



The Rotherham **NHS**
NHS Foundation Trust



Rotherham Doncaster and
South Humber **NHS**
NHS Foundation Trust



NHS Rotherham
Clinical Commissioning Group



ROTHERHAM HEALTH PROTECTION ANNUAL REPORT 2018

Foreword

Preventing and controlling infectious diseases, environmental threats and protection from hazards demands a quality workforce, educated and trained to the highest standards. It relies on effective working arrangements across several organisations to work well together strengthening areas of the health protection system.

The Director of Public Health (DPH), on behalf of the local authority, must ensure that there are preventative strategies in place locally to protect the health of the Rotherham population. These are discharged through the Rotherham Health Protection Committee with representation from all the responsible organisations across the borough. With the publication of the NHS Long Term Plan, there is a good opportunity to strengthen the health protection work with partners across Rotherham.

We would like to take this opportunity to thank the Committee, and all the individuals and agencies involved, for their commitment to health protection over 2018 and for their continued support in preparing and delivering next year's programme.

Teresa Roche

Director of Public Health

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Councillor David Roche

Cabinet Member for Adult Social Care Housing and Public Health

Handwritten signature of Councillor David Roche in black ink, featuring a large, stylized initial 'D' followed by 'Roche' in cursive.

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GLOSSARY

AMR	Antimicrobial Resistance
BCG	Bacillus Calmette-Guerin
C. difficile	Clostridium difficile
CHRD	Child Health Records Department
CIPFA	Chartered Institute of Public Finance and Accountancy
CQUIN	Commissioning for Quality and Innovation
Defra	Department for Environment, Food and Rural Affairs
DIPC	Director of Infection, Prevention and Control
DPH	Director of Public Health
DTaP/IPV/Hib	Diphtheria, Tetanus, acellular Pertussis, Polio and Haemophilus influenza type b
EHO	Environmental Health Officers
EPSS	Emergency Planning Shared Services
E.coli	Escherichia coli
ESPAUR	English surveillance programme for antimicrobial utilisation and resistance
FSA	Food Standards Agency
GI	Gastro Intestinal
H&WB	Health and Wellbeing Board
HCAI	Health Care Associated Infections
HIV	Human Immunodeficiency Virus
IPC	Infection, Prevention and Control
LTBI	Latent TB Infection
LHRP	Local Health Resilience Partnership
MDRTB	Multi Drug Resistant TB
MMR	Measles Mumps and Rubella
MRSA	Meticillin Resistant Staphylococcus Aureus
MSSA	Meticillin Sensitive Staphylococcus Aureus
NHSEY&H	NHS England Yorkshire and Humber
NICE	National Institute of Clinical Excellence
ONS	Office for National Statistics
PCV	Pneumococcal Conjugate Vaccine
PGD	Patient Group Directive
PPE	Personal Protective Equipment
PHE	Public Health England
PHOF	Public Health Outcome Framework
PM	Particulate Matter
RCA	Root Cause Analysis
RCCG	Rotherham Clinical Commissioning Group
RDaSH	Rotherham Doncaster and South Humber NHS Foundation Trust
RHPC	Rotherham Health Protection Committee
SIT	Screening and Immunisation Team
STI	Sexually Transmitted Infection
TB	Tuberculosis
TRFT	The Rotherham NHS Foundation Trust
UTI	Urinary Tract Infection

BACKGROUND

Health protection is historically a relatively new description of a set of functions to protect individuals and populations. It is an integrated approach to infectious diseases, radiation, chemical and environmental hazards which emerged in the UK from a series of system failures, including the Stafford Hospital Legionnaires' disease outbreak in the 1980s, and the foot and mouth disease outbreak in 2001. Health Protection in England was formalised in 2003 through the amalgamation of radiation, microbiology and chemical functions (Health Profile for England, PHE, 2018) followed in 2012 by the implementation of the Health and Social Care Act which imbued considerable changes in the functions, roles and accountabilities for health protection and how it is managed and delivered. This placed a duty on local authorities in England to be assured that arrangements to protect the health of the community are robust and implemented appropriately, discharged through the Director of Public Health.

Health protection encompasses a set of activities within the Public Health function which:

- Ensures the safety and quality of food, water, air and the general environment
- Prevents the transmission of communicable diseases
- Manages outbreaks and the other incidents which threaten the public's health

Over the years, the emerging health protection challenges have become increasingly global, interdisciplinary and challenging. Infectious diseases such as Middle East Respiratory Syndrome (MERS), Zika virus and Severe Acute Respiratory Syndrome (SARS) have emerged from across the globe and spread rapidly - new diseases will be no different (Health Profile for England, PHE, 2018).

Ninety years on from Alexander Fleming's first discovery of penicillin in 1928, we have a growing problem of antimicrobial resistance in the UK and across the globe. Antimicrobials (which include antibiotics) are vital to almost all aspects of modern medicine, including surgery and cancer treatment. Despite warnings, the global community has only recently awoken to the implications of this threat. Antimicrobial resistance (AMR, see WHO definition <https://www.who.int/features/qa/75/en/>) describes the change of an organism which makes a previously effective treatment ineffective (Health Profile for England, PHE, 2018).

Several aspects of climate change are also likely to have a range of environmental effects that may impact on health including; more frequent and severe extreme weather events, such as heat waves and floods, changing patterns of air pollution and changing patterns of diseases caused by microorganisms (Health Profile for England, PHE, 2017 see <https://www.gov.uk/government/publications/health-profile-for-england-2018>).

