

Bristol Health & Wellbeing Board

Bristol Health Protection Annual Report 2019	
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Date of meeting	27.11.2019
Purpose	Oversight and assurance

1. Executive Summary

The Director of Public Health has examined arrangements for health protection in Bristol and has provided the attached Bristol Health Protection Annual Report 2019 to the Health and Wellbeing Board in line with their statutory responsibility to ensure that adequate arrangements are in place for the surveillance, prevention, planning and response required to protect the public's health.

2. Purpose of the Paper

This report is part of a locally agreed assurance process that was put in place following the 2012 Health and Social Care Act (section 6C regulations). Bristol City Council (BCC) has a critical role in protecting the health of its population. It has set up a local Health Protection Committee (HPC) whose role is to ensure, on behalf of the HWB, that adequate arrangements are in place for the surveillance, prevention, planning and response required to protect the public's health. Members of the Board are asked to review the areas where progress has been made and where efforts need to be focused.

3. Evidence Base

The evidence base for the health protection issues in Bristol is presented within the body of the Annual Report attached.

4. Recommendations

That the Board reviews progress that has been made to ensure that sustainable and effective local systems are in place for protecting the health of Bristol residents and to continue to seek assurance that key partners in Bristol are addressing the following key areas which are outlined in the full report and highlighted below.

Key areas for focus in 2019/20

Tuberculosis (TB)

- Ensure TB treatment pathways managed by the Clinical Commissioning Group remain stable during the transition between providers of TB nursing services.
- Proactive testing.
- Using community development approaches to work with communities where there is evidence of ongoing transmission to reduce delays to diagnosis and treatment.
- Preventing reactivation and potential onward infection of people who are in high risk populations through LTBI testing and treatment.

Infection Prevention and Control (IPC) and Antimicrobial Resistance (AMR)

- Practices who are struggling to meet antibiotic prescribing measures to have extra support from the CCG medicines optimisation team.
- Implementation of the AMR 5 year plan and work streams of the BNSSG Antibiotic Stewardship Collaboration
- Maintain our focus on MRSA, working with partners to develop further interventions to reduce the risk and incidence, aiming to achieve a further reduction in local cases.
- Continue the programme of work commenced to reduce bacterial infections for people who inject drugs under the DiPS programme, focussing on developing a checklist for use by health professionals.
- Embed the new national guidance published by NHS England/Improvement (2019) regarding the reporting and assignment of C. difficile cases
- System threshold for C. difficile will remain a focus and we will improve our partnership working with Primary care and Community providers.
- Monitor the rollout and embedding process of the catheter passport and work in partnership with providers to develop an E.coli action plan to provide further focus and support to the system.

Sexually Transmitted Infections

- Reduce incidence of sexually transmitted infections.
- Prepare sexual health services for antimicrobial resistant bacteria.
- Redesign Healthy Schools scheme to support schools to deliver high quality statutory relationship and sex education.
- Continued involvement in the national trial of HIV PrEP.

- Strengthen local prevention efforts focused on groups at highest risk, including Black Africans and MSM in order to reduce late diagnosis of HIV.
- Further explore the opportunities to utilise new technologies to offer increased access to STI testing.
- Develop the Fast-Track City work streams to deliver on the Initiative's agreed objectives and actions.
- Consider impacts of proposed consultation into changes to the Chlamydia Screening Programme.

Foodborne illness

- To continue to clear the backlog of Food Safety Inspections prioritising the highest risk rated premises and new businesses.

Immunisation

- Implementation of the Measles and Rubella Elimination Strategy and implement local actions as defined by the South West action plan.
- Review uptake of immunisations for older people (shingles and PPV).
- Review of recommendations of HPV (Human Papillomavirus) vaccine self-consent study.

Screening

- Review of recommendations arising from national screening reviews to formulate a local action plan particularly for improving cancer screening outcomes.
- Implementation of actions arising from the cancer alliances screening network.
- Implementation and evaluation of the 'cervical screening innovation fund' to improve cervical screening uptake.
- Mobilisation of the Bristol laboratory (North Bristol Trust) as the primary screening site for HPV screening.
- Implementation of Non-Invasive Prenatal Testing (NIPT) as part of the Ante-natal screening programme.

Emergency Preparedness, Resilience and Response (EPRR)

- To prepare for Brexit and to continue to prepare for and manage emergencies.
- To test pandemic flu arrangements.

Environmental hazards to health, safety and pollution control

- Improve air quality
- Initiate a Liaison Group to bring together Community members and representatives from the Avonmouth Industrial companies to discuss

improvements in community impacts and improve the working relationship/good neighbours culture. Work to create this Liaison group has been started by the Neighbourhood Partnership with local residents and will be put in place in 2016/17. With the changes to the NP system this Liaison group needs to be reviewed moving forward.

- Issue the final nuisance dust deposition report to the community.

5. City Benefits

Having robust arrangements in place for protecting the health of the population of Bristol has considerable benefits to the resilience and economy of the City. Many of the key areas for focus will help tackle inequalities and help achieve the vision of the One City Plan.

6. Appendices

Please see attached Bristol Health Protection Annual Report 2019.



BRISTOL HEALTH PROTECTION ANNUAL REPORT 2019

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Introduction

This is the fifth annual report to be presented to the Bristol Health and Wellbeing Board (HWB) and reports on progress between April 2018 and the end of March 2019.

This report is part of a locally agreed assurance process that was put in place following the 2012 Health and Social Care Act (section 6C regulations). Health protection arrangements are governed by a range of statutory regulation which applies to a number of organisations, including Bristol City Council.

Bristol City Council (BCC) has a critical role in protecting the health of its population. BCC has a local Health Protection Committee that brings together internal and external partners to provide assurance to the Director of Public Health, on behalf of the HWB, that adequate arrangements are in place for the surveillance, prevention, planning and response required to protect the public's health.

Health protection seeks to prevent or reduce the harm caused by communicable and non-communicable diseases, and minimise the health impact from environmental hazards.

Achieving success in health protection relies on strong working relationships at a local level. The Health Protection Committee (HPC) helps facilitate these relationships, ensuring that clearly defined roles and responsibilities are in place that underpins the local response to public health threats, outbreaks and major incidents. This report has been written to a framework that was agreed by the HPC and outlines assurance to date against the following health protection areas:

- Infectious and communicable diseases
- Screening and immunisation
- Health aspects of Emergency Preparedness, Resilience and Response (EPRR)
- Environmental hazards to health, safety and air quality

Summary of health protection issues in Bristol

Bristol continues to be a thriving hub of activity and energy and like other core cities it has its fair share of health protection challenges. Progress has been made towards addressing some of the major health protection risks in Bristol.

Tuberculosis (TB) has been the lowest since 2013; however rates remain very high in some parts of inner city Bristol. We have seen other diseases in Bristol that should, like TB, have been confined to the history books such as an increase in syphilis. Bristol still has one of the highest rates of HIV in the South West and has continued to participate in the PrEP programme to offer pre-exposure prophylaxis to people who are at a higher risk of HIV.

Whenever there is a national outbreak of measles, which there was in 2018-19, Bristol tends to be affected. Between April 2018 and the end of March 2019 there were 81 confirmed cases of measles in Bristol and 57 of those were between April and June 2018 (whereas there were no cases of confirmed measles between October and December 2018). This indicates how infectious measles can be and that a considerable public health response that was needed locally to contain this outbreak including targeted community immunisation clinics. However pop-up immunisation clinics are not a sustainable solution and the most effective way of preventing measles outbreaks is to improve our routine childhood immunisation rates. Our rates of measles, mumps and rubella (MMR) vaccination uptake remain low in Bristol. Annual data for 2018/19 shows that only 86% of children had received their first and second doses of MMR vaccine by their fifth birthday. This is just below the national average, which is 86.4%.

When it comes to the 'flu vaccine, rates for people aged 65 and over remain high and we only just missed the national target (which is 75%) by 0.3%. In 2018/19 social care staff who have direct contact with patients including staff in residential care homes were eligible as part of the national NHS scheme for a free flu vaccine. The roll out of the child flu vaccine in primary schools has continued and even schools that have previously refused to host flu clinics have participated in this important health protection programme.

Bristol has led innovation. It participated in a Local Government Association programme delivered by the Design Council to tackle bloodstream infections, such as MRSA, particularly in People Who Inject Drugs. An antimicrobial

stewardship group has been established within the BNSSG area and this has meant greater collaboration to tackle one of the health protection issues on our national risk register of civil emergencies.

Improving air quality has continued to be a focus for Bristol City Council and City partners with considerable work to improve active travel and work within the transport infrastructure to reduce overall emissions. Alongside this work the government designated Bristol to implement a Clean Air Zone to reduce nitrogen dioxide emissions. More work will be needed to improve air quality as part of a wider clean air plan.

2018/19 saw a number of organisational changes. Bristol, North Somerset and South Gloucestershire Clinical Commissioning Groups (CCG) came together as a single organisation in April 2018 and NHS England and NHS Improvement started working closely together and merged in April 2019.

Brexit preparedness has exercised national, regional and local players throughout 2018/19 and continues to do so. Considerations for the health protection impacts that might ensue as a result of Brexit have been made.

Assurance statement

The Director of Public Health has examined arrangements for health protection in Bristol and has provided this report to the Health and Wellbeing Board in line with their statutory responsibility to ensure that adequate arrangements are in place for the surveillance, prevention, planning and response required to protect the public's health.

This annual report provides updates on progress made against those recommendations and identifies areas to focus on for 2019/20.

Recommendation

To note the significant progress that has been made to ensure that sustainable and effective local systems are in place for protecting the health of Bristol residents and the key areas for future focus which are outlined at the end of each section of the report and summarised below.

Key areas for focus in 2019/20

Tuberculosis (TB)

- Ensure TB treatment pathways managed by the Clinical Commissioning Group remain stable during the transition between providers of TB nursing services.
- Proactive testing.

