Annex A

CAMBRIDGESHIRE HEALTH PROTECTION STEERING GROUP

ANNUAL HEALTH PROTECTION REPORT (2015/16)

1. INTRODUCTION

1.1 This is the third annual report on health protection produced in Cambridgeshire since the transfer of public health functions to local authorities.

1.2 The Health and Social Care Act 2012, from 1 April 2013, placed statutory responsibilities on the County Council, through the Director of Public Health (DPH), to advise on and promote local health protection plans across agencies, which complements the statutory responsibilities of Public Health England, NHS England, the Clinical Commissioning Group (CCG) and City and District Councils.

1.3 The delivery of the health protection functions of the County Council must be publicly reported so that members can assure themselves that statutory responsibilities are being fulfilled. Members of the public can also access this information for their own reassurance or research.

1.4 It was agreed that the DPH would deliver an annual health protection report to the Health Committee to provide a summary of relevant activity. This report would cover the multi-agency health protection plans in place which establish how the various responsibilities are discharged.

1.5 The services that fall within Health Protection include :-

- Communicable disease and environmental hazards;
- Public health emergency planning
- Immunisation
- Screening
- Sexual health

2.0 CAMBRIDGESHIRE HEALTH PROTECTION STEERING GROUP

2.1 The Cambridgeshire Health Protection Steering Group (HPSG) was established in April 2013, chaired by the DPH, to support the DPH in having oversight of health protection in Cambridgeshire.

2.2 The HPSG meets quarterly in January, April, July and October. Starting in October 2015, the Cambridgeshire HPSG has joined with the Peterborough HPSG. The meeting has separate sections for Cambridgeshire only and Peterborough only issues at beginning and end of the meeting and a middle section to discuss all those issues that

are relevant to both local authorities. The middle section receives reports on work across both areas on issues such as immunisation, screening, emergency planning and communicable diseases common to both authority areas.

2.3 Standing items have included:

- Immunisations – routine data as well as specific issues that have arisen – report from NHS England
- Screening – routine data and any specific issues that have arisen – report from NHS England
- Healthcare associated infection and antimicrobial resistance – reports from the CCG
- An update on health emergency planning and updates from the Local Health Resilience Partnership (LHRP)
- Tuberculosis including the new national strategy, BCG vaccination and incidents.

2.4 The three priority areas agreed by the HPSG to be standing agenda items are:

- Public communication to support uptake of immunisation and screening (e.g. cervical screening uptake is low in Cambridge City) and some other issues such as use of anti-microbial drugs.
- TB to include consideration of vulnerable people and the implementation of the national TB Strategy
- Pandemic flu planning including planning for excess deaths

2.5 Memorandum of Understanding

The 2014 Memorandum of Understanding (MOU) for health protection, developed to ensure agreement from all relevant organisations to provide reports and assurance to the Health Protection Steering group for Cambridgeshire and to collaborate with other partners in the response to any incident that affects public health in the county, has been reviewed and revised and is being re-issued to partner organisations for sign-off.

In practice this proved to be very helpful over the past two years during the response to public health incidents, as it clarified responsibilities, including financial responsibilities, in a number of public health incidents and meant that there were no delays while this clarification was sought.

2.6 Joint Communicable Disease Outbreak Management Plan

Development of this plan was led by Public Health England with support from the public health teams in local authorities. It has been in use since it was initially ratified in 2014 and has also been tested during exercises. Further to organisational and other changes, the plan was updated in April 2015.

3.0 SURVEILLANCE

3.1 Notifications of Infectious Diseases

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 is an important source of surveillance data. The table below shows the notifiable diseases reported to the HPT from 2013 - 2015.

Table 1: Notifiable Diseases in Cambridgeshire

Notifiable Disease*	2013†	2014†	2015†
Acute infectious hepatitis	27	20	25
Acute meningitis	17	8	8
Botulism	0	0	<5
Cholera	0	<5	0
Cryptosporidiosis		See below	
Enteric Fever	<5	<5	<5
Food poisoning	671	763	768
Infectious bloody diarrhoea	8	6	5
Invasive Group A streptococcal disease	13	23	18
Legionnaires' Disease	<5	0	<5
Malaria	11	10	9
Measles	53	23	13**
Meningococcal septicaemia	7	<5	9
Mumps	47	44	24**
Rubella	<5	11	5**
Scarlet fever	47	89	159
Whooping cough	84	108	80

SOURCE: East of England HPT (Thetford) HPZone

* *Notifiable diseases with no reported cases during the three years are not listed here. These are notifications of infectious disease and are not necessarily laboratory confirmed.*

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

** *Single case of laboratory confirmed measles. Two laboratory confirmed cases of mumps and no laboratory confirmed cases of rubella*

3.2 It is particularly important to note the number of cases notified that are of illness which could have been prevented by immunisation, in particular mumps, measles, whooping cough, rubella (German measles), each of which can have serious long term health consequences, especially when also considering the childhood immunisation uptake data later in this report..

3.3 Scarlet fever

Scarlet fever is a common childhood infection caused by *Streptococcus pyogenes*, also known as group A streptococcus (GAS). It is most

common between the ages of 2 and 8 years, although children and adults of all ages can develop it.

Similar to the rest of the country, scarlet fever seasonal activity has remained elevated across Cambridgeshire, following the increase in notifications seen last year. Since the start of 2015 there has been a rapid and higher than expected increase in notifications compared to the previous year.

Although scarlet fever is usually a mild illness, patients can develop complications such as an ear infection, throat abscess, pneumonia, sinusitis or meningitis. Clinicians should also be mindful of a potential increase in invasive GAS (iGAS) infection which tends to follow trends in scarlet fever. Early recognition and prompt initiation of specific and supportive therapy for patients with iGAS infection can be lifesaving.

3.4 Cryptosporidiosis increase

Most human infections are caused by *Cryptosporidium hominis*, for which humans are the only natural host, and *C parvum*, which infects bovines as well as humans.

There has been an exceedance of cryptosporidiosis cases reported for Norfolk, Suffolk and Cambridgeshire throughout the autumn months of 2015, which has also been seen across the country. The three week rolling average for 2015 has followed a similar distribution to previous years, but at a higher level between September and December. The numbers of cases decreased to normal levels by the end of December. The largest number of cases was from Norfolk (39%), followed by Cambridgeshire (26%) and Suffolk (20%). Mapping the cases did not identify any geographical clustering. Routine questionnaires identified that 25% cases reported contact with at least one other confirmed or suspected case of cryptosporidiosis, although this question was left blank on half of the questionnaires. The main contextual settings (potential sources) for cases were household (30%) and unknown (25%), with foreign travel only indicated for 22 (11%) cases. The predominant species changed over the autumn with more *C. hominis* in September and more *C. parvum* in November and December.

A national case control study, which the HPT is participating in, was initiated in January 2016 to identify risk factors for the cryptosporidiosis increase.

