

ANNUAL HEALTH PROTECTION REPORT FOR CAMBRIDGESHIRE

1. INTRODUCTION

- 1.1 The purpose of this report is to provide a first annual update to the Cambridgeshire Health and Wellbeing Board (HWB) on health protection in Cambridgeshire.
- 1.2 Upon implementation of the Health and Social Care Act 2012, on 1 April 2013, the County Council, through the Director of Public Health (DPH), took on statutory responsibilities 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. Prior to that date, Cambridgeshire Primary Care Trust (PCT) had arrangements in place through various groups (both strategic and operational) to ensure these responsibilities were discharged and to allow for professional dialogue about new initiatives, local pressure points and so on.
- 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 The HWB has statutory responsibilities and has developed a health and wellbeing strategy. Whilst much of this relates to health improvement, health protection is interwoven into the strategy's aims, particularly in relation to priority five.
- 1.5 It was agreed that the DPH would deliver an annual health protection report to the HWB 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 and identify their relationship to the Joint Strategic Needs Assessment and Health and Wellbeing Strategy priorities. Any other reports would be provided by exception where a particular incident or concern had arisen.
- 1.6 The services that fall within Health Protection include :-
 - Communicable disease and environmental hazards;
 - Public health emergency planning
 - Immunisation
 - Screening
 - Sexual health

2. BACKGROUND

2.1 In order to have the oversight that is necessary to meet their statutory responsibilities the DPH needs:

- To be able to, on behalf of the County Council, advise on and promote local health protection plans across agencies. This role complements the statutory responsibilities of Public Health England, NHS England, the CCG and City and District Councils..
- To be assured, on behalf of the County Council, of Health Protection arrangements by relevant organisations in the LA area
- To be provided with information including surveillance and other data from PHE and other partners, in order to be able to scrutinise and as necessary challenge performance
- On the basis of this scrutiny to be able to provide strategic challenge to health protection plans/arrangements produced by partner organisations
- To have a clear escalation plan in place agreed with the Local Authorities, PHE, NHS England, CCG, and Department of Health (DH) to enable any concerns to be escalated as appropriate, including to the Local Health Resilience Partnership (LHRP)
- To have clear agreement that information on all local health protection incidents and outbreaks, including screening incidents, are reported to the DPH such that the DPH can take any necessary action, working in concert with PHE and the NHS. This may include, for example, chairing an outbreak control committee, or chairing a look back exercise in response to a sudden untoward incident
- To act as co-Chair and contribute to the work of the LHRP, as lead DPH for the area;
- To provide the public health input into the county council emergency plan
- To be able to provide a comprehensive annual report to the HWB on all aspects of health protection to include performance, issues and incidents

To assist the DPH in fulfilling these responsibilities a small number of instruments have been set up, notably a Cambridgeshire Health Protection Steering Group (HPSG) at senior officer level, and a Memorandum of Understanding (MOU) with partner organisations.

2.2 Health Protection Steering Group

While the DPH is accountable to the Secretary of State for Health as well as to Cambridgeshire County Council, Cambridgeshire Health and Well-being Board and the Cambridgeshire population for providing advice on health protection in the county, the DPH has no managerial responsibility for other organisations that provide the services that deliver health protection. To enable the DPH to fulfil these statutory responsibilities, the Health Protection Steering Group (HPSG) was established in April 2013, chaired by the DPH.

The HPSG enables all agencies involved to demonstrate 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 role of the HPSG is:

- a. To provide a forum for information sharing and planning between public agencies that have responsibilities, in Cambridgeshire, for health protection.
- b. To review and seek assurance that appropriate mechanisms are in place to protect public health.
- c. To receive reports from member agencies that enable monitoring of these arrangements and reporting of any issues or incidents.
- d. To provide a mechanism to consider the implications of national guidance/changes for local implementation and be assured that there are mechanisms in place for their delivery.
- e. To identify:
 - gaps and issues which need resolution by the one or more of the member agencies
 - procedures/processes which need to be developed or improved
 - the actions that need to be taken jointly by member agencies
- f. To identify gaps and resources needed by the Steering group to function effectively e.g. missing data/information
- g. To support the production of an annual health protection report for submission to the HWB

Membership of the HPSG reflects the role of the group and the organisations responsible for delivery of health protection and includes:

<p>Cambridgeshire County Council</p>	<p>Director of Public Health</p> <p>Service Director, Customer Service and Transformation</p> <p>Consultant in Public Health (Health Protection)</p> <p>Consultant in Public Health (sexual health lead) – corresponding member and in attendance for relevant items</p> <p>Public Health Nurse Specialist</p> <p>Administrative support</p>
<p>District and City Councils</p>	<p>One representative of District Council Chief Environmental Health Officers (Hunts, East Cambridgeshire, Fenland, South Cambridgeshire and CambridgeCity)</p>

PHE Anglia & Essex Centre	Anglia Health Protection Team (HPT) Consultant in Communicable Disease Control (CCDC) Epidemiologist (Eastern Field Epidemiology Unit) – to be invited as necessary to agenda
Cambridgeshire and Peterborough CCG	Matron Infection Prevention and Control Director of Quality and Patient Safety (corresponding member – attendance as needed)
NHS England East Anglia Area Team / PHE Anglia & Essex Centre	Consultant lead for Screening and Immunisation or screening and immunisation manager as deputy
NHS England	Head of Public Health (corresponding member – attendance as needed)

2.3 Memorandum of Understanding

A Memorandum of Understanding (MOU) for Health Protection was signed in April 2014, following discussion in the HPSG and consultation with partner organisations. Signatory organisations include:

- NHS England : East Anglia Area Team
- Public Health England : Anglia & Essex Centre
- Cambridgeshire & Peterborough Clinical Commissioning Group
- Cambridgeshire County Council
- District and City Councils (not all signatures yet received)

The purpose of the MOU is to ensure that new agreements and protocols are in place that meets the needs of the organisations that are responsible for discharging health protection responsibilities after implementation of the Health and Social Care Act 2012.