- Using community development approaches to work with communities where there is evidence of ongoing transmission to reduce delays to diagnosis and treatment.
- Preventing reactivation and potential onward infection of people who are in high risk populations through LTBI testing and treatment.

Infection Prevention and Control (IPC) and Antimicrobial Resistance (AMR)

- Practices who are struggling to meet antibiotic prescribing measures to have extra support from the CCG medicines optimisation team.
- Implementation of the AMR 5 year plan and work streams of the BNSSG Antibiotic Stewardship Collaboration
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Foodborne illness

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Immunisation

- Implementation of the Measles and Rubella Elimination Strategy and implement local actions as defined by the South West action plan.
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Environmental hazards to health, safety and pollution control

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- Issue the final nuisance dust deposition report to the community.

Progress made on areas of health protection

1. Infectious and communicable disease

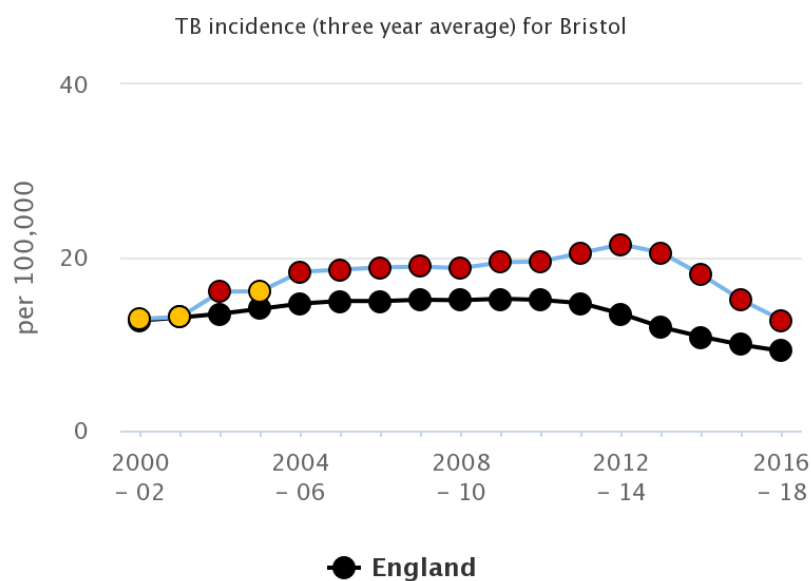
1.1 Tuberculosis (TB)

TB is a priority issue for Bristol as identified by the Health Protection Committee. TB is caused by the bacterium *Mycobacterium tuberculosis*. It is a notifiable disease in the UK.

The Collaborative Tuberculosis Strategy for England 2015 – 2020 was published in January 2015 following extensive consultation. The strategy was jointly launched by PHE and NHS England/Improvement, aiming to achieve a year-on-year decrease in TB incidence, a reduction in health inequalities, and ultimately the elimination of TB as a public health problem in England.

TB incidence rates in Bristol are improving and are at their lowest rate since 2003 (see **Figure 1**).

Figure 1: TB Incidence (three year average) for Bristol. Source: PHOF



In the 2018 calendar year, which is the most recent published data available, there were 4,655 TB cases notified in England, down from 5,070 in 2017. This represents a decline of 8.2% in the number of TB notifications. The TB incidence rate was 8.3 per 100,000 population in 2018, compared with 9.1 per 100,000 population in 2017, a decline of 8.8%. The national 2018 TB incidence rate was the lowest ever recorded in England, and remains below the 10 per 100,000 population WHO definition of a low incidence country, first achieved in 2017.

People with social risk factors (alcohol misuse, drug use, homelessness and imprisonment) are at increased risk of developing TB, are more likely to have

drug resistant TB, and are more likely to be lost to follow-up or to have died within 12 months of starting treatment. In 2018, there was a small increase in the proportion of TB cases in England with at least one social risk factor (SRF), with 13.3% of TB cases aged 15 and over having at least one SRF. This was an increase from 12.4% in 2017 and the highest proportion since SRF data collection began in 2010. The proportion of UK born cases with at least one SRF (21%) was almost double that of non-UK born cases (10.6%). See **Table 1**.

Among culture confirmed TB cases that underwent antibiotic sensitivity testing in 2018, a higher proportion of cases in Bristol (22.7%) were resistant to at least one first-line drug compared to the remainder of the South West (7.2%). The proportion of cases which are resistant to least one first-line drug in Bristol has increased when compared to 2017 (8.3%), whilst the rate in the rest of the South West has decreased when compared to 2017 (11.1%). There were 4 multidrug resistant (MDR) cases in the South West in 2017. Because Bristol has two specially designed infectious diseases units with single pressurised isolation rooms some of these MDR patients, from other parts of the South West, were cared for in Bristol. The proportion of TB cases in Bristol that reported at least one social risk factor was 10.2%, which is higher than the remainder of the South West (7.5%).

Table 1: Epidemiology of TB in Bristol and the South West excluding Bristol, 2018. Data source: PHE Enhanced Tuberculosis Surveillance (ETS). Data extracted: March 2019.

TB INCIDENCE	Bristol	South West excl. Bristol
Number of TB cases notified	49	146
Incidence rate per 100,000 population	10.6	2.8
Proportion of TB cases notified with pulmonary disease	57.1%	74.0%
DRUG RESISTANCE		
Proportion of culture confirmed cases with any first line drug resistance	22.7%	7.2%
Proportion of culture confirmed cases with multi-drug resistance*	0.0%	0.0%
SOCIAL RISK FACTORS (history of past or current homelessness, imprisonment, drug and/or alcohol misuse)		
Proportion of cases with any social risk factor**	10.2%	7.5%
TREATMENT COMPLETED within 12 months***		
Number of 2017 cases completing treatment (proportion completing)	51 (83.6%)	124 (74.3%)

*Resistant to at least isoniazid and rifampicin

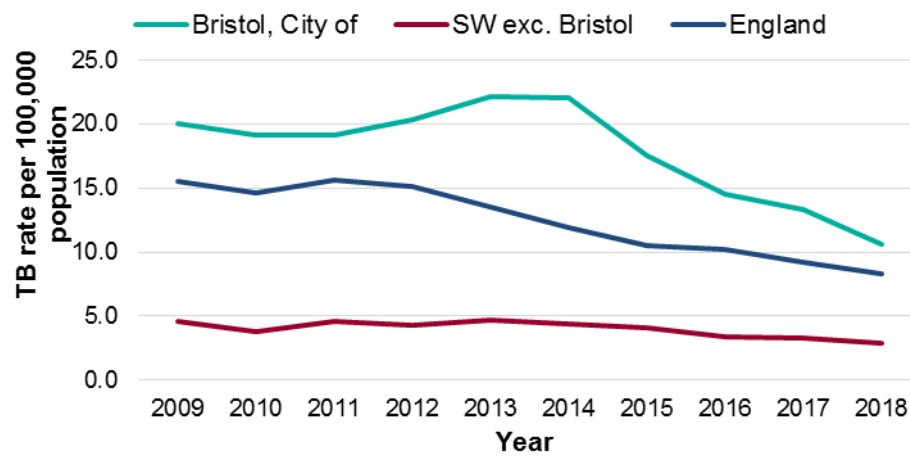
**Of all cases aged 15 years and over

***Excluding those with rifampicin resistance, CNS, spinal, military or cry

Annual TB incidence rates in Bristol remain considerably higher than in the rest of the South West and England (see **Figure 2**). At its peak in 2013, the

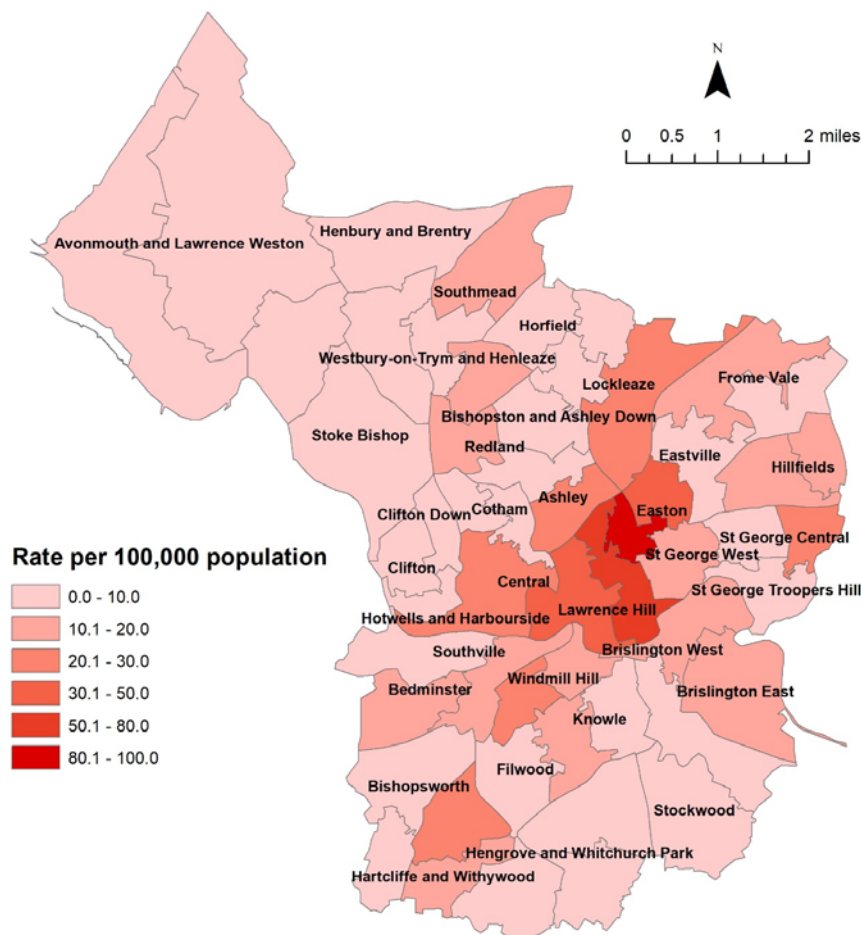
rate of TB in Bristol was 22.1 per 100,000 population. In 2018, the rate has decreased to 10.6 per 100,000 population, but is higher than the rate of 2.8 per 100,000 population in the rest of the South West.

