

**ANNUAL REPORT  
OF THE  
DIRECTOR OF PUBLIC HEALTH  
2016**



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## Foreword

The Director of Public Health has a statutory duty to produce an independent report on the health of the local population. This year my annual report focuses on health protection, a branch of public health concerned with planning for emergencies and protecting our population from communicable diseases, as well as minimising the health impact of a range of environmental hazards. Health protection also includes the delivery of major programmes such as national immunisation and screening programmes.

When public health transferred into local authorities in April 2013, it brought with it new responsibilities for health and health protection. These new health protection duties build on the existing health protection function and statutory powers bestowed on local authorities by various Acts of Parliament, such as the Public Health (Control of Diseases) Act 1984, and associated regulations, and delivered through environmental health, trading standards and regulatory services.

The Director of Public Health, acting on behalf of their local authority, is responsible for ensuring that plans are in place to protect the health of the local population from threats ranging from relatively minor outbreaks and contaminations to full-scale emergencies. The scope and scale of this work is driven by the health risks in the local area.

In undertaking this assurance role, the Director of Public Health is expected to provide relevant information and advice, as well as challenge to key partners so that threats to health are properly understood and addressed. Public Health England in particular plays a significant role in supporting local authorities with their new health protection responsibilities. Other key partners include NHS England and Clinical Commissioning Groups, as well as provider organisations.

The first part of the report provides an overview of communicable diseases and outbreaks, as well as a more in-depth look at tuberculosis, sexually transmitted infections, blood borne viruses, and healthcare acquired infections. This includes raising awareness of what can be done to prevent their spread and complications.

The important topic of immunisation for the prevention of communicable diseases is explored, with a focus on childhood illnesses and seasonal influenza.

The report covers arrangements for dealing with emergencies relating to issues that threaten public health, including extremes of weather.

The final section covers the various national screening programmes in place to identify those at risk of serious illnesses that may not cause symptoms early on.

I hope that my report will serve to reinforce the important health protection issues for Southend. As in previous years I would welcome your feedback, comments and suggestions.

Dr Andrea Atherton  
Director of Public Health

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## **Executive Summary**

The 2016 Annual Public Health Report explores the topic of health protection. This is a branch of public health concerned with planning for emergencies, protecting the population from communicable diseases and a range of environmental hazards, and also includes the delivery of the national immunisation and screening programmes.

### ***Communicable diseases and outbreaks***

There has been a statutory requirement to notify cases of certain infectious diseases since the end of the 19th century. More recent regulations have added substances thought to present a significant risk to human health, as well as additional infections to the notification list.

Notifications of infectious disease are sent directly from medical practitioners and laboratories in England to Consultants in Communicable Disease Control based at the Public Health England East of England Centre, who act as the Proper Officer for Southend Borough Council. These notifications are collated and an analysis of national and local disease trends is published weekly by Public Health England.

Populations of local authority areas are too small to show meaningful trends even in the most common infection, as variations in reported cases between years may be real or reflect erratic reporting.

Campylobacter, the most common cause of food poisoning in the UK, was the most commonly reported infection in Southend in 2014 and 2015. Campylobacter is found in the intestinal tract of animals and birds, and people can become infected by eating raw or undercooked meat, particularly chicken; or drinking unpasteurised milk and contaminated water. Transmission may also occur from cooked foods that have been cross-contaminated with the bacteria from raw meat. Salmonella is also an important but less common cause of food poisoning.

Good hygiene in the kitchen when storing and preparing food, particularly raw chicken, and ensuring that food is thoroughly cooked are important in the prevention of food poisoning.

The Regulatory Services Team within the Council is responsible for developing the Annual Southend Official Feed and Food Service Plan, which outlines the inspection programme for the 1788 food premises in Southend.

An outbreak is defined as an incident in which two or more people experiencing a similar illness are linked in time or place. Early recognition of an outbreak is important so that the source can be identified and further action can be taken to prevent further spread or recurrence of the infection.

A significant proportion of outbreaks are handled as part of the routine business of the Public Health England local Health Protection Teams. In some situations it may be necessary to establish an Outbreak Control Team, which includes members of environmental health and public health.

Care homes are a common setting for outbreaks to occur. In 2014 and 2015, care homes in Southend accounted for a significant proportion of reported outbreaks of gastroenteritis and respiratory illness.

### ***Immunisation***

After clean water, immunisation is recognised as one of the most effective public health interventions for saving lives and promoting good health.

Although the primary aim of immunisation is to protect the individual who receives the vaccine, when enough people in a community are immunised they are less likely to be a source of infection to unvaccinated individuals - a concept known as “herd immunity”. The World Health Organisation generally recommends vaccination uptake of at least 95% of the eligible population to achieve “herd immunity”.

There is generally good uptake of primary childhood immunisations in Southend, with sufficient uptake to achieve herd immunity for most of the programmes. Uptake of the second dose of MMR (measles, mumps and rubella) vaccine still remains around 5% below the target uptake.

Following a national pertussis (whooping cough) outbreak in 2012, pregnant women were offered pertussis immunisation to protect their babies from birth through the intrauterine transfer of maternal antibodies. Pertussis activity remained high in 2016 and unprotected young infants continue to be at risk. In Southend the monthly uptake of the prenatal pertussis vaccine ranged from between 40.8% and 55.7% between April 2015 and March 2016.

Older people are at greater risk of morbidity and mortality from vaccine-preventable diseases as a consequence of reduced immunity with age, and also as they may not have received immunisations in younger years.

In 2014/15 only 58.4% of eligible people aged 65 years or over in Southend received the pneumococcal vaccine, which is significantly lower than the England average (70.1%). Uptake of shingles vaccine in 2014/15 in 70 year olds was also significantly lower than the England average, at 46.6% compared to 58.3%.

Staff in NHS England local area teams are responsible for commissioning the national immunisation services locally and for providing system leadership, training and support to all those involved, including GPs, community pharmacists and community providers.

### ***Influenza***

The influenza virus is highly contagious and is easily passed from person-to-person when an infected person coughs or sneezes. For most healthy individuals, influenza is an unpleasant but usually self-limiting illness. However, for some it can lead to serious complications which may require treatment in hospital and can be life threatening.

Seasonal influenza vaccine is offered to those at higher risk of serious complications including people aged 65 or over, children and adults with an underlying chronic health condition such as respiratory disease, heart disease and diabetes, those with weakened immune systems as well as pregnant women.

Immunisation is also offered to frontline health and social care staff, main carers of older or disabled people and household contacts of immunocompromised people.

Different strains of influenza virus circulate each year, and the vaccine is changed annually based on the strains most likely for the coming influenza season. This means that eligible people need to get a flu jab every year.

The annual influenza immunisation programme is being extended to include vaccination of healthy children from the age of two. These children will generally receive the vaccine as an intranasal spray. From 2016/17, the vaccine will be offered to two, three and four year olds and children in school years 1, 2 and 3. The programme will gradually extend over future years to all primary school aged children.

There is poor uptake of influenza vaccine across virtually all eligible groups at a local level, with only 64.1% (target 75%) of people aged over 65 and 38% (target 55%) under 65 in a clinical risk group in Southend receiving the flu vaccine in 2015/16.

A multiagency Southend Seasonal Flu Oversight Group implemented a range of initiatives to increase uptake of flu vaccine as part of the 2016/17 immunisation programme. Public health continues to commission a service to assist with the management of outbreaks of influenza in care homes.

### ***Tuberculosis***

Tuberculosis (TB) is a bacterial infection that can affect almost any part of the body, most commonly the lungs. TB is much less infectious than other respiratory infections, such as influenza.

In some people the initial infection may be eliminated or they may develop latent disease. Latent TB infection (LTBI) may reactivate later in life, particularly if an individual's immune system has become weakened e.g. through HIV or cancer chemotherapy.

At the beginning of the 20th century there were over 117,000 new cases of TB in England every year. This fell to a low of 5086 new cases every year in 1987, the downward trend then reversed until it reached a peak in 2011, (8,280 cases or 15.6 new cases per 100,000 population). There has been a year-on-year decline since then to 5,758 new cases or 10.5 new cases per 100,000 in 2015.

The peak incidence of TB in Southend occurred in 2004-6, and has since continued to decline to a three average rate of 7.5 new cases per 100,000 population in 2013-15.

TB is now a disease that occurs predominantly in specific population subgroups, including communities with connections to higher-prevalence areas of the world and in communities with social risk factors such as homelessness, drug or alcohol misuse and imprisonment.

The East of England TB Control Board, which covers the population of Southend, has comprehensive plans in place to address the key recommendations of the national TB strategy across the region.

Locally a community tuberculosis service provides diagnostic, treatment and screening services, in which all tuberculosis patients are cared for by a multidisciplinary team.

### ***Sexual health and blood borne viruses***

Within the population sexual health needs vary according to factors including age, gender, ethnicity and sexuality, with some groups disproportionately at risk of poor sexual health. Intervention programmes to improve sexual health outcomes should be developed based on a robust evidence base and local needs.

Chlamydia is the most common bacterial sexually transmitted infection in England, with rates substantially higher in young adults than any other age group. The National Chlamydia Screening Programme recommends that all sexually active men and women aged under 25 years old are tested for chlamydia every year or on change of sexual partner.

Southend continues to have a significantly better rate of chlamydia screening in 15-24 year olds than the national average. The chlamydia detection rate in Southend is also similar to the England average, but remains below the recommended level to reduce the prevalence of chlamydia in the population.

The diagnostic rate of genital warts and genital herpes in Southend are both similar to the England average, whereas the diagnostic rates of gonorrhoea and syphilis in are both significantly lower than the England average.

HIV remains an important communicable disease in the UK. People living with HIV can expect a near normal life expectancy if they are diagnosed and treated promptly.

The prevalence of HIV in Southend has historically been higher than the national average, although, over time the difference has narrowed. The rate of new HIV diagnosis in Southend has almost halved since 2012, and is now lower than the England average.

HIV testing is integral to the treatment and management of HIV. Knowledge of HIV status increases survival rates, improves quality of life and reduces the risk of HIV transmission. HIV test coverage in Southend is significantly higher than the national coverage.

Late diagnosis of HIV is the most important predictor of morbidity and mortality among those with the infection. Over the last five years there has been a continued



downward trend in the proportion of individuals diagnosed late with HIV in Southend, which is now similar to the England average.

Locally the SHORE (Sexual Health, Outreach, Reproduction and Education) Integrated Sexual Health Service provides comprehensive sexually transmitted infection testing and treatment services and contraceptive services across all its sites. Southend residents are also able to access the online national HIV self-sampling service to request an HIV testing kit.

The hepatitis B and C viruses can be transmitted through contact with the blood or body fluids contaminated with blood. Many people infected with these viruses won't experience any symptoms. Up to 80% of people infected with hepatitis C go on to develop chronic infection, whereas the likelihood of developing chronic hepatitis B infection varies with age. The long term complications of chronic hepatitis B and C infections include cirrhosis of the liver and primary liver cancer.

Transmission of hepatitis B can be prevented through a course of vaccinations. Although there is no vaccine for hepatitis C, it is a potentially curable disease with antiviral therapy.

Specialist drug and alcohol services in Southend prioritise hepatitis B and C interventions within their nurse-led health and wellbeing work. There are close links with the specialist hepatology services and liver nurses to ensure that clients are quickly identified and referred for support and treatment where necessary.

### ***Healthcare Associated Infection***

Healthcare associated infections are a range of infections acquired in healthcare settings or as a direct result of healthcare interventions such as medical or surgical treatment. The most common types of healthcare-associated infection are respiratory infections, urinary tract infections and surgical site infections.

Everyone carries large numbers of micro-organisms on their skin or in their bodies, which only become a problem when the person becomes unwell or when the organisms have the opportunity to enter the bloodstream e.g. from an intravenous cannula.

There are national surveillance programme to monitor the numbers of certain infections that occur in healthcare settings, including Staphylococcus aureus, Escherichia coli, Clostridium difficile and surgical site infection. These infections can range from mild to life threatening.

Some strains of Staphylococcus aureus have developed resistance to antibiotics, such as methicillin resistant Staphylococcus aureus (MRSA), and will require different types of antibiotic to treat them.

Numerous interventions aimed at reducing the incidence of healthcare associated infections have been introduced over the last 8 years. These have contributed to a marked decrease in MRSA bacteraemia and Clostridium difficile infection rates in Southend and England over this time.

It is probably impossible to completely eradicate healthcare associated infections. In addition to clean environments, the key interventions that can significantly reduce their incidence include good hand hygiene practices, proper use of invasive medical equipment and prudent use of antibiotics.

The inappropriate use of antibiotics has contributed to the dramatic rise in antibiotic resistance over the last 40 years, and few new antibiotics have been developed. Work is being undertaken at a national level to tackle antimicrobial resistance, directed by a cross-government antimicrobial resistance strategy.

At a local level a multidisciplinary Antimicrobial Resistance Group has been established to develop a local strategy and action plan to slow the development and spread of antimicrobial resistance by tackling overuse and misuse of antibiotics. In addition healthcare professionals and members of the public are being encouraged to become an "Antibiotic Guardian".

### ***Emergency preparedness***

Threats to the public's health such as outbreaks of disease or severe weather conditions can arise at any time. On occasions these can escalate into a major incident requiring the implementation of special arrangements by one or a number of agencies.

The Civil Contingencies Act 2004 (CCA) was brought in to ensure that the organisations best placed to manage emergency response and recovery are at the heart of civil protection.

The Act divides local responders into two categories. Category 1 responders are those organisations at the core of emergency response, such as the emergency services, local authorities and acute hospitals. They have a range of specific duties around risk assessment, the development of emergency plans and business continuity management arrangements; as well as making information available to the public with the ability to 'warn, inform and advise' in the event of an emergency.

Category 2 responders include the utilities, transport, the Health and Safety Executive and Clinical Commissioning Groups. They generally support the emergency response through the provision of specialist support, equipment or advice.

The CCA requirement for multi-agency co-operation in emergency preparedness is fulfilled at the local level by the Essex Local Resilience Forum, which brings together Category 1 and 2 responders. The Emergency Planning Lead Officer for Southend Borough Council and the Director of Public Health are both members of the Essex LRF.

There is also an Essex Local Health Resilience Partnership which brings together senior representatives from the health sector across Essex to co-ordinate and support joint working and effective planning of the health emergency response. Their key responsibilities include the production of local sector-wide health plans to

respond to emergencies as well as to contribute to multi-agency emergency planning.

Greater numbers of people are known to die during periods of extreme temperature. In response, Public Health England has developed a Cold Weather Plan and Heatwave Plan, associated with a national Weather Alert service which operates from 1 November to 31 March and from 1 June to 15 September. This uses Met Office data to trigger levels of response from NHS, local government and the public health system and communication of risks to the public when severe cold or hot weather is forecast.

At a local level, Southend Borough Council facilitates the distribution of relevant heatwave and cold weather planning guidance to the relevant non NHS agencies in the community (including education establishments and residential homes) and cascades the Weather Alert Level notifications.

### **Screening**

Screening is the process of identifying apparently healthy people, who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce associated risks or complications arising from the disease or condition.

However, the screening process is not perfect and in every screening programme there are some false positives (wrongly reported as having the condition) and false negatives (wrongly reported as not having the condition). The UK National Screening Committee advises the NHS on which population screening programmes are implemented. There are currently 11 NHS systematic population screening programmes, including 5 young person and adult screening programmes.

England has 3 national cancer screening programmes; breast, cervical and bowel. The NHS Breast Screening Programme aims to find breast cancer at an early stage, often before there are any symptoms. To do this, X-rays are taken of each breast (mammogram) to look for any abnormalities in breast tissue.

