



West Sussex Health Protection Annual Report 2018/2019

DRAFT

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Glossary

| | |
|---------|---|
| AAA | Abdominal Aortic Aneurysm |
| ANNB | Ante Natal and New Born |
| AQMA | Air Quality Management Area |
| aTIV | Adjuvant Trivalent Influenza Vaccine |
| BASHH | British Association for Sexual Health and HIV |
| BSI | Bloodstream Infection |
| CCG | Clinical Commissioning Group |
| CDI | Clostridium Difficile Infection |
| CQC | Care Quality Commission |
| CQUIN | Commissioning for Quality and Innovation |
| CRCE | Centre for Radiation, Chemicals and Environmental Hazards |
| DESP | Diabetic Eye Screening Programme |
| DPH | Director of Public Health |
| EHO | Environmental Health Officer |
| EPRR | Emergency Preparedness Resilience and Response |
| FIT | Faecal Immunochemical Test |
| HCAI | Health Care Associated Infection |
| HCW | Health Care Worker |
| HMS | Horsham Mid Sussex |
| HPT | Health Protection Team |
| HPV | Human Papillomavirus |
| HSE | Health and Safety Executive |
| IAAQ | Inter Authority Air Quality |
| ICU/HDU | Intensive care Unit / High Dependency Unit |
| ILI | Influenza Like Illness |
| IPC | Infection Prevention and Control |
| JCVI | Joint Committee for Vaccination and Immunisations |
| JSNA | Joint Strategic Needs Assessment |
| LHRP | Local Health Resilience Partnership |

| | |
|------|---|
| LTBI | Latent TB Infection |
| MMR | Measles Mumps and Rubella |
| MRSA | Meticillin Resistant Staphylococcus Aureus |
| MSSA | Meticillin Sensitive Staphylococcus Aureus |
| NHSE | NHS England |
| NIEH | Non-infectious Environmental Hazards |
| NOx | Nitrogen Oxides |
| PHE | Public Health England |
| PHOF | Public Health Outcome Framework |
| PM | Particulate Matter |
| QA | Quality Assurance |
| SAQP | Sussex Air Quality Partnership |
| SCFT | Sussex Community Foundation Trust |
| SQAS | Screening Quality Assurance Service |
| SRF | Sussex Resilience Forum |
| STP | Sustainability and Transformation Partnership |
| WHO | World Health Organisation |
| WSCC | West Sussex County Council |
| WSHT | Western Sussex Hospitals Trust |

Introduction

The Director of Public Health (DPH) role encompasses statutory and non-statutory functions in order to deliver an effective public health strategy. The DPH is the lead officer for three domains of public health – health improvement, healthcare public health, and health protection. The Secretary of State delegates some health protection functions to local authorities, namely:

- to prepare and participate in arrangements against threats to health of the local population, including infectious diseases, environmental hazards and extreme weather events
- to provide or secure the provision of open access to sexual health services

Health protection seeks to prevent or reduce the harm caused by infectious diseases and minimise the health impact from environmental hazards. Successful health protection requires strong working relationships with a number of key partners. The DPH led West Sussex Health Protection and Screening Assurance Group fulfils the leadership and assurance responsibilities to provide system wide oversight, working with the following partners

Public Health England (PHE) is responsible for health protection functions including surveillance, incident/outbreak management, national guidance, and strategic policy. PHE is also responsible for commissioning screening and immunisations services. In West Sussex these functions are delivered by PHE South East:

- Health Protection Team (Surrey and Sussex) based at Horsham

- Screening and Immunisations Team (Surrey and Sussex) embedded within NHS England and based at Horley

NHS England (NHSE) is responsible for commissioning HIV and Hepatitis services.

Clinical Commissioning Groups (CCGs) are responsible for commissioning TB services, infection control services in acute trusts and in the community, and for quality of immunisation in primary care services. In West Sussex these functions are delivered by:

- Coastal West Sussex CCG
- Crawley CCG
- Horsham and Mid Sussex CCG

Local Authority Environmental Health teams are responsible for exercising legal powers in relation to investigation of food related outbreaks and those associated with workplaces, to protect the public's health.

The DPH is responsible for the local authority's contribution to health protection matters including:

- planning and responding to incidents/outbreaks that present a threat to the public's health
- commissioning sexual health services
- seeking assurance that all parts of the health system are working together

Health Protection and Screening Assurance Group

The Health Protection and Screening Assurance group is chaired by West Sussex County Council (WSCC) Director of Public Health and meets quarterly. The core organisations include WSCC Public Health, PHE South East Health Protection Team, and CCGs. Other organisations and teams are invited according to the work plan.

The group provides an annual report for the Public Health Board and escalates any concerns to the Local Health Resilience Partnership (LHRP), CCG, PHE, WSCC Public Health Board, and/or to the Chief Executive level of the Local Authority or NHSE as appropriate.

Terms of reference

In March 2019 the terms of reference for the group were reviewed. The aims and purpose were agreed as follows:

- to seek assurance that measures are in place to assess the risks to health protection and screening of the local population, and provide assurance to local authority
- to ensure health protection issues are raised and addressed by the appropriate internal and external fora including the Sussex Resilience Forum (SRF), Sussex LHRP, Programme Boards and Committees and escalate as appropriate
- to seek assurance that Care Quality Commission (CQC) registered care homes and domiciliary care providers have arrangements in place that meet health protection and infection prevention and control standards

- to provide intelligence on health protection and screening issues to inform WSCC Joint Strategic Needs Assessment (JSNA)
- to receive and review information and data quarterly from stakeholders to seek assurance that providers are meeting requirements in relation to health protection and screening
- to review information and make recommendations to the DPH
- to provide horizon scanning for health protection and screening risks to the population of West Sussex

For 2019/20 in scope for the group are:

- healthcare associated infections (HCAI)
- antimicrobial resistance strategy
- communicable diseases
- environmental health issues
- non-infectious environmental hazards (NIEH) including Air Quality
- emergency preparedness in relation to health protection and screening issues
- pandemic flu preparedness
- seasonal influenza
- local delivery of national screening programmes.
- local delivery of national immunisation programmes

Work plan

In March 2019 the work plan was reviewed. Standing items to be covered at each meeting include:

- PHE Health Protection
- Screening general update
- Immunisations general update
- Emergency resilience
- HCAI
- NIEH/Air Quality

Additional items are covered at specific meetings as follows:

- June – annual report, Infection Prevention and Control (IPC) Champions programme, WSCC care home IPC assurance
- September – Environmental Health, seasonal flu campaigns
- December – seasonal flu incidence update
- March – PHE Screening and Immunisations annual update, seasonal flu vaccine update

Infectious Diseases

PHE South East Health Protection Team (Surrey and Sussex)

The PHE South East centre has four Health Protection Teams (HPTs) who provide specialist support to prevent and reduce the effect of infectious diseases, chemical and radiation hazards, and major emergencies. The Surrey and Sussex Health Protection team is based in Horsham, covering the population resident in West Sussex, East Sussex, Brighton and Hove and Surrey.

The HPT provides a 24/7 acute duty room and on call service to respond to any notifications of health protection infections or incidents. There is a legislative list of statutorily [notifiable infectious diseases and causative organisms](#) that registered medical practitioners must report to the proper officer (PHE consultants are appointed by all district and borough councils in West Sussex as proper officers), by phone or notification forms to the acute duty room. The HPT may also be alerted about such cases or outbreaks of communicable diseases through a variety of other sources such as schools, care homes, TB teams or members of the public. Health protection legislation also requires diagnostic laboratories to report specified infections to PHE directly, which are received on a daily basis from microbiologists at local or reference laboratories. Using these information sources, the HPT also undertakes routine surveillance activities to identify any potential clusters or outbreaks of infections that warrant further exploration, and detailed analyses to support outbreak investigations and management.

For each of the above notifications, the HPT uses national PHE guidance and local standard operating procedures to review and determine if, and what, public health actions may be required for both the case, and people that have been in contact with the case, in order to reduce the risk of them either developing or passing on the infection to others in the community.

The HPT also provide advice and support for chemical, radiation, and emergency planning and response queries and incidents, working with colleagues within the national PHE team e.g. Centre for Radiation, Chemical and Environmental Hazards (CRCE). CRCE also provide support to the Local Authority with respect to environmental permits and planning applications.

The HPT relies on good working relationships with a large number of stakeholders to be able to deliver the public health response to a specific case or outbreak; this includes colleagues such as GPs, CCGs, secondary care clinicians, NHSE, Trust Infection Control Teams, TB nurses and Environmental Health Officers (EHOs). Examples of the types of public health actions that might be taken include infection control and exclusion advice to a gastro-intestinal case; vaccinating contacts of a Hepatitis A case; providing antibiotics for contacts of a meningococcal meningitis case; or arranging swabbing and antivirals for residents in a care home setting with a flu outbreak. In addition, the HPT or the EHO from the relevant Borough or District Council may undertake questionnaires with cases to determine the possible source of infection and to identify and implement further measures that may be required to prevent or control a wider outbreak.

West Sussex Data

In West Sussex, during the period 1 April 2018- 31 March 2019, the HPT dealt with:

Enquiries

There were 707 enquiries representing a 42.8% increase on 2017/18 figures. Enquiries come from a variety of sources and range from requests for general topic information through to specific questions relating to a case, outbreak or incident.

| Type of enquiry | Number | % |
|--|--------|------|
| Communicable Disease Control | 320 | 45.3 |
| Community Infection Control | 318 | 45 |
| Immunisations and Vaccinations | 42 | 5.9 |
| Environmental Issues | 11 | 1.6 |
| Non-Clinical and Media related | 7 | 1 |
| Water Contamination | 5 | 0.7 |
| Travel health | 3 | 0.4 |
| Healthcare Associated Infections (HCAI) | 1 | 0.1 |
| Total | 707 | 100 |

| Source of enquiry | Number | % |
|---------------------------------------|--------|------|
| Public and other | 134 | 19 |
| Care Homes | 102 | 14.4 |
| GPs | 93 | 13.2 |
| EHO (LA) | 79 | 11.2 |
| Schools | 78 | 11 |
| Childcare/preschools | 72 | 10.2 |
| Hospital Health Professionals | 67 | 9.5 |
| Practice Nurses | 38 | 5.3 |
| Laboratories | 24 | 3.4 |
| School Nurses | 10 | 1.4 |
| Community Health Professionals | 10 | 1.4 |
| Total | 707 | 100 |

Cases

There were 3037 cases (of which 2002 were laboratory confirmed). These can be broken down by type of infection as follows:

| Gastro-intestinal infections (confirmed) | No: West Sx | West Sx Rate/ 100,000# | SE rate/ 100,000# |
|--|-------------|------------------------|-------------------|
| Campylobacter | 995 | 116.7 | 126.3 |
| Cryptosporidium * | 218 | 25.6 | 10.6 |
| STEC (all serotypes) | 33 | 3.9 | 4.2 |
| Giardia | 140 | 16.4 | 14.5 |
| Hepatitis A | 8 | 0.9 | 0.6 |
| Salmonella (non-typhoidal) | 116 | 13.6 | 12.7 |
| Shigella (all species/ serotypes) | 22 | 2.6 | 3.4 |
| Typhoid and Paratyphoid** | NS | NS | 0.5 |
| Total | 1536 | - | - |
| *High rate related to open farm outbreak in West Sx | | | |
| ** NS=numbers suppressed due to low figures and patient confidentiality, but West Sx rate is similar to SE rate | | | |

| Blood-borne Viruses (BBVs) (confirmed) | No: West Sx | West Sx Rate/ 100,000# | SE rate/ 100,000 ## |
|--|-------------|------------------------|---------------------|
| Hepatitis B* | 26 | 3.1 | 5.7 |
| Hepatitis C** | 12 | 1.4 | 2.4 |
| Total | 38 | - | - |
| *Majority were chronic cases | | | |
| **Systematic under reporting of Hep C | | | |

| Vaccine Preventable Diseases (confirmed) | No: West Sx | West Sx Rate/ 100,000# | SE rate/ 100,000 ## |
|---|-------------|------------------------|---------------------|
| Meningococcal | 8 | 0.9 | 1.0 |
| Pertussis* | 102 | 12.0 | 7.7 |
| Measles** | 38 | 4.5 | 1.5 |
| Mumps*** | 9 | 1.1 | 1.4 |
| Total | 157 | - | - |
| *Additional 5 probable and 30 possible cases | | | |
| ** Confirmed high rate is due to Chichester schools outbreak. Additional 10 probable and 39 possible cases | | | |
| ***Additional 3 probable and 54 possible cases | | | |

| Other | No: West Sx | West Sx Rate/ 100,000# | SE rate/ 100,000 ## |
|---|-------------------|------------------------------|---------------------------|
| Scarlet fever* (All confidences) | 333 | 39.1 | 40.7 |
| TB** | 35 | 4.1 | 6.1 |
| <p>*The number of cases has remained high over the last few years within West Sussex and nationally</p> <p>**Three year average 2016-2018 https://www.gov.uk/government/publications/tuberculosis-in-england-annual-report </p> | | | |