Figure 2: Annual TB rates per 100,000 population, 2009-2018



There were five Medium Super Output Areas (MSOAs) in Bristol with a three year average TB rate (2014-2016) greater than 40.0 per 100,000 population and the highest rate for a single MSOA was 121.3 per 100,000 population (figure 3). The highest MSOA rates were concentrated in central Bristol within the electoral wards of Easton, Lawrence Hill and Ashley.

Figure 3: Three-year average annual TB rate per 100,000 population by MSOA, Bristol, 2016-2018 (electoral ward labels)



Successes/Progress

Latent TB infection testing and treatment

In January 2015, the 'Collaborative Tuberculosis Strategy for England' identified £10 million of funding to establish new migrant Latent TB infection (LTBI) testing and treatment services in areas with high TB incidence (>20.0 cases per 100,000 population). The only clinical commissioning group (CCG) to meet this threshold in the South West was Bristol.

The Bristol LTBI testing and treatment service is delivered through primary care and aims to prevent active TB by identifying and treating latent TB infection. Those eligible for the service are people registering with a GP practice in Bristol who:

- were born or spent more than 6 months in a high TB incidence country (>150.0 per 100,000 population or Sub-Saharan Africa)
- entered the UK within the last 5 years
- are aged between 16-35 years
- have no history of TB, either treated or untreated
- have never been screened for TB in the UK

Data on GP patient registrations (available up to the end of 2018) were analysed to estimate the number of patients that would be eligible for LTBI screening. Based on an average of 3 years of data, the expected screening cohort for a full year was estimated as:

- number of new migrants eligible for screening: 1,025 to 1,324
- number requiring treatment for latent TB (20% positivity): 205 to 265
- number requiring treatment for active TB (<1%): <10

All new patients registering with a GP practice (or identified through The Haven¹) that meet the eligibility criteria are offered LTBI screening, which comprises a single blood test. A positive result leads to a referral to the TB secondary care providers for treatment and support.

The service has been delivered in 2 phases. Phase 1 commenced in February/March 2016 and saw the service being delivered across 5 GP practices that had the highest need and The Haven. Phase 2 saw the service delivered to the next cohort of GP practices in Bristol CCG identified with high need. Tuberculosis in the South West 2019 (data to end of 2018)

Phase 2 continued through to 2018 but uptake did not reach the anticipated levels seen in other parts of the country. Following a successful trial, a new model of delivery was agreed in 2019 which has seen provision change from General Practice to a community health service provider.

Risks

BNSSG CCG announced that the contract for Adult's Community Healthcare has been awarded to Sirona Care and Health. The Adult contract covers provision of a TB nursing service.

As an incumbent provider, Bristol Community Health will be working closely with Sirona in the lead up to April 2020 to ensure a smooth transition of Adults' services and staff and effectively support the safe transfer to Sirona of the contract.

Latent TB continues to be a risk for communities in Bristol.

Areas for focus in 2019/20

- Ensure TB treatment pathways managed by the Clinical Commissioning Group remain stable during the transition between providers of TB nursing services.
- Proactive testing.

- Using community development approaches to work with communities where there is evidence of ongoing transmission to reduce delays to diagnosis and treatment.
- Preventing reactivation and potential onward infection of people who are in high risk populations through LTBI testing and treatment.

1.2 Infection Prevention and Control (IPC) and Antimicrobial Resistance (AMR)

During 2018/19 BNSSG CCG's aim was to achieve:

- Zero cases of MRSA
- To remain below the threshold of not more than 309 cases set by NHS England/Improvement for Clostridium difficile
- Reduction in the number of gram-negative blood stream infections across the whole health economy, noting the national ambition reduction targets for Escherichia coli (E.coli) bacteraemia
- Reduce antibiotic prescribing, noting the requirements of national Commissioning for Quality and Innovation (CQUIN's).

A focus on Healthcare Associated Infection (HCAI)

Developing either as a direct result of medical or surgical treatment, or from being in contact with a healthcare setting, healthcare acquired infections (HCAIs) pose a serious risk to patients, staff and visitors. HCAIs can incur significant costs for the NHS and cause significant morbidity to those infected (NHS Improvement 2017).

Tackling preventable healthcare-associated infections continues to be one of the CCGs key priorities, working in partnership with a range of contracted providers, Local Authority and Public Health England to achieve this goal. BNSSG CCG hosted a Bristol, North Somerset and South Gloucestershire wide Healthcare Associated Infection (HCAI) Group bi-monthly during 2018/19. Membership was drawn from commissioners (CCG and NHS England/Improvement) acute, mental health (MH) and community providers, primary care, Local Authority and Public Health England across the BNSSG CCG areas. The standing agenda at each meeting provided regular updates and assurances on performance, identified trends and associated work for improvement for MRSA, Clostridium difficile and Escherichia Coli including sharing of best practice and lessons learned from post infection reviews to provide a system response to prevent avoidable healthcare associated infections.

Successes/progress

Methicillin Resistant Staphylococcus Aureus (MRSA) Bacteraemia (Bloodstream Infections)

There were a total of 33 cases for 2017/18 and 30 cases for 2018/19 of MRSA bacteraemia reported as attributable to BNSSG CCG in the Bristol locality. Community onset cases saw a reduction from 24 in 2017/18 to 19 during 2018/19 Hospital onset cases saw an increase from 9 in 2017/18 to 11 in 2018/19.

The BNSSG CCG quality team undertakes the review of all community onset cases and acute providers undertake the review of hospital acquired cases using a set of nationally recommended metrics. Recurrent themes identified include:

- Previous History of MRSA Colonisation;
- Skin Integrity;
- Higher percentage of males than females;
- Co-morbidities included Hepatitis C;
- Diabetes;
- COPD and ESRF (Dialysis);
- Person Who Inject Drugs and Homelessness.

There is recognition that the risk factors for contracting and managing MRSA bacteraemia are complex and requires system engagement and response. To highlight these incidences when they occur, and to gather the greatest intelligence to promote system learning in a timely manner. An MRSA system alert has been drafted and discussions are underway with providers to trial this process.

Clostridium Difficile Infection (CDI)

BNSSG CCG ended 2018/19 with a reported 196 cases of CDI, which was significantly below the system threshold of 309 cases. In Bristol there were a total of 96 cases for 2017/18 and 82 cases 2018/19. Community onset cases saw a reduction from 63 cases in 2017/18 to 58 in 2018/19. Hospital onset cases also saw a decrease from 33 in 2017/18 to 24 in 2018/19.

The majority of cases reviewed during 2018/19, are associated with repeated or extended courses of antibiotics. Each hospital-acquired case is reviewed by a Consultant Microbiologist within the local provider who has deemed the majority of antibiotic prescribing as appropriate. It is noted that the patient group under review is increasingly complex and/or receiving treatment for cancer. Our assessment for lapses identifies a number of recurring themes including timing of sampling, timely isolation, hand hygiene, environmental cleaning, which are assessed as non-contributory lapses.

For community onset cases in Bristol, we currently ask GP Practices to complete an online tool, which identifies contributing factors/themes. We will be working closely with practice nurses, GPs and practice pharmacists to review cases and identify learning, including recording cases in the GP dashboard.

Escherichia coli (E. coli) Bacteraemia

BNSSG has been challenged in achieving the E.coli bacteraemia NHS ambition reduction targets for 2018/19, which aims to work towards achieving the goal of a 50% reduction in Gram-negative blood stream infections by 2021. Both community and acute provide apportioned cases have seen an overall increase in comparison with 2017/18.

It is recognised that many CCG's have felt challenged when trying to reduce the incidence of E.coli bacteraemia. The PHE Mandatory Quarterly

Surveillance Report (2019) recently published for Quarter 3, provides a comparison against ten CCG's in our region, which indicates that BNSSG has the four lowest E.coli bacteraemia rates per 100,000 population, further reinforcing the scale of the issue regionally.

BNSSG CCG ended 2018/19 with a reported 737 cases of E.coli Bacteraemia, which was significantly above the ambition threshold of 485. In Bristol there were a total of 280 cases for 2017/18 and 344 cases for 2018/19. Community onset cases saw an increase from 223 cases in 2017/18 to 272 in 2018/19. Hospital onset cases also saw an increase from 57 in 2017/18 to 72 in 2018/19.

BNSSG undertook a retrospective review of 30 cases and asked acute providers to undertake a similar task. Where a primary source of bacteraemia was identified, urinary tract was the most common source identified in line with other CCGs.

BNSSG CCG in recognising this metric has been working with all providers through the HCAI bi-monthly meeting to develop a catheter passport, which is a recommended NHS intervention. The content and format of the passport was agreed by the Healthcare Associated Infections group, printed and has been in place since April 2019.

Additionally, all contracted providers have been asked to add Gram-negative bacteraemia (including E.coli) to the content of mandatory infection control training and amended the HCAI quality schedule to reflect this. A southwest conference hosted by NHS England/Improvement with a number of contracted providers, explored a number of contributing themes. There was recognition that urinary tract was the most common source, but wider discussion also included patient hydration/dehydration and personal care/hygiene.