Women in England aged 50-70 years are invited for screening every three years. The NHS is currently in the process of trialling extending the programme, offering screening to some women from the age 47 and up to 73 years old.

In Southend the breast screening coverage for women aged 50-70 years in 2015 was 67.9%, which is significantly lower than the England average of 75.4%.

The NHS Cervical Screening Programme aims to prevent cancer by detecting abnormalities in cells of the cervix and referring women for further investigation and potential treatment.

Screening is offered every three years to all women aged 25 to 49 years and every five years to those aged 50 to 64 years. Southend has historically had a low coverage in this screening programme and most recent data (2015) shows that there has been no significant improvement, with coverage currently at 72.6%.

The NHS Bowel Cancer Screening Programme aims to detect bowel cancer at an early stage when treatment is more likely to be effective. A faecal occult blood (FOB) screening kit is offered to men and women aged 60 to 74 every two years. This test detects occult traces of blood in a small stool sample. People with a positive test are referred further tests and treatment, if necessary.

An additional one-off bowel scope screening test is gradually being offered in England to men and women at the age of 55. A bowel scope (a thin, flexible instrument) is used to look inside the lower part of the bowel to find any small polyps which may develop into bowel cancer if left untreated.

The NHS Bowel Cancer Screening Programme has been in place for 10 years, but uptake is still low both nationally and locally. For Southend, in 2015 coverage was 53.7% compared with an England average of 57.1%, against a required target of 75%.

People with diabetes are at risk of a condition called diabetic retinopathy. This condition occurs when diabetes affects small blood vessels, damaging the part of the eye called the retina. The NHS Diabetic Eye Screening Programme offers screening every 12 months to all people with diabetes aged 12 and over. The screening test involves examining and taking photographs of the back of the eyes.

An abdominal aortic aneurysm (AAA) is a dangerous swelling (aneurysm) of the aorta, which is the main blood vessel that runs from the heart, down through the abdomen to the rest of the body. An AAA usually causes no symptoms, but if it bursts it is extremely dangerous and usually fatal. The condition is far commoner in men aged over 65 than in women or younger men.

The NHS Abdominal Aortic Aneurysm (AAA) Screening Programme involves a simple ultrasound scan to measure the abdominal aorta. Once identified AAAs can be monitored or treated, greatly reducing the chances of the aneurysm causing serious problems.

## Summary of Recommendations

- Southend Public Health Department should support the Public Health England local Health Protection Team to provide regular updates on the reporting of and management of communicable diseases and outbreaks for staff in primary care and schools.
- Ensure timely sharing of information between Public Health England, Southend Borough Council and Primary Care about outbreaks in healthcare settings, care homes and schools so that prompt action can be taken.
- Every opportunity should be taken to actively promote immunisation uptake in children across Southend. This should include promotion in children's centres and at school entry.
- Work should continue with primary care and midwives to immunise more pregnant women against whooping cough.
- Provide information about immunisations to a broad range of partners who work with older people to enable them to pass on accurate information on the importance of immunisations at appropriate opportunities.
- A review is undertaken of the Southend Seasonal Influenza Action Plan outcomes for 2016/17, and the findings used to inform any changes to the action plan for 2017/18.
- Share best practice of those GPs delivering high rates of seasonal vaccination as part of the 'locality approach' of the South and Mid Essex Sustainable Transformation Plan.
- All health and social care organisations covering Southend should put in place plans to increase staff influenza vaccination uptake to meet the nationally agreed targets.
- Southend University Hospital NHS Foundation Trust to review how to provide additional support to increase uptake of influenza vaccination in at risk groups and specifically pregnant women.
- Training is made available to professionals to raise awareness of TB in vulnerable groups including homeless, drug and alcohol misusers, as well as new migrants from high incidence countries, to ensure prompt referral when TB is suspected.
- The Council collaborates with the East of England TB Control Board and local partners to ensure directly observed therapy (DOT) is available for those people with TB in the most disadvantaged or hard to reach groups.

- The Council supports the East of England TB Control Board and local stakeholders to implement the local plan for latent TB infection testing and treatment services.
- Undertake a review of availability of chlamydia screening in sexual health service venues and community based settings to ensure screening is available in the populations with the highest need based on positivity.
- Raise professional awareness about who to screen and test for HIV to continue the reduction in late diagnosis.
- Continue efforts to reduce stigma and highlight testing opportunities to those at greatest risk of HIV.
- Continue to increase standards and implementation of infection control measures across health and social care services (such as hand washing, use of personal protective equipment, decontamination, sterilisation, and patient isolation).
- Continue to promote the role of Antibiotic Guardian with healthcare professionals and the public.
- Promote public education about appropriate use of antibiotics and the importance of adherence to the prescribed dose and taking the full course of antibiotics.
- The Essex Local Health Resilience Partnership should be asked to prepare an Annual Report and present to the Southend Health & Wellbeing Board and Cabinet to provide assurance to the Council on local health sector emergency preparedness.
- Consideration to be given to the inclusion of information on NHS screening programmes in 'Making Every Contact Count' training. This will enable staff from health, the local authority and other organisations to promote screening through routine health promotion messages to residents.
- Increase uptake and decrease inequity in uptake across all the screening programmes by targeting groups and communities who are less likely to access screening.

My final recommendation is:

- Establish a multiagency subgroup of the Southend Health and Wellbeing Board to oversee the development of an action plan to ensure the implementation of the recommendations of this report.

# Chapter 1 Communicable Diseases and Outbreaks

## 1.0 Background

There has been a statutory requirement to notify cases of certain infectious diseases since the end of the 19<sup>th</sup> century. Regulations which came into force in 2010 take a wider and more flexible approach to hazards, including chemicals, radiation and other environmental hazards. In addition to the specified list of infectious diseases which require notification (Table 1), there is a requirement to notify cases of other infections or substances thought to present a significant risk to human health.

It is the statutory responsibility of the attending medical practitioner to complete a notification certificate or telephone the 'Proper Officer' for the Local Authority on clinical suspicion, without waiting for laboratory confirmation of the diagnosis. For Southend Borough Council and the other local authorities in Essex, the Consultants in Communicable Disease Control at the Public Health England East of England Centre act as their Proper Officers and receive the notifications directly.

All laboratories in England performing a primary diagnostic role must also notify Public Health England when they confirm a notifiable organism. Public Health England collates the notifications and publishes an analysis of local and national trends every week.

**Table 1 Notifiable Diseases under the Health Protection (Notifiable) Regulations 2010**

Acute encephalitis	Haemolytic uraemic syndrome (HUS)	Rabies
Acute infectious hepatitis		Rubella
Acute meningitis	Infectious bloody diarrhoea	Severe acute respiratory syndrome (SARS)
Acute poliomyelitis	Invasive group A streptococcal disease	Scarlet fever
Anthrax		Smallpox
Botulism	Legionnaires' disease	Tetanus
Brucellosis	Leprosy	Tuberculosis
Cholera	Malaria	Typhus
Diphtheria	Measles	Viral haemorrhagic fever (VHF)
Enteric fever (typhoid or paratyphoid)	Meningococcal septicaemia	Whooping Cough
	Mumps	
Food poisoning	Plague	Yellow Fever

## 2.0 Incidence of Selected Notifiable Diseases in Southend

The prime purpose of the notifications system is to allow rapid detection of possible outbreaks in order to enable prompt action to be taken to prevent further cases. As cases are notified based on clinical suspicion, not all will subsequently prove to have the disease. In addition, not all cases of infectious disease are notified, as the patient may not seek medical attention, or the doctor may fail to notify.

Populations of local authority areas are too small to show meaningful trends even in the most common infections. Variations in reported cases between years may be

real, or may reflect erratic reporting. All of these factors need to be taken into consideration when reviewing the data in the next section.

Selected notifiable diseases reported to Public Health England for Southend in 2014 and 2015 are shown in Table 2.

**Table 2 Selected notifiable diseases reported to Public Health England for Southend and East of England in 2014 & 2015 (crude rate per 100,000 population and number of cases)**

Infection	Rate per 100,000 population and (number of cases) 2014		Rate per 100,000 population and (number of cases) 2015	
	Southend	East of England	Southend	East of England
<b>Gastrointestinal</b>				
Campylobacter	111.84 (199)	110.17 (6980)	123.64 (220)	91.29 (5784)
Cryptosporidium	2.81 (5)	6.76 (428)	8.99 (16)	9.75 (618)
E coli 0157	0.00 (<5)	1.12 (71)	1.69 (<5)	0.79 (50)
Giardia	0.00 (<5)	5.93 (376)	2.25 (<5)	6.63 (420)
Salmonellosis	8.99 (16)	9.83 (623)	14.05 (25)	11.10 (703)
<b>Vaccine preventable</b>				
Measles	0.00 (<5)	0.21 (13)	0.00 (<5)	0.06 (<5)
Mumps	3.37 (6)	3.46 (219)	0.56 (<5)	0.98 (62)
Pertussis (whooping cough)	3.93 (7)	5.89 (373)	2.25 (<5)	6.23 (395)
Rubella	0.00 (<5)	0.02 (<5)	0.00 (<5)	0.06 (<5)
<b>Other</b>				
Meningitis (all)	1.12 (<5)	0.95 (60)	1.12 (<5)	1.20 (76)
Meningococcal septicaemia	1.12 (<5)	0.51 (32)	0.56 (<5)	0.55 (35)
Hepatitis B	26.98 (48)	19.29 (1222)	29.22 (52)	22.79 (1444)
Hepatitis C	19.11 (34)	13.31 (843)	13.49 (24)	15.33 (971)

Data sources: Public Health England: HPZone, Second Generation Surveillance System and Enhanced Tuberculosis surveillance. ONS Mid-Year Estimates 2015 used to calculate rates.

## 2.1 Food Poisoning

Two important bacterial causes of food poisoning are Campylobacter and Salmonella.

### Campylobacter

Campylobacter is the most common bacterial cause of food poisoning in the UK and is estimated to make more than 280,000 people ill each year. Campylobacter is found in the intestinal tract of animals and birds. Methods of transmission to humans include the consumption of raw or undercooked meat, particularly chicken, as well as unpasteurised milk and contaminated water. Transmission may also occur from ready to eat foods that have been cross-contaminated with the bacteria from raw meat. It is therefore important to take care to avoid cross contamination by keeping



raw meat separate to cooked and ready to eat foods, and ensuring that hands are thoroughly washed after handling raw meat.

A UK wide survey was undertaken in 2014-15 to determine the levels of Campylobacter on whole fresh retail chickens and their packaging (1). A joint Food Standards Agency and industry target was set up to reduce the prevalence of the most contaminated chickens.

All chickens, regardless of which retail outlet they are bought from, are at risk of being contaminated with Campylobacter, which is why it is important for consumers to handle and cook their chicken safely. Effective cooking will kill any Campylobacter on the chicken.

Chicken is safe as long as consumers follow good kitchen practice:

- **Cover and chill raw chicken:** Cover raw chicken and store on the bottom shelf of the fridge so juices cannot drip on to other foods and contaminate them with food poisoning bacteria such as Campylobacter;
- **Don't wash raw chicken:** Cooking will kill any bacteria present, including Campylobacter, while washing chicken can spread bacteria by splashing;
- **Wash hands and used utensils:** Thoroughly wash and clean all utensils, chopping boards and surfaces used to prepare raw chicken. Wash hands thoroughly with soap and warm water, after handling raw chicken. This helps stop the spread of Campylobacter by avoiding cross contamination.
- **Cook chicken thoroughly:** Make sure chicken is steaming hot all the way through before serving. Cut in to the thickest part of the meat and check that it is steaming hot with no pink meat and that the juices run clear.

## Salmonella

Salmonella is found in the intestinal tracts of wild and domestic birds, animals and reptiles. The main route of transmission is through the consumption of contaminated food, particularly meat, raw eggs and dairy produce. This may occur either as a result of contamination of cooked food by raw food, or by the use of insufficiently high temperatures during cooking. Spread can also occur through close contact with infected people or animals.

### 2.2 What is Being Done Locally?

Measures are being taken to reduce the burden of vaccine preventable diseases, tuberculosis and blood borne viruses. These are discussed in other chapters of this report.

The Food Standards Agency (FSA) requires every local authority to develop and submit an annual food enforcement service plan. The purpose of the plan is to ensure that the highest achievable levels of food control (including food safety, food standards and control of feeds) are maintained, and is the basis on which local authorities are monitored and audited by the FSA.

The Regulatory Services Team within the Council is responsible for developing the Annual Southend Official Feed and Food Service Plan (2). The Service Plan outlines the inspection programme for the 1788 food premises in Southend. Priority for inspections and interventions is given to premises which have been risk assessed as presenting the highest risk in terms of their activity and the conditions at the premises. All high and medium risk category programmed inspections are to be completed within the financial year with appropriate alternative approaches adopted for the remaining inspections. For 2016/17, 964 premises required an official food hygiene intervention. There are also 9 Approved Food Premises in Southend, including the cockle processors, which are inspected annually.

### **3.0 Responding to Outbreaks**

#### **Definition**

An outbreak may be defined as:

an incident in which two or more people experiencing a similar illness are linked in time or place

The primary objective in outbreak management is to protect the public's health by identifying the source and implementing control measures to prevent further spread or recurrence of the infection.

A significant proportion of outbreaks are handled as part of the routine business of the Public Health England local Health Protection Teams (3). However, the establishment of an Outbreak Control Team is appropriate when an outbreak is characterised by:

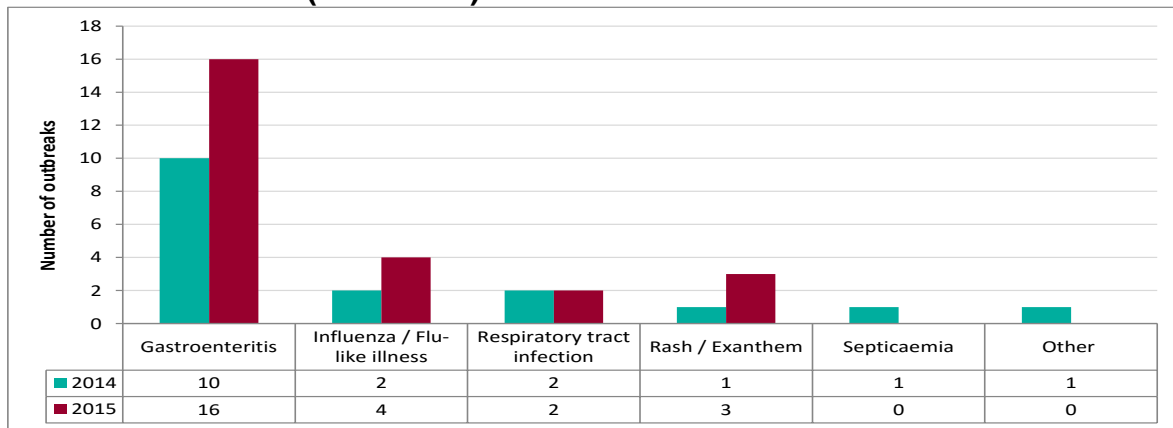
- immediate or continuing significant risk to the health of the population
- one or more cases of serious communicable disease (e.g. diphtheria)
- a large number of cases
- cases identified over a large geographical area suggesting a dispersed source

Membership of an Outbreak Control Team will vary according to the type of outbreak and the incident level. In addition to a local Health Protection Team member, members are likely to include an Environmental Health Officer, the Director of Public Health and a public health microbiologist.

Measures taken to control an outbreak can require a need to urgently mobilise resources. This might include the collection of samples for screening or diagnostic purposes or the provision of vaccines or antibiotic prophylaxis for contacts.