3.5 Outbreaks and Incidents

Table 2: Cambridgeshire, January - December 2015

Gastroenteritis	Healthcare-associated infection	Respiratory virus	TB	Environmental/ Chemical	Scabies	Other infectious disease	Total
34[†]	4	4	3	4*	2	3	**54**

SOURCE: East of England HPT (Thetford) HPZone

† *32 care-home outbreaks, 6 confirmed as norovirus; 1 workplace gastroenteritis outbreak and 1 food poisoning outbreak*

* *3 fires, 1 mercury spill*

4.0 PREVENTION

The focus of this section is Immunisation and Screening programmes. NHS England East Anglia Team leads on commissioning of the following programmes for the population of Cambridgeshire;

- Cancer Screening: Breast, Cervical and Bowel Cancer,
- Adult and Young People Screening: Abdominal Aortic Aneurysm (AAA) and Diabetic Eye Screening(DES),
- Antenatal and Newborn Screening programmes,
- Immunisation Programmes: neonatal and childhood, school age and adult immunisations

The team provides regular updates on screening and immunisations to the Cambridgeshire HPSG.

4.1 IMMUNISATION PROGRAMMES

Uptake of childhood immunisations is low in Cambridgeshire. A Task & Finish Group was established in December 2015 to review detailed data on immunisation uptake across the county, including mapping to identify areas in which uptake is particularly low. This will enable a targeted approach to the development of plans to address issues identified with a view to improving coverage.

4.2 Childhood Primary Vaccinations

The table 4 below clearly shows that the target for uptake of childhood immunisations which is 95% is yet to be met for all childhood primary immunisation programmes. This is the uptake level that ensures herd immunity in the local population. When a high percentage of the population is vaccinated, it is difficult for infectious diseases to spread because there are not many people who can be infected. For example, if someone with measles is surrounded by people who are vaccinated against measles, the disease cannot easily be passed on to anyone, and it will quickly disappear again. This is called 'herd immunity', and it gives protection to vulnerable people such as newborn babies, elderly people and those who are too sick to be vaccinated and to those whose immune system is weakened and prevents them developing a good level of immunity when vaccinated.

Analysis of the data has shown that there are pockets of poor uptake in Cambridgeshire which has led to the Health Protection Steering Group

recommending that a Task & Finish Group undertake a piece of work to understand the causes of the declining uptake and start setting out actions to reverse this downward trend. The Task and Finish group, led by PHE/NHS England in collaboration with Cambridgeshire County Council and other partners, has agreed terms of reference to identify areas of lower immunisation uptake, understand the cause and make recommendations to reverse this trend.

Table 3: Childhood vaccination uptake in Cambridgeshire 2015/16

12 months DTaP/IPV/Hib [target 95%]				
	Q4 2014/5	Q1 2015/6	Q2 2015/6	Q3 2015/6 Data not yet available
Cambs	94.8	93.1	94.7	
East Anglia	95.6	95.6	95.6	
12 months PCV [target 95%]				
Cambs	94.6	92.9	94.4	
East Anglia	95.3	95.4	95.4	
24 months DTaP/IPV/Hib [target 95%]				
Cambs	94.4	95.6	93.3	
East Anglia	96.4	95.6	95.7	
24 months PCV Booster [target 95%]				
Cambs	91.6	91.3	90.0	
East Anglia	93.9	93.6	93.0	
24 months Hib/Men C [target 95%]				
Cambs	91.5	91.9	89.4	
East Anglia	94.0	93.8	92.5	
24 months MMR 1 [target 95%]				
Cambs	91.4	91.7	89.1	
East Anglia	93.5	93.4	92.3	
5 years DTaP Hib [target 95%]				
Cambs	94.2	94.7	93.8	
East Anglia	95.8	96.2	95.3	
5 years MMR 1 [target 95%]				
Cambs	91.3	92.3	90.9	
East Anglia	94.1	94.2	93.1	
5 years MMR 2 [target 95%]				
Cambs	85.6	89.8	84.7	
East Anglia	89.7	91.4	88.8	
5 years DTaP/IPV Booster [target 95%]				
Cambs	86.3	85.7	85.4	
East Anglia	90.7	90.7	89.5	
5 years Hib/Men C [target 95%]				
Cambs	91.2	91.3	90.0	
East Anglia	93.4	93.1	93.0	

4.3 Rotavirus Vaccination programme

Rotavirus, a highly contagious virus that has been the most common cause of gastroenteritis in infants and very young children has reduced markedly since the introduction of a vaccine against the disease in July 2013. Rotavirus infection previously led to high demand on GP consultations and frequently led to hospital admission.

Uptake, while not yet over 95% is consistently high. The effectiveness of the vaccine has been demonstrated by surveillance data provided by the PHE Eastern Field Epidemiology Unit (EFEU), showing rates of infection have dropped to 0 – 3 cases per week across Anglia (Cambridgeshire, Peterborough, Norfolk and Suffolk) in March 2016 compared to around 60 cases per week in the same period prior to introduction of the vaccine.

Table 4: Rotavirus vaccination uptake

	April 2014 %	May 2014 %	June 2014 %	July 2014 %	August 2014 %	Sept 2014 %	Oct 2014 %	Nov 2014 %	Dec 2014 %	Jan 2015 %	Feb 2015 %	Mar 2015 %
CCG	90.9	90.5	90.6	91.2	92.3	92.5	90.4	88.5	91.2	91.3	90.3	90.3
East Anglia	92.5	90.1	90.7	91.8	91.9	92.5	92.5	89.3	90.6	91.0	91.3	91.5
	April 2015	May 2015	June 2015	July 2015	August 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	March 2016
CCG	91.0	92.0	92.1	92.1	91.8	NA	91.3	88.5	90.9	91.4	NA	NA
East Anglia	90.4	92.2	91.7	91.6	91.7	NA	92.2	90.7	91.9	91.6	NA	NA

4.4 BCG Vaccination

BCG vaccination is for prevention of Tuberculosis (TB). It confers some immunity, and is recommended for newborn babies who:

- Are born in an area with a high incidence of TB – high incidence is defined by the World Health Organisation as 40 or more new cases per 100,000 population per year (Cambridgeshire rate is 5.6/100,000/year)
- Have one or more parents or grandparents who were born in countries with a high incidence of TB

Maternity units have been responsible for giving BCG vaccination to eligible babies since April 2015. The model of good practice is that the baby should be vaccinated before discharge home from the maternity unit. Implementation was delayed due to the need to train midwives to administer the vaccine and then by a shortage of the vaccine in 2015. However both issues have now been resolved and the Screening and Immunisation Team (NHSE / PHE) has agreed to report uptake to each meeting of Cambridgeshire HPSG.

4.5 School based immunisation programmes

There is good evidence that, for school age children, uptake of vaccinations is higher when they are given at school. Cambridgeshire school children previously received HPV vaccination at school, and all other school age vaccinations from their GP. In 2015 NHS England awarded the contract for the delivery of all school based immunisation

programmes in East Anglia to Cambridgeshire Community Services. This contract includes administration of the new flu vaccinations that are being gradually introduced for school age children.

CCS was also commissioned to deliver school leaving booster (Td/IPV), HPV and Men ACWY. Data is not available for uptake rates prior to introduction of the new contract for school based immunisations but in January 2016 uptake of the year 10 (age 14+) Diphtheria, Tetanus and Polio booster was 71%, a very good start to the new contract arrangements.

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4.6 Human Papilloma Virus (HPV) programme

The Human Papilloma Virus (HPV) programme of vaccination of girls aged 12 – 13 has been very successful. HPV is a causative factor in Viral Warts, Cervical Cancer and other forms of cell morphological changes in the human body. Up until September 2014, this vaccine was given as three doses over the course of a school year. Since then the programme has been changed to provide two doses over the course of 6 to 24 months, usually given early in year 8 and year 9. The data below is for the first year of this new schedule, hence the apparently very low uptake of the second dose, as most will not receive it until at least a year after the first dose.