The CCG will re-establish the E coli task and finish group and is currently consulting with providers about the membership and frequency. There is a willingness to gain traction on this theme and a consideration is being given to asking specialist continence/incontinence colleagues to join the group. BNSSG CCG have also developed two local Commissioning for Quality and Innovation (CQUIN) Schemes for 2019/20 in discussion with community providers regarding Urinary Catheters and Pressure Injury management to optimise the care provided for these patient groups. Both of which have the potential to optimise care, reduce the risk of wound and catheters related infections and antibiotics use.

Antimicrobial Resistance (AMR) stewardship

During 2019, the government released a new Five- year national action plan 'Tackling antimicrobial resistance 2019-2024' highlighting that AMR continues to be a significant risk. Across Bristol and BNSSG, work is ongoing to assist in the prevention of AMR. A new BNSSG Antibiotic Stewardship Collaboration

has been set up as a multidisciplinary group to work together across human and animal health to prevent antimicrobial resistance by promoting optimal antibiotic use. Membership includes representatives from the acute trusts, CCG, community providers, Public Health England, primary care, dental, veterinary, local authorities and academia. Initial work streams are obtaining a baseline on antibiotic stewardship in all organisations across BNSSG and a review of patients with penicillin allergies, which can have a significant impact on the antibiotics they can receive.

During 2018/19, a national quality premium (QP) target was set for antibiotic prescribing, aiming for a reduction in overall antibiotic prescribing and the appropriate prescribing for urinary tract infections in people over 70 years. Antibiotic prescribing STAR-PU measures overall prescribing rates against a comparable that takes into account the age and sex of the population. The target was 0.965, which is lower than previous years. As a CCG the target was met at 0.842 with the Bristol localities all meeting the target. The CCG was also set a target to reduce the prescribing of Trimethoprim in the over 70s by 30% from the baseline of the year to May 16, this follows on from a 10% reduction the previous year. This was to ensure the appropriate prescribing in the treatment of Urinary Tract Infections; older people are more likely to have a resistant bacteria and prescribing the most appropriate antibiotic empirically will reduce the likely hood of a gram-negative bacteraemia developing. The target was 19,406 and in the year to March 19 there were 13,268 Trimethoprim prescriptions dispensed to the over 70s so the target was met.

There was also a focus on the prescribing of cephalosporins, quinolones and co-amoxiclav during 2018/19. The prescribing of these broad-spectrum antibiotics should not be more than 10% of all antibiotic prescribing. This is because broad-spectrum antibiotics are more likely to lead to the development of resistance and HCAs such as *Clostridium difficile*. BNSSG met the target at 9.4% as did all the Bristol localities with North and West and South localities meeting the target for the first time during the year.

Work has been undertaken across GP practices in Bristol to assist in the meeting of these prescribing measures; including an audit on the prescribing of broad-spectrum antibiotics. Practices received regular feedback on their prescribing during the year. A review of the diagnosis and treatment of pyelonephritis also occurred during the 2018/19 leading to a new treatment pathway.

Clinicians across Bristol continue to have access to locally endorsed evidence based guidance on the use of antibiotics in the primary care settings, which are frequently reviewed and updated.

Design Council 'Design in the Public Sector' Programme (DiPS)

The 'Design in the Public Sector' (DiPS) programme aims to improve capacity in the public sector to deliver efficient and effective services, while equipping

local government with the knowledge and expertise to use and apply design principles in their day-to-day work. Delivered by the Design Council and funded by the Local Government Association (LGA), the DiPS programme in 2018-9 specifically focused on applying design principles to address public health challenges, with a focus on prevention. In 2018-9, 14 programmes from 18 councils were selected onto the programme including Bristol City Council.

The aim of the Bristol DiPS programme is to use design principles to reduce harm arising from preventable invasive bacterial infections among people who inject drugs (PWID) in and around Bristol. The team consists of representatives from BNSSG CCG, Bristol City Council, Bristol Drugs Project, PHE and University of Bristol

The Bristol DiPS programme is using the Design Council's [Double Diamond model](#) comprised of four phases. First, 'Discover' to look at the problem of invasive bacterial infections among PWID from a fresh perspective. Second, is to use this information to further focus or 'Define' the problem. The third phase 'Develop' produces solutions to test and refine. Last, the 'Deliver' phase finalises these solutions into a project (e.g. product or service design/re-design).

The team have taken forward three priority work streams within the 'Discover' and 'Define' phases;

- First, the team are involving PWID in the programme, by seeking to capture the views of individuals who have had experience of hospital admission for an infection relating to drug use, and exploring perspectives around risk factors. The team aim to capture 'a day in the life' of individuals using anonymous photography and one-to-one interviews. This will help to understand the injection process and relevant contextual factors; any barriers to less harmful injecting practice; barriers and facilitators to accessing healthcare services; and experiences of treatment.
- Second, the team are seeking the views of health professionals' experiences of caring for PWID who present and are admitted to hospital because of an invasive bacterial infection e.g. a skin, soft-tissue or bloodstream infection. This is being done using a journaling method, where health professionals write accounts of their experiences and any factors that could improve care and treatment.
- Last, the team are analysing data regarding the incidence of such infections, risk factors and associated costs to explore the latest data regarding the prevalence and epidemiology of invasive bacterial infections among PWID. Published literature regarding effective interventions to reduce the risk of infection and re-infection in this

group is also being assessed to ensure that activity builds on the very latest evidence.

The Bristol DiPS team produced a quarterly newsletter, which has been circulated across BNSSG to share information on progress with the project and how people can become involved with the project.

Risks

- Although there was reduction in the overall number of MRSA, bacteraemia cases in Bristol in 2018/19 this is still an area of concern.
- Effective solutions to address and reduce harm arising from preventable invasive bacterial infections among people who inject drugs remains a public health challenge
- In terms of *C. difficile*, we saw a reduction in both hospital and community onset cases and remains below the system threshold. However we need to remain vigilant in this area.
- The ambition to achieve a 50% reduction in *E.coli* bacteraemia cases is another area of challenge both nationally and locally.

Areas for focus in 2019/20

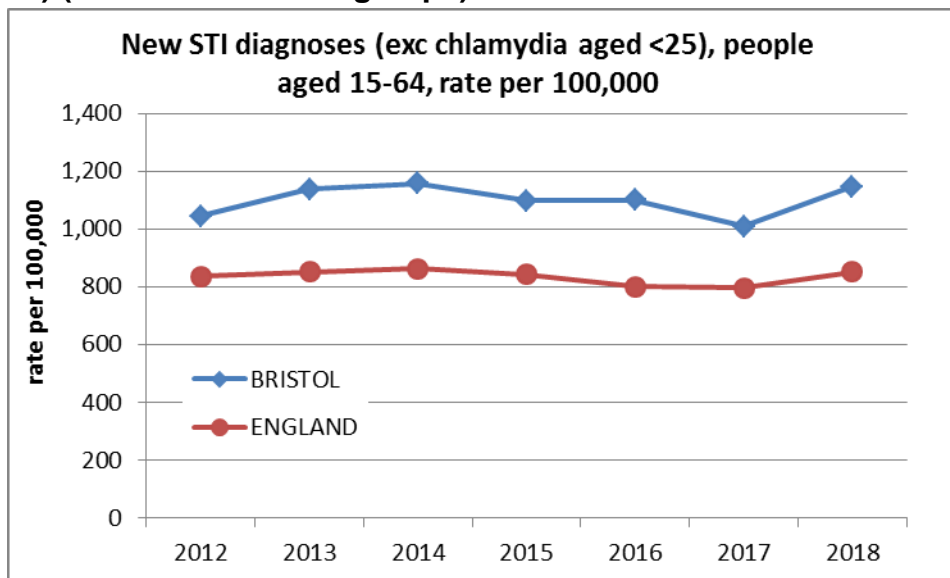
- Practices who are struggling to meet antibiotic prescribing measures to have extra support from the CCG medicines optimisation team.
- Implementation of the AMR 5 year plan and work streams of the BNSSG Antibiotic Stewardship Collaboration
- Maintain our focus on MRSA, working with partners to develop further interventions to reduce the risk and incidence, aiming to achieve a further reduction in local cases.
- Continue the programme of work commenced to reduce bacterial infections for people who inject drugs under the DiPS programme, focussing on developing a checklist for use by health professionals.
- Embed the new national guidance published by NHS England/Improvement (2019) regarding the reporting and assignment of *C. difficile* cases
- System threshold for *C. difficile* will remain a focus and we will improve our partnership working with Primary care and Community providers.
- Monitor the rollout and embedding process of the catheter passport and work in partnership with providers to develop an *E.coli* action plan to provide further focus and support to the system.

1.3 Sexually Transmitted Infections

Sexually Transmitted Infections (STIs) is a term used to describe a variety of infections passed from person to person through unprotected sexual contact. STIs can have lasting long term and costly complications if not treated and are entirely preventable.

The rates of STIs diagnosed in Bristol have been increasing. This is in part due to increased testing through the National Chlamydia Screening Programme (NCSP) and improvements in diagnostic tests, however also reflects ongoing unsafe sexual behaviours. In 2018 there was a significant increase in the rate of new STI diagnoses (excluding chlamydia in under 25 year olds) to 1,147 per 100,000 population aged 15-64, which continues to be significantly higher than the national average (851 per 100,000). **Figure 1** shows the trends in new STI diagnoses between 2012 and 2018. The impact of STIs remains greatest in young heterosexuals aged 15 to 24 years, black ethnic minorities and men who have sex with men. Syphilis cases diagnosed by local sexual health services in Bristol have been increasing. There were 59 diagnoses of syphilis in 2018 (a rate of 12.8 per 100,000), a 40.5% increase since 2017. In 2016 the rate was 6.4 per 100,000. The Bristol syphilis diagnostic rate is similar to England average of 13.1. Similar increases have been seen in other parts of the South West and nationally. The diagnosis rate for gonorrhoea (88 per 100,000) has also increased in Bristol in 2018 although it is still lower than the national average (98.5 per 100,000).