January 7th 2019, saw the publication of the NHS Long Term Plan. This provides opportunities to strengthen actions on Health Inequalities, Antimicrobial Resistance, Air Pollution, Supporting People in Care Homes, national screening programmes and childhood immunisations.

PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide an overview of the health protection situation within Rotherham highlighting any successes, on-going challenges or significant areas for development. This multi-agency report enables the Director of Public Health (DPH) to provide assurance to the Health and Wellbeing Board (H&WB), that the health of Rotherham residents is being protected in a proactive and effective way.

SUMMARY

This is the fourth annual report of the Rotherham Health Protection Committee (RHPC). It highlights the main areas of health protection activity in Rotherham over the period 1st January 2018 to the 31st December 2018. Whilst significant progress has been made in Rotherham, organisations, staff and residents will continue to be challenged with new and emerging infections, environmental hazards and the changing face of service delivery.

The RHPC has continued to meet over the year to ensure that adequate arrangements are in place for the surveillance, prevention, planning and response to protect the public's health. Collaborative working has included:

- Reviewing lessons learned on a range of health protection incidents and planning exercises both internally and externally.
- Responding to complex issues requiring specialist prevention and treatment services to manage and treat infections in schools, the wider community and hospital and care homes.
- Ensuring that the roles of all agencies involved in health protection planning are clear and effective (local multiagency plans).
- Planning for Major incidents involving communicable diseases, for instance, Pandemic Influenza (priority number one on the national risk register of civil emergencies).
- Antimicrobial stewardship (resistance to antibiotics) which remains a health protection risk for Rotherham residents (also on the National Risk Register of Civil Emergencies).

The Annual Report for 2017 outlined a number of key recommendations and areas to focus on. This annual report (2018) provides an update on these recommendations; captures key areas of work over the calendar year and makes recommendations on the priorities of work for next year.

The main burden of disease is often seen in our most vulnerable communities within Rotherham. Consequently we have been:

- Systematically addressing the variation in health outcomes for vulnerable communities by increasing immunisation rates including Diphtheria.
- Maintaining vigilance for multi-drug resistant tuberculosis (MDR TB), in vulnerable patients such as those with no home, or co-infection with HIV, patients with alcohol and drug dependency or who may need extra help from the local health economy.
- Working to improve seasonal flu vaccination uptake in clinical risk groups and the elderly.

WHY HEALTH PROTECTION IS IMPORTANT

Over the past century there have been significant reductions in the number of deaths from traditional infectious diseases, such as tuberculosis, pneumonia, influenza, cholera and typhoid. These accounted for 32% of all deaths in 1901 compared with just 8% in 2015. New threats from infectious diseases arise from changing socio-demographics including increased travel, immunosuppression and new types of viruses or bacteria (Health Profile for England, PHE, 2017). The profile of Health Protection has increased significantly in recent years with areas such as immunisation, food borne infections, pandemic flu, healthcare associated infection and communicable diseases regularly being in the public eye.

However, “threats to health are not equally shared; the impoverished, incarcerated, institutionalised and homeless are often at far higher risk of illness and premature mortality than the general population” (Aldridge R, Story A, Hwang SW et al, 2018). “Marginalised populations experience extremes of poor health due to a combination of poverty, social exclusion and increased burden of risk factors” (Fair Society, Healthy Lives, The Marmot Review, 2010).

KEY RECOMMENDATIONS 2019

The ‘Looking Ahead’ section at the end of this report sets out the areas that RHPC has identified as the focus for actions in the year ahead. From these, the following key recommendations have been drawn.

- 1) Maintain effective monitoring, communication and response to incidents or outbreaks and consolidate multi agency arrangements which includes an agreed approach to funding.

- 2) Improve the uptake of Measles, Mumps and Rubella (MMR) vaccination to achieve minimum herd immunity, routine immunisations for the hard to reach communities and seasonal flu vaccination for staff and the eligible population.
- 3) Review borough wide Infection Prevention and Control services and make recommendations for improvements to the patient pathway and the sustainability of services (including Tuberculosis Specialist services).

WHO ARE WE?

The Council

Local Authorities have a range of statutory health protection functions across several directorates, in particular, Adult Care Housing and Public Health and Regeneration and Environment Services. For example:

- Environmental Health ensures the enforcement and regulation of the codes of practice and standards for food safety, trading standards, environmental permitting, air quality and animal health.
- The Emergency Planning Shared Services ensure LA services, in close liaison with partners, are prepared to respond to emergencies.
- Adult Care, Housing and Public Health work closely with the Rotherham Clinical Commissioning Group for continuous improvement in health and social care, including infection prevention and control in the community, commissioning integrated sexual health services, Alcohol and Substance misuse services and supporting homeless and vulnerable people with tuberculosis.
- The Director of Public Health has a statutory duty under the Health and Social Care Act 2012 and associated regulations, to ensure that all parties discharge their roles effectively for the protection of the local population.

Rotherham Clinical Commissioning Group (RCCG)

RCCG works closely with GP practices who are responsible for reporting notifiable infectious diseases and administering a number of vaccination programmes. RCCG also commissions a range of treatment services from acute and community providers and holds healthcare providers to account for Health Care Associated Infections (HCAIs), Antimicrobial Resistance and specialist Tuberculosis (TB) services.