Predicted populations for West Sussex taken from ONS.gov.uk site. 2017 mid-year:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

SE rates do not include the Milton Keynes population as this not covered by the SE PHE Centre

The Public Health Outcome Framework (PHOF) indicators for infectious diseases are shown in Appendix 1

Outbreaks

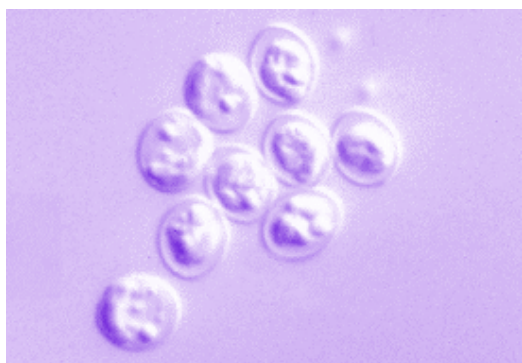
There were 246 outbreak situations or incidents, of which the key ones include:

| Type of setting | Number | % |
|---|--------|------|
| Care Home* | 81 | 38.6 |
| Schools | 62 | 29.5 |
| Nursery/Preschool | 34 | 16.2 |
| Hospital | 29 | 13.8 |
| Visitor attractions* | 4 | 1.9 |
| Total | 210 | 100 |
| <p>*Includes 60 norovirus, 11 seasonal influenza and 3 scabies outbreaks, which respectively represents 22%, 17% and 17% of the SE total for similar outbreaks</p> | | |
| <p>**Includes 3 norovirus and 1 Cryptosporidium related to an open farm</p> | | |

Specific cases and/or outbreaks of note within West Sussex include:

- a number of complex TB cases and incidents requiring place-based screening of contacts, including exposures in hospitals, schools and immigration removal centres
- outbreaks of seasonal flu in hospitals and care homes. West Sussex GP Influenza-like illness (ILI) consultation rates in the 2018-19 season peaked during week 6 of Feb at 23.4 per 100000, rather later than the SE and rest of the country which peaked in weeks 1 - 3. Overall rates of ILI in West Sussex and nationally were lower than in the 2017-18 season
- a very large cryptosporidium outbreak related to visits to an open farm in West Sussex during lambing season, with a

multi-agency response to investigate and manage the public health risk. A total of 203 cases with a known link to the farm were recorded (119 confirmed, 82 probable and 2 possible). This was one of four *Cryptosporidium* outbreaks related to open farms during lambing season across the South East in 2018-19.



Public Health Wales, *Cryptosporidium*

- a measles outbreak in school pupils in the Chichester area (29 cases reported - 22 confirmed (18 by ref lab), 4 probable, 3 possible), with additional MMR vaccination catch-up clinics offered for unvaccinated children in the area
- HPT involvement in the multi-agency response to a large fire at Chichester amenity tip
- public health risk assessment and response to an incident of sick passengers on an inbound flight into Gatwick airport
- a chickenpox cluster in prison and detention setting
- high case numbers of scarlet fever (in line with the national increase)

West Sussex Strategic Projects

The HPT are also involved in a wide variety of strategic projects with multi-agency

partners. Work within West Sussex over the last year has included:

- the preparation and distribution of Winter Readiness packs for Care Homes and Schools, to reduce the impact of Norovirus and Seasonal influenza outbreaks
- provision of monthly surveillance reports on laboratory confirmed cases, notifications and situations for the EHOs and Local Authority Public Health teams
- regular liaison and meetings with EHOs in the District and Borough Councils, to ensure close working relationships for the investigation and management of specified gastro-intestinal disease cases and outbreaks
- attendance at local CCG and acute trust infection control committee meetings and in particular, provision of support to target the reduction of *C.difficile* and *E.coli* bacteraemia infections within Coastal West Sussex CCG
- support for the Screening and Immunisation Teams in ensuring effective delivery of immunisations across the patch, and in the support of flu vaccination promotional campaigns by WSCC
- attendance at the SRF and Sussex LHRP meetings and associated emergency planning exercises, to ensure effective emergency and recovery plans are in place
- close work with Crawley, Horsham and Mid-Sussex CCG and Surrey and Sussex Healthcare NHS Trust to develop a robust and high-quality TB service for the north patch of West Sussex
- on-going work with Gatwick Airport Ltd, Crawley Borough Council and other airport partners to ensure robust port health plans

West Sussex Key Challenges

The key areas of challenge within West Sussex in terms of infectious diseases are:

- higher rates of TB in the Crawley area (ETS data: 23 cases in 2016 (rate of 20.6 per 100,000) and 14 cases in 2017 (rate of 12.5 per 100,000)) compared with the South-East rate of 6.5 per 100,000 and 6.2 per 100,000 for 2016 and 2017 respectively and England rate of 10.1 per 100,000 and 9.1 per 100,000 for 2016 and 2017.

There have been on-going staff capacity issues causing difficulties with supporting Enhanced Case Management for complex cases and the management of numerous incidents requiring large scale screening of contacts, with the Latent TB Infection (LTBI) screening programme in primary care also being stopped due to insufficient resources

- the large numbers of care homes in West Sussex. Although this year's flu season was quieter than previous years, these settings remain at risk of both flu and norovirus outbreaks, with consequent impacts on the wider health economy and individuals within the care system. Care homes are often noted to have no or poorly effective occupational health services, which then results in low flu vaccination uptake rates for their staff
- prison and detention settings tend to have out-sourced occupational health provision, which often leads to delays in provision of public health measures on-site for staff impacting on rapid responses to contain outbreaks

- the on-going resourcing pressures on environmental health teams who hold the legal powers to enforce health protection legislation and implement controls during outbreaks using various statutes, causing potential delays to managing gastro-intestinal cases and outbreaks
- the uptake of 2 MMR vaccines by 5 years old not reaching the 95% target to provide adequate herd immunity, thereby increasing the risk of widespread measles outbreaks
- increasing numbers of open farms providing open days to the public during lambing season, with a need to maintain awareness about the standards required as documented in the Industry Code of Practice, to reduce the risk of spread of gastrointestinal illness

Environmental Health

The HPT rely on close working relationships with EHOs in the District and Borough Councils to deliver public health investigations and response for a number of infectious diseases, (especially gastro-intestinal), and non-infectious environmental hazards. EHOs have the statutory powers of enforcement such as ensuring:

- cases with infectious diseases and/or their close contacts comply with exclusion from work/school
- that premises identified as potential sources of an illness/outbreak undertake relevant remedial actions to improve their infection control or food preparation procedures
- equipment that puts public health at risk is removed from use e.g. unhygienic tattooing equipment

- closure of premises identified as potential ongoing sources of an outbreak where necessary
- long term remediation of pollutants affecting public health e.g. contaminated land remediation; improving local air quality standards; environmental permits
- acute chemical incidents affecting public health are managed e.g. heating oil spillages, spray paint workshops permit condition failures are rectified
- private drinking water supplies are improved to meet the required standards
- substandard private sector housing that puts occupiers at risk of illness or safety is rectified e.g. lead paint implicated in child lead poisoning is removed
- occupational exposures to employees and the public are investigated and resolved

associated with the open farm in West Sussex, where joint site visits and implementation of public health control measures were undertaken in collaboration with the Health and Safety Executive (HSE).

The HPT and Sussex EHOs meet every four months to share learning from cases and incidents, and to raise and resolve any multi-agency issues. Any specific problems identified here can be escalated to the West Sussex Health Protection and Screening Assurance Group. Over the last year there have been no specific issues that required escalation to this group for further action.

The Surrey and Sussex single case plan, a document owned by the HPT and EHOs which clearly details the required evidence-based public health actions by individual infection, responsible organisation and required timescales, remains in place to guide effective and consistent case and incident management in a timely fashion.

One of the key outbreaks this year where the HPT and EHOs worked closely together was the *Cryptosporidium* outbreak

Sexual Health

Two Public Health Outcome Framework (PHOF) indicators address sexual health /health protection issues (Appendix 2):

- Chlamydia diagnoses in young people aged 15-24 years at 2,300 per 100,000 of the population
- reducing the number of late diagnoses in HIV (newly diagnosed with HIV where CD4 count is lower than 350/mm³ blood)

Current progress

In 2018 the chlamydia diagnosis rate for West Sussex was 1,478/100,000 of the target population; lower than the South East regional average of 1,615/100,000 and the England average of 1,975/100,000. Most routine screening occurs through sexual health and primary care services.

Opportunistic screening is carried out by the Integrated Sexual Health Services (ISHS) at outreach events and through the distribution of postal kits. The ISHS have struggled to recruit and retain outreach staff; this is being addressed as part of the re-procurement of the sexual health services.

The effect of HIV treatment in reducing viral load to undetectable, and therefore untransmissible, levels (treatment as prevention¹) and the recent introduction of the Pre-Exposure Prophylaxis IMPACT trial in England² are having an impact on HIV diagnoses. In 2012 there were 70 new diagnoses within the year (a rate of 10.4/100,000 of the population over the age of 15 years), in 2017 there were 38 new diagnoses (5.4/100,000), this decline is mirrored within the South East region and

across England. The testing coverage for HIV in eligible service users in West Sussex at 73.9% remains above the regional and England average (at 68.4% and 64.5%). The overall prevalence of HIV continues to increase regionally and within England, the prevalence of diagnosed HIV in West Sussex and the South East region is 1.8/1,000 of the population age 15-59 years compared to an England rate of 2.32/1,000. In 2009-11 there were 96 people diagnosed late with HIV in West Sussex representing 50% of the newly diagnosed cohort, in 2015-17 there were 54 late diagnoses accounting for 42.2% of all new diagnoses. In England the late diagnosis rate for 2015-17 was 41.1%. In West Sussex, East Sussex and Brighton all late diagnoses are treated as untoward incidents by the Sussex HIV Network and learning is used for training across all sectors of the health economy.

Emerging issues

Mycoplasma genitalium (MGen) is the smallest known bacterium that can replicate itself; it infects epithelial cells in the genital and urinary tracts and in the rectum. It is thought to affect between 1 and 2% of the general population and between 4-38% of people who attend STI clinics. Infection is usually asymptomatic, but can result in urethral discharge, dysuria with cervicitis and post-coital bleeding in women; it can also lead to Pelvic Inflammatory Disease in women which is a leading factor in infertility. There is increasing research demonstrating antibiotic resistance in MGen. The British Association for Sexual Health and HIV (BASHH) released guidance on testing and treatment regimens for MGen³.