The scope of the MOU includes:

- Organisational roles and responsibilities for health protection in Cambridgeshire
- The role of Cambridgeshire Health Protection Steering Group
- Arrangements for 24/7 on call for public health
- Information sharing arrangements to ensure sharing of routine and ad hoc (outbreaks and incidents) data with the Director of Public Health, Cambridgeshire County Council and between partner organisations
- Escalation and management arrangements for public health incidents

- Arrangements for the management of cross-border incidents and outbreaks
- Escalation and information sharing arrangements for public health incidents
- Arrangements for exercising and testing of plans for Cambridgeshire
- Arrangements for the review of the MOU

2.4 Joint Communicable Disease Outbreak Management Plan

This Plan , which was led by Public Health England and has had considerable input from the Cambridgeshire Public Health team and HPSG in its development, provides a framework for partnership working across the new public health structures including the Public Health England Centre (PHEC) local health protection team (HPT), local authority public health directorates and local authority (LA) environmental health departments, Clinical Commissioning Groups (CCGs), NHS England (NHSE) and other relevant bodies.

The plan has been adopted as a working draft for use by public health teams across Cambridgeshire, Peterborough, Norfolk and Suffolk and the final draft has now been circulated for final comments before sign-off by all partner organisations..

It constitutes a joint plan to manage an outbreak or significant incident of communicable disease/infection in Norfolk, Suffolk, Cambridgeshire and Peterborough. It covers a range from a minor outbreak that will be managed within the PHE HPT to an outbreak which could lead to a major incident being declared that requires a full multi-agency response.

For this plan the term 'outbreak', refers both to outbreaks and significant incidents of communicable disease and infection.

The plan give clarity on roles and responsibilities in managing outbreaks that is essential to providing a coordinated approach to the management of an outbreak including communication, investigation and control procedures.

In addition to PHE, NHS organisations (providers and commissioners) and Council Public Health teams the varied nature of outbreaks will lead to the involvement of a number of partners in their investigation and management these may include:

- Local Authority (LA) Environmental Health (EH) Services.
- School or care home representatives where the outbreak affects specific groups
- Health and Safety Executive (HSE) where HSE enforced premises are

involved .

- The Animal Health and Veterinary Laboratories Agency (AHVLA) will be involved in the event of an outbreak of a zoonotic disease.
- Water Company representatives if water supplies are affected e.g. cryptosporidiosis.

This plan has been tested and judged to be effective in both exercises and actual incidents.

3. SURVEILLANCE

3.1 In order to understand and monitor the incidence of communicable diseases, the effectiveness of prevention activities such as immunisation and the threats posed by new and emerging infections, the UK has an active communicable disease surveillance service provided by PHE both through national centres and through their Field Epidemiology Teams. These teams provide a wide range of reports on a frequent basis ranging from weekly through to annual reports.

3.2 Notifications of Infectious Diseases

Doctors in England and Wales have a statutory duty to notify a Proper Officer of the local authority, usually the Consultant in Communicable Disease Control in the local Health Protection Team (HPT), of suspected cases of certain infectious diseases. This notification 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 1 April 2011 – 31 March 2014.

Table 1: Notifications of Infectious Diseases in Cambridgeshire by year 2011-2014

Notifiable Disease*	1 Apr 2011 - 3 Mar 2012	1 Apr 2012 - 31 Mar 2013	1 Apr 2013 - 31 Mar 2014
Acute encephalitis	0	<5	0
Acute infectious hepatitis	13	22	26
Acute meningitis	9	14	14
Enteric fever	<5**	<5**	<5**
Food poisoning	789	578	717
Infectious bloody diarrhoea	10	14	5

Invasive group A streptococcal disease	15	14	21
Legionnaires' disease	<5**	<5**	<5**
Malaria	10	7	10
Measles	21	55	35
Meningococcal septicaemia	<5**	<5**	5**
Mumps	40	50	46
Rubella	7	8	<5**
Scarlet fever	20	48	44
Whooping cough	16	314	55

SOURCE: Anglia HPT HPZone

* Notifiable diseases with no reported cases during the three years are not listed here

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

3.2.1 Food poisoning remains the most commonly notified infectious disease, with campylobacter accounting for the vast majority.

3.2.2 Measles activity rose in 2012-13 but showed a drop in 2013-14. The confirmed cases in 2013 were mainly in school-age children, with some local clusters in Traveller communities. Experts believe the rise in measles cases can be mostly attributed to the proportion of unprotected 10-16 year olds who missed out on vaccination in the late 1990s and early 2000s when concern around the now discredited opinion about a link between autism and the vaccine was widespread. A national catch-up programme to increase MMR vaccination uptake in children and teenagers was launched in April 2013.

3.2.3 Whooping cough (Pertussis) is a cyclical disease with increases occurring every 3-4 years. The third quarter (running from July to September) is usually the period of highest pertussis activity annually. In Cambridgeshire, similar to the national picture, whooping cough cases rose sharply in 2012-13; but fell during 2013-14.