Figure 1 shows the number of outbreaks in Southend by type of infection reported to Public Health England (PHE) East of England in 2014 and 2015. Figure 2 shows the number of outbreaks and type of infection in Southend by setting.

**Figure 1 Number of outbreaks reported to PHE East of England in Southend (2014-2015)**



**Figure 2 Number of outbreaks reported to PHE East of England in Southend by year (2014-2015) and setting**

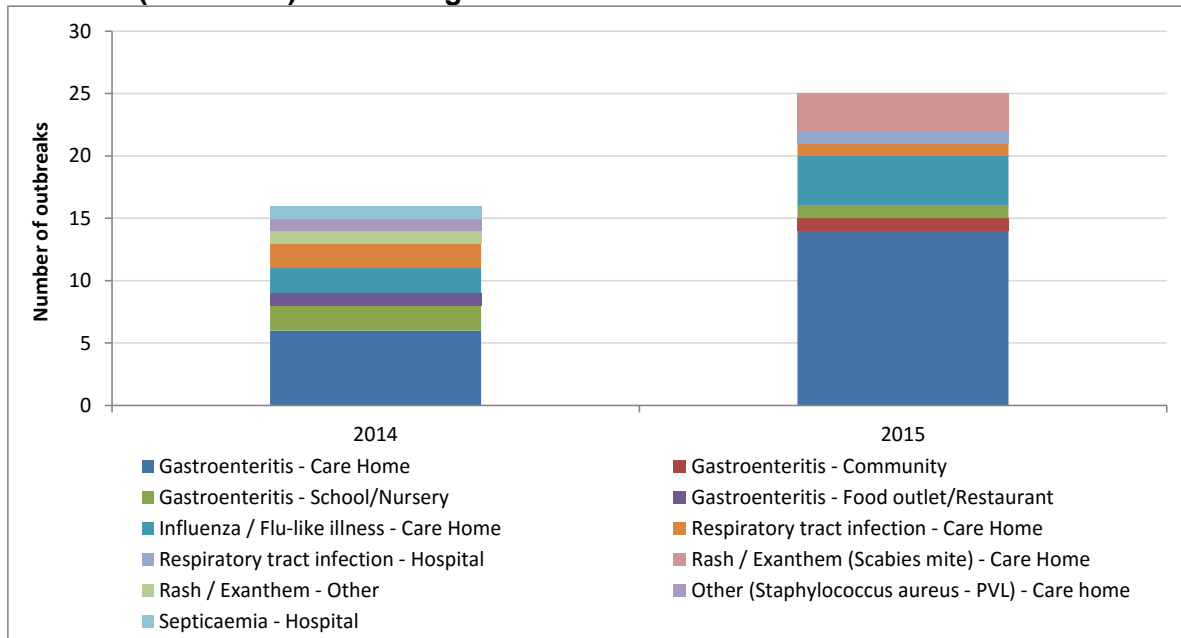


Figure 2 highlights that care homes are a common setting for outbreaks to occur. It is crucial that there are well established procedures for identifying and responding to these outbreaks. The management of outbreaks of influenza in care homes is described in Chapter 3.

#### 4.0 Recommendations

- Southend Public Health Department should support the Public Health England local Health Protection Team to provide regular updates on the reporting of and management of communicable diseases and outbreaks for staff in primary care and schools.
- Ensure timely sharing of information between Public Health England, Southend Borough Council and Primary Care about outbreaks in healthcare settings, care homes and schools so that prompt action can be taken.

## Chapter 2 Immunisation

### 1.0 Background

After clean water, immunisation is recognised as one of the most effective public health interventions for saving lives and promoting good health (1). Due to routine immunisation programmes, we no longer see serious illnesses like smallpox, and polio has almost been eradicated.

Immunisation is the process whereby a person is made immune or resistant to an infectious disease by the administration of a vaccine. Vaccines work by stimulating the body's own immune system to produce antibodies to protect against subsequent infection or disease. Immunisation programmes aim to produce long lasting immunity and have led to a drastic reduction in illness and death from infectious diseases.

Immunity can also be acquired from the transfer of antibodies from immune individuals, such as mothers to their babies across the placenta. However, this 'passive' immunity lasts for only a few weeks or months.

The primary aim of immunisation is to protect the individual who receives the vaccine. If enough people in a community are immunised they are less likely to be a source of infection to unvaccinated individuals. This concept is known as "herd immunity".

The World Health Organisation generally recommends vaccination uptake of at least 95% of the eligible population to achieve "herd immunity".

### 2.0 The UK Routine Immunisation Schedule

The routine immunisation schedule is based on the advice of the Joint Committee on Vaccination and Immunisation (JCVI) (2). The schedule has changed over time as new vaccines become available.

The aim of the routine immunisation schedule is to provide protection against the following vaccine-preventable infections:

- diphtheria
- tetanus
- pertussis (whooping cough)
- Haemophilus influenzae type b (Hib)
- polio
- meningococcal disease (certain serogroups)
- measles
- mumps
- rubella
- pneumococcal disease (certain serotypes)
- human papillomavirus (certain serotypes)
- rotavirus

The immunisation schedule has been designed to provide early protection against infections. Some immunisations are provided very early in life to offer protection against infections that are most dangerous for the very young. Further vaccinations are offered at other points throughout life to provide protection against infections before eligible individuals reach an age when they become at increased risk from those diseases. Table 1 details the routine childhood immunisation schedule as at September 2016 (2).

**Table 1 UK Routine Childhood Immunisation Programme (September 2016)**

<b>When to immunise</b>	<b>Diseases protected against</b>	<b>Vaccine given</b>
<b>Eight weeks old</b>	Diphtheria, tetanus, pertussis (whooping cough), polio and <i>Haemophilus influenzae</i> type b (Hib) Pneumococcal infection Meningococcal group B Rotavirus gastroenteritis	DTaP/IPV/Hib Pneumococcal conjugate vaccine, (PCV) MenB Rotavirus
<b>Twelve weeks old</b>	Diphtheria, tetanus, pertussis, polio and <i>Haemophilus influenzae</i> type b (Hib) Rotavirus gastroenteritis	DTaP/IPV/Hib Rotavirus
<b>Sixteen weeks old</b>	Diphtheria, tetanus, pertussis, polio and <i>Haemophilus influenzae</i> type b (Hib) Meningococcal group B Pneumococcal infection	DTaP/IPV/Hib MenB PCV
<b>One year old</b>	<i>Haemophilus influenzae</i> type b (Hib)/ Meningitis C Pneumococcal infection Measles, mumps and rubella Meningococcal B	Hib/MenC booster PCV booster MMR MenB booster
<b>Two to up to seventeen years old</b>	Influenza (each year from September)	Live attenuated influenza vaccine (LAIV)
<b>Three years &amp; four months or soon after</b>	Diphtheria, tetanus, pertussis and polio Measles, mumps and rubella	DTaP/IPV or dTaP/IPV +MMR
<b>Girls aged twelve to thirteen</b>	Cervical cancer caused by human papilloma virus types 16 and 18	HPV (2 doses 6-24 months apart)
<b>Fourteen years old (School Year 9)</b>	Diphtheria, tetanus, polio Meningococcal groups A,C,W and Y	Td/IPV MenACWY

Source: Public Health England (2)

## 2.0 Monitoring Uptake of Childhood Immunisations

Vaccination coverage is the best indicator of the level of protection a population will have against vaccine preventable diseases, and is closely correlated with levels of disease. Monitoring vaccine coverage can help to identify possible drops in immunity before levels of disease rise.

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

Tables 2-4 detail how Southend childhood vaccine uptake rates compare to England and regional rates.

**Table 2 Percentage of children immunised by their 1st birthday 2015/16**

Area	Diphtheria, Tetanus, Polio, Pertussis, Hib (DtaP/IPV/Hib) (%)	Pneumococcal Disease (PCV) (%)	Rotavirus (%) – 2015/16 data*
Southend	93.8	94.1	90.7
East of England	95.6	95.6	-
England	93.6	93.5	-

Source: COVER data, Public Health England

\*Rotavirus data still undergoing evaluation

**Table 3 Percentage of children immunised by their 2nd birthday 2015/16**

Area	Diphtheria, Tetanus, Polio, Pertussis, Hib (DTaP/IPV/Hib) (%)	MMR (%)	Pneumococcal Disease (PCV) (%)
Southend	95.4	93.0	93.5
East of England	96.4	93.5	93.5
England	95.2	91.9	91.5

Source: COVER data, Public Health England

**Table 4 Percentage of children immunised by their 5<sup>th</sup> birthday 2015/16**

Area	Diphtheria, Tetanus, Polio, Pertussis, Hib (DTaP/IPV/Hib) Primary (%)	Diphtheria, Tetanus, Polio, Pertussis, Hib (DTaP/IPV/Hib) Booster (%)	MMR first dose (%)	MMR first and second dose (%)	Hib/ Men C booster (%)
Southend	95.9	91.6	94.8	90.4	93.9
East of England	96.7	90	96.8	91.8	94.4
England	95.6	86.3	94.8	88.2	92.6

Source: COVER data, Public Health England

Uptake of flu immunisation in children in discussed in Chapter 3.

There is generally good uptake of primary childhood immunisations in Southend, with sufficient uptake to achieve herd immunity for most of the programmes. Uptake of the second dose of MMR (measles, mumps and rubella) vaccine, however, still remains an issue and remains around 5% below the target uptake. This has important implications for herd immunity against measles.

Public Health England undertakes surveillance to ensure early detection of increased numbers of cases of infectious diseases. Following an increase in cases of pertussis (whooping cough), including in infants under three months of age who are most vulnerable to severe disease, a national pertussis outbreak was declared in April 2012. This led to a temporary immunisation programme in which pregnant women were offered pertussis immunisation to protect infants from birth, through intra-uterine transfer of maternal antibodies until they can receive the pertussis vaccine at 8 weeks old (3). The reported incidence of pertussis in infants under three months subsequently fell back to levels observed before the 2012 peak. In 2014, this maternal immunisation programme was extended for a further five years (4).

Pertussis activity remains high in 2016 and unprotected young infants continue to be at risk. In Southend the monthly uptake of the prenatal pertussis vaccine ranged from between 40.8% and 55.7% each month between April 2015 and March 2016. GPs, practice nurses, obstetricians and midwives should continue to encourage pregnant women to receive the vaccine.

### **3.0 Recent Changes to the Childhood Immunisation Programme**

A number of changes to the national immunisation programme were made during 2015-16 to reflect the recommendations by the national Joint Committee on Vaccination and Immunisation (JCVI) to improve the overall level of protection against preventable diseases.

The main changes relate to vaccines for meningococcal disease. Meningococcal disease can affect all age groups, but cases increase from birth and peak at five months before declining gradually until 24 months. Cases remain low until 12 years of age and then gradually increase to a smaller peak at 18 years before declining again.

Since September 2015, all infants born from 1 July 2015 became eligible for the meningococcal B vaccine which is administered together with the other primary immunisations at 2 months, 4 months and 12 months.

Due to the success of the MenC programme introduced in 1999, there are now very few cases of invasive meningococcal serogroup C disease. Since July 2016, infants no longer require the MenC vaccine at 12 weeks of age (5). Children will continue to be immunised against MenC via the Hib/MenC vaccine dose given at 12 months of age and the MenACWY conjugate vaccine dose given at around 14 years of age.

Various sub groups of meningococcal disease can spread quickly in areas where people live closely to each other, such as in university halls of residence. Young people aged 25 and under about to start university and have not received MenACWY will also be offered the vaccine.

#### **4.0 Adult Immunisations**

Immunisation is often seen as the domain of children, however, immunisation should be seen as a necessary intervention across all stages of life. Evidence demonstrates that older people are at greater risk of morbidity and mortality from vaccine-preventable diseases. The reasons for this include reduced immunity with age leading to increased susceptibility to more severe and frequent infections. In addition they may not have received immunisations in younger years and newer vaccines may not have been available to them when they were children.

Older adults (65 years or older) should be routinely offered a single dose of pneumococcal polysaccharide vaccine, if they have not previously received it. Annual influenza vaccination should also be offered.

Adults aged 70 should also be offered shingles vaccine, with a phased 'catch up' so that those up to 79 are offered the vaccine.

Uptake of influenza vaccination is discussed in detail in Chapter 3. In 2014/15 only 58.4% of eligible people aged 65 years or over in Southend received the pneumococcal vaccine, which is significantly lower than the England average (70.1%). Similarly uptake of shingles vaccine in 2014/15 in 70 year olds is also significantly lower than the England average, at 46.6% compared to 58.3%.

#### **5.0 What is Being Done Locally?**

NHS England local area teams are responsible for commissioning the national immunisation services locally and for providing system leadership to all those involved.



Contracts to provide immunisation services are held with a range of providers, including general practices for immunisations given in primary care and community providers for immunisations given in a school setting. Contracts are also held with some community pharmacists, for example for flu vaccine.

The local NHS England team offers help and support to immunisation providers and recently commissioned a series of free update sessions aimed at practice nurses across Essex. The aim of these sessions is to help share learning from recent incidents and to provide a round-up of hot topics, general updates and changes to the immunisation schedule.

The Health Protection Team, part of Public Health England, has provided training and update sessions on the pertussis and flu vaccinations for pregnant women for the midwives in Essex.

The local NHS England team lead commissioner for immunisations holds a bimonthly immunisation oversight meeting attended by public health staff from the three upper tier authorities in Essex.

## **6.0 Recommendations**

- Every opportunity should be taken to actively promote immunisation uptake in children across Southend. This should include promotion in children's centres and at school entry
- Work should continue with primary care and midwives to immunise more pregnant women against whooping cough
- Provide information about immunisations to a broad range of partners who work with older people to enable them to pass on accurate information on the importance of immunisations at appropriate opportunities

## Chapter 3 Seasonal Influenza

### 1.0 Background

Influenza (flu) is an acute viral infection of the respiratory tract. Symptoms frequently include fever, headache, cough, sore throat, extreme fatigue, and aching muscles and joints.

The influenza virus is highly contagious and is easily passed from person-to-person when an infected person coughs or sneezes. Transmission can also occur by touching a contaminated surface e.g. a door handle, and then putting the fingers in the mouth or near the eyes. Even people with mild or minimal symptoms can still infect others.

For most healthy individuals, influenza is an unpleasant but usually self-limiting illness with recovery usually within a week. However, for some it can lead to serious complications such as bronchitis and secondary bacterial pneumonia, which may require treatment in hospital and can be life threatening.

Those at higher risk of serious complications include people aged 65 or over, children and adults with an underlying chronic health condition such as respiratory disease, heart disease and diabetes, those with weakened immune systems as well as pregnant women (1).

Most cases of seasonal influenza in the UK tend to occur during an eight to ten week period during the winter. The timing, extent and severity of this can vary from year to year. In addition to the impact on the health and social care system (2), seasonal influenza can have a significant impact on the wider society through sickness absence amongst the working age population. The latest UK Labour force market survey identified that minor illnesses, including influenza, accounted for 27.4 million lost working days in 2013. This was 30% of all sickness absences and the most common reason for worker absence (3).

### 2.0 The Influenza Immunisation Programme

The aim of the national influenza immunisation programme is to protect those who are at a higher risk of serious illness or death should they develop influenza. It also helps to reduce transmission of the infection (4).