¹ <https://www.avert.org/professionals/hiv-programming/prevention/treatment-as-prevention>

² <https://www.prepimpacttrial.org.uk/>

³ <https://www.bashhguidelines.org/current-guidelines/urethritis-and-cervicitis/mycoplasma-genitalium-2018/>

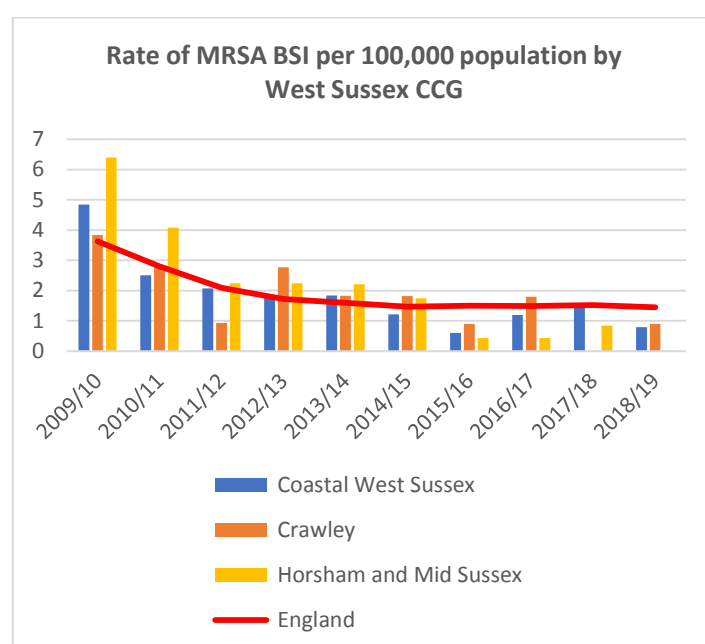
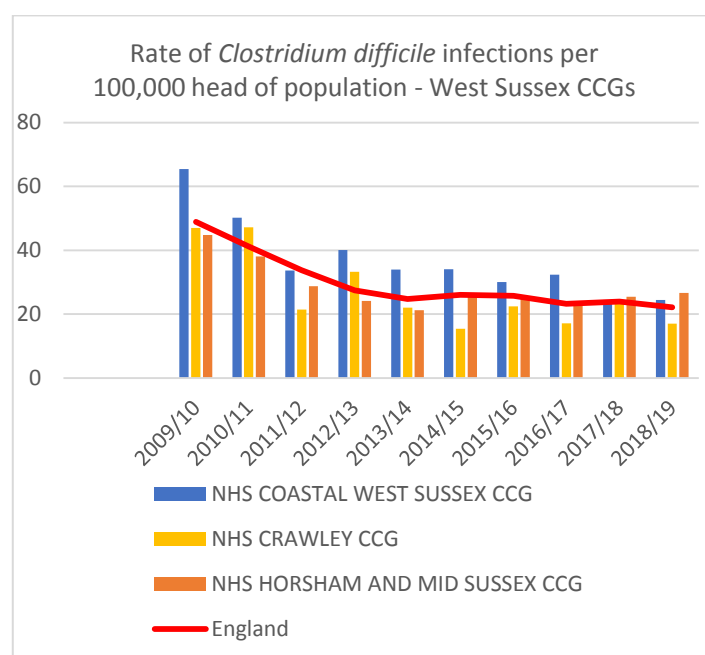
Health Care Associated Infections (HCAI)

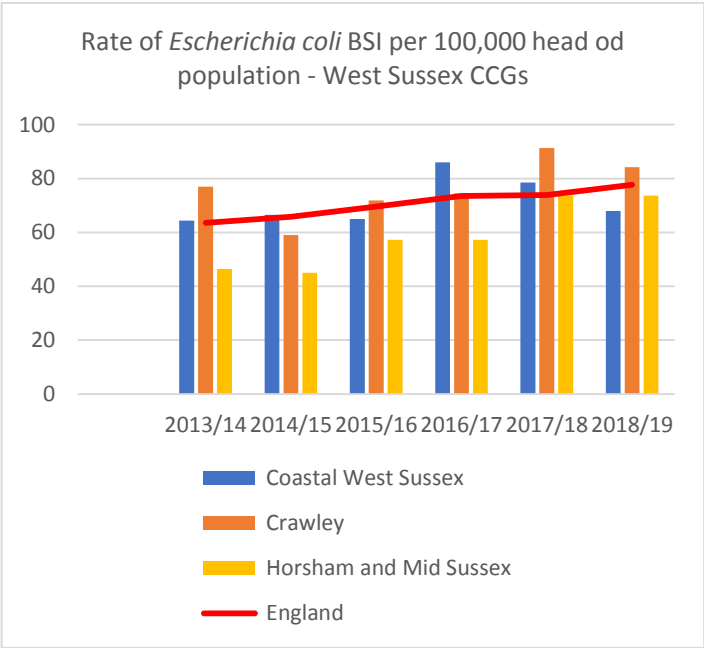
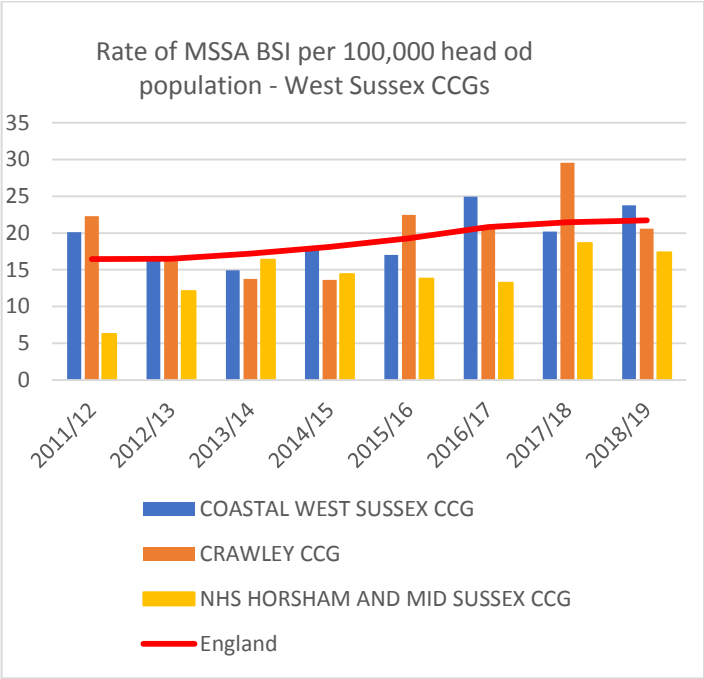
The West Sussex CCGs have joined East Sussex and East Surrey CCGs to agree a Sustainability and Transformation Partnership (STP) approach for the reduction of the following Health Care Associated Infections (HCAI):

- Clostridium difficile infections (CDI)
- Meticillin resistant Staphylococcus aureus (MRSA) bloodstream infection (BSI)
- Meticillin sensitive Staphylococcus aureus (MSSA) BSI
- Escherichia coli (E. coli) BSI

The approach is informed by a STP HCAI strategy and supported by STP wide HCAI surveillance and reporting. The desired outcome is standard recommendations for actions implemented to reduce the variation in rates of HCAI across the CCG populations as well as in the provision of services commissioned.

During 2018/19 Coastal West Sussex CCG has sustained the previous reduction of HCAI including a significant reduction of *E.coli* blood stream infections (BSI) in line with the national average rates of this infection, however a rise was seen in MSSA BSI. Crawley, Horsham and Mid Sussex (HMS) CCGs have also sustained a reduced incidence of HCAI with HMS CCG also reporting zero MRSA BSI. Further progress is required by HMS CCG to reduce the rate of *Clostridium difficile* infections and by Crawley CCG to reduce the rate of *E. coli* BSI in line with the national average rates.





The Public Health Outcome Framework (PHOF) indicator for antibiotic prescribing is shown at Appendix 3.

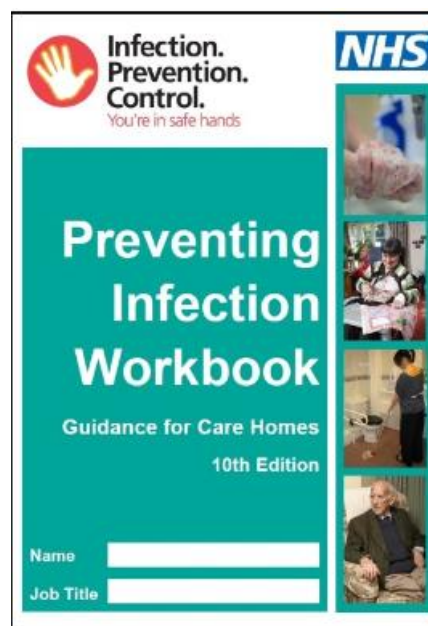
Infection Prevention and Control (IPC) Champions Programme

HCAIs and infectious diseases are a considerable and serious public health issue. Infection prevention and control (IPC) plays a significant role in both health and social care settings, to prevent or at least reduce the incidence of ill health from these avoidable infections and therefore improve outcomes.

The IPC programme aims to support the social care sector in their delivery of infection prevention and control standards through training and audits delivered by Infection Control Consultancy. We work collaboratively with WSCC Contracts Officers, PHE South East Health Protection Team, CCGs and Acute/Community Trusts to identify homes for this support, which has been well received.

Champions Training

This training is to develop IPC Champions in both the independent and WSCC provider social care sector across West Sussex. IPC Champions are the named person 'responsible' for IPC standards within their social care setting, who can influence change, and disseminate the training to colleagues using IPC workbooks.



<https://www.infectionpreventioncontrol.co.uk/resources/preventing-infection-workbook-guidance-for-care-homes/>

The full day training covers:

- microbiology and routes of transmission
- HCAI's
- antimicrobial stewardship
- hand hygiene
- environmental decontamination
- waste management
- outbreak management
- audit process

Following the training, delegates have access to the presentations and audit tool developed for WSCC. They are also encouraged to take up the offer of a free IPC audit within their social care setting.

In 2018/19 four IPC Champions training events were held across the County for 87 delegates, bringing the total since April 2016 to 17 training days and 521 delegates.

IPC Audits

WSCC Public Health fund up to 40 IPC audits each year, with the aim of improving the understanding of the best practice standards, identify gaps in practice, and moving towards best practice. The pre-arranged audit is carried out with the home's IPC Champion to further develop their training on using the audit tool which covers 22 areas of the care home. This enables the IPC Champion to continue to audit using the same scoring and format, so that improvements can be identified. The findings are communicated to the care home team on the day of the audit with a report to follow. There is a mechanism to escalate any significant concerns.

In 2018/19, 39 IPC audits were completed; including 3 re-audits which showed improvements in practices. This brings the total number of audits since April 2016 to 158.

A number of common themes across homes were identified from the audits:

- occupational health provision for staff
- equipment and facilities
- laundry
- cleaning products/equipment and PPE
- waste labelling and storage

The Champions Programme will continue in 2019/20 providing both training and audits. All seven WSCC providers will be audited annually and the lowest scoring 10% of care homes from the 2018/19 programme will be re-audited. In addition:

- a survey will be conducted to assess the impact of audits

- articles on the audit common themes will be included in WSCC newsletters to social care settings

Air Quality

Sussex Air

Sussex Air Quality Partnership (SAQP), known as 'Sussex Air' is an officer led group established in 1995 with a core vision to drive improvements in air quality across East and West Sussex, and Brighton and Hove by:

- helping local authorities to meet their statutory obligations to assess and report on local air quality
- providing information to the public on air quality in their area
- developing and delivering projects to improve local air quality and to reduce people's exposure to poor air quality

Sussex Air work closely with Kings College London Environmental Research Group, who manage the air quality monitoring data to provide 'near real time' results for Sussex on the dedicated website [Sussex Air](#). This website provides public access to air quality information including:

- airAlert, coldAlert, and heatAlert services
- 'near real time' air monitoring readings
- health effects and advice
- national, local and individual actions for improving air quality

WSCC supports Sussex Air through teams from Transport Planning, Sustainability, and Public Health.

During 2018/19, Sussex Air successfully obtained two Defra Grants to deliver the following air quality projects across Sussex:

Schools and Businesses

This project commenced in July 2018 for one year focusing on reduction of nitrogen oxides (NOx) emissions from transport and is being

delivered by three organisations on behalf of Sussex Air.