The CCG will support NHS England in Emergency Preparedness, Resilience and Response (EPRR) functions and local duties including the co-ordination of the local health economy during Major incidents.

NHS Providers (including the hospital, community and GP Practices)

NHS organisations are expected to deliver functions that support health protection in accordance with the NHS England Standard Contract. This includes emergency planning (significant incident and emergency management) and any co-operation necessary to achieve associated objectives.

The NHS providers offer health information and advice: to prevent and treat disease in schools and general practices; deliver immunisation programmes in schools and practices; carry out antenatal screening in hospital settings; and provide specialist services associated with sexually transmitted infections, drug and alcohol and tuberculosis.

They reduce the risk of HCAs through promotion of good infection prevention and control practices led by the Director of Infection Prevention and Control (DIPC) and the Microbiologist working closely with PHE on any hospital or community acquired incident or outbreak.

Public Health England (PHE) Yorkshire and Humber Health Protection Team

PHE provide monitoring and specialist advice and support to commissioners and providers. PHE provide leadership in the event of a community outbreak or incident, which includes the monitoring and control of communicable diseases, vaccination and immunisation advice, HCAI monitoring and expert advice on environmental, chemical, biological and radiation hazards.

NHS England (NHSE)

NHSE are responsible for the commissioning and implementation (through the PHE Screening and Immunisation Team) of the national routine screening and immunisation programmes as well as the specialised commissioning of HIV services.

They oversee the Quality and Patient Safety of Rotherham CCG and systems to prevent Health Care Acquired Infections (HCAIs) such as MRSA, Clostridium difficile and E.coli bacteraemia.

The Local Health Resilience Partnership (LHRP), chaired by NHSE and co-chaired by the DPH for Barnsley ensures that the local health system is prepared to deal with emergencies. It ensures that all NHS funded organisations meet the requirements of the Civil Contingencies Act 2004 (CCA 2004), the NHS Act 2006 as amended by the Health and Social Care Act 2012 and the NHS Standard contract.

South Yorkshire Police (SYP), South Yorkshire Fire and Rescue (SYFR) and Yorkshire Ambulance Services (YAS)

Work closely with partners on preparedness and respond to any emergencies and major incidents to protect the public following the Joint Emergency Services Interoperability Programme (JESIP) see <https://www.jesip.org.uk/home>.

Schools, voluntary sector and other partners in the independent sectors

Other organisations may be involved in health protection, such as, providing advice and support to staff in the event of any incidents or outbreaks, applying for permits to regulate against environmental hazards, vaccinating and treating pupils or staff and the implementation of good infection prevention and control practices in care homes.

WHAT WE SAID WE WOULD DO IN LAST YEAR'S REPORT

SUCSESSES AND CHALLENGES 2018

Below identifies some key areas in last year's annual report (2017) on what 'we said we would' do and what 'we did' for the calendar year 2018.

1) Communicable Diseases

We said we would: maintain effective monitoring communication and response to incidents or outbreaks across the borough to ensure early detection and implement a proportionate response to manage and control the incident effectively.

We did: Incidents and outbreaks were responded to effectively by all partner agencies, minimising harm to the local population. Incident Control Team meetings, led by PHE, ensured all partners were fully engaged and the appropriate public health measures implemented to prevent and control the spread of infection.

2) Infection, Prevention, Control and Antimicrobial resistance

We said we would: seek continuous improvement on Infection Prevention and Control practices and effective Antimicrobial Stewardship across all acute and community settings.

We did: There has been considerable progress in improving prescribing practices and the use of antibiotics, a reduction in Gram-negative (incl. E.coli) bacteraemia infections and a range of infection, prevention and control initiatives to promote best practice in care homes.

3) Screening and Immunisation

We said we would: improve the uptake of seasonal flu (including people in the clinical risk groups) and other routine vaccinations within the hard to reach communities in Rotherham.

We did: The Screening and Immunisation Team have worked closely with GP Practices and partners to target initiatives where lower vaccination uptake rates are evident.

4) Emergency Planning

We said we would: work on the actions identified by the findings of the National (NHS England and Public Health England) Health Protection Audit, review a number of local multi-agency plans and frameworks as a result of changes in national policy and guidance and implement any learning from local exercises.

We did: Multi-Agency Outbreak and Mass Treatment plans were agreed and implemented over the year and included an overall agreement not to delay screening and treatment in any outbreak scenario in spite of 'who funds' . This included an agreed arrangement for swabbing and the provision of antiviral treatment for any flu outbreaks which occur 'out of season'.

5) Environmental Hazards and Control

We said we would: work across directorates and with external agencies to implement the UK Governments Clean Air Zone measures.

We did: A feasibility study and full business case have been developed and a range of measures initiated to improve air quality in key areas of Rotherham. These will continue to be implemented over 2019 and beyond.

HOW ARE WE DOING

There is a dedicated Health Protection profile published by Public Health England which extends the previously reported 30 indicators covered to 56. The new profile covers the seven domains of: Gastrointestinal infection; Immunisation and childhood vaccine preventable diseases; Respiratory infection; Hepatitis; Sexually transmitted infections (STI) and HIV; Health Care Associated Infection; and Non-infectious environmental hazards.