3.3 Eastern Field Epidemiology Unit (EFEU),

The EFEU, which is part of PHE, provides regular updates with electronic links to relevant data for a wide range of communicable diseases. As this data is available on line from PHE, it is not reproduced here. The monthly reports include data on:

- Sexual and reproductive health
- Tuberculosis
- Influenza and flu-like illnesses
- Legionnaires disease
- Healthcare associated infection
- Vaccine preventable diseases
- Anti-microbial resistance
- Sexually transmitted diseases
- HIV
- Hepatitis
- Ante-natal screening
- Notifiable infectious diseases
- Gastro-intestinal infections

4. PREVENTION

The focus of this section is Immunisation and Screening programmes. From April 2013, Screening and Immunisation programmes have been commissioned by NHS England as per a Public Health agreement under section 7A of the 2006 NHS Act as inserted into the Health and Social Care Act 2012.

NHS England East Anglia Area Team leads on commissioning of the following programmes for the population of Cambridgeshire;

- Immunisation Programmes: neonatal and childhood, school age and adult immunisations
- 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

4.1 IMMUNISATION PROGRAMMES

4.1.1 A number of immunisation programmes are provided in the UK to protect our population against infectious diseases that, when they were common, caused considerable morbidity and mortality. With the advent of these immunisation programmes many of these conditions are virtually unknown today in this country. However this success can lead to some complacency, in turn

leading to a drop in immunisation rates. The aim of our universal immunisation programmes is to provide 'herd immunity' which can be defined as a form of immunity that occurs when a sufficient proportion of a population is vaccinated and provides protections for individuals who have not developed immunity. Some people may have weakened immune systems for a variety of reasons and do not acquire full immunity to the illness as a result of immunisation. Others, who choose not to be vaccinated, may also be protected by 'herd immunity', if sufficient people are immunised. For the majority of universal immunisation programmes, 'herd immunity depends on 90 to 95% of the population being immunised.

4.1.2 The Annual coverage data for the universal childhood immunisation programmes has recently been published (see table 2). Targets for some of the childhood immunisations are included in the Public Health Outcomes Framework. For most of the childhood vaccination programmes, Cambridgeshire is below the 95% level for herd immunity. The Cambridgeshire data have been studied and checked against actual data on GP practice information systems and a number of reasons for the low coverage rates have been found:

- Some families choose not to have their child immunised
- Some families may have difficulty accessing services for immunisation
- Some children, have been immunised but not according to the schedule in England, resulting in their immunisation not being recorded on the national system. This is a particular problem in Cambridge, where there is a high, relatively transient population related to the university and high tech industries, whose children may have been fully immunised in their home country, but not recorded by the UK system
- Some children have been immunised according to the schedule but the data has not been recorded or properly reported. A new electronic template is in development by CCG staff for Cambridgeshire and Peterborough GP practices to use to improve recording.
- Some of the children, reported as not attending for immunisation when invited, may no longer live in Cambridgeshire. If they had moved within the UK, their registration with a new UK GP would lead to them being removed from the register in Cambridgeshire, so, in most of these cases, the children are likely to have moved overseas not knowing that they should advise their GP to de-register them.

4.1.3 A multi-agency group has met recently to try to find solutions to these issues, and the result was the development of the electronic template. For some of the 'hard to reach' groups who have difficulty accessing services, staff within

specialist public health teams such as the Traveller Health Team, work with these groups to support them to access necessary services.

Table 2: Annual Childhood Vaccination coverage for Cambridgeshire 2013/4

Vaccine	Age 1 year	Age 2 years	Age 5 years primary vaccination %	Age 5 years Booster %	Age 6 years primary vaccination %	Age 6 years Booster %
Total Children In Range	4267 (100%)	4395 (100%)	4324 (100%)	4324 (100%)	4072 (100%)	4072 (100%)
Diphtheria	92.5 %	93.2 %	94.0 %	86.7 %	93.9 %	88.8 %
Tetanus	92.5 %	93.2 %	94.0 %	86.7 %	94.0 %	88.8 %
Pertussis	92.5 %	93.2 %	94.0 %	86.5 %	93.9 %	88.6 %
Polio	92.5 %	93.2 %	93.9 %	86.6 %	93.7 %	88.7 %
MMR	0.1 %	88.7 %	92.0 %	85.3 %	91.7 %	87.7 %
Haemophilus Influenzae B	92.2 %	92.9 %	93.5 %	91.3 %	93.2 %	90.7 %
Meningitis C	78.1 %	92.5 %	91.2 %	89.1 %	91.3 %	89.1 %
Pneumococcal	91.7 %	94.2 %	92.6 %	88.2 %	91.9 %	87.7 %

4.1.4 Targeted Vaccination programmes

Other childhood immunisation programmes include BCG vaccination and Hepatitis B vaccination as targeted programme for those identified as being at specific risk.

4.1.5 **BCG vaccine**, for prevention of TB, is not a very effective vaccine and the universal programme was stopped many years ago, however, because it confers some immunity, it continues to be 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

In Cambridgeshire we have had a very successful programme for BCG vaccination of newborn resulting in high uptake. However we do not have

clear denominator data about the number of babies born in Cambridgeshire that meet the second criterion.

Table 3: BCG vaccination uptake

	Cambridgeshire 01/04/13 - 31/03/14
BCG vaccination uptake	986 babies

4.1.6 **Hepatitis B vaccination** is given at birth with 3 further boosters up to 12 months for babies born to Hepatitis B positive mothers. While we have figures for the number of babies vaccinated, the denominator number of Hepatitis B positive mothers is not recorded to enable measurement of whether we succeed in vaccinating 100% of these babies.