Table 5: HPV vaccination uptake in school year

2014/15 up to 31.8.15 *	Dose 1	Dose 2
Cambridgeshire	85.5	2.3
East Anglia	89.4	5.0

*As this programme runs over a school year, complete data for 2014/5 will not be available for some time

4.7 Seasonal Influenza vaccination programme - Children

A programme that will eventually see all children aged 2 - 16 offered Influenza (flu) vaccination each year began three years ago and so far has been rolled out to pre-school children age 2 – 4 years, who are vaccinated by their GPs and from 2015 children in years 1 and 2, vaccinated as part of the school immunisation programme

The flu vaccine for children is given as a single dose of nasal spray squirted up each nostril. Not only is it needle-free (a big advantage for children), the nasal spray works even better than the injected flu vaccine with fewer side effects. In the case of some children in the at risk groups, two doses of the nasal spray will be needed. For many years prior to introduction of this universal programme, children aged from 2 years who are identified as having health conditions that cause them to be at greater risk of complications from Flu have been offered

vaccination by injection each year. Although this vaccination programme reduces the incidence of Flu among children, it is also known to break transmission of the disease from children to vulnerable adults.

Table 6: Flu vaccination uptake age 2 to 4

Cambridgeshire & Peterborough CCG						
	2yrs not in clinical risk groups %	2 yrs in clinical risk groups %	All 2 yrs %	3 yrs not in clinical risk groups %	3 yrs in clinical risk groups %	All 3yrs %
Period to Jan 2014	40.9	53.2	41.3	40.6	53.8	41.2
Period to Jan 2015	39.1	52.7	39.6	42.6	54.2	43.1
Period to Jan 2016	36.6	49.9	37.1	38.7	54.1	39.5
East Anglia to Jan 2016	38.6	49.9		40.1	53.2	40.8

Table 7: Flu vaccination uptake age 4 – added in 2014/5 season

Cambridgeshire & Peterborough CCG			
	4yrs not in clinical %	**4 yrs in clinical %**	**All 4 yrs %**
Period to Jan 2015	33.5	51.6	34.5
Period to Jan 2016	28.6	47.2	29.8
East Anglia to Jan 2016	30.8	48.8	32.0

Table 8: Flu vaccination uptake for year 2015/16 which introduced school year 1 and 2,

Cambridgeshire & Peterborough CCG						
Period to Jan 2016	5 yrs not in clinical %	5 yrs in clinical %	All 5 yrs %	6yrs not in clinical %	6 yrs in clinical %	All 6 yrs %
CCG	57.2	67.1	57.9	54.4	64.6	55.2
East Anglia	57.7	67.9	58.5	54.9	65.9	55.8

4.8 Influenza vaccination uptake in clinical risk groups

In addition to the childhood groups mentioned above, the following groups are eligible for free annual seasonal flu vaccination, using an injected vaccine:

- those aged 65 years and over
- people aged from six months to less than 65 years of age with a serious medical condition such as:
  - chronic (long-term) respiratory disease, such as severe asthma, chronic obstructive pulmonary disease (COPD) or bronchitis
  - chronic heart disease, such as heart failure
  - chronic kidney disease at stage three, four or five
  - chronic liver disease
  - chronic neurological disease, such as Parkinson's disease or motor neurone disease, or learning disability
  - diabetes
  - splenic dysfunction
  - a weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment)
- pregnant women
- those in long-stay residential care homes
- carers

Table 9: Flu vaccination uptake in clinical risk groups

Cambridgeshire & Peterborough CCG			
	Influenza [target 75%]		
	Over 65yrs	Under 65yr at risk	Pregnant
Period to Jan 2014	74.1	50.3	43.4
Period to Jan 2015	70.6	48.7	43.3
Period to Jan 2016	72.4	42.7	32.2

It is of concern that those in the at risk groups and pregnant women have such low uptake, as flu can lead to serious long term complications and even death in these people. Each year detailed planning is undertaken to try to improve uptake and early planning for the 2016/17 vaccination season will soon commence

4.9 Influenza vaccination uptake in frontline healthcare workers

Flu vaccination has been recommended and provided free for many years to frontline health care workers as those who contract flu can put their patients at risk though cross transmission to patients whose health is already compromised by other medical conditions. The vaccination protects the staff who, in turn, can protect their patients and their families and friends by being immune to flu. This has the advantage of reducing the risk to vulnerable patients and also the risk

to the health services of losing staff to illness or family care responsibilities during the very busy winter season. Despite the many benefits of flu vaccination to healthcare staff and the huge efforts made by their employers, uptake is generally but remains disappointingly low in some organisations.

Table 10: Flu vaccination uptake – front line health care workers

Period to Jan 2015 [compared with 2012/13 and 2013/4]				
	Influenza Health Care Workers [target 75%]			
	2012/3	2013/4	2014/5	2015/6
CUHFT	45.6	49.3	47.5	53.5
CCS	37.0	51.5	52.6	59.2
Papworth	58.4	75.6	69.3	65.9
Hinchingbrooke	46.4	60.6	76.8	65.4
CPFT	23.7	54.2	51.2	61.9
PSHFT	71.5	75.3	69.5	62.9

4.10 Influenza vaccination uptake in frontline social care staff

The same arguments are made for vaccination of social care staff as for healthcare staff, as they are also in contact with very vulnerable groups. In 2014/5 flu season, Cambridgeshire County Council made flu vaccination available to employed staff who were identified as meeting the criteria for vaccination. The following groups of frontline staff were identified for vaccination:

- Older People front line staff
- Frontline LDP/PD staff
- Frontline Children's Disability staff
- Early years support frontline staff (children's centres)
- Staff in Children's residential homes

Table 11: Flu vaccination uptake, CCC employed front line social care staff

Service Area	No. eligible staff offered vaccine	No. staff vaccinated
LDP (3 teams) only one team responded (East)	No data provided	2
Physical Disability frontline staff	40	3
Frontline Children's Disability Staff	38	14
Early Support Frontline Staff (Children's Centres)	No data provided	No data provided
Staff in Children's Residential Homes	No data provided	*
Older People front line staff	approx. 190	17**

* only 1 of the 3 homes responded to request for data

** the 17 staff vaccinated received their vaccination while working in an acute clinical setting and not as part of the council programme

In 2014/5 season a decision was taken to offer financial reimbursement for the full cost of the vaccine to staff who obtained it independently through a local pharmacy. Information was distributed to staff, via their line manager, to promote awareness of the benefits of vaccination and to inform them of the process for reclaiming vaccine cost via their monthly expenses. When uptake was measured it was disappointingly low (table 12 above)

For 2015/6 season, a late agreement was reached with Cambridgeshire Community NHS Service trust that they give the vaccine to Cambridgeshire County Council employed front line staff. This was done as it had been reported that staff were less likely to have the vaccine when there was an up-front cost to them. Uptake data are awaited.

For front line social care staff not directly employed by the county council responsibility for funding and administering the seasonal flu vaccine to staff (other than those in clinical risk groups) lies with their employers. This has led to difficulty getting social care staff vaccinated, as there are no levers within contacts to require social care providers to offer flu vaccination to their front line staff. It was decided to take a different approach for staff employed by external, CCC commissioned, organisation, sending communication to employing organisations that:

- Requested that employers consider arrangements to offer flu vaccination to eligible staff
- Highlighted the responsibility of the employer in protecting the health of staff and vulnerable clients
- Highlighted the benefits of vaccination in improving organisational resilience
- Signposted employers to the resources available via the NHS Flu Fighters campaign site

There is no mechanism in place to assess whether this communication was successful by measuring uptake among these staff.