- Sustrans – delivering walking and cycling initiatives to 25 schools within or close to Air Quality Management Areas (AQMA)
- Living Streets – delivering anti-idling campaigns to 25 schools within or close to AQMAs
- Phlorum – recruiting 25 businesses focusing on staff travel and improving plant/machinery, with grants available towards implementing air quality improvements such as eco driver training and purchase of electric vehicles

While the project is ongoing into 2019/20, the latest figures show:

- Sustrans has recruited 26 schools (13 in West Sussex), delivered 87% of the walking and cycling activities, and are currently on target (May 2019). The number of children now cycling to school has doubled from 3% to 6%, and the number coming to school by car has dropped from 40% to 27%. During project delivery the levels of NOx measured outside the school gates was on average 26% higher than in the classrooms
- Living Streets has recruited 21 schools, delivered 62% of anti-idling activities with the rest booked in for June, and are currently on target (May 2019).
- Phlorum has focused recruiting businesses in Crawley, Gatwick, Chichester, Storrington, and Worthing areas, but this has been challenging. So far they have completed 4 energy audits, organised a Sustainable Transport eVent, and are working with Sussex Transport to increase delivery of eco driver training (May 2019).

Domestic burning

This project was approved by Defra in late March 2019 and will run during 2019/20. The project 'Clean Burn Sussex' is an educational campaign focusing on domestic solid fuel (wood, coal) burning to reduce particulate matter (PM) emissions and to change public attitudes to domestic burning.



Project development is in the early stages but will include public information via Sussex-air website, surveys to establish domestic burning habits, promotion of cleaner fuels and stoves working with local suppliers, signposting to alternative energy schemes, and a communications campaign starting in autumn 2019.

West Sussex Inter Authority Air Quality Group (IAAQ)

In Nov 2017 the West Sussex Joint Leaders Board agreed that the County and District/Borough Councils would develop a joint air quality plan. The plan [Breathing Better - a partnership approach to improving air quality in West Sussex](#) was published in May 2018. A new member led West Sussex Inter Authority Air Quality Group (IAAQ) was then set up to oversee governance of the plan.

During 2018/19, IAAQ has met twice and agreed terms of reference and an action plan. Action plan topics include:

- monitoring progress on action plans for individual AQMA
- considering related strategies and policies e.g. Ultra-Low emission vehicle strategy
- identifying project funding streams
- providing smoother driver training for local authority staff
- working with communities, residents, businesses, parish councils
- developing a public information campaign, including anti-idling
- working with developers through planning processes to include electric vehicle charging points
- looking at feasibility of differential parking charges and additional air quality monitoring on pay and display machines
- reviewing scoring mechanisms for infrastructure schemes and Traffic Regulation Orders
- responding to government consultations and provide statements to push for action on air quality

Public Health gave a presentation to IAAQ on the health impacts of poor air quality, to support why joint action is needed to protect the public's health.

Public Health has also developed health messages covering:

- active travel
- public transport
- driving
- anti-idling
- low emission vehicles
- couriers
- wood burning
- indoor air pollution
- health impacts
- financial and health costs
- air pollution sources

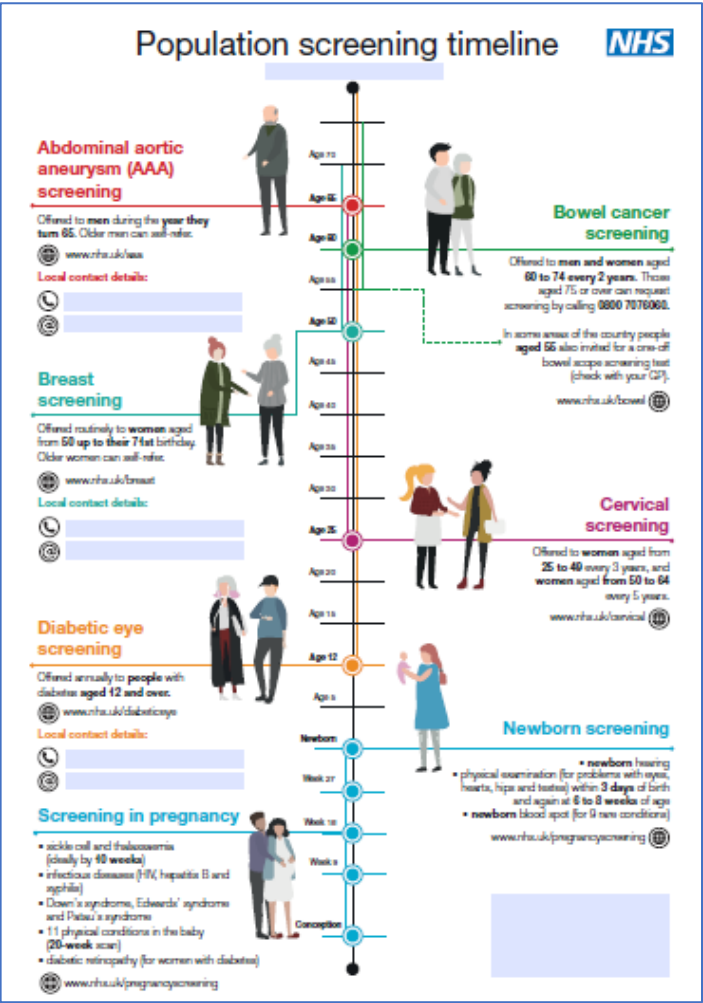
- Sussex airAlert service

Public Health is working closely with the Sustainability and Communications Teams to develop a sustained public information campaign for 2019/20 starting with Breathe Easy Week and Clean Air Day in June 2019, using a brand logo.



The Public Health Outcome Framework (PHOF) indicator for air quality is shown at Appendix 4.

Screening Programmes



<https://www.gov.uk/guidance/nhs-population-screening-explained#printable-screening-information-resource>

Cancer Screening

The Surrey and Sussex Screening and Immunisation team have recently established a cross agency cancer screening forum aiming to improve uptake and decrease inequalities by bringing together agencies involved and sharing good practice and improving multi agency working. WSCC Public Health is a member of this forum.

Bowel Cancer

The offer for bowel screening for West Sussex is spread through three programmes:

- West Sussex Bowel Programme serves the Coastal West Sussex CCG
- Surrey Bowel Programme covers the Crawley population
- East Sussex Bowel Programme serves the Mid Sussex population

Faecal immunochemical test (FIT) is a new screening test that has been rolled out since June from the Southern Bowel Hub. It is a more sensitive test and is likely to impact the bowel screening centres as there is likely to be an increase in the number of diagnostic tests required. This knowledge has impacted the roll out of bowelscope across West Sussex as services have to plan for the potential impact of FIT.

| Bowel | West Sussex | SE Region | England |
|----------|-------------|-----------|---------|
| Coverage | 63.1 | 61.2 | 59.60 |
| Uptake | 61.3 | 59.70 | 57.70 |

<https://fingertips.phe.org.uk/profile/general-practice/data#page/0/qid/2000005/pat/152/par/E38000021/ati/7/are/G81090/iid/639/age/28/sex/4>

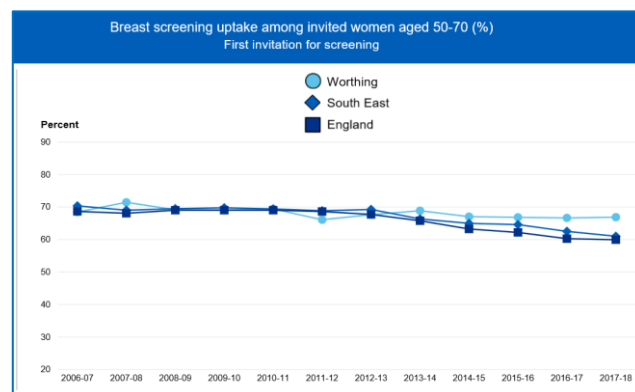
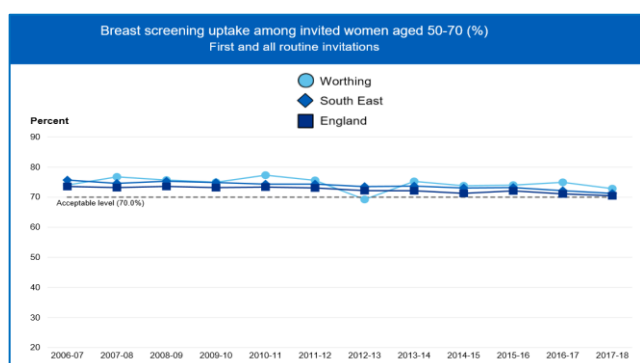
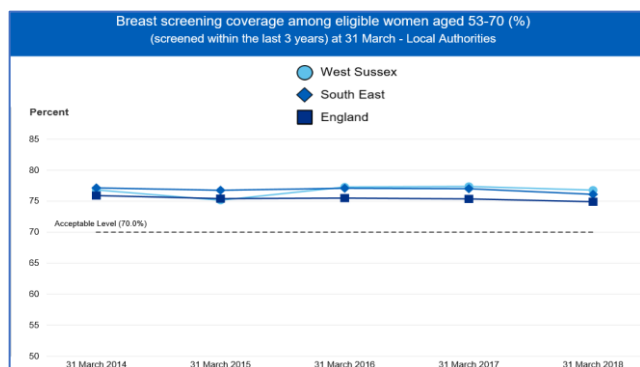
Breast Cancer

West Sussex breast programme has recently had issues with their round length which means about 40% of women are not getting their appointments within the 36 months, this is only a recent issue and is being managed. It is due to a national shortage of mammographers and radiologists.

The programme is proactive in trying to improve uptake and have recently attended community events and are planning how they can work to improve equality for certain hard to reach groups.

| Breast | West Sussex | SE Region | England |
|-----------------|-------------|-----------|---------|
| Coverage | 76.8 | 76.1 | 74.9 |
| Uptake | 72.8 | 71.3 | 70.5 |

<https://digital.nhs.uk/data-and-information/publications/statistical/breast-screening-programme/england-2017-18>



Cervical Cancer

Women taking up the offer for cervical screening are at a 20 year low and there have been two recent campaigns to promote cervical screening for women and eligible trans people.

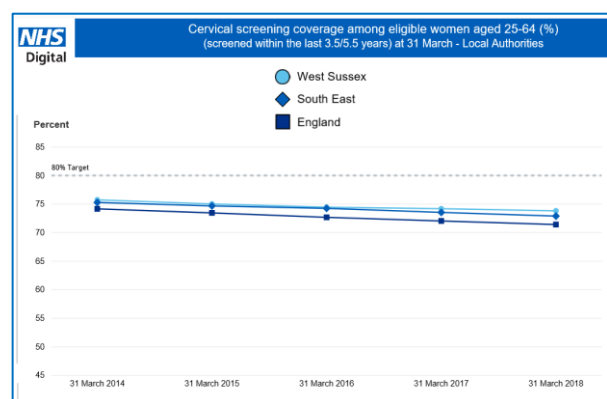
The laboratory serving the West Sussex population is based in Brighton (Frontier lab). The laboratory services for cervical screening are in the process of moving to a new base. This is as part of the national implementation of a new way of analysing samples to test for Human papillomavirus (HPV). This will be rolled out in late 2019. The impact of this is a national shortage of cytologists as staff are redeployed and retrained. This national shortage has adversely affected turnaround times with some women having to wait up to three months for their results. This is a temporary situation and once HPV as a primary test is implemented the turnaround times will improve.

