potentially realising system efficiencies where appropriate.

12. HEALTH EMERGENCY PLANNING

12.1 The County Council is a Category 1 responder under the terms of the Civil Contingencies Act 2004, as a result there is an emergency planning/Resilience team that works in partnership with other organisations to lead emergency planning and response for the council. Some additional responsibility for health emergency preparedness passed with the move of Public Health into local authorities. In their role within local authorities the DPH is expected to:

- Provide leadership to the public health system for health Emergency Preparedness, Resilience and Response (EPRR)
- Ensure that plans are in place to protect the health of their population and escalate concerns to the Local Health Resilience Partnership (LHRP) as appropriate
- Identify and agree a lead DPH within the Cambridgeshire and Peterborough Local Resilience Forum (CPLRF) area to co-Chair the LHRP. Provide initial leadership with PHE for the response to public health incidents and emergencies. The DPH will maintain oversight of population health and ensure effective communication with local communities.

12.2 Local Health Resilience Partnerships (LHRPs) provide strategic leadership for health organisations in the LRF area and are expected to assess local health risks and priorities to ensure preparedness arrangements reflect current and emerging need.

12.3 The Cambridgeshire and Peterborough Local Health Resilience Partnership (CP LHRP) is co-chaired by the NHS England Locality Director and the Cambridgeshire and Peterborough DPH. Member agencies share responsibility for oversight of health emergency planning in this forum. It is for the CPLRF and/or the LHRP to decide whether LHRP plans should be tested through a multi-agency exercise as a main or contributory factor. The DPH reports health protection emergency resilience issues to the LHRP on a regular basis. The DPH

provides a brief update report on the activities of the LHRP to the HPSG to ensure sharing of cross cutting health sector resilience issues.

- The DPH has been supported in this work by a consultant in public health who co-chairs the Health and Social Care Emergency Planning Group (HSCEPG) with the Head of EPRR from the NHS England Midlands and East (East) and has oversight of all health protection issues. The function is supported by the shared Health Emergency Planning and Resilience Officer (HEPRO) based within Public Health. The HEPRO reports into the LHRP and the LRF through the DPH.

- The HSCEPG has membership from local acute hospitals, East of England ambulance service (EEAmb), community services, mental health services, social care services, other NHS funded providers, Public Health England and NHS England.

12.4 The LHRP leads on the annual EPRR assurance process. The aim is to assess the preparedness of the NHS commissioners and providers, against common NHS EPRR Core Standards. All NHS funded organisations have completed their self-assessment against the EPRR Core Standards for 2017-2018. In respect of the deep dive into EPRR Organisational Governance, the Cambridgeshire and Peterborough system completed the assurance checklists and rated themselves against the standards. All organisations were either Full or Substantially Compliant.

The Cambridgeshire and Peterborough health system is, at this point in time, well prepared to deliver the EPRR core standards including planning for and responding to a wide range of emergencies and business continuity incidents that could affect health or patient safety.

There is strong engagement across health partners and a common aim to contribute and share best practice across the LHRP, LRF and East EPRR leads forum within the East Locality. There are also links into the Cambridgeshire & Peterborough Health & Wellbeing and A & E Delivery Boards through the Co-Chairs of the LHRP.

12.5 The LRF and LHRP priorities for the past year were validation of:

- CPLRF Pandemic influenza Plan;
- CPLRF Vulnerable People Protocol; and
- CPLRF Mass Casualty Plan

All the three plans have been validated by the CPLRF Executive Board.

12.6 The priorities for the year ahead is validation of:

- CPLRF CBRN Plan;
- C&P Hospital Evacuation Plan; and
- CPLRF Excess Deaths Plan.

12.7 The period from 1st January 2017 to the date of this report has seen a very wide and varied training and exercise programme delivered by the CPLRF. Of significance were four exercises:-

1. Exercise Falmouth: This tabletop and live exercise took place on the 22nd Feb and 19th May respectively, to test the arrangements for Marauding Terrorist Firearms Attack (MTFA). Sixty attendees from nineteen organisations took part in the exercise.

2. JESIP exercises: Joint Emergency Services Interoperability Protocol (JESIP) awareness and table top exercises for the strategic members took place between June and October.

3. Mass Casualty plan validation: A table top exercise took place on 20th October, 2017 to validate the CPLRF Mass Casualty Plan. Thirty attendees from eight organisations took part.