4.11 Shingles vaccination programme

Shingles is an infection of a nerve and the skin around it, caused by the varicella zoster virus, which also causes chickenpox. Shingles can occur at any age but is commoner after age 70 years. Its main symptom is a painful rash that develops into itchy blisters and lasts for two to four weeks. The main complication of shingles is post-herpetic neuralgia, a severe nerve pain that can last for several months after the rash has gone and is commoner in older people.

This vaccination programme was introduced in 2013, to protect elderly people who are at greatest risk of Shingles and its adverse consequences. Eventually everyone will be offered the vaccination at age 70, but in the early years a catch up programme is in place to cover as many of those aged over 70 but less than 80 years. In 2014/15 the

vaccine was routinely offered to those aged 70 and catch-up to those aged 78 years between 1st September 2014 and 31st August 2015. Uptake is fair, but could improve considerably.

Table 12: Shingles vaccination uptake to Feb 2016

Shingles Sentinel	Feb 2016 %	
	70 yrs	**78 yrs**
CCG	51.1	50.1
East Anglia	48.8	48.6

Source: Immform accessed 14.2.16

4.12 Pertussis vaccination in pregnancy

Following an outbreak among babies of Pertussis (Whooping cough) which led to a number of infant deaths, a programme to vaccinate pregnant women between 28 and 38 weeks of pregnancy was initiated in 2012/3. Evidence showed that immunity among women of child-bearing age had waned, and by vaccinating them, it would prevent them picking up whooping cough and passing it to their babies. Following introduction of this programme, there was a 79% drop in cases in 2013 and a decision was made to continue with this programme of vaccination in pregnancy.

The table below give data on uptake, data is reported for the Cambridgeshire and Peterborough CCG area, showing fair levels of coverage. However data capture for this programme has not been robust up to now but NHSE have introduced an improved data capture system.

Table 13: Pertussis vaccination uptake by pregnant women

	April 2014 %	May 2014 %	June 2014 %	July 2014 %	August 2014 %	Sept 2014 %	Oct 2014 %	Nov 2014 %	Dec 2014 %	Jan 2015 %	Feb 2015 %	Mar 2015 %
CCG	59.6	53.0	53.1	49.0	48.1	51.3	52.0	50.8	59.6	53.1	54.1	51.6
East Anglia	60.6	60.5	57.2	55.8	55.5	58.3	60.3	60.6	65.7	61.6	60.9	58.1
	April 2015	May 2015	June 2015	July 2015	August 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	March 2016
CCG	49.8	45.9	52.7	50.5	51.2	50.5	54.1	52.5	50.7	50.3	NA	NA
East Anglia	56.8	53.8	58.9	56.3	58.5	67.2	60.3	61.4	60.3	59.3	NA	NA

5. SCREENING PROGRAMMES

5.1 Cancer screening programmes

There are three cancer screening programmes in the UK for Breast, Cervical and Bowel cancer and the data for these programmes was provided by NHS England

Uptake of the two established cancer screening programmes in women for breast and cervical cancer has been low in Cambridgeshire and for cervical screening it is showing a worrying downward trend. A Task and finish Group was established in May 2015, and completed its work in September 2015. The group has continued to meet to plan implementation of a series of recommendations to encourage uptake. The most recent cancer screening data is given below.

5.2 Breast Screening

The breast screening service which nationally commenced operation in 1987 was designed to invite eligible women aged 50 to 70 (47-73 if enrolled onto the National Age extension study) every three years using the call and recall system and any self-referrals for women over 73 years. Recently a referral pathway for high risk breast screening was commissioned and must only be taken from specialised services such as Genetics and Oncology.

A number of measures or quality standards are reported to evaluate the success of the screening programme and all are reported to the HPSG. Uptake data is usually reported annually and has not yet been reported for 2015/16, so the most recent annual data is given in Table 15 below. Other data for the breast screening programme are given in the figures below.

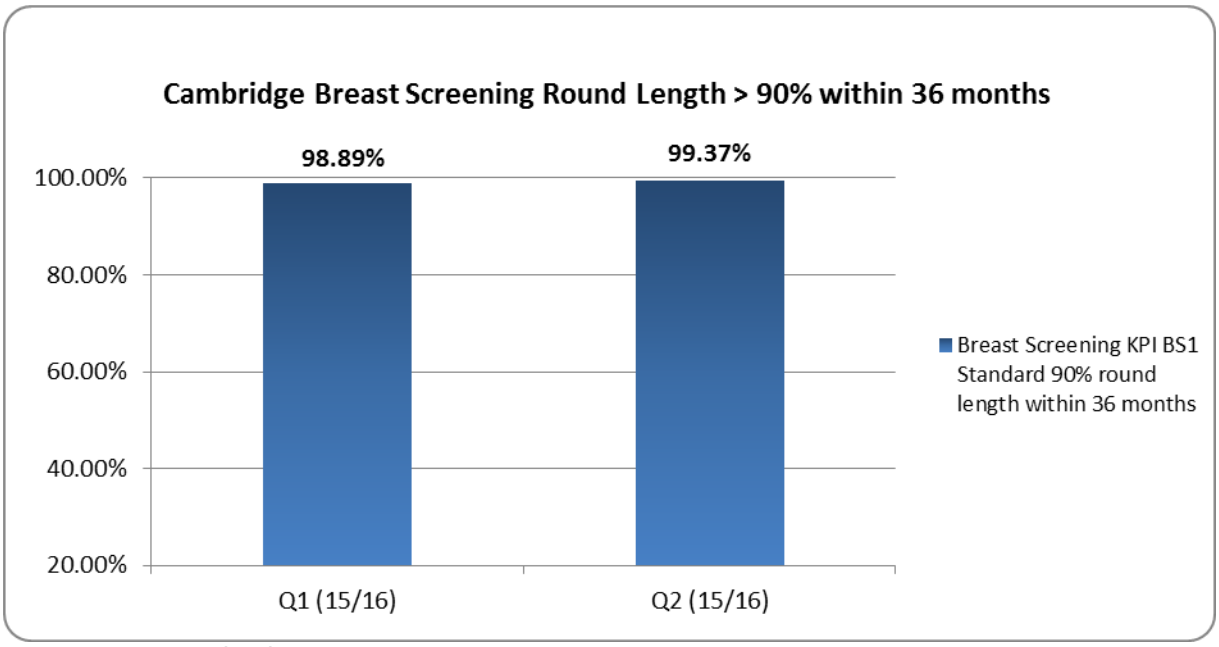
Table 14: Breast screening uptake in Cambridgeshire 2014/15

Age group	Uptake
50 – 70	74.6%
All ages	76.8%

Other important measures are the proportion of women who are screened within a 36 month period[1] and the time taken from screening to assessment if any abnormality is detected on the screening mammogram (The standard is to respectively achieve 90% within 36 months of previous screen and 90% of assessments within three weeks of being screened). The following two figures illustrate achievement in these two areas for Cambridgeshire women. The 36-month round length has significantly improved in 2015/16, with the standards now being met quarter on quarter. The proportion of women needing assessment who are seen within recommended timescales has improved but still below the 90% mark.