4.1.7 School based programmes

At school children receive a small number of vaccinations, notably HPV vaccination and the universal school leaving booster of Diphtheria, Tetanus and Polio vaccines. Other programme are in the process of introduction and are discussed under the section on New Immunisation Programmes.

4.1.8 The relatively recent programme of vaccination of girls aged 12 – 13 against **Human Papilloma Virus (HPV)** which is a causative factor in Cervical Cancer has been very successful..

Table 4: HPV vaccination uptake

School year 2012/3*	Cambridgeshire	England
HPV uptake	94%	86.1%

*As this programme runs over a school year, complete data for 2013/4 will not be available for some time

4.1.9 Influenza Vaccination

Influenza (Flu) vaccination is recommended for specific population groups and is given from October to January each year to protect those most vulnerable to Flu infection. For the 2013/4 season the recommended groups were:

- All those aged 65 or over
- Those aged 6 months to 65 years with long term medical conditions who are in the high risk groups for flu vaccination
- Pregnant women
- Those in long stay residential or nursing homes

- Carers of elderly or disabled people
- Health and social care staff who are in direct contact with patients/clients
- All children aged two and three

4.1.10 Plans are being developed for the 2014/5 programme and include a plan to commission community pharmacies to vaccinate the at risk groups in the community. This will complement the existing services provided by GPs and maternity units. This year pharmacies will also be permitted to provide an “outreach” service in suitable locations to these groups.

4.1.11 For the County Council the most important groups are those who are in front line roles caring for vulnerable groups in the community. Immunising these staff protects them from getting flu, thus reducing the risk of them being off sick, and in turn protects their clients and their own families. Employers of front line staff are expected to organise and fund vaccination of their front line staff. Cambridgeshire County Council is responsible for arranging the vaccination of care staff that are directly employed. For those not directly employed, it will be helpful if commissioning contracts are explicit about an expectation that every effort will be made to ensure that care staff are offered vaccination

Table 5: Flu vaccination uptake in Cambridgeshire by risk groups

Group	2010/11	2011/12	2012/13	2013/14
Over 65yrs	74.0	74.8	74.2	74.3
Under 65yr at risk	52.4	51.1	49.8	51.1
Pregnant and in another clinical risk group	n/a	49.0	56.9	57.2
Pregnant but not in any other clinical risk group	n/a	19.9	25.3	41.3
Carers	49.3	45.7	45.7	45.3
Age 2 (new programme)	n/a	n/a	n/a	44.4
Age 2 (in a clinical risk)	n/a	n/a	n/a	57.9

group)				
Age 3 (new programme)	n/a	n/a	n/a	43.6
Age 3 (in a clinical risk group)	n/a	n/a	n/a	55.4

Table 6: Flu vaccination uptake - Cambridgeshire hospitals frontline staff

Uptake to Jan 2014 Health Care workers	2012/3	2013/4
Cambridge University Hospital Foundation Trust (CUHFT)	45.6	49.3
Cambridgeshire Community Services CCS)	37.0	51.5
Papworth	58.4	75.6
Hinchingbrooke (HHT)	46.4	60.6

4.1.10 Pertussis vaccination in pregnancy – In the first seven months of 2012, 235 babies under 12 weeks old had whooping cough and 13 babies died from it. This led to a programme to vaccinate pregnant women between 28 and 38 weeks of pregnancy being initiated. Following introduction of this programme, there was a 79% drop in cases to 85 in 2013

The table below give data on uptake rates in Cambridgeshire and Peterborough CCG area, showing good levels of coverage.

Table 7: Pertussis vaccination uptake by pregnant women

	Q1 2103 %			Q2 2013 %			Q3 2013 %			Q4 2013/14 %		
	April 2013	May 2013	June 2013	July 2013	Aug 2013	Sept 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	March 2014
CCG uptake %	63.8	60.4	60.0	60.8	65.0	61.3	58.7	62.6	64.5	69.1	66.0	69.1
CCG % coverage	63.0	64.8	55.6	70.4	72.2	73.8	79.4	79.4	79.4	79.4	79.4	79.4
Coverage is % of practices submitting data												

4.2 SCREENING PROGRAMMES

NHS England, which has commissioned these services, reported that all the screening programmes are delivering as planned for the population of Cambridgeshire.

4.2.1 Antenatal and newborn screening

The following data have been provided by NHS England Screening and Immunisation Team. Screening data for Quarter 4 of 2013/14 will not be available until later this year. For the Antenatal and Newborn Screening units with no data returned for some of the programmes, the trusts have put in place measures to improve reporting on their data..

4.2.2 Ante-natal screening includes routine testing for a number of condition that can adversely affect of the baby as well as the mother including:

- HIV
- Hepatitis B
- Sickle Cell and Thalassaemia
- Down's syndrome

Newborn screening includes 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 blood spot test which detects conditions such as congenital hypothyroidism; phenylketonuria; sickle cell disease; cystic fibrosis; and medium chain acetyl-CoA dehydrogenase deficiency (see newbornbloodspot.screening.nhs.uk for explanations of each of these conditions)
- Physical examination
- Hearing screening

Table 8: Ante-natal screening coverage

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013
HIV screening (standard is to achieve >90%)			
CUHFT	No data submitted		
HHT	99.9	98.6	99.37
Down's Screening (standard >97%)			
CUHFT	97.7	97.3	98.0
HHT	96.5	97.7	98.1
Sickle Cell and Thalassaemia screening (standard >95%)			
CUHFT	No data submitted		
HHT	99.1	98.9	99.5

Table 9: Newborn Bloodspot test (standard 95-99%)

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013
CUHFT	99.8	99.4	99.9
HHT		99.4	99.9
Newborn Bloodspot – avoidable repeat tests (standard <2%)			
CUHFT	2.0	2.7	2.2
HHT			

4.2.3 Newborn physical examination – there are no data available on uptake of this examination, which should be over 95%

4.2.2 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

4.2.2 Breast Cancer screening

For breast cancer screening, measurements include uptake of screening among the targeted population; the round length (this should be 36 months for breast screening so that every woman in the age range is invited to attend for screening once every three years); and the time from screening to clinical assessment for those women whose mammogram appears to be abnormal. This ensures early diagnosis and early access to definitive treatment which improves the outcomes for those affected by breast cancer.