Colposcopy services are provided at Worthing, Chichester, Haywards Heath, Crawley and Brighton. Some of these services have had recent Quality Assurance (QA) visits and the providers are proactively working with Screening Quality Assurance

Service (SQAS) and commissioners to fulfil the recommendations.

| Cervical | West Sussex | SE Region | England |
|-----------------|-------------|-----------|---------|
| Coverage | 73.8 | 72.9 | 71.4 |

<https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/general-practice-data-hub/cervical-screening-programme-coverage>



Non-cancer screening

Abdominal Aortic Aneurysm (AAA)

The Abdominal Aortic Aneurysm (AAA) key performance indicators are reported annually for each programme area. The most up to date Sussex AAA coverage for 2017-18 is shown below:

| AAA | Sussex | South | England |
|-----------------|--------|-------|---------|
| Coverage | 90.5 | 91.6 | 92.1 |

<https://www.gov.uk/government/publications/nhs-screening-programmes-kpi-reports-2017-to-2018>

For 2018-19 the Sussex AAA programme is progressing well. Uptake is 78.6% for Q3

and most of the acceptable standards have been met for Q4.

Average day attendance for October to December 2018 is good for most of West Sussex but lowest for Crawley and highest for Chichester and Midhurst localities. The trend Did Not Attend (DNA) rates is reducing. This maybe a result of reminder letters which were reinstated at the end of January.

Following the redistribution of screening posters across West Sussex, there has been a significant increase in self-referrals to the service. Specifically the programme has concentrated on pharmacies, which has definitely made a difference.

The correlation between deprivation and attendance by GP surgery is still prevalent. Promotional activities are focused where possible on the more deprived areas, including Crawley.

The AAA service was present at a wellbeing health event in Horsham and whilst the community in attendance had generally already been screened, it was good for networking with other organisations that could pass on information about the programme.

A local GP event in Littlehampton was well attended, though the agenda of those attending was very specific, the feedback was generally positive and the service was photographed and advertised in the local paper.

The programme shared a stand at the South of England Show with the Breast, Bowel and Diabetic Eye Screening Programmes, which

established good partnership working and a joint approach for screening.

Antenatal and Newborn (ANNB)

Some Sussex women may go to Princess Royal Hospital (Haywards Heath) or Brighton and Sussex Universities Hospital (Brighton). Crawley and Horsham women may also go to East Surrey Hospital (Redhill) or Royal Surrey (Guildford). So there are cross border pathways in place.

Sussex Community Trust provides the health visiting service, FNP and 0-19 immunisations.

Western Sussex Hospitals Trust (WSHT) has two maternity units based at Worthing and Chichester. WSHT are meeting all the key performance indicators and there are no concerns. A quality assurance visit was carried out on 4 June 2019 with no immediate concerns. The draft report is awaited. A long standing screening coordinator has just retired but there is good succession planning and a whole public health midwifery team is in place.

Diabetic Eye (DESP)

West Diabetic Eye Screening Programmes (DESP) and Brighton and Sussex DESP recently completed an audit on:

- patients who had not attended screening in the past 3 years
- GPs that had a higher rate of patients that did not attend

Work was undertaken to contact patients and even though initial contact was encouraging, the overall results were disappointing as only 21% of East Sussex patients and one patient from West Sussex then attended screening appointments.

The Commissioning for Quality and Innovation (CQUIN) set for both these programmes for this year are to improve uptake in community engagement.

West Sussex DESP is also looking at work to continue covering prisons, nursing homes and forensic facilities. Brighton and Sussex DESP is currently producing a monthly progress report and there has been an increase in performance.

The West Sussex DESP shared a stand at the South of England Show with the Breast, AAA and Bowel Screening Programmes, which established good partnership working and a joint approach for screening promotion.

| DESP | West Sussex | Brighton and Sussex | South | England |
|---------------|-------------|---------------------|-------|---------|
| Uptake | 87.2 | 80.4 | 82.6 | 82.7 |

<https://www.gov.uk/government/publications/nhs-screening-programmes-kpi-reports-2017-to-2018>

The NHS DESP has recently become aware that published data for uptake may have been calculated incorrectly by one of the software providers. Therefore, this data is to be nationally updated.

The Public Health Outcome Framework (PHOF) indicators for screening are shown at Appendix 5.

Immunisation Programmes

Routine Immunisation schedule

Immunisation of babies, children and adults provides protection against vaccine preventable infections. The NHS routine immunisation schedule (Autumn 2018), based on the advice from the Joint Committee for Vaccination and Immunisation (JCVI), sets down when specific vaccines should be given for optimal protection against the following diseases:

Babies and young children upto age 3 years and 4 months old

- Diphtheria
- Tetanus
- Pertussis (Whooping cough)
- Polio
- Haemophilus influenza type b
- Hepatitis B
- Pneumococcal
- Meningococcal group B
- Rotavirus
- Meningococcal type C
- Measles
- Mumps
- Rubella (German measles)
- Influenza

Children age 12 years and older

- Human papillomavirus (HPV) - girls*
- Diphtheria
- Tetanus
- Polio
- Meningococcal groups A,C,W,Y

Adults age 65 years and older

- Pneumococcal
- Influenza
- Shingles

* 12/13 year old boys will become eligible for the HPV vaccine from September 2019.

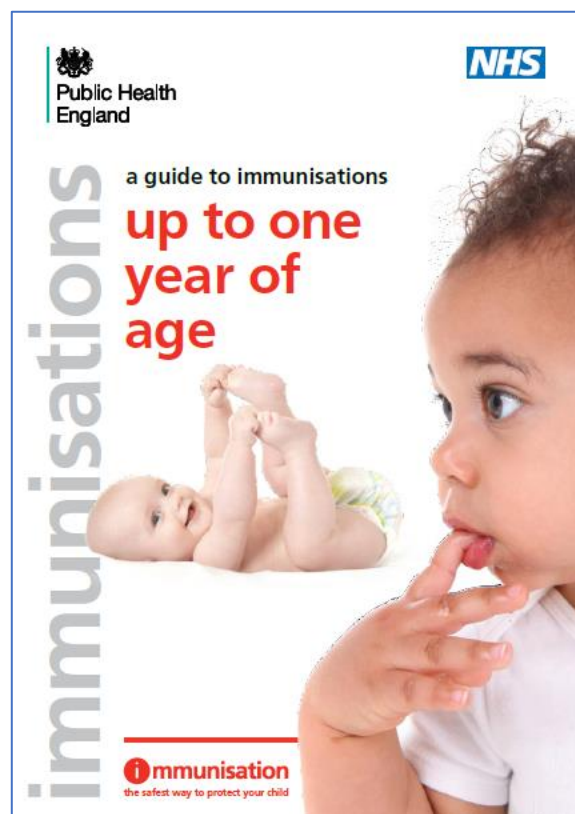
The NHS selective immunisation programme also offers protection against Hepatitis B, Tuberculosis, Influenza and Pertussis to certain target groups; and those with underlying medical conditions are offered additional vaccines.

Both schedules can be found at:

<https://www.gov.uk/government/publications/the-complete-routine-immunisation-schedule>

The Public Health Outcome Framework (PHOF) indicators for vaccination coverage are shown at Appendix 6.

Childhood Immunisation



<https://www.gov.uk/government/publications/a-guide-to-immunisations-for-babies-up-to-13-months-of-age>

GP practices are responsible for providing vaccinations to children aged under five years old. This includes all vaccinations under the universal programme and the

selective vaccination programmes such as neonatal Hepatitis B and Flu to children from the age of 6 months to 18 years of age in a clinical risk group. Vaccinations for children from Reception to Year 9 are routinely provided in school by the Community School Immunisation team with catch up opportunities available to maximise vaccine uptake rates and to facilitate the targeting of other hard to reach groups. NHSE has commissioned Sussex Community NHS Foundation Trust (SCFT) to offer a school aged vaccination programme to all eligible cohorts as described below:

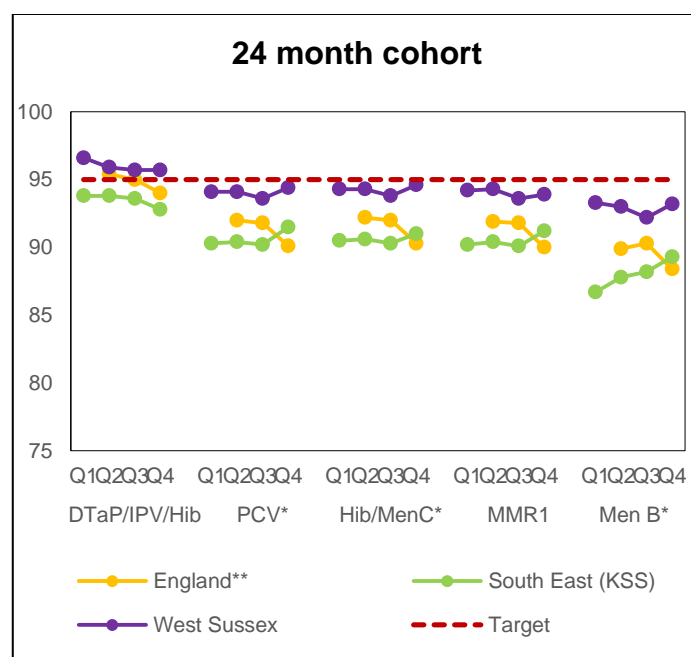
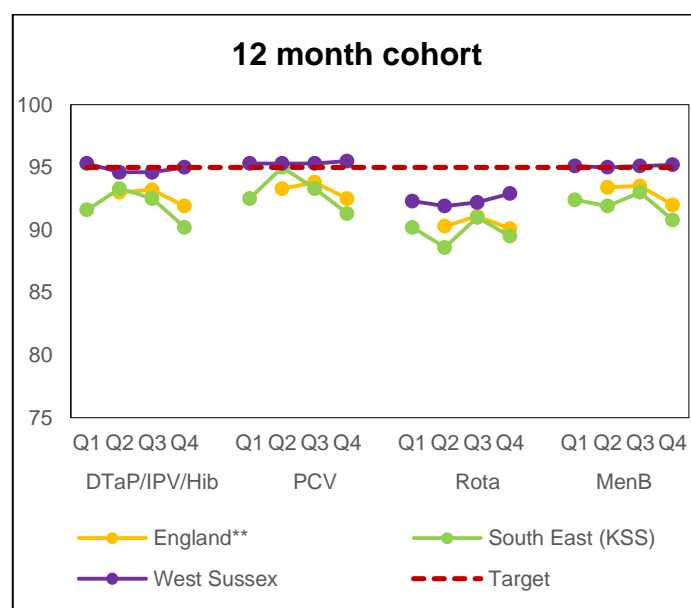
- Childhood Flu Vaccination Programme – Reception to Year 6
- HPV – 12 to 13 year old girls currently, with the vaccination programme being extended to include boys from September 2019
- Teenage Booster Programme (MenACWY and Tetanus boosters) – Year 9

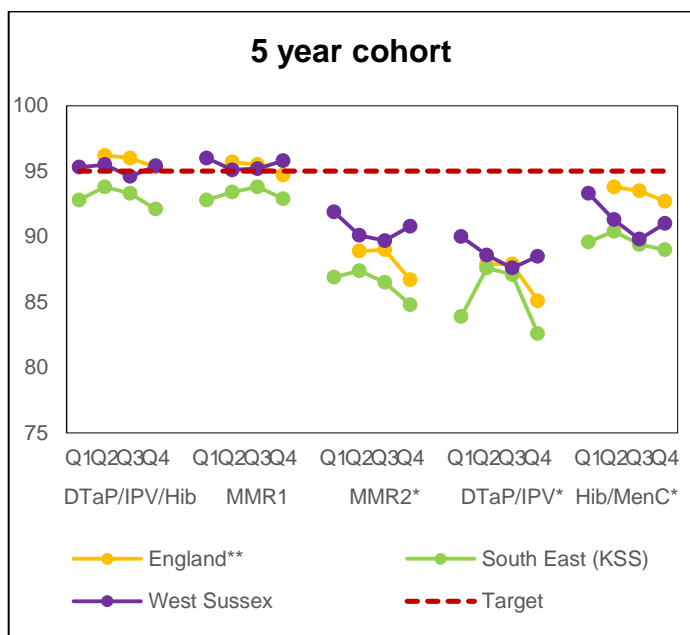
These are school aged vaccination programmes and SCFT provides this service to all children in education (state, independent and special needs schools, pupil referral units, home educated cohorts, and children missing out of education).