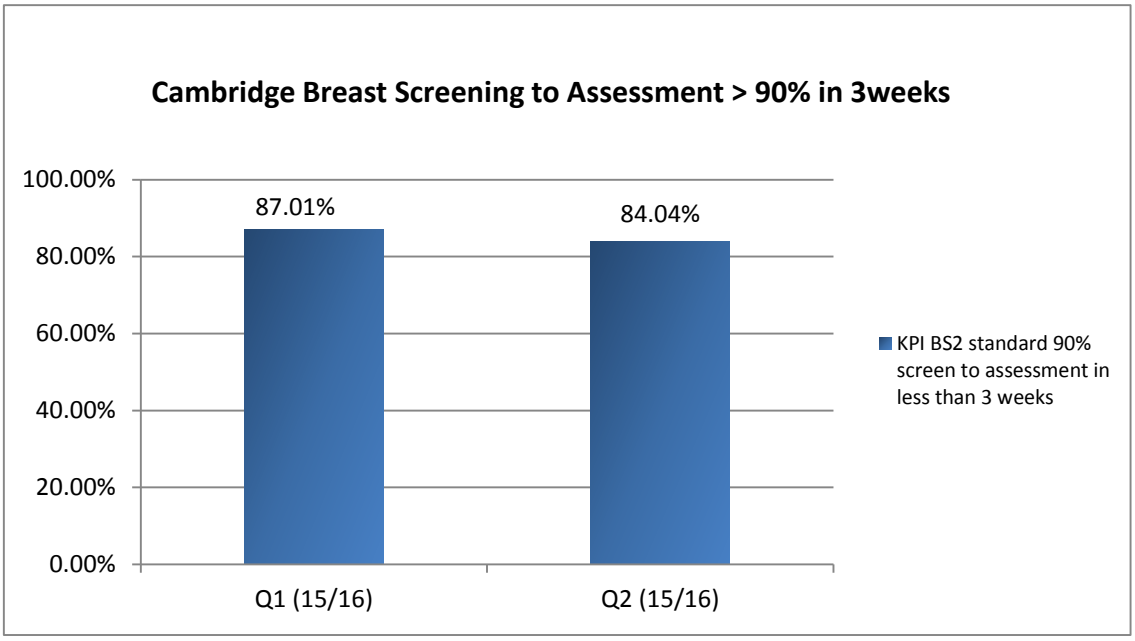
[1] The NHS Breast Screening programme aims to offer a first screening appointment to 90% or more women within 36 months of their previous screen.

Figure 1: Proportion of eligible women screened within 36 months



Source: NHS England

Figure 2: Proportion of women requiring assessment who are seen within 3 weeks of the screening test



Source: NHS England

The Breast screening uptake has seen an increase on the previous year's figure and is now similar to the national average. The issue of the difficulty with securing accessible venues in the Cambridge city and

Cambridge North areas and the shortage of trained radiographers have been a major challenge to effective service delivery. The screening service has worked collaboratively with the council and public health to identify suitably accessible sites to host the mobile screening van. The newly identified and agreed site is in the heart of Arbury and this site is now fully functional. It is expected that the introduction of the Arbury site, along with the additional capacity created through CUFHT putting on additional clinics on Saturdays, should support the improvement of uptake and coverage. Plans are underway to secure a further site North of Cambridge, in and around the Impington or Milton area.

5.3 Cervical Screening

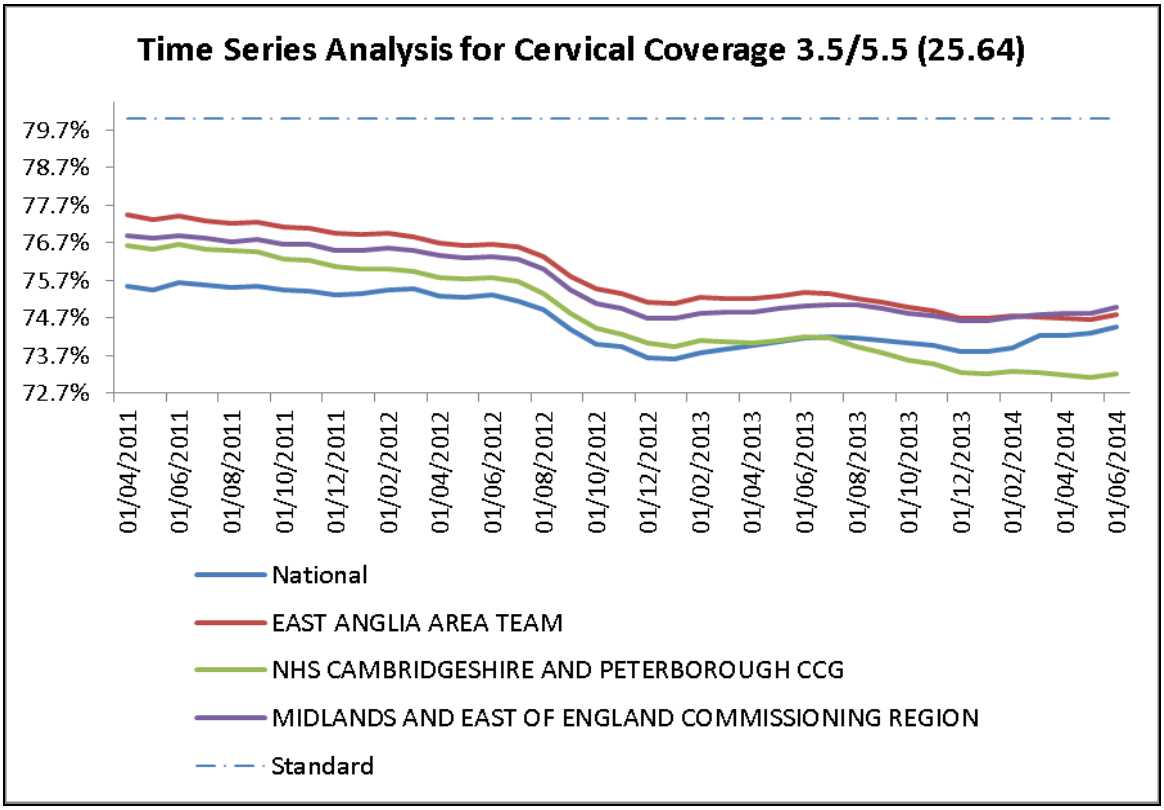
Cervical screening is offered to all women aged 25 to 49 years every three years and those aged 50 to 64 every five years. Screening takes place in GP practices and the samples are sent to the laboratories for testing. Upon testing, women are informed of the outcome of their screening episode and those with abnormal cervical screening tests are referred for colposcopy and possibly virology testing- a specialist test to further assess and treat the abnormalities detected. As with the other screening programmes aimed at early detection, the programme is monitored on uptake, coverage, the speed of getting results to service users who have been tested, as well as the timeliness of getting service users in for assessment and treatment.

From the most recent comparative data analysis available, the trend data below show a steady decline in coverage for the Cambridgeshire and Peterborough CCG area. (Coverage is a measure of the proportion of women aged 25 to 49 having an adequate sample taken in last 3 years, or in the last 5 years for those aged 50-64). The target for coverage is 80% and these trend data show that performance is now below the national (England) level. Coverage has fallen in all areas as shown in Figure 3 below; (England (national), Midlands and East Commissioning region, East Anglia Area Team (Norfolk, Suffolk, Cambridgeshire and Peterborough) and Cambridgeshire and Peterborough Clinical Commissioning Group (CCG). Also of note, is the fact that coverage remains considerably lower in the younger cohort (25 – 49) than in the 50 – 64 age group, where coverage too is now below the target of 80%. (Table 15).