The breast screening round length in recent past has been below acceptable levels, with only 4.3% of women in Cambridgeshire in December being invited for screening within 36 months of their last screen. As a result of actions taken, it has since then increased almost exponentially, January 7.3%, February 9.4% and March 35.8% and it is expected to be on track by the end of Quarter 2 (Q2) of 2014/15. Those screened within 38 months is now at 98.5%.

There were a number of reasons for this deterioration in round length:

- Shifting from the analogue to digital mammography systems which impacted on the availability of suitable sites
- Lack of well-trained mammographers- a national issue
- Lack of well qualified operational leads
- The need for more proactive problem solving

Key lessons learned:

- The importance of leadership in screening service delivery; being proactive; anticipating problems via risk assessment early mitigation.
- Use of locum mammographer's and hiring vans to clear backlogs
- The importance of continuous service improvement

Uptake in Cambridge city has been falling for a number of years. The loss of a site and difficulties with electricity supply in July 2012 followed by retirements and the difficulties recruiting staff led to a serious drop in round length. The screening service is working with the county and city councils to identify sites for the mobile screening van that improve access.

Table 10: Breast screening uptake in Cambridgeshire 2013/14

Age group	Uptake
50 – 64	72.1%
50 – 70	73.1%
All ages	71.7%

Table 11: Breast screening programme measures

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013
Breast Screening round length Standard 90% within 36 months	7.30	13.10	5.20
Screen to assessment (standard 90% in <3 weeks)	94.40	92.30	93.70

4.2.3 Bowel cancer screening

This screening programme was introduced in 2011/2 in the UK. Bowel cancer is the third most common cancer in the UK with up to 5% developing it during their lifetime. The screening programme aims to detect bowel cancer at early stages when treatment is more likely to be effective. The screening programme is open to all those aged 60 – 69, with testing offered at 60 and every two years after that to age 69, but due to be extended to age 74. All those screened receive an introductory letter followed by a testing kit, the faecal occult blood test (FOBT) that they can complete at home, posting the completed kit to one of a number of approved laboratories when completed. The test looks for hidden blood in the bowel that may indicate an abnormality such as polyps or cancer which can bleed, but not sufficiently to be visible. For negative tests (approx 98%) a letter confirming this is sent some weeks later. Unclear results of this test will lead to a second test kit being issued to re-test. For positive tests, an invitation is issued for an examination of the bowel using a colonoscopy, when the bowel can be viewed to ascertain the source of the blood and, if abnormalities are seen, for samples to be taken for testing. Approximately 10% of those having colonoscopy will be found to have cancer.

Table 12: Bowel Cancer screening measures

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013	Q4 Jan-March 2013
Bowel Screening (standard 52% completion of FOBT kit)		56.13	No data	55.76
Assessment by specialist screening practitioner (SSP) (standard 100% seen by SSP in 2 weeks)	100	100	100	
SSP assessment to endoscopy time (standard 100% endoscopy within 2 weeks of seeing SSP)	90.91	97.96		

Table 13: Outcome of bowel screening - Eastern Bowel Screening Hub

It is important to note that this hub covers a much larger area than Cambridgeshire, and the denominator of the population covered is not given, so an estimate of the proportion of screens with abnormality is not possible from the data provided.

CUHT Definitive Abnormal results					
Hub Name	Fiscal year	Local Area Team	Screening Centre Name	Clinical Commissioning Group	Definitive abnormal count
Eastern Bowel Cancer Screening Programme Hub	2013 - 2014	East Anglia Area Team	Cambridge Bowel Cancer Screening Centre	NHS Cambridgeshire And Peterborough CCG	230
			Kettering and Northamptonshire Bowel Cancer Screening Centre	NHS Cambridgeshire And Peterborough CCG	18
			Peterborough And Hinchingsbrooke Bowel Cancer Screening Centre	NHS Cambridgeshire And Peterborough CCG	361

4.2.4 Cervical Screening

This is the oldest of the cancer screening programmes. The test is not a test for cancer, but aims to detect pre-cancerous changes that, with early

treatment, should prevent progression to cancer. The test, mainly undertaken in general practice involves taking a sample of cells from the neck of the womb every 3 years for women aged 20 to 49 and every 5 years for women aged 50 to 64. Women aged 65+ are invited only if they have not been screened since age 50 or have had recent abnormal results. This programme has led to significant reductions in deaths from cervical cancer. The introduction of the HPV vaccination programme is also aimed at reducing the risk of cervical cancer.

Women with abnormal cervical screening tests are referred for colposcopy 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, the speed of getting results to the women tested and the speed of getting women in for assessment and treatment.