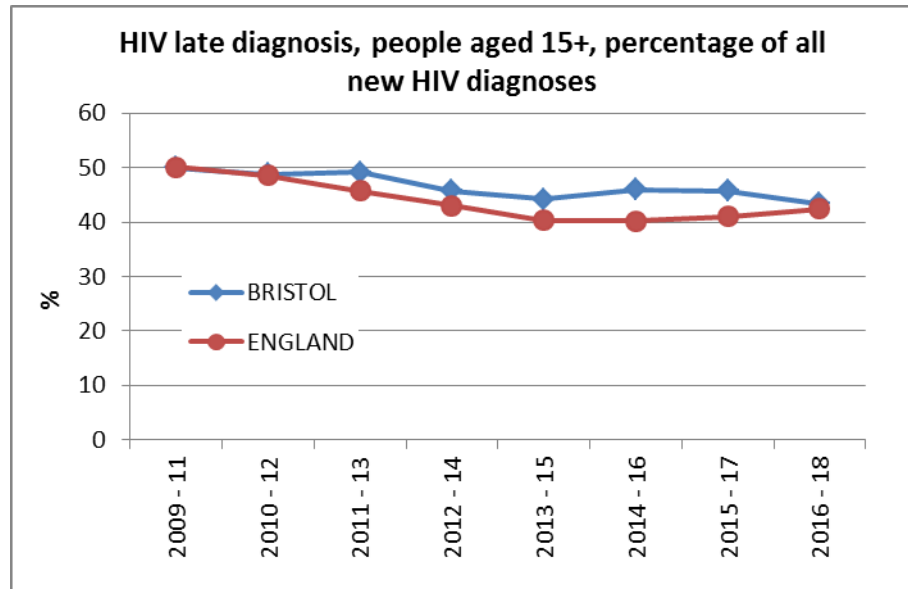
Figure 1. Rate per 100,000 population of STI diagnoses in England (2012 to 2018) (Data from PHE Fingertips)



The new HIV diagnosis rate for Bristol decreased slightly from 11.4 per 100,000 population aged over 15 in 2017 to 9.4 in 2018, similar to the England average of 8.8. Some groups in society are affected disproportionately by HIV, including men who have sex with men (MSM) and black African communities. Late diagnosis of HIV remains a concern, with 24

43.4% of people in Bristol presenting at a late stage of infection between 2016 and 2018, which is similar to the national rate of 42.5% (**Figure 2**). Late diagnosis is the most important predictor of morbidity and mortality among those with HIV infection.

Figure 2. HIV late diagnosis percentage in people aged over 15yrs (Data from PHE Sexual and Reproductive Health Profiles) September 2019



Successes/Progress

Delivery of the integrated sexual health services

Unity Sexual Health has now completed two full years of service provision. They have now consolidated their partnerships with a number of other organisations for specialist aspects of service provision. UH Bristol and partners deliver a model of integrated sexual health, including pregnancy advisory services for Bristol, North Somerset and South Gloucestershire (BNSSG). In 2018/19 services were provided by Unity Sexual Health from:

- Three specialist hubs delivering level 3 sexual health – Unity Central (Bristol), Unity Concord (South Gloucestershire) and WISH (North Somerset) providing a fair distribution across BNSSG
- Twelve Community sites across BNSSG with eight dedicated young people’s clinics targeting areas of highest deprivation
- A city centre hub for the Under 20s – Brook at Unity
- Three pregnancy advisory hubs across BNSSG – BPAS (North Somerset), MSI (South Gloucestershire) and PAS (Bristol) clinics
- Outreach services: Barnardo’s Against Sexual Exploitation (BASE), One25 project, sex on premises venues.

In addition, Unity Central co-ordinate partner organisations’ activity and manage clinical governance, safeguarding, training & education and other partner-wide activities.

Implementation of rapid testing and results pathway with new ‘Panther’ testing platform

‘Panther’ is a near-patient testing machine situated in the Central Health Clinic where previously all samples were sent to Public Health England (PHE) at Southmead Hospital. It tests for chlamydia and gonorrhoea with the option of adding further tests in future if cost savings are identified. The results are available in 4 hours (‘rapid result pathway’) which means some groups of patients can drop off samples at Unity Central for testing and then come back for results the same or the next day as opposed to waiting 2-3 weeks as previously. This reduces unnecessary use of antibiotics, enables antibiotics to be better targeted at a specific infection and generally improves antibiotic stewardship.

The introduction of the rapid results pathway in November 2018 has proved an early success with 17.19% more patients seen in walk-in clinics from November 2018 to March 2019. This represents a total increase of 1.94% patients seen compared with the five months prior to the introduction of the Panther.

Initially testing male samples, the Panther pathway for female patients is expected to be launched in early 2019/20 with a wide scale promotion of the Panther pathways planned for 2019/20. Unity Central are the first sexual health clinic in the UK to host the Panther and owing to the fast turnaround of the sample and same/ next day results, they are leading the speciality by being able to prescribe the most appropriate antimicrobial medication. This minimises cost and reduces antibiotic resistance while enhancing patient outcomes.

Relationships and Sex Education

The government has made Relationships Education compulsory in all primary schools in England and Relationships and Sex Education compulsory in all secondary schools, as well as making Health Education compulsory in all state-funded schools. This comes into effect from September 2020. The new guidance *Relationships Education, Relationships and Sex Education (RSE) and Health Education* (2019) replaces *the Sex and Relationship Education guidance* (2000). Bristol Public Health has continued to support Bristol schools to deliver high quality PSHE, including relationships and sex education (RSE) through the Bristol Healthy Schools awards. Through this schools are being encouraged to become ‘early adopters’ of the new guidance before it becomes statutory next year.

Sexual Health Population and Patients Health Integration Team (SHIPP HIT)

The mission of the Sexual Health Improvement HIT is to transform services to improve sexual health for the people of Bristol, North Somerset and South Gloucestershire. The team tackles a range of local sexual health challenges, including increasing rates of HIV infection, higher than national average rates

of chlamydia, high teenage pregnancy rates in some disadvantaged communities and a rise in abortions amongst women over 25. During the last year the work programme of the sexual health HIT (SHIPP) has included informing national action to tackle Anti-Microbial Resistance, and working to improve the targeting and diagnosis of Chlamydia.

HIV: Fast-Track Cities

Bristol has committed to sign up to be a 'Fast-Track City' in 2019/20. The initiative's aim is to strengthen existing HIV programmes and focus resources to accelerate locally coordinated, city-wide responses that end AIDS as a public health threat by 2030. In order for a city to become a Fast-Track City, the Mayor is required to sign the Fast-Track City Declaration, which pledges to attain the UN 90-90-90 (90% of people living with HIV knowing their HIV status, 90% of people who know their HIV-positive status on HIV treatment, 90% of on HIV treatment with suppressed viral loads) and reduce HIV discrimination and stigma. To date a Fast-Track City Steering Group has been convened with key stakeholders, an HIV Needs Assessment has been produced and a Fast-Track Cities Action Plan is about to be released for consultation. Bristol will officially become a Fast-Track City when the Mayor signs the declaration on November 30th 2019.

Risks

- The local authority continues to need to achieve financial efficiencies in spend on sexual health services whilst managing an increasing demand for the services.
- Increases in infectious syphilis diagnosed at genitourinary medicine clinics from October 2017, predominantly in men who have sex with men but also heterosexual people and heterosexually identifying men who have sex with men (men who may be in heterosexual relationships who have sex with men).
- Late diagnosis of HIV. Black African heterosexual men remain at greatest risk of late diagnosis followed by men who have sex with men.
- A significant increases in diagnosis of gonorrhoea since 2017
- Antimicrobial resistance in sexually transmitted infections, including gonorrhoea and mycoplasma genitalium.

Areas for focus in 2019/20

- Reduce incidence of sexually transmitted infections.
- Prepare sexual health services for antimicrobial resistant bacteria.
- Redesign Healthy Schools scheme to support schools to deliver high quality statutory relationship and sex education.
- Continued involvement in the national trial of HIV PrEP.

- Strengthen local prevention efforts focused on groups at highest risk, including Black Africans and MSM in order to reduce late diagnosis of HIV.
- Further explore the opportunities to utilise new technologies to offer increased access to STI testing.
- Develop the Fast-Track City work streams to deliver on the Initiative's agreed objectives and actions.
- Consider impacts of proposed consultation into changes to the Chlamydia Screening Programme.

1.4 Foodborne illness

Foodborne illness (more commonly referred to as food poisoning) is any illness that results from eating contaminated food. Foodborne illness can originate from a variety of different foods and be caused by many different pathogenic organisms at some point in the food chain, between farm and fork. Although the majority of cases in the UK are mild they are unpleasant, result in absences from education or the workplace and place a significant demand on healthcare services. Occasionally foodborne illness can lead to complications or even death.

Access to safe food and water is one of the most fundamental human needs. Latest figures from the Food Standards Agency state that there are over 500,000 cases of food poisoning per year across the UK from identified causes and if the unidentified causes were to be included this figure would more than double. In Bristol, there were 759 confirmed cases of gastrointestinal infection between April 2018 and March 2019 (see **Table 1**). Over the same time period, there were 215 confirmed cases of norovirus and rotavirus in Bristol Citizens (see **Table 2**).

Table 1: Confirmed cases of gastrointestinal infection recorded on HPZone in residents of Bristol local authority, April 2018 to March 2019*. Source: PHE HPZone

Infection	Total cases reported to HPZone
Campylobacter	457
Cryptosporidium	65
E. coli VTEC	8
Giardia	120
Shigella	11
Salmonella	92
Paratyphoid Fever	4
Typhoid Fever	2

*Cases were extracted and analysed based on date entered onto HPZone

Table 2: Cases of norovirus and rotavirus in residents of Bristol local authority, April 2018 to March 2019^. Source: PHE Second Generation Surveillance System (SGSS)

Infection	Total cases reported to SGSS
Norovirus	202
Rotavirus	13

^ Cases were extracted and analysed based on specimen date

Food Standards Agency Audit Report

The food Safety Service recently had a follow up audit from the Food Standards Agency and as a result an additional action plan has been required and now agreed with the agency.