Virtually all the Health Protection indicators for Rotherham in the Public Health Outcomes Framework (PHOF) have improved or were stable over the latest period. Many are better than England, RAG rated as green, with only three indicators RAG rated as red (significantly worse than England): The full Health Protection profile is at: [Fingertips Health Protection Profile](#)

Below are the indicators RAG rated as red:

- Population vaccination coverage - Flu (at risk individuals) at 53.6% for 2017/18 against a target level of 55%). This is a slight increase when compared with the same period the previous year (52.7%) and is in line with national and local trends. Rotherham and South Yorkshire still remain relatively high performers when compared nationally.
- Antibiotic prescribing in primary care by the NHS which continues to improve (see main body of report)

- Non-typhoidal salmonella incidence rate (Rotherham rate highest among CIPFA (CIPFA – Chartered Institute of Public Finance and Accountancy) nearest neighbour authorities for 2017 data)

Performance of the Council’s corporate indicator (1.C2) for the combined childhood immunization for Diphtheria, Tetanus, Pertussis, Polio and Haemophilus influenza type b (DTaP/IPV/Hib) is consistently good and above the national target for 2018/19 set at 95%.

SUCSESSES AND CHALLENGES 2018

COMMUNICABLE DISEASES

Infectious diseases and environmental threats are once again at the forefront of public health, after decades of decline. This year marks the centenary of the 1918 H1N1 (‘Spanish flu’) pandemic which killed between 20 to 40 million people. Pandemic influenza remains the most significant civil risk facing the UK today (Health Profile for England 2017).

Effective Information Systems for Managing Outbreaks and Incidents

HP Zone is a national PHE information management system to support the investigation and management of health protection incidents and outbreaks. This sits as the primary data system for health protection management and works alongside other NHS networked systems (e.g. laboratories, Child Health Information and other clinical systems).

EMERGING INFECTIONS

Public Health England (PHE) ensures that partners have accurate and timely information available to inform public health decisions and actions.

The opportunities provided by vigilance through good quality monitoring and information are significant, from ensuring a rapid and effective response to public health threats, to improving inter-operability between systems and using new technologies to improve health outcomes.

The national PHE Health Protection Team provides a monthly update on the new and emerging infectious diseases across the globe that could affect public health in the UK. These are shared and discussed appropriately with the RHPC (<https://www.gov.uk/government/publications/emerging-infections-monthly-summaries>)

The 2014 to 2016 Ebola virus disease outbreak in West Africa killed more than 11,300 people. It began in Guinea, spread across borders into Sierra Leone and Liberia with limited regional spread. For the first time in an Ebola outbreak, a small

number of cases occurred in humanitarian aid workers who returned to their country of origin and onwards across the globe, including the United Kingdom.

There were multiple inter-linking factors which contributed to the outbreak; deforestation in the region, increased human contact with bats carrying the infection, urbanisation and greater population mobility, which drove the regional and transnational spread of the disease. The lack of surveillance mechanisms and effective vaccines or treatments compounded these problems and highlighted the shortcomings of the global health security framework, including pharmaceutical funding models for emerging infectious diseases.

Ebola outbreaks continue to occur with the most recent in the Democratic Republic of Congo (DRC) in 2017 and 2018. In response to deficiencies identified during the West Africa outbreak, WHO has increased partnership working during health emergencies and improved the speed of response.

The Cholera outbreak in the Yemen (from September 2016) initially reported 1,052,417 cases which continued to reduce over the year, Monkeypox was reported for the first time in the UK and there was a Diphtheria outbreak in Bangladesh.

INCIDENTS AND OUTBREAKS

Although high profile national incidents over the last year such as the Grenfell Tower fire and the chemical poisoning in Salisbury highlight the value of a flexible and responsive health protection system (Health Profile for England, PHE, 2018), most routine work primarily relates to infectious diseases.

Below illustrates the number of gastroenteritis outbreaks by setting (not including food poisoning) associated with various settings across Rotherham reported to PHE for the calendar years 2018, 2017, 2016, 2015 and 2014.

LA Incidents 2018					
Gastroenteritis outbreaks- (Detailed breakdown below) Not food poisoning	2018	2017	2016	2015	2014
Care Home	26	33	22	24	29
School	7	11	6	7	<5
Nursery	0	0	0	<5	<5
Restaurant	0	0	0	<5	6
Health Care	11	<5	<5	0	0
Visitor Attraction	0	0	0	0	0
Chemical Incident	<5	<5	0	<5	<5
Influenza like illness - Care Home	<5	0	0	0	0
Influenza like illness - School	0	0	<5	0	0
Diphtheria	<5	0	0	0	0

Cases living in Rotherham by calendar year 2018-2014, Source HP Zone, PHE

Successes

Over 2017/18 the Rotherham Multi-Agency Outbreak and Multi-Agency Mass Treatment Plans were produced to ensure that all the necessary public health control measures could be actioned in a timely manner for any future incident or outbreak.

These were both utilised in the first part of the year to successfully deliver a complex and scaled up multi-agency response at relatively short notice. Although there was an excellent uptake of these targeted interventions (primarily associated with screening and treatment) ensuring successful population outcomes, a debrief event, attended by all partners, ensured shared learning and areas for improvement.