Table 14: Cervical screening measures

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013
50-64 yrs (standard 80% coverage)	78.30	77.80	77.60
25-49 yrs (standard 80% coverage)	71.70	71.10	70.50
25-64 yrs (standard 80% coverage)	78.10	77.50	77.0
Turnaround time (TAT) (standard 98% 14 day date of test to receipt of result letter)	99.9	100	99.6
Colposcopy waiting time (standard 100% women seen within 8 weeks)	99.30	100.0	99.8

4.2.5 Non-cancer Screening Programmes

There are two national screening programme for non-cancerous conditions, Retinal (eye) screening for people with diabetes, and screening for abdominal aortic aneurysm for those aged 70 and over.

4.2.6 Diabetic eye screening

People who suffer with diabetes are at high risk of a number of serious complications and are routinely offered appointments in general practice, or, in some cases in hospital clinics, to assess their condition. One of these complications, diabetic retinopathy, is one of the commonest causes of sight loss in working age people, which may cause no symptoms until it is quite

advanced, which is why screening is important. It occurs as a result of damage, caused by diabetes, to the small blood vessels at the back of the eye. Screening is effective, but requires specialist equipment to take images of the retina (back of the eye) which enables the blood vessels to be assessed. It is an annual programme. As with other screening programmes, the speed of providing results and referring for further assessment and treatment is very important.

Table 15: Diabetic eye screening measures

	Q1 April-June 2013	Q2 July-Sept 2013	Q3 Oct-Dec 2013
Uptake (standard 70%)	84.90	81.0	77.97
Time to receipt of results (standard 70% within 3 weeks)	99.9	100	95.50
Time results to treatment (standard 80% within 4 weeks)	65.0	73.7	76.47

Table 16: Screen detected Eye pathology for 2013/14 East Anglia DESP which covers East Cambridgeshire and Fenlands

	Total Pathologies detected	Routine referrals	Urgent referrals
Number	2778	225	68

The total number of pathologies detected include early stage changes that require continued annual screening and monitoring of diabetes control and so are not referred to specialist eye clinics as well as other conditions that do not require referral.

4.2.7 Abdominal Aortic Aneurysm Screening

An abdominal aortic aneurysm (AAA) is a weakening and expansion of the aorta, the main blood vessel in the body. This weakening can lead to serious consequences due to leakage from or rupture of the aorta and an estimated 6000 people in England and Wales die each year from ruptured abdominal aortic aneurysms. This screening is aimed at aged 65 and over, and involves a single ultrasound scan that takes approximately 10 minutes. It has been shown that this single screening can reduce the number of deaths from ruptured AAAs among men by 50%.

With regards to data on this screening programme, no data were available for uptake of this screening programme. However NHS England reported that, in quarter 3 of 2013/4, 100% of those who required either quarterly or annual surveillance of their AAA, had been tested within 4 weeks of their screening due date.

4.3 EMERGENCY PLANNING

4.3.1 The County Council has always been a Category 1 responder under the terms of the Civil Contingencies Act 2004, as a result there is an emergency planning team that has worked 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 health of their population and escalate concerns to the Local Health Resilience Partnership (LHRP) as appropriate
- Identify and agree a lead DPH within a Local Resilience Forum (LRF) area to co-Chair the LHRP (for Cambridgeshire and Peterborough LRF and LHRP, the lead DPH is the Cambridgeshire DPH)
- 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

4.3.2 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 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.

4.3.3 The Cambridgeshire and Peterborough Local Health Resilience Partnership (CP LHRP) is co-chaired by the NHS England Area Team Director of Operations and the Cambridgeshire DPH. Member agencies share responsibility for oversight of health emergency planning in this forum. It is for the LRF 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 provide a brief update report on the activities of the LHRP to the HPSG to ensure sharing of cross cutting health sector resilience issues.

4.3.4 The DPH is supported in this work by a consultant in public health with oversight of all health protection issues, and by the Health Emergency Planning and a Resilience Officer (HEPRO) based within Public Health. The HEPRO reports into the LHRP and the LRF through the Health and Social Care Emergency Planning Group (HSCEPG) which (s)he co-chairs with the Head of EPRR from the NHS England Area Team. This group acts as a supporting working group for the LHRP, to which the LHRP can delegate tasks.

4.3.5 The HSCEPG has membership from local hospitals, community services, mental health services, social care services, Public Health England and NHS England. Having completed a recent assurance of EPRR in all health organisations, this group is now focussed on the Tour de France and ensuring that all health sector organisations have robust plans in place for that day. They have also just reviewed and commented on a revised Mass Casualty Plan for the area which will be presented to both the LHRP and LRF shortly.

5. COMMUNICABLE DISEASE INCIDENTS AND OUTBREAKS

One of the main functions of the PHE Health Protection Team (HPT) is responding to cases, enquiries, incidents and outbreaks, providing evidence based and expert health protection advice and support. To facilitate timely response, the acute service is delivered by a single clinical response team, staffed by a medical consultant, two nurses and an administrator during office hours. For any case, enquiry or incident, the duty team undertakes a risk assessment, decides on appropriate management and follow up, provides specialist advice and further support where needed. All queries are entered onto a national database called HPZone.

A total of 248 incidents/outbreaks were logged for Norfolk, Suffolk and Cambridgeshire from 1 April 2013 – 31 March 2014, with 41 of these relating

to Cambridgeshire. The majority comprised gastroenteritis outbreaks in care homes due to suspected or confirmed norovirus.