4. CPLRF Tactical Emergency Management course(s): The CPLRF in collaboration with the Cabinet Office Emergency Planning College delivered three, one and a half day, bespoke Tactical Emergency Management courses between the 6th and 10th November, 2017. Forty attendees took part in the courses.

11 Summary

This report has provided and update on all key areas of health protection for Cambridgeshire including:

- Communicable disease surveillance including information on the increased levels of infectious Hepatitis, Invasive Group A Streptococcal and Mumps infections in the past year.
- Immunisations which show a steady state for some and a gradual increase in uptake of many childhood immunisations and of seasonal flu vaccination
- Screening in which there is continued below average uptake of cervical screening in Cambridgeshire
- Healthcare associated infections and the work to reduce anti-microbial resistance
- The Environmental Health role of city and district councils in protecting health including pollution control and air quality monitoring and advice
- The national TB strategy and successful local implementation of some key areas of the strategy notably Latent TB Infection Screening (LTBI)
- Sexual health including the level of late HIV diagnosis, reducing level of chlamydia diagnoses and a slowdown in the rate of reduction of teenage pregnancy, while still below the national average, work on prevention in sexual health and the establishment of the Sexual Health Delivery Board in 2017.
- Health emergency planning, the work completed in the past 12 months and the priorities for the coming year.

12 Annex 1

12.1 UK Vaccination Programme

Age 2 months

5-in-1 (DTaP/IPV/Hib) vaccine – this single jab contains vaccines to protect against five separate diseases: diphtheria, tetanus, pertussis (whooping cough), polio and Haemophilus influenza type b (Hib, a bacterial infection that can cause severe pneumonia or meningitis in young children)

Pneumococcal (PCV) vaccine – pneumococcus can cause various infections including pneumonia

Rotavirus vaccine - Rotavirus is a highly infectious stomach bug that typically strikes babies and young children. This is an oral vaccine

Men B vaccine – Meningococcus B is responsible for approximately 90% of meningitis in young children

Age 3 months

5-in-1 (DTaP/IPV/Hib) vaccine - second dose

Rotavirus vaccine - second dose

Age 4 months

5-in-1 (DTaP/IPV/Hib) vaccine - third dose

Pneumococcal (PCV) vaccine - second dose

Men B vaccine – second dose

Between 12 and 13 months

Hib/Men C booster - administered as a single jab containing meningococcus C (another cause of meningitis) and Hib (fourth dose)

Measles, Mumps and Rubella (MMR) vaccine - administered as a single jab. Measles, mumps and rubella are highly infectious conditions that can have serious, and potentially fatal, complications, including meningitis, swelling of the brain (encephalitis) and deafness. They can also lead to complications in pregnancy that affect the unborn baby, and can lead to miscarriage

Pneumococcal (PCV) vaccine - third dose

Men B vaccine – third dose

Age 2 to 7 years including school years 1, 2 and 3

Seasonal influenza (Flu) vaccine - administered as a nasal spray and needs to be given annually – this programme is being gradually extended to include all children up to age 16 years.

3 years and 4 months, or soon after

Measles, mumps and rubella (MMR) vaccine, second dose

4-in-1 (DTaP/IPV) pre-school booster - administered as a single jab containing vaccines against diphtheria, tetanus, whooping cough (pertussis) and polio

Around 12-13 years

HPV vaccine, which protects against the Human Papilloma Virus which causes cervical cancer, it is given to girls only – two jabs are given 6 – 12 months apart

Age 14 years

3-in-1 (Td/IPV) teenage booster - administered as a single jab which contains vaccines against diphtheria, tetanus and polio

Men ACWY – School children aged 14 (year 9) are now offered this vaccination routinely and students going to university or college for the first time, including overseas and mature students up to the age of 25, are advised to contact their GP to have the Men ACWY vaccine, ideally before the start of or in the first few weeks of the academic year. Cases of meningitis and septicaemia (blood poisoning) caused by Men W bacteria are rising, due to a particularly deadly strain. The highest risk of meningitis is in the first year of university, particularly the first few months.

65 and over

Flu (every year)

Pneumococcal (PPV) vaccine

70 years

Shingles vaccine (from September 2013)

Vaccines for special groups

There are some vaccines that aren't routinely available to everyone on the NHS but which are available for people who fall into certain risk groups, such as pregnant women, people with long term health conditions and healthcare workers. These extra vaccines include **hepatitis B vaccination, TB vaccination and chickenpox vaccination**.