There were other incidents over the year related to tuberculosis, avian flu, iGas Strep A, Legionella, syphilis, measles and meningitis which required effective communication between partners to deliver the public health control measures. This included working with Environmental Health, Adult Social Care, Housing, Public Health, RCCG, PHE Y&H, Infection Prevention and Control nurses (TRFT/RDaSH/RCCG), the TB Specialist Nurse and Microbiology (TRFT). Local responses were co-ordinated through teleconferences where additional agencies may be involved (depending on the scenario) to identify the source of infection (where possible) and ensure that the necessary control measures were implemented to prevent further spread or recurrence.

Local and national Infection Prevention and Control (IPC) guidance, training and use of a best practice audit tool has been offered to all care homes on the process for reporting outbreaks to PHE and in adopting good public health control measures to reduce the spread and re-occurrence of infection.

Challenges

Recent outbreaks of measles in England and Yorkshire and the Humber, an infectious disease that can lead to serious complications and even death, highlight the importance of maintaining a high vaccination coverage (Health Profile for England, PHE, 2018).

Outbreaks in care homes (most commonly episodes of diarrhoea and/or vomiting in two or more residents or staff) where an infectious agent has been transmitted are usually caused by viruses, but can be serious bacterial infections. Because the residents are often vulnerable elderly people with various health problems, even infection with common agents can result in serious illness. Many of the viral agents are highly infective and spread very effectively between residents and staff, controlling them requires meticulous hygiene measures.

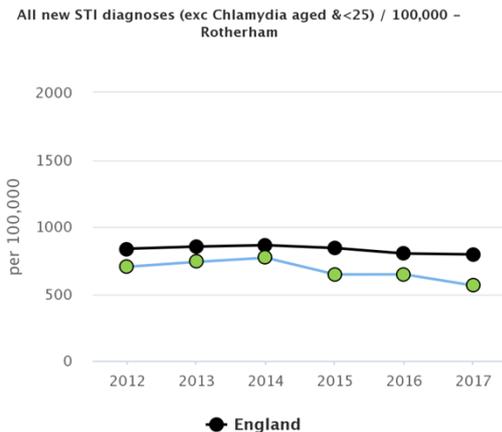
SEXUALLY TRANSMITTED INFECTIONS

There is wide variation across England in new diagnosis of sexually transmitted infections. In 2017 there were higher rates in more deprived areas, and for some infections, among young heterosexuals, people in the Black Ethnic Minority Groups and men who have sex with men (MWHSSM). Although the national incidence of most infections has been falling in recent years, syphilis diagnoses have risen 148% between 2008 and 2017, including a 20% rise between 2016 and 2017 (Health Profile for England, PHE, 2018).

Like all sexual health services, the Rotherham Integrated Sexual Health Services have a statutory duty to carry out partner notification, contact tracing and treatment for Sexually Transmitted Infections (STIs). This plays a vital part in the health protection mechanism for controlling their spread. STIs are entirely preventable and can have lasting long term and costly complications if not treated.

Rotherham has a well-established Sexual Health Strategy Group with representatives from a range of partner agencies who meet on a regular basis to agree actions to improve sexual health. The overall aim is to promote and protect the sexual health and wellbeing of everyone in Rotherham and to address inequalities in relation to good sexual health.

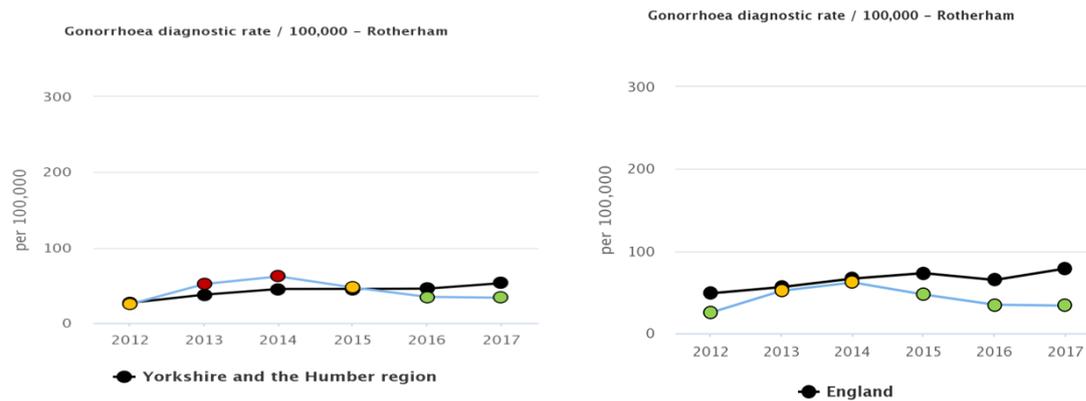
The STI rate (excluding chlamydia) in Rotherham in 2017 was lower than the Yorkshire and Humber rate and national rate. Overall, the trend in the rate of all STIs in Rotherham is decreasing and more so than national rates (see below).



(PHE fingertips)

Successes

Rotherham's new diagnosis rates for gonorrhoea have fallen since 2014. After having been higher than the average for Yorkshire and Humber and similar to England in 2013 and 2014, from 2015 the rates have been significantly lower than England (see charts below).



Source: Laser, PHE, 2017 (PHE fingertips)

The latest LASER (Local Authority HIV, Sexual and reproductive health Epidemiology Report) for 2017 reflects the significant fall in diagnosis of gonorrhoea, with Rotherham now having the 197th highest rate (out of 326 Local Authorities in England) in 2017 compared to when the authority had the 91st highest rate in 2015.