Seasonal influenza vaccine, or 'flu jab' should be offered, ideally before influenza starts circulating, to those in the following clinical risk groups:

- All those aged 65 or older
- Adults and children (over the age of 6 months) with chronic underlying health problems
  - A chest complaint or breathing difficulties, e.g. severe asthma, chronic bronchitis or emphysema
  - A heart problem
  - A kidney disease
  - Liver disease

- A neurological disease e.g. multiple sclerosis
- Diabetes
- Lowered immunity due to disease or treatment e.g. cancer treatment
- All pregnant women

Immunisation is also offered to health and social care staff directly involved in the care of patients/ clients to contribute to the protection of these vulnerable groups and to reduce sickness absence through the winter. It can also be offered to the main carers of older or disabled people and household contacts of immunocompromised people.

As different strains of influenza virus circulate each year, the vaccine formula is changed annually based on the strains most likely for the coming influenza season. This means that eligible people need to get a flu jab every year.

Following advice from the Joint Committee for Vaccination and Immunisation, the annual influenza immunisation programme is being extended to include vaccination of healthy children aged two to less than 17 years old. These children will generally receive the vaccine as an intranasal spray. In addition to preventing a large number of cases of influenza in children, it will also provide indirect protection by reducing transmission of influenza from children to adults and those in the clinical risk groups of any age.

Due to the scale of the programme it is being phased in over a number of years. This began in 2013, with the inclusion of children aged two and three years in the routine programme. There were also seven geographical pilots of primary school aged children, including one in South East Essex covering Southend.

From 2016/17, the intranasal influenza vaccine will be offered to two, three and four year olds and children in school years 1, 2 and 3. In addition, the pilot influenza immunisation programmes in primary schools will be continued. The intent is that the programme will gradually extend over future years to all primary school aged children.

## **2.1 Uptake of Influenza Vaccine in Southend**

NHS England local area teams are responsible for commissioning the national influenza immunisation programme. Contracts to provide influenza immunisation services are held with a range of providers, including general practices for immunisations given in primary care and community providers for immunisations given in a school setting.

The NHS England Essex Area Team undertook an influenza immunisation pilot in 2014/15 with a number of community pharmacists, which evaluated positively. From 2015/16, a national scheme was introduced to enable all community pharmacies to provide flu vaccination to eligible adult patients where they met key criteria.

Influenza immunisation should be offered to 100% of those eligible to receive it. Table 1 shows the percentage uptake of influenza vaccine for each eligible group in 2015 -2016. The range of the lowest and highest uptake by GP practice in Southend

is also provided for people aged over 65, those under 65 in a clinical risk group, and pregnant women.

**Table 1 Seasonal Influenza Vaccine Uptake by Eligible Population in Southend compared with England 2015/16**

Eligible Population	National Targets 2015/16	Uptake of influenza vaccine in England 2015/16	Uptake of influenza vaccine in Southend 2015/16
<b>Aged 2 years</b>	65%	35.4%	18.8%
<b>Aged 3 years</b>	65%	37.7%	22.1%
<b>Aged 4 years</b>	65%	30.0%	15.7%
<b>Age 5 (School year 1)</b>	Not included	N/A	54.4% (local pilot)
<b>Age 6 (School year 2)</b>	Not included	N/A	52.9% (local pilot)
<b>Age 7 (School year 3)</b>	Not included	N/A	NA
<b>All Pregnant Women</b>	(range 40 to 65%) as per at risk groups)	42.3%	39.2%* (Range 26.7% - 60.6%)
<b>Under 65- at risk</b>	55%	45.1%	38.0%* (Range 23.2% - 63.3%)
<b>65 and over</b>	75%	71%	64.1%* (Range 50.3% - 80.3%)
<b>Health Care Workers</b>	75%	54.6%	SUHFT-59.3% SEPT- 30.1% NELFT-24.7%
<b>Social Care Workers</b>	75%	Data not available	Data not available

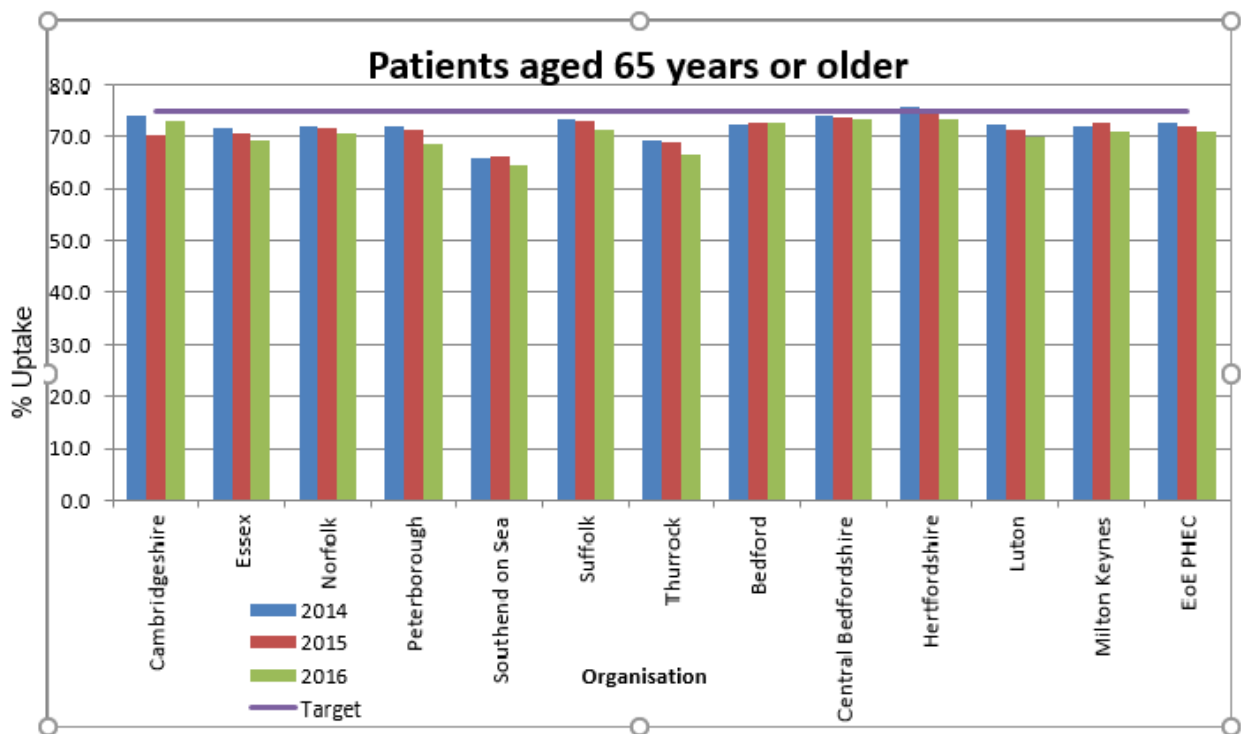
**Source:** Public Health England Public (PHE) 2016. Influenza Immunisation Vaccine Uptake Monitoring Programme

\* The range of the lowest and highest uptake by GP practice in Southend is provided for people aged over 65, those under 65 in a clinical risk group, and pregnant women.

The poor uptake of influenza vaccine across virtually all eligible groups at both a national and a local level is concerning. Figure 1 highlights the continued downward trend of influenza vaccine uptake in persons aged 65 and over in Southend since 2014. This downward trend is generally reflected in the other local authority areas covered by the Public Health East of England Centre.

The exact cause of this downward trend in uptake of influenza vaccine is not known. It is unfortunate that there is often poor public perception of the benefits of influenza immunisation, often fuelled by negative media coverage and general misinformation.

**Figure 1** Trend of influenza vaccine uptake in persons aged 65 and over in Southend compared to the Public Health England East of England Region for 2014 to 2016.



Source: Public Health England (PHE) 2016. Influenza Immunisation Vaccine Uptake Monitoring Programme

### 3.0 What is Being Done Locally?

Addressing the impact of seasonal influenza is a priority for the Southend health and care economy. Southend has an older population, with 18.9% of people aged 65 and over compared to the England average of 17.6%. Southend also has more people living with three or more long term conditions compared with England. This means that Southend has more people in the higher risk clinical groups who are more likely to suffer complications from influenza.

The commissioning of the seasonal influenza vaccination programme is undertaken by staff in the NHS England local area teams. The Director of Public Health in local authorities has a challenge and assurance role for local arrangements to ensure access to flu immunisation to improve uptake by eligible populations (5).

Following a review of the 2015/16 seasonal influenza immunisation programme in Southend, initiatives were put in place to increase local uptake. These included the establishment of a multi-agency Seasonal Flu Oversight Group to develop a detailed Southend Seasonal Influenza Action Plan to increase uptake of flu vaccine as part of the 2016/17 immunisation programme.

This group comprised representation from all key stakeholders, including local GPs and Community Pharmacists, Social Care, Public Health England, Southend

University Hospital NHS Foundation Trust, South Essex Partnership NHS Trust and NHS Southend CCG.

To set an example to other employers and increase uptake of flu vaccine amongst its own workforce, the Borough Council commissioned an influenza immunisation programme for all Council front line staff. This programme covered care staff working in council commissioned residential and care homes and staff employed by domiciliary care providers working in Southend. This programme has been commissioned for the 2016/17 season.

The Council also worked closely with NHS Southend CCG and Public Health England to increase uptake of influenza vaccination amongst staff in the top twenty care homes in the borough with the highest rates of patients admitted to hospital as a result of a respiratory condition. This work included a major communications and publicity programme to promote the benefits of flu immunisations as well as challenging the myths and misinformation about the vaccine. A number of face to face workshops and training sessions were also delivered in the community and local care homes.

The Council's Public Health Team has worked closely with NHS Southend to develop a specific plan for outbreaks of influenza in residential and care homes in Southend. When the Public Health England East of England local health protection team is alerted to a number of residents in a home with clinical symptoms suggestive of influenza, nose and throat swabs of those affected are sent off for laboratory confirmation. If the infection is confirmed as influenza, all unaffected residents are offered antiviral prophylaxis and appropriate infection control measures are put in place in the home. Public health commission the service for taking swabs and provision of antivirals, and NHS Southend Clinical Commissioning Group provide the funding for antivirals.

#### **4.0 Recommendations**

- A review is undertaken of the Southend Seasonal Influenza Action Plan outcomes for 2016/17 and the findings used to inform any changes to the action plan for 2017/18.
- Share best practice of those GPs delivering high rates of seasonal vaccination as part of the 'locality approach' of the South and Mid Essex Sustainable Transformation Plan
- All health and social care organisations covering Southend should put in place plans to increase staff influenza vaccination uptake to meet the nationally agreed targets
- Southend University Hospital NHS Foundation Trust to review how to provide additional support to increase uptake of influenza vaccination in at risk groups and specifically pregnant women

## Chapter 4 Tuberculosis

### 1.0 Background

Tuberculosis (TB) is caused by infection with the bacteria *Mycobacterium tuberculosis* and can affect almost any part of the body, most commonly the lungs (1). The disease develops slowly and it may take several months before symptoms appear. Symptoms of TB include persistent cough, possibly with blood stained sputum, fever, weight loss and night sweats, and can be fatal if left untreated.

TB is spread by breathing in airborne droplets when a person with infectious respiratory TB coughs or sneezes. However, TB is much less infectious than other respiratory infections, such as influenza. Prolonged close contact such as living in the same household with an infected person is generally required to transmit the disease.

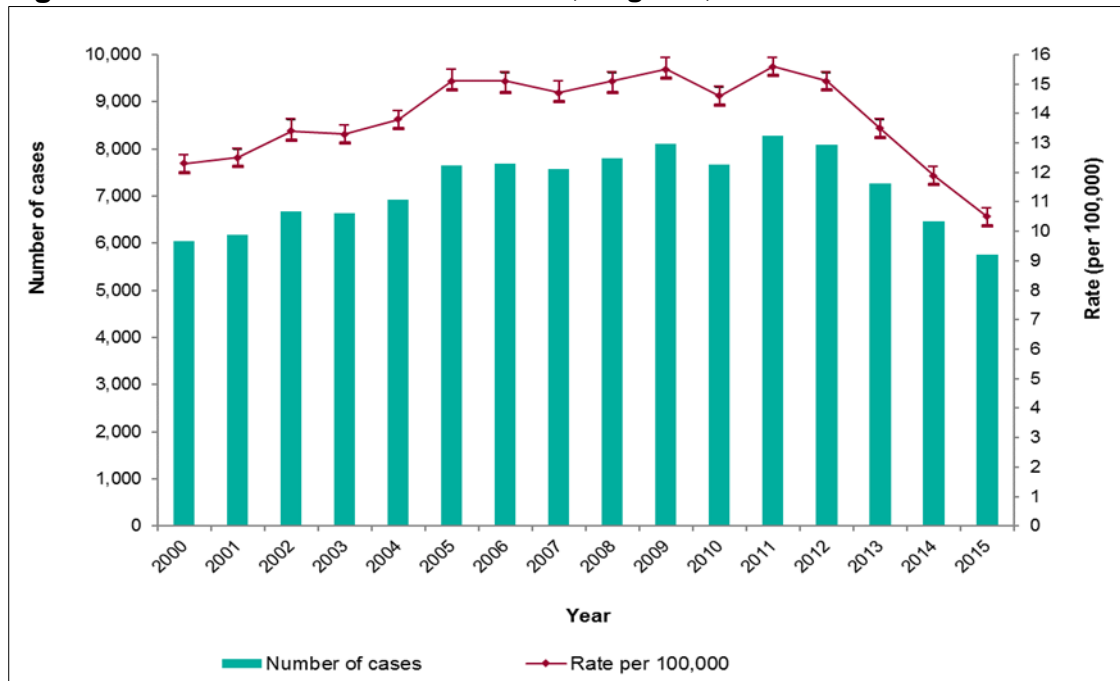
Not everyone who comes into contact with TB gets the disease. In some people the initial infection may be eliminated or they may develop latent disease when the TB bacteria remain in the body but the individual has no symptoms. Latent TB infection (LTBI) may reactivate later in life, particularly if an individual's immune system has become weakened e.g. through HIV, cancer chemotherapy or in old age. Up to 10% of people who have LTBI will develop the disease at some point in their lifetime (2).

At the beginning of the 20<sup>th</sup> Century there were over 117,000 new cases of TB in England every year. By the 1980s, with better housing and nutrition along with effective treatments, the number of new cases fell to a low of 5,086 in 1987 (1). This trend then reversed with a steady increase in the number of new reported cases, reaching a peak of over 8,280 in 2011 (15.6 new cases per 100,000 population), with the highest numbers concentrated in urban areas, particularly London (3).

Over the past four years there has been a year-on-year decline in the number of new cases of TB in England, down to 5,758 cases (10.5 new cases per 100,000 population) in 2015, a reduction of one third since the peak in 2011. This trend is shown in Figure 1.