A key action includes identifying additional funding to provide additional Authorised officer capacity to help reduce the backlog of food safety inspections from the annual food businesses inspection programme. In 2015/16 the annual percentage of completed statutory food safety Interventions/Inspections was 37%; this has improved to 73% in 2018/19. (There are approximately 2800 inspections/interventions required per annum and the backlog has been reduced from 2800 in 2015 to 857 end of 2018/19).

Although the FSA recognise BCC has made substantial progress in reducing overdue interventions/inspections it has stated that the 857 overdue interventions reported via LAEMS (Local Authority Enforcement Monitoring Scheme) remain a great concern and one that poses a continuing risk to public health and consumer protection which may impact on consumer confidence in food safety in Bristol and in the Council itself. It points out that from LAEMS data the number of overdue inspections is the 9th highest in England Wales and NI.

The Agency has advised the Council of their serious concerns about the outstanding number of overdue interventions, the continued risks to public health, and that the Council should consider resourcing the elimination of overdue interventions within the next 12 months i.e. by the 1 September 2020. The Council has also developed a new healthy eating award working with businesses across the city.

Risks

The key risks relate to the ability to clear the backlogs and sustain the service on a long term basis, this will be affected if Environmental Health are unable to recruit suitably qualified Authorised Officers to undertake this work and the availability of Environmental Health Contractors.

Areas for focus in 2019/20

- To continue to clear the backlog of Food Safety Inspections prioritising the highest risk rated premises and new businesses.

1.5 Communicable Disease Management

Through close partnership working, Public Health England South West (North) Health Protection Team (HPT) aims to provide 'assurance that infection prevention and control measures are in place to ensure the protection of those members of the Bristol community that may be vulnerable to acquiring an infection both in the general population and whilst in a Health or Social care setting'.

The PHE Health Protection Team responds to any Notifications of Infectious Diseases (NOIDs). In 2018/19 the team managed a range of enquiries, cases and outbreaks in Bristol. The majority of outbreaks the team managed in Bristol were Norovirus and Gastroenteritis in care homes and school settings. In total, there were 2301 notifications of infectious diseases reported among Bristol residents between April 2018 and March 2019.

Influenza in England and the South West

During the winter season 2018/19 influenza activity in England showed a decline across all surveillance indicators compared to the 2017/18 winter season, including notable declines in respiratory outbreaks and influenza confirmed hospitalisations. Syndromic surveillance data showed a decline in the GP consultation rate for influenza-like illness compared to the 2017/18 winter season. The national picture was reflected in the South West activity, with outbreaks in nursing/care homes markedly lower than in the previous winter season.

Notifications of TB

(see also TB section of this report) Cases of TB continue to be managed in Bristol. Outbreak control teams have been convened where needed.

Any failure to comply with TB treatment is followed up and where there have been concerns teleconferences with appropriate parties have been convened to improve compliance.

Of note in Quarter 1 (January-March 2019) there was a complex Tuberculosis incident involving a Bristol Hospital Trust. The outbreak control team were led by the hospital trust, with other agencies involved including another hospital trust in the South West.

Measles

During Quarter 2 (April-June 2018), localised outbreaks of measles were observed in Bristol, within the context of an increase in case numbers across the city and wider South West. There were 133 cases of Measles notified to the Health Protection Team, of these 57 were confirmed and 17 were classed as probable, necessitating public health action. The rate of confirmed measles cases was 12.6 per 100,000 population, more than eight times the rate of the South West as a whole (1.5 per 100,000 population) and over thirty times the rate for Bristol during the same quarter last year (0.4 per 100,000).

The following Quarter (Q3, July-September 2018) saw an increase in measles notifications to 5.2 per 100,000 in Quarter 3. For the same period in 2017 the rate of measles was 0 per 100,000. Although an increase from last year this is a reduction from Quarter 2 in 2018 where the rate was reported as 12.6 per 100,000. It is important to note that although 83 measles cases were reported only 24 were confirmed and 3 probable necessitating public health action. The rate of measles notifications in Quarter 4 (October- December 2018) dropped to 0.0 per 100,000, there were a total of 19 notifications, all were noted to be possible cases and 4 of these have since been discarded as proven not to be measles. By Quarter 1 (January-March 2019) There were just eleven notifications of measles, all noted as possible cases with five later discarded due to negative measles test results.

Successes/progress

The South West Health Protection Team responsible for Bristol was also responsible for responding to the two Novichok incidents in Salisbury and Amesbury. Despite the enormity of this task the Health Protection Team managed incidents in Bristol including a significant measles outbreak.

Risks

The health protection risks are embedded within other sections of this report such as the TB and the sexually transmitted infections sections.

Areas for focus in 2019/20

The areas for focus are embedded within other sections of this report such as the TB and the sexually transmitted infections sections.

2. Immunisations and Screening

2.1 Immunisation

Immunisation is one of the most effective ways of protecting against serious infectious diseases. Immunisations are given at various points across a person's lifetime, at times when they are vulnerable to disease, and when they will develop the best immune response to the vaccine. High coverage is required to ensure that the local population is protected and does not become susceptible to outbreaks of these diseases.

In Bristol, there were 161 cases of vaccine preventable diseases notified between April 2018 and March 2019 (see **Table 1**).

Table 1: Cases of vaccine preventable infections in Bristol Local Authority between April 2018 and March 2019. Source: Public Health England HPZone record system

Infection	Confirmed Cases on HPZone residents of City of Bristol Local Authority, April 2018 to March 2019
Measles	81
Mumps	6
Rubella	2
Diphtheria	1
Tetanus	0
Pertussis	65
Polio	0
Meningococcal	6
HiB	0

Successes/progress

Multi-agency approach to improving uptake of MMR (across all ages)

Local work in Bristol has included the MMR innovation fund (GP Practices put forward bids to test novel ways of increasing MMR vaccination uptake for their local populations). The evaluation of this project is underway. Whilst childhood immunisation rates in Bristol have generally declined, MMR rates have been stable at 86% for 2 doses by age 5.

Local plans for multiagency collaborative activity via the Bristol Locality Immunisation group

This group has now been reformed into the Bristol, North Somerset, and South Gloucestershire (BNSSG) Locality Immunisations Group. A shared action plan has been developed with actions relevant to each local authority.

Membership of this group includes local authorities, primary care, Child Health Information Services (CHIS), PHE (Screening and Immunisation Team, and Health Protection), the Clinical Commissioning Groups (CCGs), school immunisation providers, and academic partners.

Uptake of vaccinations to pregnant women

Evaluation of the programme was completed as part of an MSc in Public Health. Two key issues are data reporting (uptake is likely to be much higher than nationally reported data), and recommendation of the midwife (rather than place of delivery). 2020/21 will look to develop funding bids for local providers to do robust audits of women's vaccination in pregnancy, to help demonstrate disparities in data reporting.

Uptake of vaccinations delivered in school, including delivery of the self-consent pilot

A self-consent study is underway (through the University of Bristol). The study closed to recruitment at the end of June with results expected February 2020.

Uptake of immunisations for older people (shingles and PPV)

Confusion about eligibility for the shingles programme continues to be a concern. This confusion should disappear as of September 2020 when all people aged 70 – 79 will be eligible for a shingles vaccination. Reviewing uptake of immunisations given to older people remains a priority for 2019/20.

Focused work on improving uptake of the flu vaccine

Focused work with the aim of improving uptake across all eligible groups, with specific focus on 2-3 year olds, the school-age programme, pregnant women, at risk groups aged under 65 and frontline health and social care workers has been undertaken in 2018/19.

We have seen improvements in flu uptake in children and significant success in flu vaccination uptake in frontline healthcare workers for Bristol. University Hospital Bristol and North Bristol Trust staff achieved over 80% uptake. The decline in other patient groups reflects a national downward trend.

Expansion of the adolescent HPV programme to boys

From September 2019, all 12- and 13-year-olds in school Year 8 are being offered on the NHS the human papillomavirus (HPV) vaccine. In England, girls and boys aged 12 to 13 years will be routinely offered the first HPV vaccination when they're in school Year 8.

The second dose is normally offered 6 to 12 months after the first (in school Year 8 or Year 9). It's important to have both doses to be protected.

Table 2: Uptake of immunisations 2017/18 and 2018/19 Data Source: COVER, PHE (via gov.uk), ImmForm

		2017/18	2018/19	
Child Immunisations (by 12 months)	DTaP/IPV/Hib	94.0	92.0	↓
	PCV	94.1	92.4	↓
	Rotavirus	90.0	89.1	↓
	Men B	93.5	92.0	↓
Child Immunisations (by 24 months)	DTaP/IPV/Hib	95.3	94.6	↓
	MMR	89.1	89.2	↑
	Hib/MenC	89.7	89.6	↓
	PCV	89.8	89.5	↓
Child Immunisations (by 5 years)	MMR 1 dose	95.8	94.1	↓
	MMR 2 doses	86.2	86.0	↓
	Hib/Men C	95.1	93.3	↓
School aged immunisations	HPV (Year 9 vaccinated with two doses)	70.6	Data not yet available	
	Td/IPV (school leaver booster) (Year 9)	81.1	Data not yet available	
	MenACWY (Year 9)	82.0	Data not yet available	
Pregnant women	Pertussis (prenatal)	72.8 (Bristol)	70.3 (BNSSG)	
Flu	All 2 and 3 year olds	45.9	53.0	↑
	Reception	56.0	57.8	↑
	Year 1	50.4	58.9	↑
	Year 2	47.1	55.2	↑
	Year 3	44.6	53.8	↑
	Year 4	38.7	50.3	↑
	Year 5	N/A	49.3	
	Pregnant women	47.7	43.1	↓
	Under 65 at risk	50.5	48.3	↓
	Over 65	75.1	74.7	↓
Flu FHCW	GP Practice Staff	65.4	65.8	↑
	NBT	72.6	87.9	↑

	UHB	73.3	82.6	↑
Older adult	Shingles (routine cohort)	44.7	30.4	↓
	PPV (received at any time over 65 years)	70 (Bristol)	70.2 (BNSSG)	

Risks

MMR vaccination uptake is declining nationally and not improving locally with the consequence of potential measles or mumps outbreaks.