Vaccination uptake for the universal childhood vaccination programme is monitored on a quarterly basis by PHE for children reaching their first, second and fifth birthdays. At age twelve months, children should have completed their primary vaccination course. At age two, children should have completed their primary vaccinations and the ones due at age one. At age five, children should have completed all the routine vaccinations (primaries and booster doses) before starting school. Based on the World Health Organisation (WHO)

guidance, in order to achieve herd immunity, an uptake of 95% is required for all the routine childhood vaccinations.

For 2018-19 the annual vaccination coverage rates for children aged upto 12 months, 24 months and 5 years are yet to be published by PHE. However the 2018-19 quarterly coverage rates are published and are shown below:





*Booster dose

**Data quality issues associated with data migration to the NE London CHIS hub has affected many of the LAs resulting in London coverage be significantly under-estimated this quarter. Due to the impact London data has on national figures England and UK estimates have not been calculated for Q1
<https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2018-to-2019-quarterly-data>

Adult Immunisation

Pneumococcal vaccination

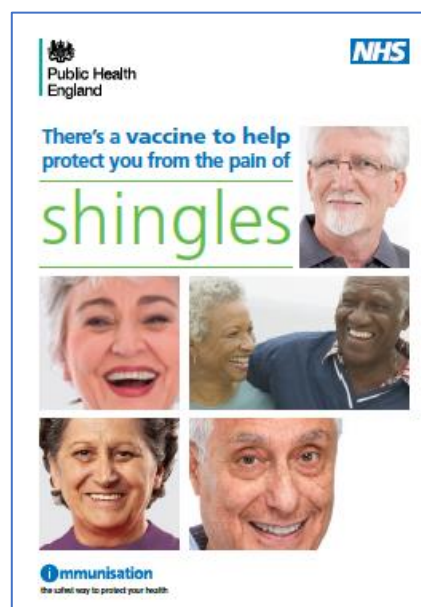
This vaccination programme is for all patients aged 65 and over, as well as for patients from the age of 2 years and over who are in a clinical at risk group. This is a once only vaccination for most patients, apart from specific cohorts of patients who should have a booster every five years. There is an annual uptake survey for patients aged 65 and over. The national coverage target is 75% and the latest published rates for Pneumococcal vaccination coverage in West Sussex (2017-18) are as follows:

| Pneumococcal vaccination | Coverage % |
|----------------------------|------------|
| England | 69.5 |
| Kent, Surrey and Sussex | 67.7 |
| West Sussex | 68.1 |
| Coastal West Sussex CCG | 68.8 |
| Crawley CCG | 65.1 |
| Horsham and Mid Sussex CCG | 67.4 |

<https://www.gov.uk/government/publications/pneumococcal-polysaccharide-vaccine-ppv-vaccine-coverage-estimates>

Shingles vaccination

The Shingles vaccination programme commenced in September 2013. The routine cohort is for patients' age 70 years and the catch-up cohort is for patients aged 78 years. Patients remain eligible for the vaccination until their 80th birthday.



<https://www.gov.uk/government/publications/shingles-vaccination-for-adults-aged-70-or-79-years-of-age-a5-leaflet>



Shingles - www.healthline.com

The national coverage target is 60% and the most up to date Shingles vaccination coverage in West Sussex from 1 April 2018 to 31 December 2018 is shown as follows:

| Shingles vaccination routine cohort (age 70 years) | Coverage % |
|---|------------|
| England | 31.9 |
| Kent, Surrey and Sussex | 30.4 |
| West Sussex | 34.3 |
| Coastal West Sussex CCG | 34.3 |
| Crawley CCG | 30.8 |
| Horsham and Mid Sussex CCG | 35.8 |
| Shingles vaccination catch up cohort (age 78 years) | Coverage % |
| England | 31.9 |
| Kent, Surrey and Sussex | 30.7 |
| West Sussex | 34.3 |
| Coastal West Sussex CCG | 35.4 |
| Crawley CCG | 33.6 |
| Horsham and Mid Sussex CCG | 31.5 |

Shingles Vaccine Coverage by CCG, LT and LA for in England, data to end March 2019 (quarter 3)

Available at :

<https://www.gov.uk/government/publications/herpes-zoster-shingles-immunisation-programme-2013-to-2014-provisional-vaccine-coverage-data>

Prenatal Pertussis vaccination

This vaccination programme was introduced in October 2012 following a rise in the incidence of Pertussis cases and deaths in young babies. The prenatal Pertussis vaccination programme is aimed at protecting a triad – mother during pregnancy, foetus (through transplacental transfer of antibodies through vaccination) and the newborn up until the age of 8 weeks when the baby will be eligible for their first set of primary immunisations. Pregnant women are eligible for this vaccination from 16 to 32 weeks gestation in order to protect their unborn child.

<https://www.gov.uk/government/publications/resource-s-to-support-whooping-cough-vaccination>

For 2018-19 the annual coverage of prenatal Pertussis vaccinations for England and NHS England local teams are available, however the annual coverage rates by CCGs are yet to be published by PHE. Monthly published coverage rates for CCGs are published and the latest prenatal Pertussis vaccination monthly coverage rates for March 2019 are shown below:

| Prenatal Pertussis vaccination | Coverage % |
|---|---------------|
| England (Annual)* | 68.8 |
| Kent, Surrey and Sussex (Annual)* | 72.1 |
| West Sussex | Not available |
| Coastal West Sussex CCG (March 2019)** | 62.4 |
| Crawley CCG (March 2019)** | 74.6 |
| Horsham and Mid Sussex CCG (March 2019)** | 80.3 |
| This is based on 99% GP practices who have submitted Prenatal Pertussis monthly data onto ImmForm in March 2019 | |

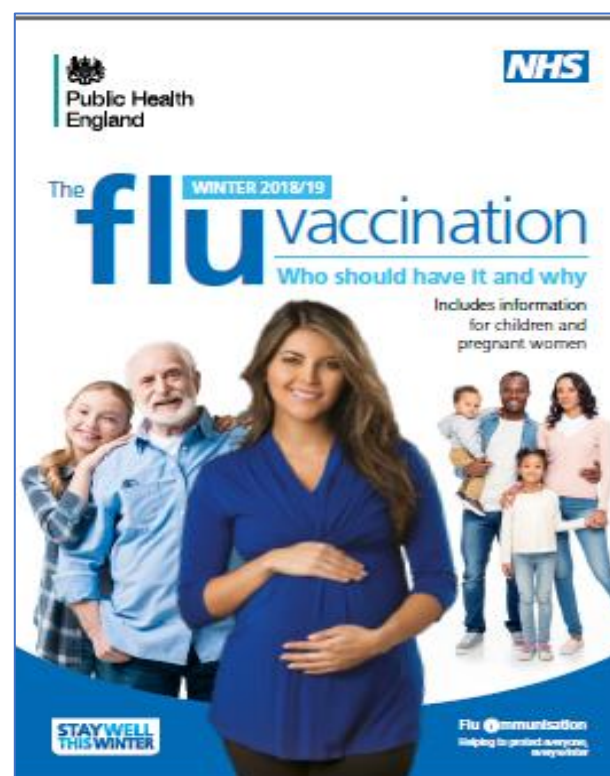
*Pertussis vaccination programme for pregnant women update: vaccine coverage (England) January to March 2019 (and annual coverage update)

**Prenatal pertussis coverage estimates by area team and clinical commissioning group: England, January to March 2019

Source: ImmForm / <https://www.gov.uk/government/publications/pertussis-immunisation-in-pregnancy-vaccine-coverage-estimates-in-england-october-2013-to-march-2014>

(Published: 26/4/19)

Seasonal influenza vaccination



<https://www.gov.uk/government/publications/flu-vaccination-who-should-have-it-this-winter-and-why>

The flu vaccine is the best protection we have against an unpredictable virus that can cause unpleasant symptoms in most people and severe illness and death among at-risk groups, including older people, pregnant women and those with an underlying medical health condition.¹ Influenza can cause a spectrum of symptoms ranging from mild to severe, even among people who were previously well. The impact on the population varies from year to year, depending on how many people are susceptible to the dominant circulating strain.² The capacity for the virus to mutate/change and the duration of protection from the vaccine (about one season), are the reasons that the vaccine is tailored each year to protect against the most commonly circulating strains and shows why annual vaccination is necessary.²

Vaccination is offered to 'at risk groups', the elderly, the very young, and people with underlying medical conditions who are at a greater risk of suffering severe illness and are more likely to develop serious complications such as pneumonia.¹

These vaccines are provided free of charge by the NHS and delivered in primary care (e.g. GP surgeries, community pharmacies). The children's programme is delivered through schools for children in reception through to year 5.

2018-2019 season

In the 2018 to 2019 season, low to moderate levels of influenza activity were observed in the community with circulation of influenza A (H1N1) pdm09 followed by influenza A (H3N2) in the latter part of the season. Activity started in week 01, with the length and peak of activity in general practice varying across the UK, reaching low levels in England, Scotland and Northern Ireland and medium levels in Wales.³

Influenza transmission resulted in high impact on secondary care for hospitalisations and intensive care unit (ICU)/High dependency unit (HDU) admissions. The impact of influenza A (H1N1) pdm09 was predominantly seen in the younger age groups (15-44 and 45-64 years) in both GP consultations and hospital and ICU/HDU influenza admissions. Peak admission rates of influenza to hospital and ICU were similar or slightly lower than seen in 2017 to 2018 but higher than all other seasons since 2010 to 2011. Levels of excess all-cause mortality were the lowest seen since 2013 to 2014 in England.³

The UK, as with many Northern Hemisphere countries, found that the majority of circulating influenza A (H1N1) pdm09 and influenza A (H3N2) strains that were characterized, were genetically and antigenically similar to the Northern Hemisphere 2018 to 2019 influenza A (H1N1)pdm09 and influenza A (H3N2) vaccine virus strains.³

The 2018 to 2019 season also saw the roll-out of a newly licensed adjuvant trivalent influenza vaccine (aTIV) for all those aged 65 years and over. Provisional vaccine effectiveness for adults including the elderly were encouraging in 2018 to 2019.³ For 2018-19 the uptake of seasonal influenza vaccination in West Sussex is as follows:

| | Age >65 % | *Age <65 % | Preg- nant % | Age 2** % | Age 3*** % |
|--|-----------------|------------------|--------------------|-----------------|------------------|
| South East KSS | 71.1 | 46.4 | 45 | 42.4 | 45.6 |
| Coastal West Sussex CCG | 74 | 49.6 | 43.9 | 47.4 | 49.1 |
| Crawley CCG | 70.5 | 48.2 | 48.2 | 43.4 | 46.2 |
| Horsham and Mid Sussex CCG | 73 | 48.6 | 48.6 | 52.4 | 52.7 |
| Target | 75 | 55 | 55 | 48 | 48 |
| *Age<65 (at risk) | | | | | |
| **Age 2 combined (in a clinical risk group and not in a clinical risk group) | | | | | |
| ***Aged 3 combined (in a clinical risk group and not in a clinical risk group) | | | | | |

For children in the schools programme the national seasonal influenza uptake ambition was 50-60%. For 2018-19 excellent uptake rates were achieved by SCFT across all eligible cohorts in primary schools as shown below:

| School Age | Target % | West Sussex % | South East KSS % |
|------------|----------|---------------|------------------|
| Reception | 65 | 73.4 | 63.2 |
| Year 1 | 65 | 71.6 | 64.3 |
| Year 2 | 65 | 68.7 | 62.2 |
| Year 3 | 65 | 67.2 | 61.0 |
| Year 4 | 65 | 63.8 | 60.8 |
| Year 5 | 65 | 61.6 | 56.5 |

<https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-monthly-data-2018-to-2019>

Frontline healthcare workers (HCW) involved in direct patient care are encouraged to receive seasonal influenza vaccination annually to protect themselves and their patients from influenza. The 2018 to 2019 influenza season recorded a seasonal influenza vaccine uptake of 70.3% amongst HCWs in England, an increase in uptake by 1.6%. This is the highest uptake achieved since the start of the programme in the 2002 to 2003 season when the uptake was 14.0%.