Table 19: Cambridgeshire incidents/outbreaks reported to the HPT - 1 Apr 2013 – 31 Mar 2014

Gastroenteritis	Healthcare associated infection	Respiratory virus	TB	Scabies	Other*	Total
27	3	3	2	4	3	41

SOURCE: HPZone

*Fire (2); necrotising fasciitis (1)

Table 20: Principal setting of incidents/outbreaks reported to the HPT - 1 Apr 2013 – 31 Mar 2014

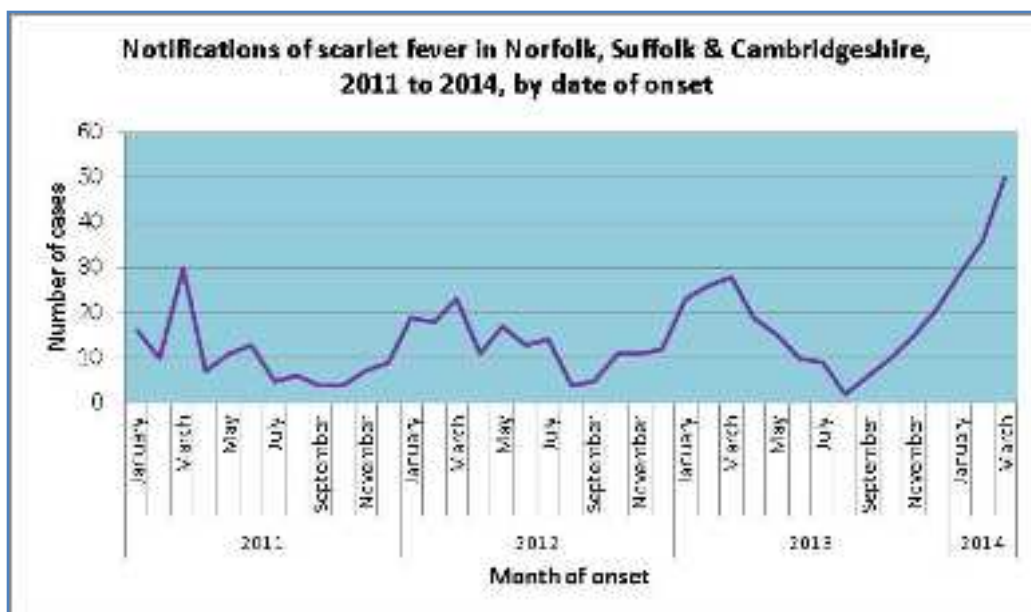
Care home	Hospital	Educational institution	Food outlet	Other
24	5	4	3	5

SOURCE: HPZone

5.1 Scarlet fever is a predominantly childhood disease, commonest between the ages of 2-8 years. Before the antibiotic era, scarlet fever was a serious condition, but antibiotic treatments have reduced the incidence and severity of this disease. Group A streptococcus (*Streptococcus pyogenes*; GAS) which causes scarlet fever, more commonly causes skin and throat infections. GAS can also cause more serious invasive infection (iGAS), such as necrotising fasciitis, toxic shock syndrome, septicaemia (blood poisoning) and pneumonia. Invasive and non-invasive GAS infection is most common in the winter and spring months.

Scarlet fever cases in Cambridgeshire increased in 2012-13, a rise which has been maintained in 2013-14. This rise was seen across the Norfolk, Suffolk and Cambridgeshire areas (see figure).

There has also been a national and local increase in iGAS infections. It is important to identify cases of iGAS, both to ensure prompt treatment and to enable public health action. Household contacts have a slightly increased risk of developing iGAS and need appropriate treatment if they develop signs of GAS infection. The HPT provides them with an information sheet and advises that they contact their GP if they develop signs of streptococcal infection in the subsequent 30 days.



SOURCE: Anglia HPT HPZone

5.2 Food poisoning associated with a Cambridge restaurant

In June 2013, Cambridge City Council Environmental Health Department received reports of illness from four different parties who had eaten at a Cambridge restaurant between 31 May and 5 June 2013. The restaurant was visited by environmental health officers and issued with a Prohibition Notice on 11 June 2013. Further to the closure, it was instructed to address the following issues before reopening: staff training, inadequately documented food safety management system, cleaning and hygiene.

An epidemiological investigation, using a specifically designed questionnaire, was undertaken by the HPT. Forty three cases were identified; 30 cases and 41 non-cases completed the questionnaire. Foods served with chutney were significantly associated with illness; 29/30 cases had consumed an item served with chutney.

One stool sample sent for multiplex PCR testing was positive for Enteroaggregative *Escherichia coli* (EAggEC). The investigating team concluded that the most plausible explanation was that this outbreak was caused by EAggEC, linked to the consumption of dishes served with chutney. The main recommendation was that better guidance on the use of uncooked curry leaves and herbs in chutney should be developed to ensure that food handlers and the public understand the potential risks and how to minimise them.

5.3 Tuberculosis incidents

TB is an infectious disease which develops very slowly. It is easy to treat and difficult to catch. You need a lot of close contact over a long time with an

infectious TB case to catch it. Most often the TB germs are killed in the body and do not cause any problems. In a small number of people the germs are not killed and the person can either develop active TB disease or have latent (hidden) TB infection (LTBI). With LTBI, the TB germs can survive in the body in an inactive state for many months or years. These people are not ill and are not infectious to others. A TB skin test or blood test is required to diagnose the infection.

About one in ten people with LTBI will develop active TB at some point. Having active TB means that they develop symptoms of TB and may be infectious. Screening of contacts of TB cases is designed to identify people with LTBI, which may have been acquired through contact with TB at any point in their lives, as well as to identify whether any contacts have active TB infection. Individuals identified with LTBI are assessed and offered treatment with antibiotics to reduce the risk that they might develop active TB in the future. Any individuals identified with active TB are treated with antibiotics and their close contacts also screened.