Rotherham rates are significantly better than England for most HIV indicators for 2017 including the new HIV diagnosis rate and HIV diagnosed prevalence. Rotherham also has a good HIV testing coverage percentage in comparison to England (best among the Chartered Institute of Public Finance and Accountancy (CIPFA) nearest neighbours) with 79.5% of eligible sexual health service patients being tested in 2017 (compared to 65.7% in England). However, HIV late diagnosis is worse at 48.4% than England (41.1%) for 2017 but Rotherham ranks as average among CIPFA nearest neighbour authorities.

Challenges and future work

The Yorkshire and Humber region continue to see an increase in cases of syphilis including an increase in the number of cases in Rotherham. This is also reflected across England.

For cases in men where sexual orientation was known, 13.4% of new STIs in Rotherham (2017) were among gay, bisexual and other men who have sex with men (MWHWSM) compared to 9.8% in 2016. Rotherham also has higher rates of new STIs amongst black ethnic minority groups which are also reflected in the national picture.

58% of diagnoses of new STIs in Rotherham in 2017 were in young people aged 15-24 years compared to 50% in England.

Local and national prevention activities will need to focus on groups at highest risk, including young adults, black and ethnic minorities and MWHWSM.

TUBERCULOSIS

Tuberculosis (TB) is caused by the bacterium *Mycobacterium tuberculosis* and is a modifiable disease in the UK. TB incidence in England peaked at 8,280 in 2011. Since then the number of people notified with TB has fallen by nearly 40% to 5,102 people in 2017.

In Yorkshire and the Humber TB incidence is at its lowest level since 1990 (345 cases), representing a rate of 6 per 100,000), a significant decline from the peak in 2012. Whilst the success of this reduction should be celebrated, we cannot afford to be complacent as there are still pockets of higher incidence. As incidence falls, the prevalence of social risk factors – smoking, alcohol and substance misuse, homelessness and imprisonment continues to increase (Y&H & NE Tuberculosis Control Board: Update March 2019).

The recent declines *nationally* are not experienced equally by all population groups, the largest falls occurring mainly in people born outside the UK. The proportion of people who experience a delay between symptom onset to diagnosis remains stubbornly high and the proportion of people who have multi-drug resistant TB, although relatively low, has not declined recently (not reflected locally). There are still significant inequalities in the rate of TB; the most deprived 10% of the population have a rate more than 7 times higher than the least deprived 10%, and people born outside the UK have a rate 13 times higher than people born in the UK. Nearly 13% of people notified with TB have a social risk factor (Tuberculosis in England: 2018. PHE, September, 2018)

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, 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.

Successes

Much of the work by the TB Control Board (North East Yorkshire & Humber) <https://www.yhphnetwork.co.uk/links-and-resources/tb-network-workforce-development/> is informed by a quarterly TB Cohort Review. The Cohort Review aims to strengthen the prevention and control of TB through a review of case management and assessment of outcomes compared to local and national TB targets. It also provides an opportunity to identify unmet health and social care needs of cases and highlight system-issues in the TB control pathway at case-level. Cohort review meetings are multidisciplinary and multi-agency with representation from nurses, doctors, and public health practitioners from the NHS, local councils, and Public Health England. This ensures that TB control is joined up at all levels. In 2018, colleagues in Rotherham attended several cohort review meetings and these have used enhanced local data collection to identify key areas for action.

Cases of TB continue to be managed in Rotherham through the TB Specialist services, establishing multi-agency incident control teams when required to;

- ensure that the appropriate public health controls are implemented
- follow-up actions are undertaken to ensure patients/staff comply with TB treatment and all the necessary treatment and public health measures have been instigated
- ensure the follow up of workplace contacts to identify those who may need screening by specialist services

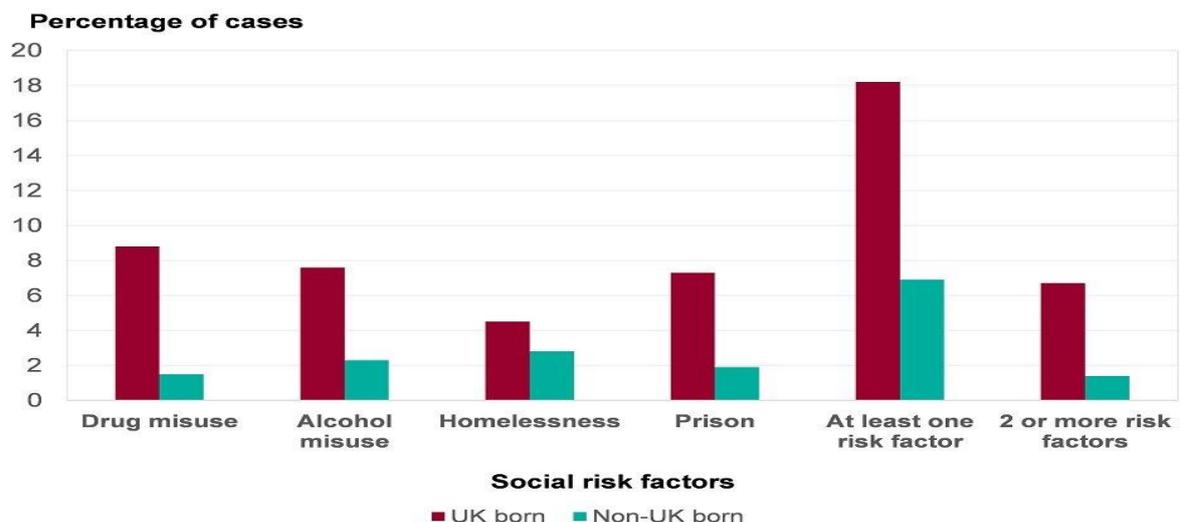
Challenges

TB is not only a serious infectious disease but it also has major social impacts for those affected. TB is associated with marked inequalities in health; with deprived populations more likely to get TB and suffer worst outcomes.