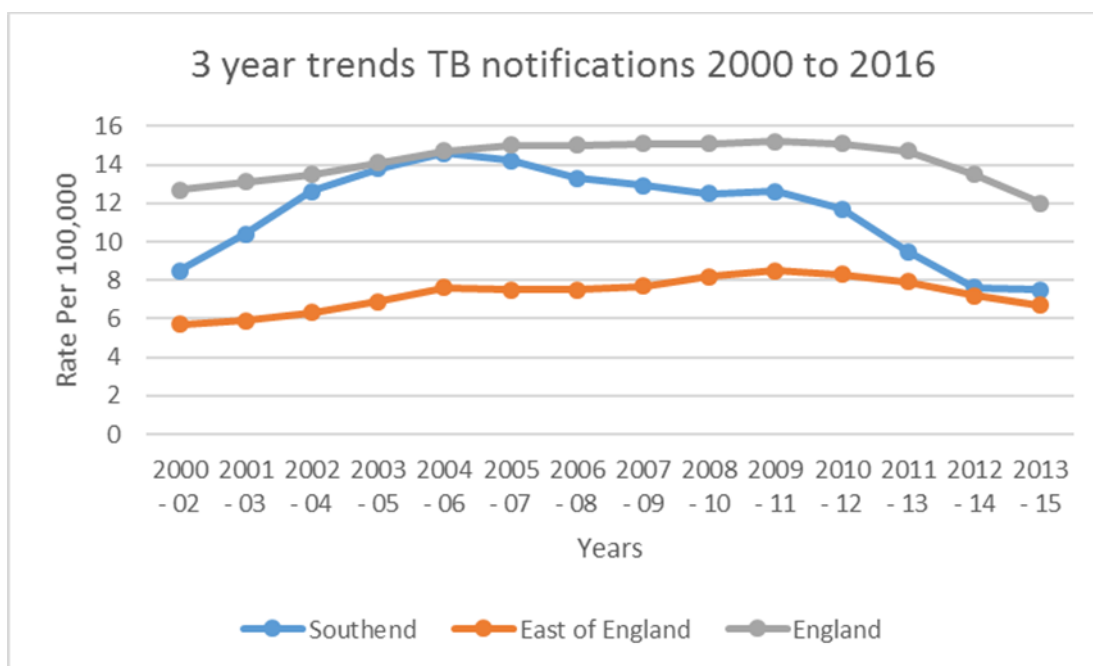
Figure 2 highlights the three yearly trend of TB notifications in Southend from 2000-2 to 2013-15. The peak incidence of TB occurred in 2004-6 and has since continued to decline to a three average rate of 7.5 new cases per 100,000 population in 2013-15.

**Figure 1 TB case notifications and rates, England, 2000-2015**



Source: Public Health England

**Figure 2 Notifications of TB in Southend compared to England and East of England Region (three year average incidence per 100,000, 2000-2 to 2013-15)**



Source: Public Health England 2016. TB Strategy Monitoring Indicators (4)



## **2.0 The Changing Pattern of Tuberculosis**

Over the last 50 years TB has changed from a being disease that occurred across all parts of the population to one occurring predominantly in specific population subgroups (1).

Rates of TB are higher in certain communities, mainly by virtue of their connections to higher-prevalence areas of the world. The rate of TB in the non-UK born population is 15 times higher than in the UK born population, and 73% of all TB cases notified in 2015 were born abroad (3). Of these, 60% had been in the country for longer than six years, suggesting latent TB infection may have played a role in these cases.

In other communities, social risk factors such as homelessness, drug or alcohol misuse and imprisonment, are important factors. Despite the recent reduction in overall TB cases, the proportion of cases with at least one social risk factor increased from 9.8% in 2014 to 11.8% in 2015.

### **2.1 National Initiatives to Tackle Tuberculosis**

Although England is considered as a low incidence country for TB, it still has one of the highest rates of TB notifications in Western Europe. To tackle this problem Public Health England in close collaboration with NHS England and a coalition of key stakeholders launched the TB strategy for England 2015-2020 (5). This aims to achieve a year-on-year decrease in TB incidence, and ultimately the elimination of TB as a public health problem in England.

The strategy includes ten key areas of action including the prompt identification of individuals who are infectious and ensuring that they are placed on appropriate treatment; vaccination of high risk groups; maintaining excellent diagnostic services; tackling drug resistant TB; identifying and treating those with latent TB; ensuring contact tracing happens; and workforce planning to deliver these interventions.

The national TB strategy created a national TB Office and seven multiagency TB Control Boards to oversee the implementation of the national strategy.

The UK previously screened migrants from countries with a high incidence of TB at the time of entry into the country. This has since been replaced with a chest x-ray based screening for active pulmonary TB prior to entry to the UK (6).

There are effective treatments for TB and there is now a focus on picking up the disease when it is latent. From 2015, there has been a national roll-out through GP practices of systematically testing and treating eligible new migrants for latent TB infection (7).

The BCG vaccine is most effective against the most severe forms of the TB in children, but less effective in preventing respiratory TB, which is the more common form in adults (1). From 2005, the BCG vaccine has been given to babies and children with a parent or grandparent from a country with a high incidence of TB

(over 40 cases per 100,000), or those who live in an area of the UK where the incidence of TB is high.

### **3.0 What is Being Done Locally?**

The East of England TB Control Board, which covers the population of Essex, has comprehensive plans in place to address the key recommendations of the national TB strategy across the region. A network of local TB Control Boards from across the region, including Southend, link to the regional Board.

Over the past year, the Council has been working with the Essex TB Control Board on a number of initiatives, including the delivery of housing solutions for vulnerable homeless people diagnosed with TB.

The Clinical Commissioning Groups in South Essex commission the community TB service from South Essex Partnership NHS Foundation Trust. The aim of the service is to prevent the spread of TB in the community by providing rapid assessment of those suspected to have active TB and to arrange treatment at the earliest opportunity. All tuberculosis patients are cared for by a multidisciplinary team, and specialist TB nurses follow up and support patients once they are presumed to have TB to ensure medication is taken to completion. The nurses also identify and screen those who have been in contact with the case and provide support to people with TB and their families.

The local drug and alcohol service collaborates with the community TB service to support directly observed therapy (DOT) for people with TB with substance misuse problems. This involves the supervision of the patient by a healthcare worker when taking their medication, leading to better compliance with treatment. The local sexual health services have also been promoting the uptake of TB screening for all those offered HIV testing.

### **4.0 Recommendations**

To continue the downward trend of TB notifications in Southend it is recommended that:

- Training is made available to professionals to raise awareness of TB in vulnerable groups including homeless, drug and alcohol misusers, as well as new migrants from high incidence countries, to ensure prompt referral when TB is suspected.
- The Council collaborates with the East of England TB Control Board and local partners to ensure DOT therapy is available for those people with TB in the most disadvantaged or hard to reach groups
- The Council supports the East of England TB Control Board and local stakeholders to implement the local plan for latent TB infection testing and treatment services

# Chapter 5 Sexual Health and Blood Borne Viruses

## 1.0 Background

Good sexual health is fundamental to the health and wellbeing of individuals. It is underpinned by the provision of high quality, safe and accessible sexual health services and interventions.

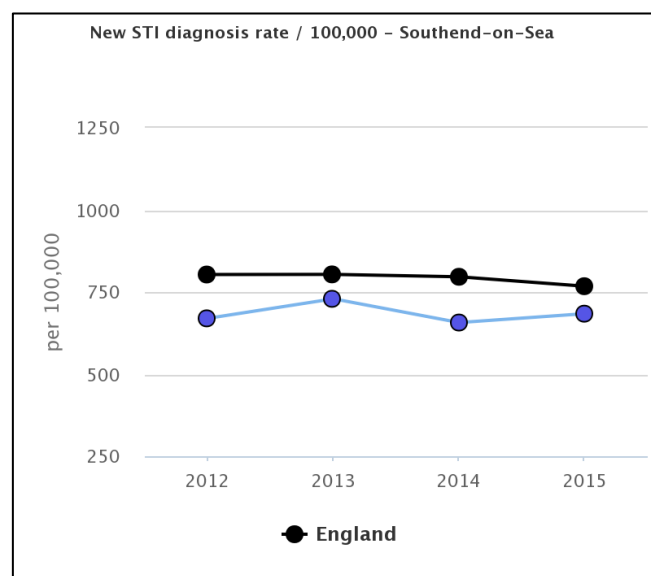
Despite progress in recent years, the UK continues to have high rates of sexual ill health. Within the population sexual health needs vary according to factors including age, gender, ethnicity and sexuality, with some groups disproportionately at risk of poor sexual health. These include young people aged 16-24, men who have sex with men, the 50+ age group, black and minority ethnic groups and other high risk groups such as sex workers and people misusing drugs and/or alcohol (1). In order to improve sexual health outcomes, intervention programmes should be developed based on a robust evidence base and local needs.

Since April 2013, local authorities in England have been responsible for commissioning the majority of sexual health services, including sexually transmitted infections (STI) testing and treatment, and notification of sexual partners of infected persons (2). Clinical Commissioning Groups and NHS England commission other aspects of sexual health care.

## 2.0 Sexually Transmitted Infections

Information on the burden of sexually transmitted infections (STIs) in the population is collected from Genitourinary Medicine (GUM) Services, primary care and community services. The rate of new STI diagnoses in Southend remains significantly lower than the national average (Figure 1).

**Figure 1 New STI Diagnoses in Southend compared to England average (rate per 100,000 and excluding Chlamydia in under 25's)**



Source:PHE Fingertips

## 2.1 Chlamydia

Chlamydia is the most common bacterial sexually transmitted infection in England, with rates substantially higher in young adults than any other age group

Chlamydia infection is often asymptomatic and if left untreated it can cause a range of complications such as pelvic inflammatory disease, infertility and ectopic pregnancy.

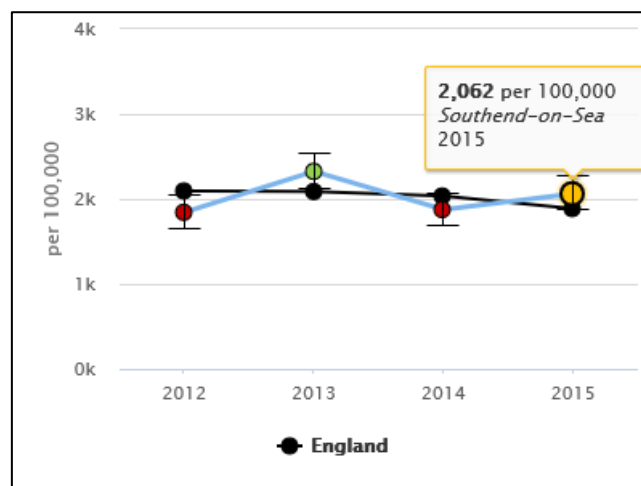
The National Chlamydia Screening Programme (NCSP) recommends that all sexually active under 25 year old men and women are tested for chlamydia every year or on change of sexual partner. By diagnosing and treating asymptomatic chlamydia infections, chlamydia screening can reduce the duration of infection, reduce the risk of developing complications, and reduce transmission (3).

The chlamydia detection rate amongst under 25 year olds is used as a measure of chlamydia control activity, with an increased detection rate being indicative of increased control activity. Public Health England recommends that local authorities should be working towards achieving a detection rate of at least 2,300 per 100,000 population aged 15-24.

Southend continues to have a significantly better rate of chlamydia screening in 15-24 year olds than the national average (23.8% compared to 22.5% in 2015).

Figure 2 highlights that the chlamydia detection rate in Southend is similar to the England average, but remains below the recommended level to reduce the prevalence of chlamydia in the population.

**Figure 2 Chlamydia Detection Rate in Southend compared to England (rate per 100,000 aged 15-24, 2012- 2015)**



Source:PHE Fingertips

## 2.2 Other Sexually Transmitted Infections

### Gonorrhoea

Gonorrhoea is the second most common bacterial sexually transmitted infection in the UK. Diagnoses of gonorrhoea are particularly concentrated in young adults, men who have sex with men and black ethnic minority populations.

Gonorrhoea is often used as a marker for rates of unsafe sexual activity. This is because the majority of cases are diagnosed in genitourinary medicine (GUM) settings, and consequently the number of cases may be a measure of access to sexually transmitted infection treatment. Infection with gonorrhoea is also more likely than chlamydia to result in symptoms.

Rates of gonorrhoea in Southend are significantly lower than the national average (Figure 3).

**Figure 3 Gonorrhoea Diagnostic Rate in Southend Compared to England Average (Rate per 100,000 population, 2009-2015)**

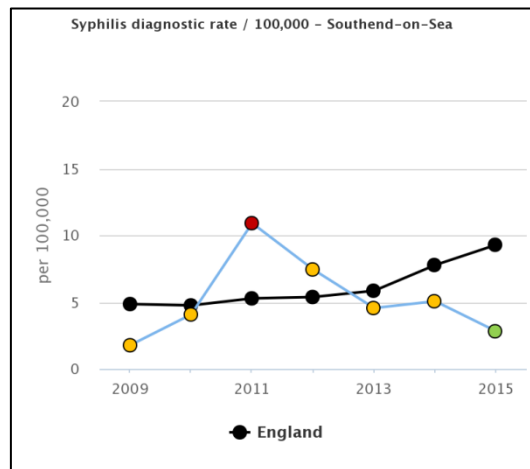


Source: PHE Fingertips

### Syphilis

If untreated, syphilis can have serious health implications. These include damage to the internal organs, nervous system, bones and even death. Syphilis is an important public health issue in men who have sex with men (MSM) among whom incidence has increased over the past decade. Figure 4 illustrates the trend in all syphilis diagnoses among people accessing GUM services in Southend. The diagnostic rate has continued to fall since 2011, and is now significantly lower than the national rate (Figure 4).

**Figure 4 Syphilis Diagnostic Rate in Southend Compared to England Average (Rate per 100,000 population, 2009-20015)**



Source: PHE Fingertips

## Genital Warts and Genital Herpes

Genital warts are the result of a viral skin infection caused by the human papilloma virus and genital herpes is caused by herpes simplex virus, types 1 and 2. The diagnostic rate of genital warts and genital herpes in Southend are both similar to the England average.

### 3.0 Human Immunodeficiency Virus (HIV) and Blood Borne Viruses

Blood-borne viruses (BBVs) are viruses that are carried in the blood and can be transmitted from one person to another. Those infected with a BBV may show little or no symptoms of serious disease, but other infected people may be severely ill.

The most common blood borne viruses are:

- Human immunodeficiency virus
- Hepatitis B
- Hepatitis C

### 3.1 HIV

Human immunodeficiency virus (HIV) is a virus that attacks the body's immune system, by destroying a type of white blood cell called a T cell (or CD4 cell), weakening the ability to fight infections and disease, including cancer. There is currently no cure for HIV but there is a range of effective treatments.

HIV can be transmitted by unprotected sexual intercourse, shared needle use by injecting drug users, needle stick injuries in healthcare workers as well as mother to child transmission before, during or after (via breast milk from an infected mother) the birth of the child.

HIV remains an important communicable disease in the UK. It is associated with considerable morbidity and mortality, high treatment and care costs. Treatment is available with highly active anti-retroviral therapy, which has led to a substantial reduction in the incidence of AIDS and the numbers of HIV-related deaths (4).

In 2015, there were an estimated 101,200 people living with HIV infection in the UK, equivalent to 1.6 per 1,000 people; 13% were unaware of their infection and at risk of passing on the infection. There were also 6,095 new HIV diagnoses in the UK in 2015, this represents a new diagnosis rate of 11.4 per 100,000 people which is higher than most other countries in western Europe (5).

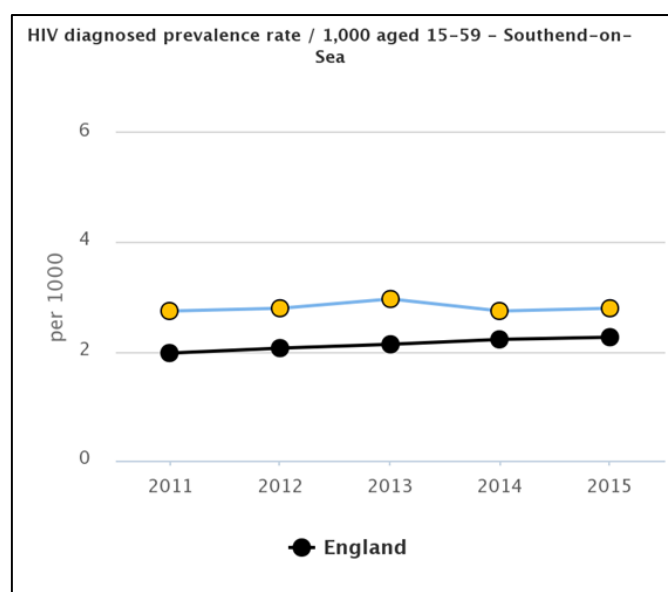
Of those diagnosed in 2015, 71% were aged between 25 and 49 years, and 17% were aged 50 years and over. The number of new cases of HIV reported in gay and bisexual men remains high and accounted for 54% of the new diagnoses in 2015. Of the 39% of the new cases of HIV acquired heterosexually, fewer cases were in people who were born abroad.