Areas for focus in 2019/20

- Implementation of the Measles and Rubella Elimination Strategy and implement local actions as defined by the South West action plan.
- Review uptake of immunisations for older people (shingles and PPV).
- Review of recommendations of HPV self-consent study.

2.2 Screening

The UK National Screening Committee defines screening as “The process of identifying apparently healthy people who may be at increased risk of a disease or a condition so that they can be offered information, further tests and appropriate treatment to reduce their risk and/or complications arising from the disease or condition.” There are currently three national cancer screening programmes: breast, bowel and cervical; and eight non-cancer screening programmes: six antenatal and new-born (Fetal Anomaly, Infectious Diseases in Pregnancy, Sickle Cell and Thalassaemia, New-born and Infant Physical Examination, New-born Blood Spot and New-born Hearing) and two young person and adult (Abdominal Aortic Aneurysm and Diabetic Eye).

Successes/progress

Initiatives to improve access to cancer screening for all eligible populations

The South West Screening and Immunisations Team, in conjunction with the South West cancer alliances, are leading a screening cancer network to implement initiatives to improve cancer screening uptake. Provisional data shows uptake across bowel, breast and cervical screening in Bristol during 2018/19 has increased.

FIT (faecal immunochemical test) 120 testing for bowel screening

NHS England/Improvement announced a new screening test for bowel cancer which could detect more cancers earlier. The new Faecal Immunochemical Test (FIT) test is easier to use than the current screening test and more accurate. FIT 120 was rolled out in Bristol from June 2019 and is currently embedding into the bowel screening programme.

Human Papilloma Virus (HPV) primary testing and lab reconfiguration on cervical screening

The Avon cytology lab has been awarded the contract to provide primary HPV testing for the South West region. Mobilisation of the service is underway.

Diabetic Eye Screening provider

The provider for Diabetic Eye Screening in Bristol has handed in their notice on their contract. A rapid procurement for the service for the Bristol area is currently taking place so a new service will be in place from April 2020.

Ante-natal and New Born Screening Programme

Work has been undertaken to reduce avoidable repeats, improve sample transport times, and improve coverage of ‘movers in’ for the Ante-natal and New Born Screening Programme. Action plans and pathway work is ongoing with Bristol providers with improvement in sample transport times.

Risks

- The Diabetic Eye Screening Programme procurement for the Bristol area could cause disruption and challenge to delivery of an effective service.
- The roll out of FIT 120 remains challenging and is dependent on national decisions.

Areas for focus in 2019/20

- Review of recommendations arising from national screening reviews to formulate a local action plan particularly for improving cancer screening outcomes.
- Implementation of actions arising from the cancer alliances screening network.
- Implementation and evaluation of the 'cervical screening innovation fund' to improve cervical screening uptake.
- Mobilisation of the Bristol laboratory (North Bristol Trust) as the primary screening site for HPV screening.
- Implementation of Non-Invasive Prenatal Testing (NIPT) as part of the Ante-natal screening programme.

3. Emergency Preparedness, Resilience and Response (EPRR)

The public health system and local health economy needs to plan for and respond to a wide range of incidents and emergencies that could affect health or patient care. These could be anything from extreme weather conditions to an outbreak of an infectious disease or a major transport accident.

The Civil Contingencies Act 2004 (CCA2004) requires health organisations to show that they can deal with such incidents while maintaining services. Organisations must have effective, well-practiced emergency plans in place in order to protect the population of Bristol.

In Bristol, EPRR is facilitated by two fora; the Local Health Resilience Partnership and the Local Resilience Forum.

Successes/ progress / learning from recent incidents

Last year we reported on the fall out of the snow event the “Beast from the East”. Throughout the past twelve months, a task and finish group involving health service providers, NHS England/Improvement and led by Bristol City Council have worked hard to produce a “Logistics” plan that will address a multitude of situations including severe weather with a “common” solution. This is seen as good practice across the Avon and Somerset footprint with real interest across the South West of England.

Bristol Haematology and Oncology Centre, Kingsdown, Bristol

In May 2018 the Bristol Haematology and Oncology Centre (BHOC) caught fire early in the morning with the sounding of alarms and smoke issuing from the building.

Firefighters in breathing apparatus entered the building searching for the fire, which was located on the ground floor of the six floor building, in the plant room, affecting the wards and units above it.

Patients were evacuated from the building and housed temporarily in the nearby Heart Institute Building. The immediate aftermath was a case of the Healthcare community coming together strongly to offer support to BHOC, ensuring that the patients received the best possible care in the aftermath of the emergency.

Annual assurance of publicly funded healthcare providers including Acute Trusts

The annual assurance process across the Bristol City Council footprint was carried out by NHS England/Improvement during Q.3 2018. This process assures each organisation against 50+ Core Standards in Emergency Preparedness, Response and Resilience as defined by the Department of Health and Social Care.

In 2018/19 three organisations were found to be either fully or substantially compliant against the core standards. Two organisations were found to be partially compliant, and one organisation was found to be non-compliant. BNSSG CCG and NHS England/Improvement are working with those that were either partially or non-compliant to address the standards that will improve performance in the coming years.

Brexit

Local Resilience Forums (LRFs) played a lead role in the coordination of planning for a 'no deal' Brexit. Ahead of the delayed April Brexit leave date, Avon and Somerset LRF (ASLRF) worked closely with ports of entry (Royal Portbury Dock, Avonmouth Dock and Bristol International Airport) to understand border issues. This work and an assessment of the Cabinet Office produced 'reasonable worst case scenario' planning assumptions (Yellowhammer) formed the basis of the ASLRF assessment of 'no deal' Brexit risks and the basis of multi-agency Brexit planning. This assessment and preparations were tested in a tabletop exercise held in January 2019.

LRFs also had Brexit reporting responsibilities, through Ministry of Housing Communities and Local Government (MHCLG), into COBR (Cabinet Office Briefing Room) and central government. This required the establishment of robust command and control arrangements and a tight meeting 'battle rhythm' at tactical and strategic levels. With reporting required on a wide range of issues, some of which were not 'usual' LRF areas of interest, ASLRF had to expand its reach, for example, to understand issues faced by local commerce and enterprise.

Control of Major Accident Hazards

The Severnside 'Control of Major Accident Hazards (COMAH) Plan' was reviewed this year. The COMAH Plan details the external emergency arrangements for an incident at any of the four 'upper tier' or four 'lower tier' COMAH sites in Avonmouth and Severnside. The new plan was tested in the multi-agency 'Exercise Spitfire' in Nov 2018.

The COMAH Plan review required a refresh of the public information provided to those who live and work inside the 'emergency planning zone' around COMAH sites. Almost 40,000 booklets, 'What to do if you hear the Severnside Sirens', were distributed to households and businesses in Avonmouth and Severnside in February, advising of the risks and instructing the public of the actions they should take in an emergency.

Incidents

The large fire at the Strachan and Henshaw site in Speedwell, Bristol tested the multi-agency response. The blaze affected over 30 businesses on the site and over 90 residential properties. An overnight evacuation required the establishment of a 'community place of safety' where volunteers from Bristol City Council and the Avon Community Resilience Team supported evacuees.

The presence of asbestos on the site required Public Health advice and ongoing monitoring of air and environmental quality.

Risks

Brexit poses a challenge to business continuity in the City. The following risks remain red on the Local Resilience Forum community risk register for Avon and Somerset: Fluvial flooding, influenza type pandemic, failure of the national electricity transmission system and malicious attack.

Areas of focus in 2019/20

To prepare for Brexit and to continue to prepare for and manage emergencies.

To test pandemic flu arrangements.

4. Environmental hazards to health, safety and pollution control

Air Quality

Poor air quality can have an impact on health at all stages of life, from being associated with low birth weight, impacts on lung function development in children, an increased risk of chronic disease and acute respiratory exacerbations, to acute and chronic premature death. Latest evidence is linking air pollution with impacts on cognitive function. All these health impacts can impact upon a person's quality of life. The most vulnerable are the young and old.

Air quality in Bristol is sufficiently poor in many locations for the health impacts described in the previous paragraph to be experienced by citizens in Bristol. Monitoring data shows continued exceedances of the annual mean nitrogen dioxide (NO₂) air quality objective close to roadside locations in the city centre and along the main arterial routes. Concentrations of NO₂ do, however, appear to be declining but further urgent action is needed to comply with legal limits.

A report commissioned by BCC¹ calculated that approximately 300 deaths of Bristol residents can be attributed to air pollution (particulate matter - PM_{2.5} and nitrogen dioxide – NO₂) in 2013. This equates to 8.5% of all deaths in Bristol annually. These deaths attributed to air pollution compare, on average, to 9 people killed in road traffic collisions in Bristol each year.

Air Quality Management Area

Road transport is a major source of particulate matter and nitrogen oxides (NO_x) accounting for 34% of nitrogen oxides and 12% of primary particulate matter (PM_{2.5}) emissions in the UK². At busy roadside locations the contribution of traffic to nitrogen oxides can be greater than 80%.