5.3.1 TB screening at a Fenland packing factory

Screening for TB at the packing factory was carried out in April 2014 after 17 people working at packing factories in Fenland were diagnosed with active TB over a two year period. The screening process was designed to identify factory staff who required further tests, because they might be at risk of developing the infection. The screening was led by Public Health England, working closely with the respiratory medicine teams at Peterborough and Addenbrooke's hospitals, who routinely manage local cases of TB and follow up of contacts, and with the public health teams in Cambridgeshire County Council and Peterborough City Council..

Over 500 staff at the factory were screened, and the process went smoothly. Two people diagnosed with active TB were started on TB treatment and 147 people required further testing for the latent form of TB (LTBI), which is not infectious or harmful. All staff that required further testing were invited to an out-patient appointment at either Peterborough or Addenbrookes hospital. This investigation is ongoing.

6 LOOKING FORWARD

6.1 New Vaccination Programmes

A number of changes have been made to the vaccination programmes over the past year, some of which have already started. These changes are made as a result of the advice from the Joint Committee on Vaccination and

Immunisation (JCVI). JCVI is an expert committee that reviews the evidence of effectiveness of vaccines and makes recommendation to Government.

6.1.1 Meningitis C (MenC) – evidence has shown that in those born after 1995, who were vaccinated in early childhood, there is declining immunity, making them more susceptible to infection. A MenC booster is being introduced for teenagers aged 13-14 years. For the same reason MenC is being offered to freshers who enter university from this year until 2018. Men C is currently being offered to children in year 10 (14-15 years). It is important to note the second dose for infants at 4 months was removed last year.

6.1.2 Meningitis B (MenB)– it is planned that this vaccination will be introduced into the national immunisation schedule subject to vaccine being procured at a cost-effective price.

6.1.3 Seasonal flu vaccine – In 2014-15 the new childhood programme is being extended to 4 year olds (2 and 3 year olds introduced in 2013/4). Also in several pilot programmes around the country flu vaccination will be offered to 11-13 year olds (school years 7 & 8).

6.1.4 HPV vaccination – a change in the schedule will start from September 2014. The number of doses will reduce from three to two;

1st dose given in Year 8 (12-13 years)

2nd dose can be given 12 months after the first.

6.1.5 Shingles vaccine – a new programme to protect elderly people who are at greatest risk Shingles and its adverse consequences:

2013/14 – Shingles vaccine (Zostavax) routinely offered to those aged 70 with catch-up to those 79 years on 1st September 2013 until 31st August 2014

2014/15 – Zostavax routinely offered to those aged 70 and catch-up to 78 and 79 years on 1st September 2014 until 31st August 2015

Table 21: initial Shingles vaccination uptake reported by NHS England

	Feb 2104		March 2014		April 2014	
	Aged 70	Aged 79	Aged 70	Aged 79	Aged 70	Aged 79
CCG % uptake	56.2	54.0	59.8	57.0	61.8	58.5
CCG % coverage	99.1		99.1		97.2	

6.1.6 Rotavirus vaccine – rotavirus is a highly infectious gastrointestinal infection that manly affects infants and leads to a high number of hospital admissions each year due to complication such as dehydration. The vaccination was introduced in 2013 with two doses at 2 months and 3 months as part of the routine programme. The table below gives data provided by NHS England for the early stages of this programme.

Table 22: initial Rotavirus vaccination uptake reported by NHS England

	Jan 2014		Feb 2014		March 2014	
	Dose 1	Dose 2	Dose 1	Dose 2	Dose 1	Dose 2
CCG % uptake	32.7	25.7	93.6	90.3	93.5	90.6
CCG % coverage	87.9		88.8		73.8	

	April 2014		May 2014		June 2014	
	Dose 1	Dose 2				
CCG % uptake	94.7	90.9				
CCG % coverage	83.2		Not available		Not available	

6.2 Collaborative Tuberculosis strategy

In March 2014, PHE published, for consultation, a Collaborative Tuberculosis (TB) Strategy for England 2014 – 2018. This strategy recognises that TB rates have increased in England in recent years and also takes on board evidence from other countries that a systematic approach to tackling TB is effective in reducing the incidence. The Strategy focuses on ten evidence based areas for action:

- Improving access to services and early diagnosis
- High-quality diagnostics
- High-quality treatment and care services
- Contact tracing
- Vaccination
- Tackling drug resistance
- Tackling TB in underserved populations
- New entrant screening for LTBI
- Effective surveillance and monitoring
- Workforce strategy

In addition to the above, a proposal is made to set up Local TB Control Boards to develop a local TB control plan and to monitor and support its implementation. It has been suggested that these boards could either be set up only in areas with TB incidence rates of 20/100,000 or more; or to have boards across a wider geographical area to enable sharing between high and low incidence areas.

The proposed response from Cambridgeshire County Council was presented to and discussed at the Health Committee meeting on 29 May 2014, with a

recommendation for a TB Control Board across a wider geographical area. Following discussion it was resolved:

‘to approve the County Council response to the consultation, with the inclusion of a sunset clause for TB control boards when the target for reduction in levels of TB incidence had been achieved, and the actions required to maintain TB control had been mainstreamed’

GLOSSARY

AAA	Abdominal Aortic Aneurysm
AHVLA	Animal Health and Veterinary Laboratories Agency
AT	Area Team (part of NHS England)
BCG	Bacillus Camille Guerin (vaccine fro 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
CUHPT	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
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