People living with HIV can expect a near normal life expectancy if they are diagnosed and treated promptly. A late HIV diagnosis (defined as having a CD4 cell count less than 350/mm<sup>3</sup> within three months of diagnosis) can have adverse consequences on the individual including making it more likely the person will have frequent admissions to hospital due to illness and reducing their life expectancy. In 2015, among those with CD4 data available, 39% of adults were diagnosed late.

### 3.2 HIV in Southend

The prevalence of HIV in Southend has historically been higher than the national average, although, over time the difference has narrowed (Figure 5).

**Figure 5 HIV prevalence in Southend compared to England (diagnosed rate per 1000 population aged 15-59 years)**

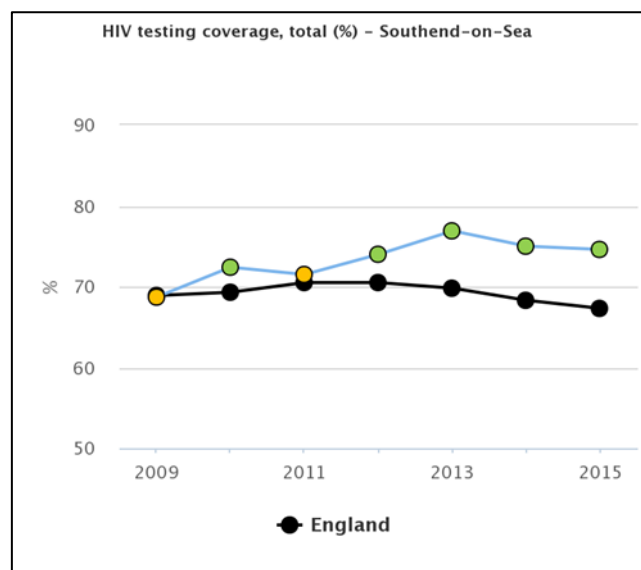


Source: PHE Fingertips

The rate of new HIV diagnosis in Southend has almost halved since 2012. In 2015, there were 8.9 new HIV diagnosis per 100,000 population among people aged 15 and over in Southend, which is lower than England average (12.1 per 100,000 population aged 15+)

HIV testing is integral to the treatment and management of HIV. Knowledge of HIV status increases survival rates, improves quality of life and reduces the risk of HIV transmission. Figure 6 shows that HIV test coverage in Southend is significantly higher than the national coverage. HIV testing coverage data represents the number of people tested for HIV.

**Figure 6 HIV testing coverage in Southend compared to England, 2009-15  
(% uptake in eligible new attendees to genitourinary medicine clinics)**



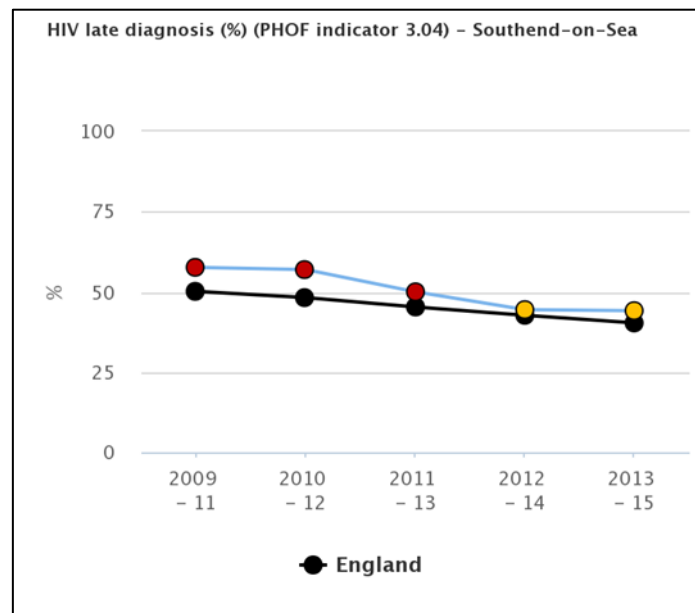
Source: PHE Fingertips

Late diagnosis of HIV is the most important predictor of morbidity and mortality among those with the infection. Those diagnosed late have ten times the risk of death compared to those diagnosed promptly.

Over the last five years there has been a continued downward trend in the proportion of individuals diagnosed late with HIV in Southend, which is now similar to the England average (Figure 7).



**Figure 7 HIV late diagnosis in Southend compared to England 2009-15**



Source: PHE Fingertips

#### **4.0 Hepatitis B and C**

Hepatitis B virus (HBV) replicates in the liver, and is also present at very high levels in the blood of people who are infected. The virus is transmitted by contact with an infected person's blood or body fluids contaminated by blood, and can be spread through sexual transmission, needle stick injuries, tattooing and body piercing, use of contaminated equipment for IV drug use as well as transmission from an infectious mother to her unborn child.

Many people with hepatitis B won't experience any symptoms and the infection will resolve without them realising they had it. In some people the virus persists for six months or more to develop chronic hepatitis B. The risk of chronic infection varies with age, occurring in 90% of those infected perinatally, but is less frequent in those infected as children. About 5% or less of previously healthy people infected as adults become chronically infected (6). The long term complications of chronic hepatitis B infection include liver cirrhosis and hepatocellular carcinoma, the most common type of primary liver cancer.

Hepatitis B is relatively uncommon in the UK and most cases affect people who become infected while growing up in part of the world where the infection is more common, such as Southeast Asia and sub-Saharan Africa.

Transmission of hepatitis B can be prevented through a course of vaccinations. These are offered to those at highest risk of infection: household contacts of people with hepatitis B including the babies of mothers with hepatitis B, injecting drug users and healthcare workers.

The hepatitis C virus (HCV) is also transmitted by contact with an infected person's blood or body fluids contaminated by blood. The routes of transmission are similar to hepatitis B, although transmission through unprotected sexual intercourse is less likely.

Most people with hepatitis C do not experience any symptoms. Unlike hepatitis B, 50-80% of people infected with hepatitis C go on to develop chronic infection. Of these 15% will develop liver cirrhosis and 2- 5% will develop hepatocellular carcinoma every year (7).

About 214,000 people have chronic hepatitis C in the UK, which is equivalent to 0.4% of the adult population. Up to 90% of hepatitis C infections in the UK are acquired through injecting drug use.

Although there is no vaccine for hepatitis C, it is a potentially curable disease. People with chronic hepatitis C infection should be referred to a specialist and considered for antiviral therapy.

## **5.0 What is Being Done Locally?**

### **5.1 Sexual Health and HIV**

Southend-on-Sea Borough Council has commissioned the SHORE (Sexual Health, Outreach, Reproduction and Education) Integrated Sexual Health Service. This is delivered through a collaborative partnership between South Essex Partnership Trust, Southend University Hospital Foundation Trust Hospital and Brook young people's sexual health organisation.

The integrated sexual health service ensures that all aspects of the service are working consistently to national standards and contractual requirements. It includes:

- Contraceptive, sexual health and reproductive health services
- Genitourinary medicine services
- Specialist input for termination of pregnancy service
- Chlamydia screening including online and postal chlamydia testing services, and a data administration service
- Education Based Health Service - delivered in identified secondary schools and further/higher colleges in Southend.
- Management of the chlamydia testing and treatment and Long Acting Reversible Contraception services in primary care general practice settings
- Management of the chlamydia testing and treatment services and Emergency Hormonal Contraception in primary care community pharmacy settings
- Microbiology Services
- The Brook My Life programme: This is a programme that enables individuals and groups of young people to take charge to improve their own health and wellbeing by exploring skills, goal setting and becoming more emotionally resilient.
- Management of a separately commissioned 'Sexual Health Promotion and Community HIV Prevention Service' contract. This is currently contracted to the Terrence Higgins Trust.

SHORE now provides same day HIV testing as part of a four sexually transmitted infections (STI) test offer (HIV, syphilis, chlamydia and gonorrhoea) and full STI screening across all its sites.

The Council has also commissioned the national HIV self-sampling service to deliver online HIV tests since January 2016, to Southend-on-Sea residents through the online kit request service ([www.test.hiv](http://www.test.hiv)). This service is being promoted through the national website and by SHORE and Terrence Higgins Trust with targeted communities and businesses.

## **5.2 Hepatitis B and C**

Specialist drug and alcohol services in Southend prioritise hepatitis B and C interventions within their nurse-led health and wellbeing work. They have developed pathways to specialist hepatology services and are working closely with liver nurses to ensure clients are quickly identified and referred for support where necessary. The most recent data suggests that this work is having an effect, and that the number of patients receiving hepatitis C tests is now greater than the England average.

## **6.0 Recommendations**

- Undertake a review of availability of chlamydia screening in sexual health service venues and community based settings to ensure screening is available in the populations with the highest need, based on positivity.
- Raise professional awareness about who to screen and test for HIV to continue the reduction in late diagnosis.
- Continue efforts to reduce stigma and highlight testing opportunities to those at greatest risk of HIV.

## **Chapter 6            Healthcare Associated Infection**

### **1.0    Background**

Healthcare associated infections are a range of infections acquired in healthcare settings or as a direct result of healthcare interventions such as medical or surgical treatment (1). They occur most frequently in hospitals but can also be acquired in the community (including clinics, care homes and patient's own home); and affect patients, healthcare workers, carers and visitors.

Healthcare associated infection can result in significant harm to those infected; causing illness, delaying recovery, prolonging hospital stay, and may cause serious disability or even death.

### **2.0    The Scale of the Problem**

Approximately, 300,000 patients a year in England are affected by a healthcare-associated infection as a result of care within the NHS (2). The most common types of healthcare-associated infection are respiratory infections (22.8%), urinary tract infections (17.2%) and surgical site infections (15.7%) (3). The cost of healthcare associated infections to the NHS is estimated to be in the region of £1 billion a year (4).

Everyone carries large numbers of micro-organisms on their skin or in their bodies, which only become a problem when the person becomes unwell or when the organisms have the opportunity to enter the bloodstream. People are at a greater risk of getting an infection when

- they are very young or very old,
- they have underlying health conditions e.g. diabetes which can impair their natural immune response
- their treatment involves invasive procedures e.g. urinary catheters or intravenous drips that provide an entry point for infection,
- they have a compromised immune system e.g. patients receiving chemotherapy
- they have a longer length of hospital stay or are in a high-risk area e.g. Intensive Care Unit (2).

### **3.0    Types of Healthcare Associated Infections**

As part of the work to reduce healthcare associated infections, Public Health England runs a national surveillance programme to monitor the numbers of certain infections that occur in healthcare settings.

There are 4 mandatory surveillance programmes:

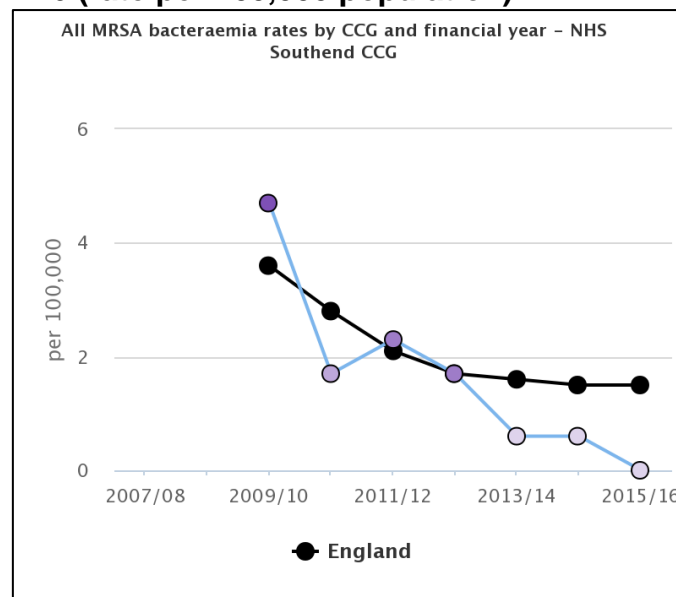
- Staphylococcus aureus (methicillin resistant Staphylococcus aureus or MRSA and methicillin sensitive Staphylococcus aureus or MSSA)
- Escherichia coli
- Clostridium difficile infection
- Surgical site infection

### 3.1 Staphylococcus aureus

Staphylococcus aureus (*S. aureus*) is a bacterium that is commonly found on human skin and mucosa without causing any problems. However, if the bacteria enter the body e.g. through a break in the skin or via medical equipment, such as catheters and drips, they can cause health problems ranging from mild to life threatening. These include skin and wound infections, abscesses, joint infections, infections of the heart valves, pneumonia and bacteraemia (blood stream infection).

Most strains of *S. aureus* are sensitive to commonly used antibiotics, but others have developed resistance, such as methicillin resistant Staphylococcus aureus (MRSA), and will require different types of antibiotic to treat them.

**Figure 1 MRSA bacteraemia rates in Southend and England, 2007-16 (rate per 100,000 population)**

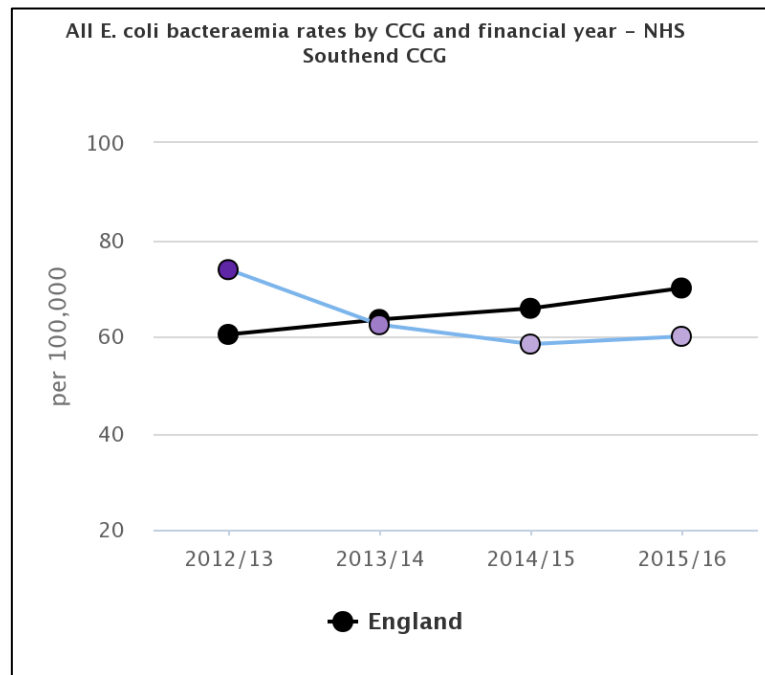


Source: Public Health England

### 3.2 Escherichia coli

Escherichia coli (*E. coli*) bacteria are found in the intestines of humans and animals. *E. coli* bacteria can cause a range of infections including urinary tract infection, intestinal infection and can also spread to the blood causing bacteraemia. In England there has been a steady rise in the number of cases of *E. coli* bacteraemia reported over the past 4 years. Southend has not seen the same increase and remains below the England average (Figure 2).