Table 15: Latest Cervical screening data

Cervical Screening	Q1 15/16	Q2 15/16	Q3 15/16	Q4 15/16
Coverage standard - % of women 25-64 yrs with adequate test in 5 years	68.9%	68.7%	2015/16 Q3 Data awaited	2015/16 Q4 Data awaited
standard 80% coverage for 25-49 yrs (3.5 yearly)	65.4%	65.2%	2015/16 Q3 Data awaited	2015/16 Q4 Data awaited
standard 80% coverage for 50-64 yrs. (5 Yearly)	76.8%	76.6%	2015/16 Q3 Data awaited	2015/16 Q4 Data awaited
Standard 98% 14 day turnaround time from date of test to receipt of result letter	90.47%	99. 47%	2015/16 Q3 Data awaited	2015/16 Q4 Data awaited

Figure 3: Cambridgeshire and Peterborough CCG Cervical Screening Coverage Trend 25 – 64 years



5.4 Cancer screening Task and Finish Group

This group established by NHS England at the request of the HPSG, met for the first time in May 2015. At the first meeting detailed analysis of the data for breast and cervical screening was presented that helped to identify pockets of poor uptake. Further analysis, evidence review and intelligence gathering have been undertaken; all of which have informed the recommendations for actions and interventions to address these issues. The group reported back to the HPSG and, with some change in membership has now become an Implementation Group with responsibility to oversee the delivery of the agreed recommendations, some of which include collaborative working with Cancer Research UK and Jo's Trust to deliver training to front line public health staff and primary care staff to ensure staff are confident and knowledgeable about discussing and promoting cancer screening and are able to appropriately signpost. Awareness campaigns on cancer screening and prevention have also been planned and agreed, with plans underway to work with specific practices in areas of poorer uptake to better understand the reasons for lack of engagement and high DNA rates.

5.5 Bowel Cancer screening

This national screening programme involves all those aged 60 and over receiving a testing kit by post in which they can return faecal samples for testing. The test looks for hidden (occult) blood which can indicate some problem in the bowels that is causing bleeding. The presence of Faecal Occult Blood (FOB) is not diagnostic of cancer but gives an indication that

further testing is needed. The further tests are by endoscopy (examination of the bowel with a specialised scope and camera apparatus). A number of measures are reported to evaluate the success of the screening programme and these are reported in the table below.

Table 16: Bowel Cancer data for Cambridge Programme

	Q1 15/16	Q2 15/16	Q3 15/16	Q4 15/16
Bowel Screening ***(standard 52% completion of FOBT kit)***	61.8%	59.2%	**Data awaited**	**Data awaited**
Assessment by specialist screening practitioner (SSP) ***(standard 100% seen by SSP in 2 weeks*)**	100%	100%	100%	**Data awaited**
SSP assessment to endoscopy time ***(standard 100% endoscopy within 2 weeks of seeing SSP)***	100%	100%	100%	**Data awaited**

5.6 Non-cancer screening programmes

There are two national screening programme for non-cancer conditions, Diabetes Eye Screening (DES) provides an annual retinal check for people with diabetes; and Abdominal Aortic Aneurysm Screening (AAA) for men aged 65 and over (self-referral for those who have not been screened once).

As the data in Table 18 below indicates, the DES programme is performing well. However, recent capacity issues have resulted in delays with referred patients being seen and treated within specified timescales at some Trusts. This issue is being addressed contractually and with the support of the Clinical Commissioning Group.

The AAA screening programme reported that the proportion of men eligible for AAA screening to whom an initial offer of screening was made was 100% in the 2014/15 fiscal year. This is an annually reported metric and the 2014/15 data is the most up to date data available. It has been noted that lack of attendance is a growing problem and an action plan is in place to address this.

Table 17: Diabetes Eye Screening data 2015/16

Diabetic Eye Screening				
	Q1 15/16	Q2 15/16	Q3 15/16	Q4 15/16
standard 70% uptake (% *screened out*	78.5%	77.6%	Data awaited	Data awaited

of the total offered)				
standard 70% results received issued within 3 weeks of screening	99.1%	99.4%	Data awaited	Data awaited
standard 80% treatment within 4 weeks and 60% within 2 weeks of significant positive screen	2wks: 66.7% 4wks: 83.3%	2wks: 40% 4wks: 80%	Data awaited	Data awaited

Table 18: Abdominal Aortic Aneurysm data

KPI AA1 standard 90% (acceptable level) and 100% (achievable level)		
	14/15	15/16
	100%	Data awaited

5.7 Antenatal and newborn screening

A large number of screening tests are offered during pregnancy to screen for certain conditions that may impact on the health of the Mother and baby, in order that action can be taken during the pregnancy to minimise the potential effect and optimise the outcome for both.

Details of uptake levels for a number of these tests are given below. Data is submitted quarterly in the form of National Key Performance Indicators (KPI's) by the Hospital Trust's.
(https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting)

Screening data for Quarter 3 will not be available until later this year.

Ante-natal screening includes the routine offer of screening for a number of conditions that can adversely affect the health of the baby as well as the mother including:

Infectious Diseases:	• HIV • Hepatitis B • Syphilis • Rubella susceptibility

Sickle Cell and Thalassemia	
Down's syndrome	

Newborn screening includes testing for a number of conditions that are not obvious at birth but would have serious consequences for the baby if not detected and treated early, including:

Newborn infant physical examination		
Newborn Hearing screening		
Newborn blood spot test which detects conditions such as:	congenital hypothyroidism	
	sickle cell disease;	
	cystic fibrosis; and	
	Inherited Metabolic Disorders including:	phenylketonuria;
		medium chain acetyl-CoA dehydrogenase deficiency
		Maple syrup urine disease
		Homocystinuria
		Glutaric acidaemia type 1
		Isovaleric acidaemia

(see http://www.newbornbloodspot.screening.nhs.uk/ for explanations of each of these conditions.

Table 19: Ante-natal screening coverage

	Q2 Jul-Sep 2014	Q3 Oct-Dec 2014	Q4 Jan –Mar 2015	Q1 Apr-Jun 2015	Q2 Jul-Sept 2015
HIV screening ID1 (standard is to achieve >90%)					
CUHFT	No data	97	98.4	98.3	97.8
HHT	99.3	99.7	99.7	99.5	99.3
Infectious disease Hepatitis B (Standard >70-90% timely referral of hep B + women for specialist treatment)ID2					

CUHFT	100	100	100	100	100
HHT	100	100	*100	No cases	100
Down's Screening (standard >97%) FA1					
CUHFT	98.5	99.2	99.7	99.8	99.5
HHT	98.5	97.6	98.1	98.9	97.6
Sickle Cell and Thalassaemia screening (standard >95%) ST1					
CUHFT	No data	98.2	98.2	97.3	98.0
HHT	98.2	98.3	98.8	98.5	98.5
KPI ST2 Standard 50-75% Sickle Cell and Thalassaemia Tested within 8-10 weeks					
CUHFT	38.9	34.9	46.3	29.6	31.6
HHT	47.5	No data	No data	No data	No data
KPI ST3 Standard 90-95% Sickle Cell and Thalassaemia Completion of FOQ					
CUHFT	96.5	93.7	96	89.8	80.2
HHT	98.1	No data**	No data**	No data**	No data**

**Transfer of pathology services caused issue with extracting accurate data for ST2 & ST3 at Trust level; resolution still being sought. KPI stipulates data source should be the laboratory. Release of new amalgamated pathology form should go some way to address and HHT are looking at their own database to collect data.