For HCW serving the population of West Sussex, the 2018-19 seasonal influenza uptake were as follows:

| NHS Foundation Trust | All % | Doctors % | Nurses % | Clinical staff % | Support staff % |
|----------------------|-------|-----------|----------|------------------|-----------------|
| BSUH | 58 | 54.1 | 54.4 | 74.3 | 60.4 |
| QEV | 61.2 | 39.1 | 69.4 | 67.4 | 63.9 |
| SASH | 67.5 | 64.3 | 69.5 | 77.3 | 64.1 |
| WSHT | 65.8 | 57.2 | 66.8 | 69.8 | 66.7 |
| Sussex Community | 79.4 | 91.4 | 67.1 | 73.7 | 97.6 |
| Sussex Partnership | 78 | 90.5 | 67.2 | 62.9 | 96.4 |
| SECAmb | 78.7 | N/A | N/A | 78.7 | N/A |
| South East KSS | 63.2 | 67.2 | 65.3 | 67.3 | 60.7 |
| Target | 75 | 75 | 75 | 75 | 75 |

<https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-healthcare-workers-winter-2018-to-2019>

1. NHS Choices. Seasonal flu vaccination: <http://www.nhs.uk/Conditions/vaccinations/Pages/flu-influenza-vaccine.aspx>
2. Public Health England. Healthcare worker vaccination: clinical evidence. September 2018 <https://www.nhsemployers.org/-/media/Employers/Documents/Flu/flu-fighter-clinical-evidence-1819.pdf>
3. Public Health England. Surveillance of influenza and other respiratory viruses in the United Kingdom: winter 2018 to 2019. May 2019 <https://www.gov.uk/government/statistics/annual-flu-reports>

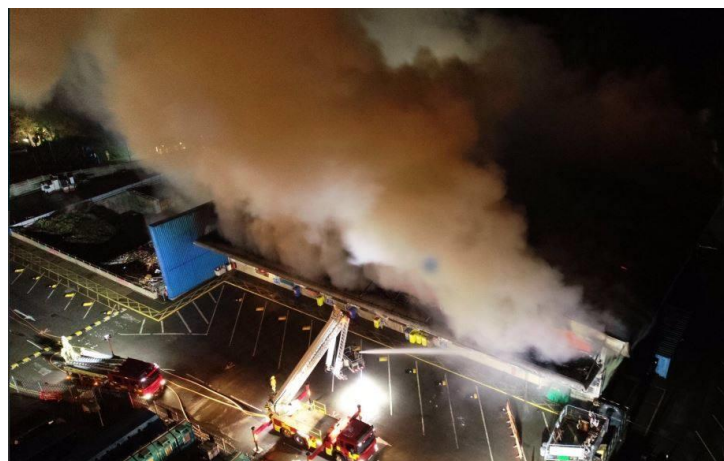
Emergency Preparedness, Resilience and Response (EPRR)

Public Health has a Resilience and Emergency Adviser embedded in the WSCC Resilience and Emergencies Team to:

- ensure public health is considered in all plans for response to emergencies
- support the “What If” programme to
- developing community resilience
- support the Sussex LHRP to plan for the health response
- support the Sussex Resilience Forum (SRF) to plan for all partners response

This year work has included:

- leading the review of the LHRP Pandemic Influenza framework document
- signing up to the Sussex LHRP Memorandum of Understanding for the response to Health Protection Incidents
- as chair of the SRF Emergency Welfare Work Stream Group, developing and delivering psychosocial and psychological support training to staff across the whole of Sussex, who would work with families of victims of major incidents
- working with Community Resilience Team volunteers to deliver over 1000 public health information leaflets to properties affected by the smoke from the Westhampnet Household Recycling Centre fire, in Chichester



Westhampnet Household Recycling Centre fire
Aerial photo supplied by Eddie Mitchell, Photographer

Conclusions

During 2018-19 the main health protection and screening/immunisation issues to note are:

1. Data shows that for the majority of infections the West Sussex rate per 100,000 population was below or around that of the South East rate. Exceptions were:

- Cryptosporidium (due to an outbreak associated with an open farm)
- Pertussis
- Measles (due to an outbreak amongst school pupils in the Chichester area). It should be noted that the 2 MMR vaccines uptake rate by 5 years old is <95% required for herd immunity and therefore increases the risk of outbreaks
- TB (in the Crawley area)

2. The majority of outbreaks in West Sussex are in care home settings (norovirus and flu), followed by schools and nursery/preschools. A number of measures are in place to support these sectors including:

- the Winter Readiness packs for care homes and schools which aims to reduce the impact of norovirus and seasonal flu outbreaks
- IPC Champions Programme for CQC registered care homes and domiciliary care providers, which provides training and audits (including a number of re-audits)

There are often low flu vaccination rates amongst care home staff. While there are few care homes with occupational health services, social care staff do have

access to free flu vaccination through the GPs NHS Programme.

3. There have been difficulties supporting the Enhanced Case Management of complex TB cases and TB incidents requiring large scale screening of contacts due to ongoing staff capacity issues; and the LTBI screening programme in primary care has been stopped.
4. Coastal West Sussex, Crawley, and Horsham and Mid Sussex CCGs have sustained reduced incidence of HCAI. For Coastal West Sussex CCG this includes a significant reduction of *E.coli* bloodstream infections and Horsham and Mid Sussex CCG achieved the government aim of zero MRSA BSI infections. However a rise was seen in MSSA BSI at Coastal West Sussex and further work is needed to support a reduction. Crawley CCG needs to focus on reducing the rate of *E. coli* bloodstream infections and Horsham and Mid Sussex CCG to reduce the *Clostridium difficile* rate further.
5. The Chlamydia diagnosis rate for West Sussex is lower than the South East and England rates. There is a decline in the West Sussex rate of new HIV diagnosis, with 42.2% of these being a late diagnosis (2015-2017).
6. Bowel, Breast and Cervical Cancer screening coverage and uptake rates are good, but there are significant delays for:
 - cervical screening test results for the West Sussex population served by the Brighton Laboratory are taking up to 3

months, due to a national shortage of cytologists. This is expected to be addressed when the primary HPV test is introduced in late 2019, and the laboratory services have been fully mobilised

- Breast screening appointments for around 40% of women in West Sussex are not within the 36 months. This is a recent issue affected by a national shortage of mammographers and radiologists and is being managed locally.

The non-cancer screening programmes (AAA, ANNB and DESP) are progressing well. For AAA and DESP screening programmes, promotional activities are focused on increasing uptake e.g. in prisons and nursing homes; and reaching deprived communities, including Crawley. Brighton and Sussex DESP is currently producing monthly progress reports which show an increase in performance.

7. The Surrey and Sussex Screening and Immunisations (SIT) team have been working on improving the adult vaccination uptake rates for Shingles across the area. CWS CCG has been identified for extra support due the larger population of this age group and a lunchtime learning event for all staff (nursing and admin) involved in the shingles vaccination programme is being hosted by the SIT
8. In order to improve prenatal Pertussis vaccine coverage, NHSE has commissioned maternity units to deliver the prenatal pertussis vaccination at the same time as the fetal anomaly scan to

improve access and offer a flexible service to pregnant women. This locally commissioned service is working well however there are some issues with the data collection which NHSE is trying to resolve locally to reflect an accurate local uptake. There are approximately 400 vaccinations delivered on a monthly basis by the local maternity service which is really good uptake achieved locally.

9. The adult seasonal flu vaccination uptake rates for West Sussex CCGs, were generally higher than the South East (Kent Surrey and Sussex area) rates.

For adults aged 65 years or older the uptake rate nearly met the national target of 75%, reflecting the hard work and commitment from our local practices and pharmacies to promote and deliver the flu vaccine. For those under 65 years in risk groups and pregnant, the uptake rate generally exceeded that of the South East too but improvements are needed to increase the uptake rates closer to the national target of 55%.

10. The childhood seasonal flu vaccination uptake rates for West Sussex CCGs in 2018/19 were better compared to the previous year hence improvement made by many practices locally. The uptake achieved in West Sussex was higher than the South East average (Kent Surrey and Sussex area). Partnership working at local level with NHSE, CCG Quality Leads, STP leads and colleagues from the Primary Care Networks will lead to further improvement in local processes and delivery of a robust flu vaccination programme.

11. In West Sussex, the uptake rates for the routine childhood vaccination programmes are higher than the national average and this reflects the hard work and commitment from our local practices, local Child Health Department, and the immunisation team at SCFT. There are areas for improvement to reach herd immunity level for some of the programmes where the uptake is less than 95%. This is being addressed locally by having a Joint Immunisation Improvement Plan in place to ensure partnership working at local level involving all key stakeholders. NHSE has also commissioned a local CQUIN to improve data quality and access to childhood immunisations. This involves both Child Health and SCFT (School Immunisation Team) working closely with GP practices to support with data reconciliation and to offer additional catch up opportunities locally. SCFT also runs an advice line where parents can call in to speak to healthcare professionals.
12. Air Quality is now a corporate priority for WSCC and the formation of the West Sussex IAAQ members group will help to support the work of Sussex Air. Sussex Air successfully obtained two Defra grants to raise awareness of improving air quality with schools and businesses, and for a 'Clean Burn Sussex' project.
13. EPRR saw WSCC sign the Sussex LHRP MoU for Health Protection Incidents, lead a review of the LHRP Pandemic Influenza plan, deliver training and contribute to the Westhampnet fire response.

Recommendations for 2019/2020

For 2019-20 recommendations for collaborative working for the health and social care economy:

- to continue to seek system wide assurance through partnership working via the Health Protection Assurance Group
- to continue the timely and effective identification of, and response to, cases and outbreaks of infectious diseases in order to reduce the public health risk to the population of West Sussex
- to support and further develop robust TB pathways in Crawley and Mid Sussex area
- to support Environmental Health teams in West Sussex to deliver their health protection functions
- to continue working with sexual health service providers to ensure young people, under the age of 25 years, receive information about chlamydia and easy access to screening kits
- to identify primary focus of HCAI through continued collaboration with provider organisations and implement focused reduction strategies in line with the STP HCAI reduction Strategy
- to continue the Infection Prevention and Control Champions programme to support the care home and domiciliary providers to help reduce the incidence of HCAI and outbreaks
- to work with internal and external partners across West Sussex to improve air quality
- to support screening programmes to increase uptake and reduce inequalities
- to support the uptake of all immunisations with a focus on seasonal influenza vaccine, MMR vaccine, prenatal pertussis vaccine and shingles vaccine
- to work with partners to review the Surrey and Sussex Immunisation Strategy, and to develop a specific Kent Surrey Sussex Measles Elimination Plan
- to support the EPRR planning and delivery of multiagency exercises
- to promote winter preparedness to care homes, domiciliary care providers and schools

Public Health Outcomes Framework (PHOF)

Appendix 1 - Public Health England indicators: Infectious diseases

● Better ● Similar ● Worse ○ Not compared
 – Could not be calculated ➡ No significant change ⬆ Increasing / Getting worse ⬆ Increasing / Getting better ⬇ Decreasing / Getting worse ⬇ Decreasing / Getting better ⬆ Increasing ⬇ Decreasing