**Figure 2 E Coli Bacteraemia rates in Southend and England, 2012 -16 (rate per 100,000 population)**



Source: Public Health England

Bacteraemia can be divided into two categories: ‘hospital-acquired,’ in which positive blood cultures occur more than 2 days after hospital entry; and ‘community-onset,’ occurring in the community or detected before 2 days of hospitalisation. Surveillance indicates that three quarters of E. coli bacteraemia cases have their onset in the community, so this is the setting where prevention and infection control interventions will have most benefit.

### 3.3 Clostridium difficile

Clostridium difficile (C. difficile) is a bacterium that is found in people’s intestines. It can be found in healthy people (3% of adults) where it causes no symptoms. When people are unwell and treated with antibiotics, this allows C. difficile to grow to take over the gut and causes diarrhoea.

C. difficile infections can range in severity from mild diarrhoea through to severe inflammation of the intestine, but they can usually be treated with another course of antibiotics (5). Infection with C difficile can spread easily to others from contact with a contaminated environment or infected person.

Since 2004 the reporting of C difficile has been mandatory and there has been an overall decrease in the counts and rates of all reported cases since 2007.

NHS England set official guidance for C. difficile infection for NHS organisations in 2016/17, including objectives for maximum number of cases and rates of infection for acute hospitals and NHS commissioners. Table 1 shows the objectives for the local area. A sanction can be applied if hospitals exceed their case objective.

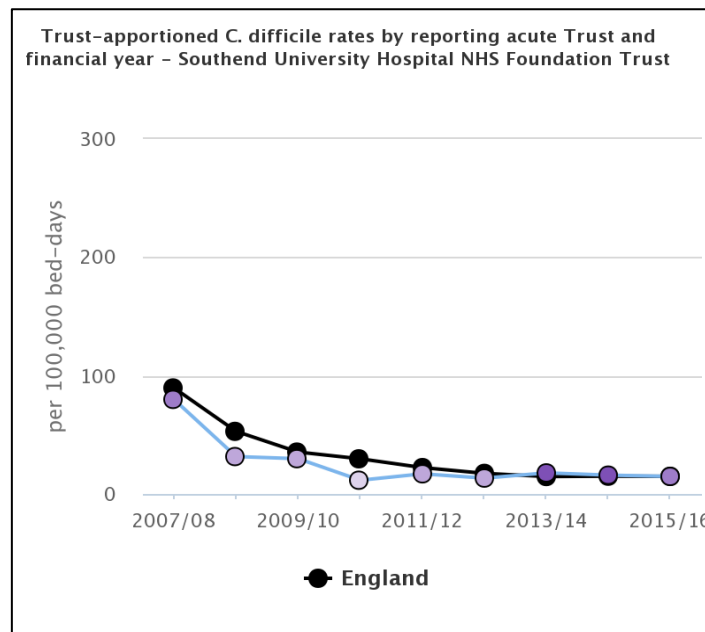
**Table 1: Clostridium difficile (CDI) objectives for Southend University Hospital NHS Foundation Trust and NHS Southend Clinical Commissioning Group 2016/17**

Organisation	CDI case objective	CDI rate objective
<b>Southend University Hospital NHS Foundation Trust</b>	<b>30</b>	<b>17.3</b>
<b>NHS Southend Clinical Commissioning Group</b>	<b>36</b>	<b>20.5</b>

Source: NHS England

Southend University Hospital NHS Foundation Trust has shown the same decrease in rates of C. difficile as has been seen nationally (Figure 3) and is below the expected case maximum.

**Figure 3 Trust apportioned C. difficile rates Southend University Hospital Foundation NHS Trust 2007-2016**



Source: NHS England

### 3.4 Surgical Site Infection (SSI)

A surgical site infection is an infection that occurs after surgery in the part of the body where the surgery took place. Surgical site infections can sometimes be relatively minor infections involving the skin only. Other surgical site infections are more serious and can involve tissues under the skin, organs, or implanted material.

## **4.0 Reducing Healthcare Associated Infections**

The Department of Health has made the control and prevention of healthcare associated infections a top priority (6). In addition improving cleanliness and reducing healthcare associated infections is a top tier 'must do' target for the NHS (7).

Although it is probably impossible to completely eradicate healthcare associated infections, in addition to clean environments, the key interventions that can significantly reduce their incidence are:

- Good hand hygiene practices
- Proper use of invasive medical equipment e.g. intravascular (IV) lines mechanical ventilation and catheters
- Prudent use of antimicrobials and optimising prescribing practice

### **4.1 Good Hand Hygiene Practices**

The single most cost-effective intervention to prevent the transmission of healthcare associated infection is good hand hygiene, by washing hands with soap and water or using alcohol-based hand rubs before and after patient contact (8).

The *Cleanyourhands* campaign run by the National Patient Safety Agency was associated with increased hospital procurement of both alcohol hand rub and soap, with reduced rates of MRSA bacteremia and C difficile infection (9). This campaign has now been superseded in hospitals by the World Health Organisation's 'Save Lives – Clean your hands' and the 'Five Moments for hand hygiene'.

Sometimes even the best hand washing will not be enough, and there is a need to wear protective equipment such as gloves and an apron.

### **4.2 Proper Use of Invasive Medical Equipment**

Common invasive devices e.g. urinary catheters or intravenous cannulas carry a greater risk of healthcare associated infections. These may result from contamination from the skin during insertion of the device, contamination on staff hands when manipulating the device, or if the device is left in place for prolonged periods.

Strict infection control guidelines govern the use and management of invasive devices, their decontamination and disposal and the frequency with which they are checked and replaced while in use.

### **4.3 Prudent Use of Antibiotics**

Modern medicine relies on antibiotics for preventing and treating serious infections, and their use is an essential component of modern surgery, cancer chemotherapy and organ transplants.



Antibiotic resistance (also known as antimicrobial resistance) occurs when bacteria adapt and become resistant to the medicines used so that they no longer work effectively.

The inappropriate use of antibiotics has contributed to the dramatic rise in antibiotic resistance over the last 40 years, and few new antibiotics have been developed. This has led to increased pressure on existing antibiotics and greater challenges in treating patients (10).

Work is being undertaken at a national level to tackle antimicrobial resistance, directed by a cross-government antimicrobial resistance strategy (11). This focuses activities around improving the knowledge and understanding of antimicrobial resistance, conserving the effectiveness of existing treatments and stimulating the development of new antibiotics, diagnostics and novel therapies

There are also a wide range of national initiatives to improve antibiotic prescribing practice:

- Raising awareness e.g. European Antibiotic Awareness Day' (EAAD) is held in November each year, aimed at health professionals and the public
- Optimising prescribing in primary care via education programmes such as Stemming the Tide of Antibiotic Resistance and Treat Antibiotics Responsibly, Guidance, Education, Tools (TARGET). Health Education England has also produced an e-learning module *Reducing Antimicrobial Resistance: An Introduction* aimed at all health and social care staff
- Optimising prescribing in hospitals and antimicrobial stewardship - the introduction of multi-professional specialist teams to monitor prescribing, resistance, and infections, and to supporting prescribers in choice and use of antibiotics (12)
- Measures to reduce the use of some antibiotics (associated with an increased risk of infection) e.g. cephalosporin and quinolone antibiotics
- Funding research

NICE have recently issued guidance on the effective use of antimicrobials (including antibiotics) which aims to change prescribing practice to help slow the emergence of antimicrobial resistance (13).

The change in prescribing practice needs to be coupled with further public campaigns around antibiotics. There is good evidence that these campaigns lead to reduction in use (14).

## **5.0 What is Being Done Locally?**

### **5.1 Healthcare Associated Infections**

Healthcare associated infections have been tackled successfully in recent years in Southend. This has resulted from a wide range of initiatives that have already been launched across the health economy. These include the widespread implementation of the "clean your hands campaign" and the Saving Lives High Impact Interventions initiative which focuses on actions that are known to make a difference, such as good catheter care.

Southend Clinical Commissioning Group (CCG) works closely with Southend University NHS Foundation Trust on infection control issues and audits cases of *C. difficile* and MRSA bacteraemia. All cases of *Clostridium difficile* and MRSA bacteraemia are reviewed by provider organisations with CCG infection prevention and control input. The CCG Governing Body receives regular updates on healthcare associated infections.

## **5.2 Antimicrobial Resistance**

A multidisciplinary Antimicrobial Resistance Group has been established to develop a strategy and action plan to slow the development and spread of antimicrobial resistance by tackling overuse and misuse of antibiotics.

The Public Health team has highlighted a resource called 'e-bug' which has gone out to schools through the local Schools Learning Network. E-bug is a free educational resource for classroom and home use to make learning about micro-organisms, the spread, prevention and treatment of infection, fun and accessible for all students.

All healthcare professionals and members of the public are being encouraged to become an Antibiotic Guardian.

The Southend CCG Medicines Management Team continues to work with prescribers and pharmacists to educate staff, promote good antibiotic prescribing practice and to audit antibiotic prescribing.

The use of delayed prescriptions in primary care for simple non-bacterial infections e.g. sore throats. Prescribers issue an antibiotic prescription but ask the patient to wait 24-48 hours to see if the condition resolves before commencing use. This has been shown to reduce antibiotic usage.

## **6.0 Recommendations**

- Continue to increase standards and implementation of infection control measures across health and social care services (such as hand washing, use of personal protective equipment, decontamination, sterilisation, and patient isolation).
- Continue to promote the role of Antibiotic Guardian with healthcare professionals and the public.
- Promote public education about appropriate use of antibiotics and the importance of adherence to the prescribed dose and taking the full course of antibiotics.

## Chapter 7 Emergency Preparedness

### 1.0 Background

Threats to the public's health such as outbreaks of disease, environmental hazards and severe weather conditions are continually emerging and can arise at any time. On occasions these can escalate into a major incident in a short space of time, requiring the implementation of special arrangements by one or a number of agencies such as the emergency services, the NHS or the local authority.

A key role of the Director of Public Health, acting on behalf of their local authority, is to ensure that plans are in place to protect the health of their population from threats ranging from relatively minor outbreaks to full-scale emergencies (1).

This role involves collaboration with Public Health England, NHS England and other relevant agencies to plan and prepare for, and contribute to a 24/7 response capability to deal quickly and effectively with emergency situations.

### 2.0 Emergency Preparedness and Planning

The Government is responsible for emergency planning and brought in the Civil Contingencies Act 2004 (CCA) (2) to ensure that the organisations best placed to manage emergency response and recovery are at the heart of civil protection.

The Act defines an emergency as:

- an event or situation which threatens serious damage to human welfare
- an event or situation which threatens serious damage to the environment
- war or terrorism, which threatens serious damage to security

The Act divides local responders into two categories depending on the extent of their involvement in civil protection work, and places a proportionate set of duties on each.

**Category 1** responders are those organisations at the core of emergency response (e.g. emergency services, local authorities, acute hospitals, Public Health England and NHS England) and are subject to the full set of civil protection duties.

These duties include the assessment of risk of emergencies occurring and using this to inform contingency planning; putting in place emergency plans and business continuity management arrangements; having arrangements to make information available to the public about civil protection matters as well as the ability to 'warn, inform and advise' public in the event of an emergency

**Category 2** responders include the utilities, transport, the Health and Safety Executive and Clinical Commissioning Groups. They generally support the emergency response through the provision of specialist support, equipment or advice.

## **2.1 What is Being Done Locally?**

### **Essex Local Resilience Forum**

The CCA requires multi-agency co-operation in emergency preparedness. At a local level this is fulfilled by the Essex Local Resilience Forum (Essex LRF) which brings together Category 1 and 2 responders. There is also a requirement for the Essex LRF to compile a Community Risk Register based on an assessment of the key risks facing the local community. The Risk Register is then used to inform emergency planning.

To facilitate close partnership working between the organisations that make up the Essex LRF, all of their emergency planning leads meet up for a day every week (“Working on Tuesdays” group) to help prepare and update plans for responding to major emergencies. This group also helps with the preparation and running of multiagency exercises and ensures that any lessons learnt are subsequently incorporated into the relevant plans.

The Emergency Planning Lead Officer for Southend Borough Council and the Director of Public Health are both members of the Essex LRF.

### **Essex Local Health Resilience Partnership**

Local Health Resilience Partnerships (LHRPs) bring together health sector organisations to co-ordinate and support joint working and effective planning of the health emergency response (3). Their key responsibilities include the production of local sector-wide health plans to respond to emergencies as well as to contribute to multi-agency emergency planning. LHRPs are coterminous with LRFs and provide assurance about the ability of the health sector to respond in partnership to emergencies at the LRF level.

LHRPs are not statutory organisations and each constituent organisation remains responsible and accountable for their effective response to emergencies, in line with their statutory duties and obligations.

The Essex Local Health Resilience Partnership is co-chaired by the Director of Public Health for Southend-on-Sea Borough Council and the NHS England Locality Director for Mid and South Essex. The membership includes senior representatives from the health sector across Essex and the Health Protection Team at the Public Health England East of England Centre. All organisations represented on the Essex LHRP have signed a Memorandum of Understanding in relation to dealing with outbreaks involving a multiagency response.

NHS England is responsible for seeking assurance on the preparedness of the NHS in England to respond to an emergency, and that there is resilience in relation to continuing to provide patient care. This process is undertaken on an annual basis via LHRPs, and requires both health commissioners and providers to undertake a self-assessment against relevant NHS Emergency Preparedness, Resilience and Response (EPRR) Core Standards.

In the most recent assurance exercise, NHS Southend Clinical Commissioning Group was assessed as being “fully compliant” across all applicable core EPRR standards and sufficiently ready to respond to an emergency (4). Over the next 12 months Southend Clinical Commissioning Group will be undertaking further work to gain assurance that any providers they commission and any sub-contractors have robust business continuity planning arrangements in place.

On the basis of the self-assessment against the NHS Core Standards for EPRR, Southend University Hospital NHS Foundation Trust’s overall compliance is considered to be “substantially compliant”. Action has been taken to address the four criteria rated as ‘partially compliant’ within the next 6 months (5).

### **3.0 Extreme Weather and Health**

Our climate is changing and evidence suggests that more extreme changes to our climate and extreme weather events can be expected in the future. Changing climate will affect people’s health, both directly and indirectly. Taking appropriate action and preparing for these changes now should lessen their impact.

#### **3.1 Health and cold weather**

Greater numbers of people are known to die during the winter months. Cold weather increases the risk of heart attacks, strokes, and respiratory diseases, as well as injuries from slips and falls in the snow or ice. Older people, very young children, and people with serious medical conditions are particularly vulnerable to the effects of cold weather.

The reasons more people die in winter are complex and interlinked with inadequate heating and poorly insulated housing, as well as circulating infectious diseases, particularly flu and norovirus, and the extent of snow and ice.

Excess winter deaths are additional deaths which occur between December and March (December-March) compared to the average number of deaths in non-winter months (August-November and April-July). The Excess Winter Death Index in Southend is similar to the rest of England (6).

Fuel poverty is an important public health issue, and is considered to be the cause of up to 1 in 10 excess winter deaths (7). Currently 9% of households in Southend experience fuel poverty, which is significantly better than the England average (6).

#### **3.2 What is Being Done Locally?**

Local action to tackle fuel poverty was covered in detail in my last two annual reports, which are available on the Council’s website.

Every year detailed local multi-agency planning takes place to inform the System Winter Resilience Plan, with the aim of minimising the impact of cold weather on the local population and on health and social care services. This includes a detailed communications plan covering actions to increase uptake of seasonal flu vaccine in eligible groups and a ‘keep warm and well’ campaign for the general public.

As part of the Cold Weather Plan for England (8), a national Cold Weather Alert service operates from 1 November to 31 March. This uses Met Office forecasts and data to trigger levels of response from NHS, local government and the public health system and communication of risks to the public when severe cold weather is forecast.