Despite the reduction in overall TB cases, the number of cases with social risk factors (homelessness, drug or alcohol misuse or imprisonment) has not declined. The proportion of cases with at least one of these risk factors increased from 9.8% in 2014 to 11.8% in 2015. The rates of TB and the risks of delayed diagnosis, drug resistance, onward transmission and poor treatment outcomes are greatest among these individuals. TB cases with social risk factors are more likely to have pulmonary disease and drug resistance, and have worse TB outcomes. TB in England remains a public health priority due to current rates and the health, social and economic burden of the disease.

Percentage of TB cases by social risk factor, England, 2010 to 2015

Source: Tackling TB in Under-Served Populations: A Resource for TB Control Boards and their partners. Produced by Public Health England, 2017



As highlighted by the above chart, a substantial proportion of notified TB cases possess at least one social risk factor. Under-served and vulnerable populations are continuously evidenced in national and regional guidance as groups requiring more support to engage with health services and complete treatment.

This is also reflected in Rotherham, whilst the annual TB incidence rates continue to fall, specialist services are seeing more complex cases of TB who may also be homeless and/or who have no recourse to public funding.

Underserved and vulnerable populations (sometimes described as 'hard to reach') are less likely to present to health care services. Services have to be pro-active in finding these patients so they can be diagnosed and treated. This includes people with Latent TB Infection (LTBI) which can be a serious hidden health threat. LTBI testing for all new entrants from high incidence areas is an effective and cost-effective public health intervention recommended by NICE (Tackling Tuberculosis in Under-Served Populations: A Resource for TB Control Boards and their partners, PHE, 2017) which is currently only partially implemented in Rotherham.

SUCCESSSES AND CHALLENGES IN 2018

ENVIRONMENTAL HAZARDS AND CONTROL

Food Hygiene Animal Feed and Animal Health

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.

Food Hygiene,

The Council advises and supports businesses to ensure compliance with food hygiene standards and take enforcement actions where appropriate. Trading Standards Enforcement Staff and Environmental Health Officers (EHOs) have continued to work in partnership with other agencies such as South Yorkshire Police and Immigration Enforcement to tackle issues such as the sale of illicit cigarettes and tobacco.

In December 2018, there were 1,944 food premises in Rotherham displayed on the Food Standards Agency (FSA), Food Hygiene Rating Scheme (FHRS), of which 1,615 were rated good or very good. In February 2018 the Council introduced a fee of £150 to undertake a re-assessment visit under the FHRS. There were 52 re-assessment visits undertaken in 2018 and the majority have showed sustained improvement and gained higher ratings.

There were 448 cases of ‘suspected’ food poisoning (including ‘confirmed’ notifiable illness) reported to the Council between January and December 2018 from identifiable causes. It is likely that if all of the unreported cases were to be included this figure would likely more than double.

Below shows the number of cases of gastrointestinal infection reported to PHE laboratory (notifiable) and confirmed through laboratory tests each year from 2014 and 2018.

PHE Laboratory Reports	2018	2017	2016	2015	2014
Campylobacter sp	332	288	311	317	417
Cryptosporidiosis	44	26	53	67	19
Giardiasis	5	<5	7	5	<5
Legionella	5	6	<5	<5	<5
E coli vtec 0157	<5	<5	<5	<5	<5
Hepatitis B (acute)	<5	0	0	0	<5
Hepatitis B (chronic)	10	9	24	25	28
Hepatitis A	0	<5	5	0	<5
Typhoid	<5	0	0	0	<5
Salmonella	57	52	33	27	32

Cases living in Rotherham by calendar year 2018-2014, Source HP Zone, PHE

There were 159 registered feed premises supplying food to animals which Environmental Health Officers (EHOs) visit to ensure they comply with the feed law. Animal Health Inspectors also check premises keeping livestock to ensure that animal welfare is maintained and disease control measures are in place.

The legislation which covers the licensing of persons involved in England in selling animals as pets, providing or arranging for the provision of boarding for cats or dogs, hiring out horses, breeding dogs and keeping or training animals for exhibition changed in 2018. Guidance was issued in July 2018 with further guidance issued in October and November 2018 which made fundamental changes to the parameters affecting the star ratings. The Authority received a large number of enquiries from businesses affected by the new legislation and guidance. Sales websites have put in place controls which have impacted on the number of calls received by the Authority from people selling/breeding cats and dogs.

The Food, Health and Safety Officer undertook a cross regional survey focussing on tattooists. This survey looked at the microbiological quality of tattoo ink, water and green soap. The survey is also looking at the management of the stocks of ‘green

soap' in the tattooing premises. The survey highlighted problems at a number of premises which were subsequently addressed.

Sampling was also undertaken to verify the pasteurisation process of an approved premises.

Trading Standards completed the survey of 'Vape' premises across Rotherham in October/November 2018. Revisits were also undertaken to check where non-compliance issues identified.