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|---|-----------|--------------|-------|-------|--------|---------|---------|-------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst | Best | |
| Typhoid & paratyphoid incidence rate/100,000 (Persons, All ages) | 2017 | ➡ | 4 | 0.47 | 0.5 | 0.53 | 6.11 | 0 | ● |
| Campylobacter incidence rate/100,000 (Persons, All ages) | 2017 | – | 977 | 116 | 118 | 97 | 174 | 16 | ● |
| Non-typhoidal Salmonella incidence rate/100,000 (Persons, All ages) | 2017 | – | 131 | 15.5 | 15.1 | 15.7 | 46.7 | 7.8 | ● |
| Giardia incidence rate/100,000 (Persons, All ages) | 2017 | – | 122 | 14.5 | 11.8 | 8.5 | 51.2 | 0 | ● |
| Cryptosporidium incidence rate/100,000 (Persons, All ages) | 2017 | – | 71 | 8.4 | 6.4 | 7.3 | 21.9 | 0 | ● |
| Shigella incidence rate/100,000 (Persons, All ages) | 2017 | – | 43 | 5.1 | 4.8 | 3.5 | 46.4 | 0 | ● |
| STEC (Shiga toxin-producing Escherichia coli) serogroup O157 incidence rate/100,000 (Persons, All ages) | 2017 | ➡ | 15 | 1.8 | 1.1 | 1.0 | 3.4 | 0 | ● |
| Listeria incidence rate/100,000 (Persons, All ages) | 2017 | ⬇ | 0 | 0 | 0.22 | 0.23 | 1.66 | 0 | ● |
| Mumps incidence rate/100,000 (Persons, All ages) | 2017 | ⬇ | 6 | 0.7 | 3.1 | 3.2 | 30 | 0 | ● |
| Measles incidence rate/100,000 (Persons, All ages) | 2016 | ⬇ | 4 | 0.5 | 0.6 | 1.0 | 16.2 | 0 | ● |
| Pertussis incidence rate/100,000 (Persons, All ages) | 2017 | – | 147 | 17.2 | 8 | 7.8 | 27.1 | 0 | ● |
| Legionnaires' disease confirmed incidence rate/100,000 (Persons, All ages) | 2016 | – | 5 | 0.59 | 0.61 | 0.61 | 2.34 | 0 | ● |
| TB incidence (three year average) (Persons, All ages) | 2015 - 17 | – | 115 | 4.5 | 6.5 | 9.9 | 58.2 | 0 | ● |
| Acute hepatitis B incidence rate/100,000 (Persons, All ages) | 2017 | – | 0 | 0 | 0.73 | 0.8 | 4.03 | 0 | ● |
| Hepatitis C detection rate/100,000 | 2016 | – | 98 | 12.4 | - | 19.7 | 1.6 | 222.1 | ● |
| Scarlet fever notification rate/100,000 aged 0-9 yrs (Persons, 0-9 yrs) | 2016 | ⬆ | 247 | 251 | 253 | 230 | 612 | 2 | ● |

Source: Public Health England Fingertips: Health Protection Profile

Appendix 2 - Public Health England indicators: HIV and Chlamydia

● Better ● Similar ● Worse ○ Not compared
— Could not be calculated ➡ No significant change ⬇ Increasing / Getting worse ⬆ Increasing /Getting better ⬇ Decreasing /Getting worse ⬇ Decreasing /Getting better ⬆ Increasing ⬇ Decreasing

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|--|-----------|--------------|-------|-------|--------|---------|---------|-------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst | Best | |
| New HIV diagnosis rate / 100,000 aged 15+ | 2017 | ⬇ | 38 | 5.4 | 5.8 | 8.7 | 44.6 | 0 | ● |
| HIV late diagnosis (%) <25% 25% to 50% ≥50% | 2015 - 17 | — | 54 | 42.2% | 44.0% | 41.1% | 68.6% | 0% | ● |
| Chlamydia detection rate / 100,000 aged 15-24 <1900 1900 to 2300 ≥2300 | 2017 | ⬇ | 1,208 | 1,446 | 1582 | 1929 | 957 | 4,483 | ● |

Source: Public Health England Fingertips: Health Protection Profile

Appendix 3 - Public Health England indicators: Antibiotic prescribing

● Better ● Similar ● Worse ○ Not compared
— Could not be calculated ➡ No significant change ⬇ Increasing / Getting worse ⬆ Increasing /Getting better ⬇ Decreasing /Getting worse ⬇ Decreasing /Getting better ⬆ Increasing ⬇ Decreasing

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|--|--------|--------------|---------|-------|--------|---------|---------|------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst | Best | |
| Adjusted antibiotic prescribing in primary care by the NHS | 2017 | — | 484,571 | 0.94 | 1 | 1.04 | 1.38 | 0.54 | ● |
| ≤ mean England prescribing 2013/14 | | | | | | | | | |
| > mean England prescribing 2013/14 | | | | | | | | | |

Source: Public Health England Fingertips: Health Protection Profile

Appendix 4 - Public Health England indicators: Air Quality

● Better ● Similar ● Worse ○ Not compared
— Could not be calculated ➡ No significant change ⬇ Increasing / Getting worse ⬆ Increasing /Getting better ⬇ Decreasing /Getting worse ⬇ Decreasing /Getting better ⬆ Increasing ⬇ Decreasing

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|---|--------|--------------|-------|-------|--------|---------|---------|------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst | Best | |
| Fraction of mortality attributable to particulate air pollution | 2017 | — | — | 5.4% | 5.6% | 5.1% | 7.1% | 2.5% | ○ |

Source: Public Health England Fingertips: Health Protection Profile

Appendix 5 - Public Health England indicators: Screening

● Better
 ● Similar
 ● Worse
 ○ Not compared
 – Could not be calculated
 ➡ No significant change
 ⬆ Increasing / Getting worse
 ⬆ Increasing / Getting better
 ⬇ Decreasing / Getting worse
 ⬇ Decreasing / Getting better
 ⬆ Increasing
 ⬇ Decreasing

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|--|---------|--------------|---------|--------|--------|---------|---------|--------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst | Best | |
| 2.19 - Cancer diagnosed at early stage (experimental statistics) | 2017 | ⬆ | 2,165 | 52.30% | 52.7% | 52.2% | 41.9% | 57.70% | ○ |
| 2.20i - Cancer screening coverage - breast cancer | 2018 | ⬆ | 78,647 | 76.80% | 76.0% | 74.9% | 56.3% | 81.50% | ● |
| 2.20ii - Cancer screening coverage - cervical cancer | 2018 | ⬇ | 160,763 | 73.80% | 72.6% | 71.4% | 51.6% | 78.30% | ● |
| 2.20iii - Cancer screening coverage - bowel cancer | 2018 | – | 88,320 | 62.10% | 60.8% | 59.0% | 41.0% | 67.50% | ● |
| 2.20iv - Abdominal Aortic Aneurysm Screening - Coverage | 2017/18 | ➡ | 3,993 | 82.20% | 82.0% | 80.8% | 35.8% | 88.90% | ● |
| 2.20v - Diabetic eye screening - uptake | 2017/18 | – | - | - | 83.3% | 82.7% | - | - | |
| 2.20vi - Fetal Anomaly Screening - Coverage | 2017/18 | – | - | - | 99.3% | 98.9% | - | - | |
| 2.20vii - Infectious Diseases in Pregnancy Screening - HIV Coverage | 2017/18 | – | - | - | 99.7% | 99.6% | - | - | |
| 2.20viii - Infectious Diseases in Pregnancy Screening - Syphilis Coverage | 2016/17 | – | - | - | 99.8% | 99.6% | - | - | |
| 2.20ix - Infectious Diseases in Pregnancy Screening - Hepatitis B Coverage | 2016/17 | – | - | - | 99.8% | 99.6% | - | - | |
| 2.20x - Sickle Cell and Thalassaemia Screening - Coverage | 2017/18 | – | - | - | 99.7% | 99.6% | - | - | |
| 2.20xi - Newborn Blood Spot Screening - Coverage | 2017/18 | – | - | - | 98.3% | 96.7% | - | - | |
| 2.20xii - Newborn Hearing Screening - Coverage | 2017/18 | – | 8,480 | 99.7%* | 99.2% | 98.9% | 95.1% | 100% | ● |
| 2.20xiii - Newborn and Infant Physical Examination Screening - Coverage | 2017/18 | – | - | - | 96.8% | 95.4% | - | - | |

Source: Public Health England Fingertips: Health Improvement Profile

Appendix 6 - Public Health England indicators: Vaccination coverage

| Indicator | Period | W Sussex | | | Region | England | England | | W Sussex Benchmark |
|--|---------|--------------|---------|--------|--------|---------|---------------|---------------|--------------------|
| | | Recent Trend | Count | Value | Value | Value | Worst/ Lowest | Best/ Highest | |
| Population vaccination coverage - Dtap / IPV / Hib (1 year old) <90% 90% to 95% ≥95% | 2017/18 | ↓ | 8,461 | 95.6% | 93.7% | 93.1% | 75.6% | 100% | ● |
| Population vaccination coverage - MenC <90% 90% to 95% ≥95% | 2015/16 | — | 8,511 | 94.3% | * | * | - | - | - |
| Population vaccination coverage - Hepatitis B (1 year old) <90% 90% to 95% ≥95% | 2017/18 | — | 14 | 100.0% | * | * | - | - | - |
| Population vaccination coverage - Hib / MenC booster (2 years old) <90% 90% to 95% ≥95% | 2017/18 | ↓ | 8,859 | 94.6% | 91.5% | 91.2% | 72.9% | 100% | ● |
| Population vaccination coverage - MMR for one dose (2 years old) <90% 90% to 95% ≥95% | 2017/18 | → | 8,863 | 94.7% | 91.5% | 91.2% | 75.0% | 96.9% | ● |
| Population vaccination coverage - Dtap / IPV / Hib (2 years old) <90% 90% to 95% ≥95% | 2017/18 | ↓ | 8,975 | 95.9% | 95.0% | 95.1% | 83.7% | 100% | ● |
| Population vaccination coverage - Hepatitis B (2 years old) <90% 90% to 95% ≥95% | 2017/18 | — | 14 | 100% | * | * | - | - | - |
| Population vaccination coverage - Hib / Men C booster (5 years old) <90% 90% to 95% ≥95% | 2017/18 | ↑ | 9,344 | 92.6% | 90.9% | 92.4% | 79.5% | 100% | ● |
| Population vaccination coverage - MMR for one dose (5 years old) <90% 90% to 95% ≥95% | 2017/18 | ↑ | 9,668 | 95.8% | 93.9% | 94.9% | 84.5% | 100% | ● |
| Population vaccination coverage - MMR for two doses (5 years old) <90% 90% to 95% ≥95% | 2017/18 | ↑ | 9,110 | 90.3% | 87.2% | 87.2% | 66.7% | 95.8% | ● |
| Population vaccination coverage - BCG - areas offering universal BCG only | 2017/18 | — | - | * | * | * | - | - | - |
| Population vaccination coverage - Flu (2-4 years old) - historical method <40% 40% to 65% ≥65% | 2016/17 | — | 11,571 | 39.4% | 39.3% | 38.1% | 19.2% | 52.4% | ● |
| Population vaccination coverage - HPV vaccination coverage for two doses (females 13-14 years old) <80% 80% to 90% ≥90% | 2017/18 | — | 3,801 | 84.1% | 84.6% | 83.8% | 65.3% | 94.3% | ● |
| Population vaccination coverage - Flu (at risk individuals) <55% ≥55% | 2017/18 | ↓ | 45,903 | 48.0% | 48.8% | 48.9% | 37.4% | 62.2% | ● |
| Population vaccination coverage - Flu (aged 65+) <75% ≥75% | 2017/18 | ↓ | 143,058 | 72.8% | 72.8% | 72.6% | 58.4% | 80.8% | ● |
| Population vaccination coverage - PPV <65% 65% to 75% ≥75% | 2017/18 | ↓ | 130,154 | 68.1% | 69.7% | 69.5% | 48.2% | 78.1% | ● |
| Population vaccination coverage - Shingles vaccination coverage (70 years old) <50% 50% to 60% ≥60% | 2017/18 | — | 6,056 | 48.2% | 46.5% | 44.4% | 24.4% | 57.4% | ● |

Source: Public Health England Fingertips: Health Protection Profile

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