### **3.2 Health and Hot Weather**

In contrast to deaths associated with cold snaps in winter, the rise in mortality as a result of very warm weather follows very sharply – within one or two days of the temperature rising. This means that by the time a heatwave starts, the window of opportunity for effective action is very short indeed; and therefore advanced planning and preparedness is essential

The Heatwave Plan for England and Heat Health Watch alert system were first developed following the Heatwave in 2003 when there were an estimated 2000 extra deaths in England (9). To support the Plan, the Met Office issues Heatwave Alerts from 1 June to 15 September each year.

### **3.3 What is Being Done Locally?**

At a local level, Southend Borough Council facilitates the planning for the distribution of relevant heatwave planning guidance to the relevant non NHS agencies in the community (including education establishments and residential homes) and cascades the Heat Alert Level notifications. NHS England Midlands and East Regional Team have made similar arrangements for NHS organisations.

## **4. Recommendation**

- The Essex Local Health Resilience Partnership should be asked to prepare an Annual Report and present to the Southend Health & Wellbeing Board and Cabinet to provide assurance to the Council on local health sector emergency preparedness.

## **Chapter 8 Screening**

### **1.0 Background**

Screening is the process of identifying apparently healthy people, but who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce associated risks or complications arising from the disease or condition.

The aim of screening is to identify those who are more likely to be helped than harmed by further tests or treatment to reduce risk. However, the screening process is not perfect and in every screening programme there are some false positives (wrongly reported as having the condition) and false negatives (wrongly reported as not having the condition). Before a screening programme is established there are a number of important criteria that must be met relating to the condition itself, the test, the intervention and the programme (1).

The UK National Screening Committee advises the NHS on which population screening programmes are implemented. Public Health England leads the NHS Screening Programmes and is responsible for quality assurance and monitoring uptake. Commissioning of NHS screening programmes is undertaken by NHS England. The Essex Screening and Immunisation Team based in NHS England East Team commissions the national screening programmes for the population of Southend.

There are currently 11 NHS systematic population screening programmes; six antenatal and newborn, three cancer and two young person and adult (2). This chapter focuses on the cancer and young person and adult screening programmes.

### **2.0 Cancer Screening**

England has 3 national cancer screening programmes; breast, cervical and bowel.

#### **2.1 NHS Breast Screening Programme**

Breast cancer is the most common type of cancer in females in the UK and the second most common cause of cancer death in women (3). Approximately 45,000 cases of breast cancer are diagnosed every year, usually in women who are over 50 years of age (3).

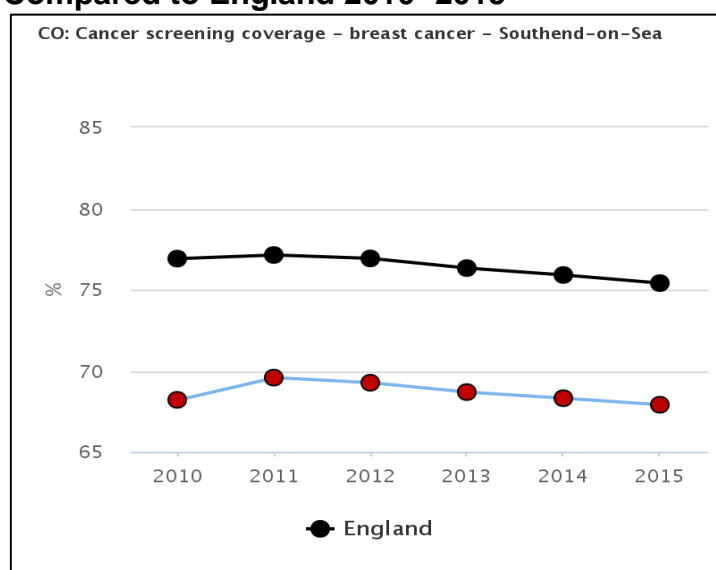
The NHS Breast Screening Programme aims to find breast cancer at an early stage, often before there are any symptoms. To do this, digital scans are taken of each breast (mammogram) to look for any abnormalities in breast tissue. Early detection may mean simpler and more successful treatment.

Women in England aged 50-70 years are invited for screening every three years. Women over 70 can continue to be screened by making an appointment at their local screening unit every three years. The NHS is currently in the process of trialling extending the programme, offering screening to some women aged 47- 49 and 71- 73 years.

For the screening programme to be effective, it is important that a substantial proportion of the eligible population participate. The minimum standard is for 70% of women who are invited over a 3-year period to be screened and the target is 80%.

In Southend the breast screening coverage for women aged 50-70 years in 2015 was 67.9%, which is significantly lower than the England average of 75.4% (Figure 1). Breast screening coverage has been decreasing both nationally and locally since 2011. There is a need to increase screening coverage to further improve outcomes and breast cancer survival rates.

**Figure 1 Breast Cancer Screening Coverage in Southend Compared to England 2010 -2015 \***



Source: Public Health Outcomes Framework  
 (\* % of eligible women screened in previous 3 years)

## 2.2 NHS Cervical Screening Programme

Cervical cancer is the 20<sup>th</sup> most common cancer in the UK, with around 3,200 new cases per year (3). The NHS Cervical Screening Programme aims to prevent cancer by detecting abnormalities in cells of the cervix and referring women for further investigation and potential treatment. Screening is offered every three years to all women aged 25 to 49 years and every five years to those aged 50 to 64 years.

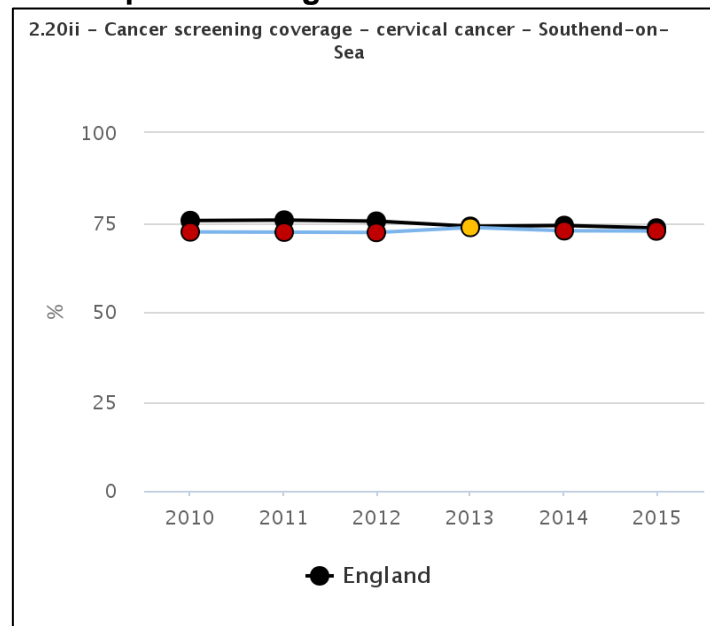
It is estimated that early detection and successful treatment can prevent up to 75% of cervical cancers from developing (3). Since its introduction, the screening programme has helped half the number of cervical cancer cases, and is estimated to save approximately 4,500 lives per year in England (4).

Southend has historically had a low coverage in this screening programme and most recent data shows that there has been no significant improvement.



Figure 2

### Cervical Screening Coverage in Southend Compared to England 2010 -15 \*



Source: Public Health Outcomes Framework

(\*% of eligible women screened adequately within the previous 3.5 or 5.5 years)

### 2.3 NHS Bowel Cancer Screening Programme

About one in 20 people in the UK will develop bowel cancer during their lifetime. It is the third most common cancer in the UK, and the second leading cause of cancer death (3). The risk of bowel cancer increases with age, with over 80% of bowel cancers arising in people who are 60 or over.

The NHS Bowel Cancer Screening Programme aims to detect bowel cancer at an early stage when treatment is more likely to be effective. Bowel cancer screening also detects polyps, which are not cancers but may develop into cancers over time and can easily be removed.

The NHS offers two types of bowel cancer screening to adults registered with a GP in England:

- A faecal occult blood (FOB) screening kit is offered to men and women aged 60 to 74 every two years. The kit is completed at home and posted to a laboratory for analysis. The FOB test detects occult (hidden) traces of blood in a small stool sample. People who test positive for FOB are referred further tests and, if necessary, treatment.
- An additional one-off test called bowel scope screening is gradually being introduced in England. This is offered to men and women at the age of 55. It involves a doctor or nurse using a sigmoidoscope (a thin, flexible instrument) to look inside the lower part of the bowel. The aim is to find any small polyps which may develop into bowel cancer if left untreated

The NHS Bowel Cancer Screening Programme has been in place for 10 years, but uptake is still low both nationally and locally. For Southend, in 2015 coverage was 53.7% compared with an England average of 57.1%, against a required target of 75%.

## **2.4 What is Being Done Locally?**

Depending on their area of residence and the breast screening round, women in Southend can access the breast screening programme at one of a number of sites. This can include the Southend University Hospital NHS Foundation Trust site, or the breast screening mobile unit which is placed at a number of venues in Southend.

In view of the falling cervical screening coverage in 25-29 year olds, a social marketing exercise has been undertaken in Essex with a wide range of stakeholders and 25-29 year old women. The findings will be used to inform local work, including a programme of communications targeting younger women.

The South Essex Bowel Cancer Screening Programme centre, which covers eligible men and women of Southend, commenced the bowel scope screening in December 2016, with plans for full implementation by the end of 2018.

## **3.0 Non-cancer young people and adult screening programmes**

### **3.1 NHS Diabetic Eye Screening Programme**

People with diabetes are at risk of a condition called diabetic retinopathy. This condition occurs when diabetes affects small blood vessels, damaging the part of the eye called the retina. Untreated this retinopathy is one of the most common causes of sight loss among people of working age. It may not cause symptoms until it is quite advanced.

The NHS Diabetic Eye Screening Programme aims to reduce the risk of sight loss in people with diabetes through the early detection, appropriate monitoring and referral for treatment of diabetic retinopathy. It offers screening every 12 months to all people with diabetes aged 12 and over. The screening test involves examining the back of the eyes and taking photographs.

The data for screening uptake is at present only available at regional level. The uptake for East of England in 2014/15 (82.4%) is similar to the England average (82.9%).

### **3.2 NHS Abdominal Aortic Aneurysm Screening Programme**

Abdominal aortic aneurysm (AAA) screening is a way of detecting a dangerous swelling (aneurysm) of the aorta – the main blood vessel that runs from the heart, down through the abdomen to the rest of the body. The swelling occurs when the wall of the aorta weakens and stretches. What causes this weakness is still unclear, however, smoking and high blood pressure are thought to increase the risk of an aneurysm.

An AAA usually causes no symptoms, but if it bursts it is extremely dangerous and usually fatal. Around 8 out of 10 people with a ruptured AAA either die before they reach hospital or do not survive surgery.

Early detection is important because once identified AAAs can be monitored or treated, greatly reducing the chances of the aneurysm causing serious problems. AAA screening involves a simple ultrasound scan to measure the abdominal aorta.

AAA is far more common in men aged over 65 than it is in women and younger men, so men are invited for screening in the year they turn 65. Men over 65 who have not previously been tested can self-refer for screening.

The NHS Abdominal Aortic Aneurysm (AAA) Screening Programme aims to reduce the number of ruptured AAAs and premature deaths among men aged 65 and over by up to 50% through early detection, follow-on tests and referral for treatment.

The Essex AAA Screening service was launched in May 2013. The uptake for 2015/16 for Essex was 78.8%. This is a promising start for a very new programme, especially as it is aimed only at men and for a condition that is not as widely known about. Data is also available at Clinical Commissioning Group level, and this shows that there is a lower uptake for AAA screening in Southend (75.4%).

### **3.3 What is Being Done Locally?**

As part of the new Essex Diabetic Eye Screening Programme, an Engagement Manager has been recruited who is working with local diabetes support groups to enhance the service and improve access. They are also working with GP practices in the promotion of the service.

The Essex AAA programme is managed by Southend University Hospital NHS Foundation Trust. The programme continues to work with GP practices and local community services to promote the programme and raise awareness among the target age group.

### **4.0 Recommendations**

- Consideration to be given to the inclusion of information on NHS screening programmes in 'Making Every Contact Count' training. This will enable staff from health, the local authority and other organisations to promote screening through routine health promotion messages to residents.
- Increase uptake and decrease inequity in uptake across all the screening programmes by targeting groups and communities who are less likely to access screening.

## Feedback from Recommendations for 2015

This section highlights some of the initiatives that have taken place in the past year that are linked to the recommendations from the 2015 Annual Public Health Report.

### Healthy Early Education and Childcare Settings

- A research report was commissioned by A Better Start Southend looking at childhood obesity. This highlighted a range of issues that contribute to childhood obesity and the associated high impact changes to address them. Children's Centres will be central to the delivery of a number of the initiatives, including peer support for breast feeding, support for the introduction of solid foods including skills for healthy cooking on a low budget, and healthy portion size.
- The appropriate regulations, including a licence from the Medicines and Healthcare Products Regulatory Agency (MHRA), and staff training have been put in place to enable Children's Centres to distribute Healthy Start Vitamins from their premises.

### Healthy Schools

- All Southend Schools engage with the Healthy Schools Agenda. There are 42 Southend schools (80%) currently working towards achieving Enhanced Healthy School Status. In July 2016, 12 further schools achieved Enhanced Healthy Schools status.
- A number of primary schools in Southend are now participating in the 'Daily Mile'. This is a simple and free initiative where children take a brisk walk outside in the playground averaging a mile each day.

### Healthy Homes

- Southend Council worked with the multi-agency South East Essex System Resilience Group to develop a 'Keep Warm, Keep Well' campaign to promote key messages to the public about how to stay well during winter, including having a flu jab.
- Southend Council continues to promote Southend Energy, an energy partnership between Southend Council and OVO Energy. Southend Energy offers Southend residents offers savings on their energy through competitive tariffs, including much-reduced standing charges and 3% interest reward on all credit balances.
- Southend Council has employed a dedicated public health private sector housing officer. This officer works predominantly with vulnerable older people, supporting them to maintain their properties and take relevant action to address issues that might impact on their physical and mental health. This enables people to stay in their own homes, reducing the likelihood of a placement in a residential or nursing

home. It also helps reduce the emergency hospital admissions, attributable to poor housing conditions.

### **Healthy Workplaces**

- During 2016, over 40 small and medium enterprises signed up to the Southend Public Health Responsibility Deal. Employees have had the opportunity to access a number of initiatives to improve their health and wellbeing, including health checks, various physical activities and workshops on topics such as eating for performance.
- Southend Council has continued to promote the health and wellbeing of its staff through a number of staff health events. This has also included the use of 'step jockey' to prompt greater physical activity by labelling the stairs for 'calorie burn'.

### **Healthy Southend**

- Southend Council declared an Air Quality Management Area in 2016 and is currently in the process of developing an air quality strategy and Air Quality Management Area action plan.
- A Southend Physical Activity Strategy has been developed with an associated comprehensive action plan. This includes actions to promote the use of green spaces and parks in the borough to increase physical activity.
- Fourteen restaurants, cafes and sandwich shops have signed up to Southend Public Health Responsibility Deal and have committed to offering healthy options on their menu.
- The Southend Public Health Responsibility Deal has been promoted to schools via the Healthy Schools Programme, resulting in 12 schools signing up to the Deal.
- A Southend Joint Adult Prevention Strategy has been developed and has identified the key areas for prioritisation of resources across the spectrum of prevention.
- Southend launched its own version of the national "One You" health initiative. This programme is focused on adults and aims to help them live longer healthier lives by addressing negative lifestyle factors.

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