Table 20: Newborn screening

	Q2 Jul-Sept 142014	Q3 Oct-Dec 1	Q4 Jan-Mar 15	Q1 Apr-Jun 15	Q2 Jul-Sept 15
Newborn Bloodspot test (standard 95-99%)					
(CCS)	100	100	99.9	98	98.0
Newborn Bloodspot – avoidable repeat tests (standard <2%)					
CUHFT	2.2	3.1	3	3.8	2.7
HHT	No data	No data	No data	No data	**9.0
Newborn blood spot timeliness of result (Standard 95-98%)					
CCS	100	99.9	99.9	***cease	***cease
** Laboratory unable to extract Trust level data until Q2 due to a software issue. HHT have action plan to address high repeat rate.					
***NB3 ceases from Q1					
New KPI: Apr 15 KPI NB4: Newborn blood spot screening – coverage (Movers In)					
CCS	NA	NA	NA	80	78.6
KPI NP1 Standard 95-100% Newborn & Infant physical coverage					
CUHFT	No data	No data	99.4	93.2	94.0
HHT		96.3	97.2	95.9	95.4
KPI NP2 Standard 95-100% Newborn & Infant physical timely assessment					
CUHFT	No data	No data	No data	57.1	0.0
HHT	No data	No cases	100	No cases	100

HHT have implemented the use of the National failsafe NIPE SMART IT system. CUHFT have been using their own internal system, but are in on-going discussions with the national team regarding the use of the NIPE SMART following on from some of the data extraction issues they have experienced. NIPE SMART offers a national failsafe solution for this programme.					
Newborn hearing coverage (standard 100%)					
CUHFT	97.5	93.6	96.8	98.6	98.0
HHT	99.6	99.6	99.6	100	100
Newborn hearing timely referral (standard 100%)					
CUHFT	93	69.2	100	75	78.9
HHT	33.3	80	100	100	100

6.0 HEALTH EMERGENCY PLANNING

6.1 Cambridgeshire County Council has always been a Category 1 responder under the terms of the Civil Contingencies Act 2004, As a result the council has 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.

6.2 Local Health Resilience Partnerships (LHRPs) provide strategic leadership for the health organisations of the LRF area and are expected to:

- Assess local health risks and priorities to ensure preparedness arrangements reflect current and emerging need
- Set an annual EPRR work plan using local and national risk assessments and planning assumptions and learning from previous incidents
- Facilitate the production and authorisation of local sector-wide health plans to respond to emergencies and contribute to multi-agency emergency planning
- Provide a forum to raise and address issues relating to health EPRR

- Provide strategic leadership to planning of responses to incidents likely to involve wider health economies e.g. winter capacity issues
- Ensure that health is represented on the LRF and similar EPRR planning groups
- Delegate tasks to operational representatives of member organisations in line with agreed terms of reference.

6.3 The Cambridgeshire and Peterborough Local Health Resilience Partnership (CP LHRP) is co-chaired by the NHS England Cambridgeshire & Peterborough 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.

6.4 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 Area Team and has oversight of all health protection issues. The function is supported by the shared Health Emergency Planning and a Resilience Officer (HEPRO) based within Public Health. The HEPRO reports into the LHRP and the LRF through the DPH.

6.5 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.

6.6 This year's deep dive for the EPRR core standards was planning for Pandemic Influenza. The working group delivered Exercise Corvus, a local adaptation of the PHE off-shelf exercise to test the arrangements for pandemic influenza. Follow up of the seven recommendations from this exercise forms part of the work plan for the working group this year. The other priorities for this group are to revise the local Mass Casualty Plan and put in place a plan for identifying vulnerable people in an emergency, both to be presented at the LHRP and CPLRF shortly.

6.7 Exercise Nimbus, a two day multiagency exercise to test eight CPLRF plans, was delivered on the 5th and 6th of November 2015. A total of 60 people from 27 agencies participated and a collated list of actions is being progressed by the CPLRF.

7.0 HEALTHCARE ASSOCIATED INFECTION (HCAI) AND ANTIMICROBIAL RESISTANCE (AMR)

7.1 MRSA bacteraemia

National mandatory reporting, in place since 2009, continues for Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteraemia and Clostridium difficile (C Diff), to tackle the previous very high numbers of cases being reported that contributed to patient mortality.

Zero tolerance of MRSA bacteraemia remains the national and local objective.

The arbitration process acknowledges that a number of providers, including all community and social care services, may be involved in the care of a patient so that a case may not be attributable to any one care provider or that the infection occurred despite no lapse in care. These are referred to as Third Party assigned cases and do not appear on the local objectives for either the acute provider or CCG.

For the period of 2015/16 the following were reported in Cambridgeshire:
Acute providers – 7 cases of which one was assigned to an acute Trust.
CCG – 4 cases of which one was assigned to the CCG. A local commissioned community service was identified to have learning and an action plan will be monitored.

7.2 Clostridium difficile

Following some years of significant reduction, the number of C Diff cases nationally continues to fall but at a slower rate than when mandatory reporting initially commenced in 2009. Every effort is made to ensure continued reduction and to broaden our knowledge of this disease and the best means to reduce the associated risks. We have a clear understanding of what best practice looks like but complex patient pathways across all our health systems leading to many professional staff groups and specialties being involved in the care of individual patients. Each professional must share ownership of this risk. Co-coordinating this pathway and joining up communication is complex and challenging, but important especially between primary and acute care.

Every case of C Diff, whether community or hospital onset, has a root cause analysis completed and scrutiny meetings are held. Improvements have been made in antibiotic prescribing and the challenges reduced to prevent onward transmission to other patients.

For a second year the national process to remove cases from the local objective where no lapses in care have been identified was used, the Post Infection Review (PIR) process. Using strict criteria and standards the arbitration decision is made at scrutiny meetings which have high level

representation from Directors of Nursing, microbiologists, front line clinical staff and medical staff, infection control teams from provider services and the CCG. This process enables providers to review their practice and have an effective learning opportunity when cases occur. Providers are supported to achieve high standards of care providing a more positive patient experience. The aim is that providers do not become complacent with their achievements to date, ensuring that best practice continues to be embedded amongst staff. For the period of 2015/16, providers have slightly exceeded the actual number of cases against their national objectives and have also achieved to remain under this locally by the number of non-sanctioned cases. Approximately 53% of cases met this criterion as a result of the excellent work within provider services.

7.3 Antimicrobial Resistance

Antimicrobial resistance has been identified as a national and international risk to human health by the Chief Medical Officer, World Health Organisation and the Government as a whole. Antibiotics are widely used with many patients in the UK failing to complete the prescribed course or demanding antibiotics for viral or self- limiting conditions. These factors contribute to the development of antimicrobial resistance. In addition, no new class of antibiotics has been developed by the pharmaceutical industry in recent years. Each year on European Antibiotic Awareness day in November these problems are highlighted in the media, social media and posters.