Through monitoring of the city's air quality, a geographical area has been identified where health standards (known as objectives) are not achieved and an Air Quality Management Area (AQMA) has been established in line with DEFRA (Department for Environment and Rural Affairs) recommendations (See **Figure 1**).

Figure 1 indicates the boundary of the Air Quality Management Area (AQMA) for Bristol, inside which air quality is at risk of exceeding government objectives.

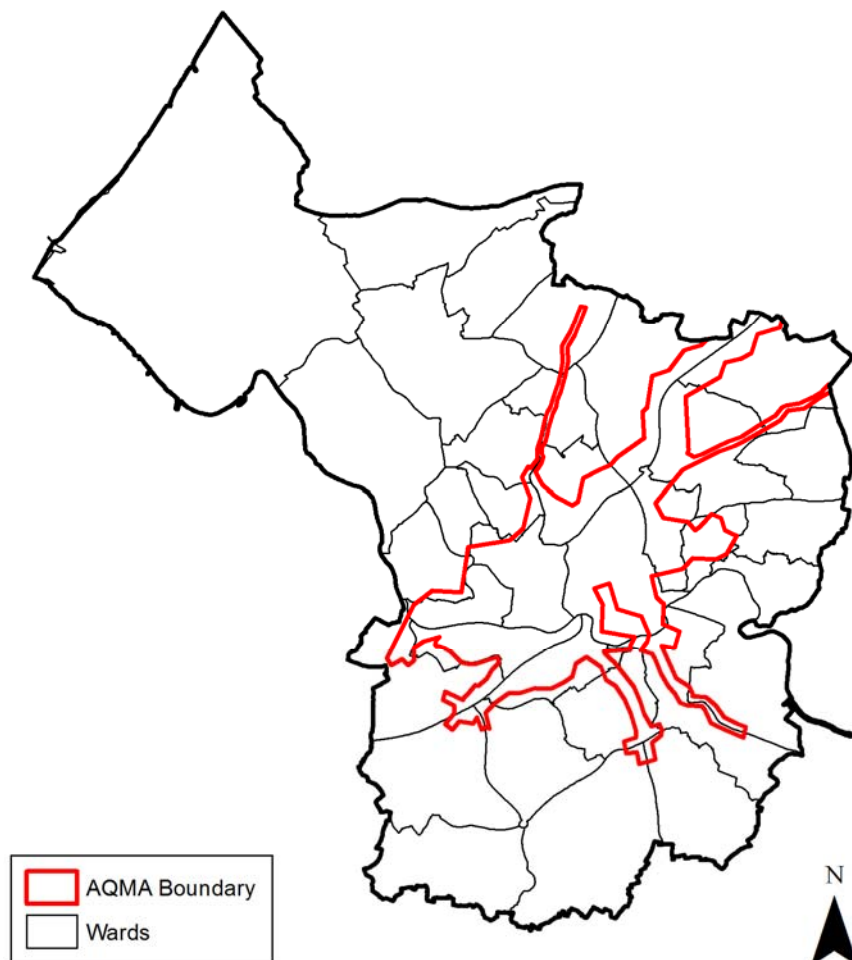
The AQMA is based around busy road junctions and arterial roads where nitrogen dioxide from the exhausts of vehicles does not get readily dispersed because of the surrounding buildings.

¹ Air Quality Consultants (2017). Health Impacts of Air Pollution in Bristol.: Air Quality Consultants Ltd

² Department for Environment, Food and Rural Affairs (2018). Clean Air Strategy 2018.

Domestic solid fuel burning is a re-emerging area of concern. Recent evidence shows that this source contributes to 38% of all PM^{2.5} emissions nationally.

Figure 1 Map of Bristol's Air Quality Management Area (AQMA)



Air pollution generated from human sources such as the combustion of fuels for heat, electricity and transport is having an adverse effect on the health of Bristol's communities. In 2016, 5.3% of "all-cause adult mortality" in Bristol was considered attributable to "anthropogenic particulate air pollution"³, which is the same as the national proportion (5.3%) (fig 5.17.1) and is mid-ranking for English Core Cities.

A citywide Clean Air Plan is being developed to bring down traffic generated NO₂ as soon as possible and to reduce levels of fine particulate matter. More information can be found here: <https://www.cleanairforbristol.org/>

The proportions of deaths attributable to air pollution vary across the city in relation to pollutant concentrations, from around 7% in some wards to around 10% in others. Concentrations are highest in the centre of the city and therefore so are deaths attributable to air pollution.

³ Via Public Health Outcomes Framework (PHOF), 2017

Successes/Progress

Declaration of a Climate Emergency

In November 2018 Full Council passed a motion which declared a Climate Emergency and asked the Mayor to report back to Council describing the action he and the Council will take. The Mayor has now developed an initial plan of action in response to this.

The Mayor has reiterated his declaration that we are in a climate emergency and formally adopted the goal of Bristol becoming a Carbon Neutral City by 2030.

A new Governance structures to lead the city's response to the climate emergency has been established including:

- a new City Office Environmental Sustainability Board which he is chairing; and
- an Advisory Committee on Climate Change to advise the city boards.

It is envisaged this will enable the development of a One City Climate Strategy for Bristol.

Avonmouth Nuisance Dust Monitoring

Due to concerns from residents the Environment Agency and Bristol City Council carried out monitoring of Air Quality in Avonmouth from August 2014 until September 2015 in response to resident concerns about air quality. The Bristol City Council monitoring station measured the very small particles in the air which we can't see, finer than the kind of dust which people see on car window screens or window sills. These small particles can get past the body's natural filters and into people's lungs. They are measured at 10 microns ('PM10') and 2.5 microns ('PM2.5').

The results after 12 months of monitoring showed that all the measurements were well under the European Union Air Quality limits. The dust monitoring also analysed the heavy metal content in the Avonmouth samples and found to be within available European standards.

A second phase of monitoring was undertaken in 2016 which focused on larger particles; this is dust which can be seen, typically appearing on cars windscreens and other locations. All results were well below available standards and sample contents did not indicate any dominant/industrial source. These results were fed back to the Community via an officer presentation at the community hall in 2017-18.

At the time of the 2016-17 monitoring the results indicated that there is no underlying depositional dust issue for residents from industrial activities in and around Avonmouth. However with all industrial areas should there be an

acute dust episode residents are advised to continue to report concerns to the Pollution Control Team by calling the Customer Service Centre on 01179 222500 Option 3. During 2017-18 the results of the dust monitoring were fed back to the community. During the year a small number of complaints were received about potential nuisance dust which officers investigated, they will continue to monitor the situation when reports are made.

Flies

Since 2015 residents in Avonmouth have been concerned with the level of flies and this is reported in the local and national press articles. There was a clear issue with a particular source in 2015 which required legal intervention by the Pollution Control team but since then complaints have continued with residents concerned that flies are related to the number of waste processing facilities in the area. There have been over 40 separate complainants in 2019 from residents of Avonmouth and the surrounding area.

The Pollution Control Team carries out fly monitoring on an annual basis during warmer summer months when the fly population increases nationwide and will continue to investigate potential sources and will also need to consider whether Avonmouth is impacted adversely compared with other areas of the city. The Pollution Control Team works closely with the Environment Agency (EA) to ensure such sites are suitably regulated but have wider responsibility for other nuisance sources which may not be regulated by the EA.

Blood Lead

The Pollution Control Team has provided assistance in the sampling and investigation of the causes two cases reported of elevated blood lead in children.

Risks

- Poor air quality
- Maintaining an effective dialogue with Bristol residents about environmental hazards to health.

Areas for focus in 2019/20

- Improve air quality
- Initiate a Liaison Group to bring together Community members and representatives from the Avonmouth Industrial companies to discuss improvements in community impacts and improve the working relationship/good neighbours culture. Work to create this Liaison group has been started by the Neighbourhood Partnership with local residents and will be put in place in 2016/17. With the changes to the NP system this Liaison group needs to be reviewed moving forward.
- Issue the final nuisance dust deposition report to the community.

Glossary

AMR	Antimicrobial Resistance
AQMA	Air Quality Management Area
ASLRF	Avon and Somerset Local Resilience Forum
BCG	Bacillus Calmette-Guerin
BCC	Bristol City Council
BNSSG	Bristol, North Somerset and Gloucestershire
BSI	Bloodstream infections
CBRN	Chemical Biological Radiological Nuclear
CCG	Clinical Commissioning Group
CDI	Clostridium difficile (C.diff) infection
COMAH	Control of Major Accident Hazards
CPE	Carbapenemase-producing Enterobacteriaceae
CQUIN	Commissioning for Quality and Innovation
DTaP	Diphtheria, Tetanus and Polio
EPPR	Emergency preparedness, resilience and response
GI	Gastro Intestinal
H&WB	Health and Wellbeing Board
HCAI	Healthcare associated infections
HIB	Haemophilus influenzae type b
HIV	Human Immunodeficiency Virus
HNA	Health Needs Assessment
HPC	Health Protection Committee
HPV	Human Papilloma Virus
IGAS	Invasive Group A Streptococcal
IPC	Infection, Prevention and Control
IPV	Inactivated Polio Vaccine
LHRP	Local Health Resilience Partnership
LTBI	Latent Tuberculosis Infection
MDR TB	Multi drug resistant tuberculosis
MMR	Measles Mumps and Rubella
MRSA	Methicillin Resistant Staphylococcus Aureus
NHS E/I	NHS England/Improvement
NICE	National Institute for Health and Care Excellence
NOIDs	Notifiable Infectious Diseases
PCV	Pneumococcal conjugate vaccine
PHE	Public Health England
PIR	Post-infection review
QP	Quality premium
STAR-PU	Specific Therapeutic group Age-sex Related Prescribing Unit
STI	Sexually Transmitted Infections
TB	Tuberculosis
Td	Tetanus and diphtheria
WHO	World Health Organisation