The prescribing of antibiotics is monitored by the Medicines Management Team in the CCG for primary care and by hospital pharmacists for in-patients. Because antibiotic use is implicated in cases of C Diff, antibiotic prescribing is discussed at each scrutiny panel for C Diff, following completion of the root cause analysis. Concerns identified are either discussed with the GP or with the Medicines Management Team (MMT). High prescribing levels of two particular groups of antibiotics have been identified and a strategy is being developed to address the associated risks, one of which is an increased risk of C Diff infection. While general use of these groups of antibiotics should be limited, they must continue to be available and effective to treat infections caused by certain bacteria, which are sensitive to them.

This is an area under continual scrutiny and that will continue to be tackled by the CCG in collaboration with other local prescribers in acute, community and primary care

7.4 Other infections

Norovirus is a gastrointestinal infection that is self-limiting in nature but easily passes from person to person. The impact of outbreaks for hospitals is significant if ward closures are required to contain the situation. There have

been a number of small outbreaks within the Cambridgeshire hospitals, that were quickly identified and managed. The challenges remain for the public to understand the actions of staying away from hospitals if they are symptomatic. There has been minimal impact this season to date that has the potential to cancel surgery and admissions through lack of beds.

Flu has been occurring in slightly higher numbers of both A and B strains. The impact on hospitals has been slightly less, with cohorts nursed in smaller bedded areas where possible. The importance for patients, staff and the public to have the annual flu jab is stressed regularly. Trusts in Cambridgeshire have achieved well against national data in vaccinating members of staff.

8.0 SEXUAL HEALTH

8.1 Cambridgeshire has a favourable rate of diagnosis of new sexually transmitted infections (STIs) at 481 diagnoses of STIs per 100,000 residents (compared to 829 per 100,000 in England, and is lower than the East of England PHE Region average rate which is 669 per 100,000).

8.2 Rates of HIV late diagnosis

Between 2012 - 2014, 52.8% of HIV diagnoses were made at a late stage of infection, compared to 42.2% in England and is a slight increase when compared to 51.7% in 2011 – 2013. Earlier diagnosis leads to an improved outcome of treatment and reduced risk of onward transmission.

8.3 Chlamydia diagnoses

In 2014, the rate of chlamydia diagnoses per 100,000 young people aged 15-24 years in Cambridgeshire was 1557 which is below 2014 national average for England. In 2013, the rate was 1548 in Cambridgeshire and national rate of 2072, and in 2012 the rate was 1620 in Cambridgeshire and the national rate was 2074, all of which are below the Public Health Outcome Indicator of 2300 per 100,000 of young people aged 15-24 years. This positivity rate resulted from screening 24.9% of the eligible 15 – 24 year old population which is similar to 24.3% overall rate in England.

8.4 Teenage pregnancy

Rates of teenage pregnancy in Cambridgeshire continue to show the downward trend of recent years (2010 to 2014). In 2014 the under 18 conception rate was 16.2 per 1,000 which compares favourably with the England rate of 24.3 per 1,000.

8.5 PHE Eastern Region Work

PHE Eastern Region noticed an unusual increase in gonorrhoea cases across Milton Keynes, Luton, Central Bedfordshire and parts of Hertfordshire. Following a review of gonorrhoea case across the whole of the Eastern Region most areas including Cambridgeshire were

showing an increase in gonorrhoea case albeit not as significant as those in the areas mentioned previously.

PHE Eastern Region have organised a number of meetings with commissioners and providers in the area to develop an action plan to halt further increases in cases of gonorrhoea.

8.6 Sexual Health Service

In October 2014 an integrated sexual health service was launched with the aim of integrating the provision of sexual health and contraception services, increase accessibility, especially for hard to reach, high risk populations, and to address the inequity of service provision and the health inequalities between the north and the south of the county. Close monitoring of the new service shows it has been effective against these aims.

8.7 Cambridgeshire Sexual Health Network

To help maintain the momentum of the achievements of the integrated sexual health service we have reinstated the Cambridgeshire Sexual Health Network to act as a multi-agency network responsible for overseeing and implementing the Cambridgeshire Sexual Health Strategic Plan

The strategic plan identifies the following key themes for Cambridgeshire:

- Improved Chlamydia diagnosis for 15 to 24 year olds
- Improved early HIV diagnosis, reducing rates of late diagnosis
- Continued improvement in teenage pregnancy rates
- Improved access to sexual and reproductive health services for vulnerable groups
- All sectors of the population are informed about sexual health and how they can access services they require through an integrated sexual health communications plan.

9.0 LOOKING FORWARD

Commissioning TB services

A Collaborative TB Strategy for England was published in January 2015 and launched jointly by PHE and NHS England who are committed to working in partnership with the NHS, clinical commissioning groups (CCGs) and local authorities.

TB has major health and social impacts for those affected. In addition, it contributes to increasing health inequalities in already deprived populations. Each infectious case represents a risk of onward

transmission and the failure to protect communities from TB transmission should be regarded as a failure of public health systems.

The strategy ambition is to make significant advances in TB control. To achieve this, improvements are needed in the following key areas:

1. Access to services and ensure early diagnosis
2. Universal access to high quality diagnostics
3. Treatment and care services
4. Comprehensive contact tracing
5. BCG vaccination uptake
6. Reduce drug-resistant TB
7. Tackle TB in under-served populations
8. Systematically implement new entrant latent TB screening
9. Strengthen surveillance and monitoring
10. Ensure an appropriate workforce to deliver TB control

When the strategy was launched in East Anglia, workshop discussions generated 4 common recommendations to implement the 10 action areas, which are:

1. Establish intelligent, clear and consistent commissioning of local TB services
2. Improve links between key social and medical services
3. Raise the profile of TB amongst professionals, organisations and the general public
4. Empower and improve support mechanisms for healthcare workers

GLOSSARY

AAA	Abdominal Aortic Aneurysm
AT	Area Team (part of NHS England)
BCG	Bacillus Camille Guerin (vaccine for TB)
CCC	Cambridgeshire County Council
CCA	Civil Contingencies Act 2004
CCDC	Consultant in Communicable Disease Control
CCG(s)	Clinical Commissioning Group(s)
CCS	Cambridgeshire Community Services
CPLHRP	Cambridgeshire and Peterborough Local Health Resilience Partnership
CUHFT	Cambridge University Hospital Foundation Trust
DH	Department of Health
DPH	Director of Public Health
DsPH	Directors of Public Health
EH	Environmental Health
EHO	Environmental Health Officer
EPRR	Emergency Preparedness, Resilience and Response
GP	General Practitioner
GUM	Genito-urinary medicine (sexual health)
HIV	Human Immunodeficiency Virus
HHT	Hinchingbrooke Hospital Trust
HPN	Health Protection Nurse
HPSG	Health Protection Steering Group
HPT	Health Protection Team (part of Public Health England)
HPV	Human Papilloma Virus
HSE	Health and Safety Executive
HWB	Health and Well-being Board
IMT	Incident Management Team
JHWS	Joint Health and Well-being Strategy
JSNA	Joint Strategic Needs Assessment
LA	Local Authority
LGA	Local Government Association
LHRP	Local Health Resilience Partnership
LRF	Local Resilience Forum
MMR	Measles, Mumps and Rubella (vaccine)
MOU	Memorandum of Understanding
NHS	National Health Service
NHSE	NHS England
OIMT	Outbreak Incident Management Team
OOH	Out of Hours
NHS	National Health Service
NHSE	NHS England
PCT	Primary Care Trust
PHE	Public Health England
Q 1,2,3,4	Reporting quarters for each year
TB	Tuberculosis