Successes

The Food Information Regulations 2014 require certain businesses to ensure that food is labelled correctly. EHO's check that the businesses have notices displayed to advise their customers about allergens in the food they sell and they check that staff are aware of any allergens in the food they sell, prepare and manufacture at their premises.

Environmental Health Officers have been working with businesses to meet the requirements of the food law and by the end of December 2018, 91.67 % of food premises had demonstrated broad compliance.

Air Quality

The black smog which once shrouded British cities has now cleared but it is estimated that invisible air pollution still produces an effect equivalent to 28,000 to 38,000 deaths in the UK annually (Health Protection Profile, PHE, 2018).

Air pollution is a mixture of particles and gases that can have an adverse effect on human health. Although air pollution has improved over recent decades, there are still significant public health challenges mainly related to Particulate Matter (PM_{2.5} and PM₁₀) and nitrogen dioxide (NO₂) in ambient air.

Air pollution is now regarded as the largest environmental risk linked to deaths in the United Kingdom and a significant source of ill-health. Tackling air pollution is a government priority, as demonstrated through the Governments latest Clean Air Strategy <https://www.gov.uk/government/publications/clean-air-strategy-2019>

The causes of air pollution and climate change are closely related and efforts to address these challenges often overlap. Both arise mainly from burning fossil fuel and transport emissions. Shifting from motorised to active forms of transport, such as walking and cycling, can reduce the levels of particulate matter (PM) and nitrogen dioxide (NO₂) while also contributing to reducing the burden of obesity and non-communicable diseases – known as 'co-benefits'. This approach can also reduce healthcare costs with substantial benefits for public health (Jarrett J, Woodcock J, Griffiths UK, and others. (2012) Effect of increasing active travel in urban England and Wales on costs to the National Health Service. Lancet 379: 9832)

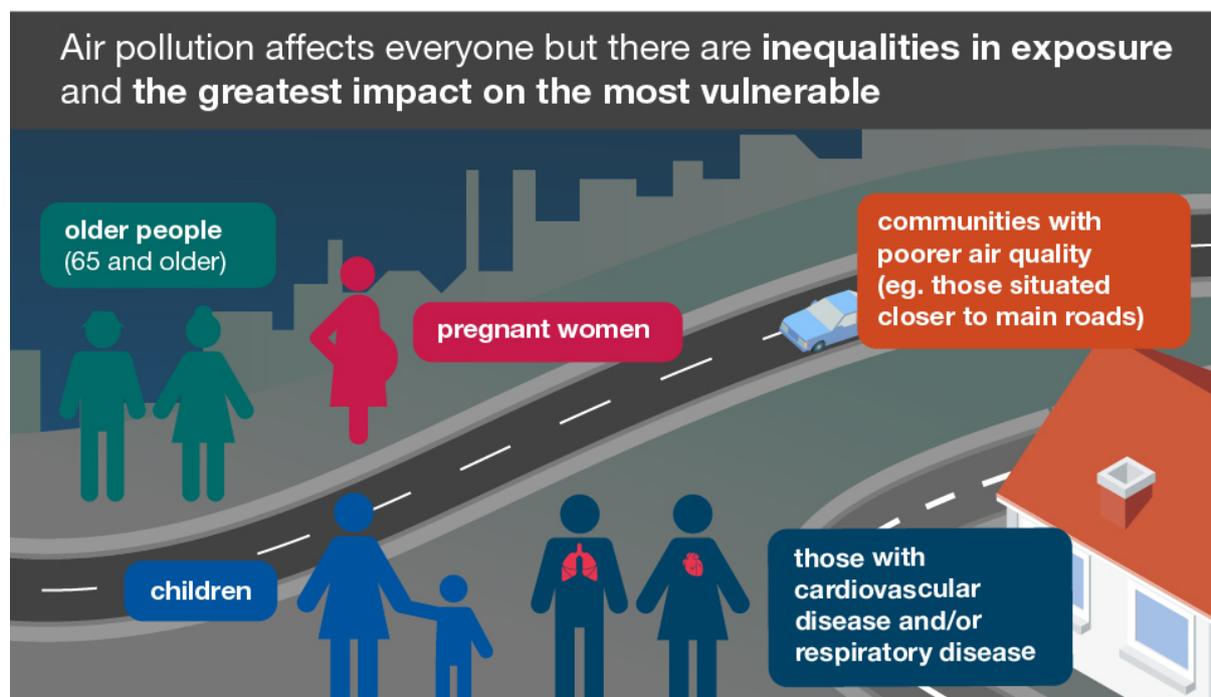
In 2017, the total NHS and social care cost due to PM_{2.5} and NO₂ was estimated to be £42.9 million in England. If no action to improve air quality is taken and trends continue, costs could accumulate to £5.3 billion between 2017 and 2035.

<https://publichealthmatters.blog.gov.uk/2018/05/22/enabling-local-authorities-to-tackle-air-pollution/>

There are strong associations between air pollution and major diseases that pose a great health and economic burden, including:

- coronary heart disease
- stroke
- lung cancer
- childhood asthma

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 can impact upon a person's quality of life with the most vulnerable being, the young and the old.



Local authorities are required to declare an Air Quality Management Area (AQMA) where exceedance of air quality occur (averaged over a period) and where people are exposed. The current air quality management areas for Rotherham covers those locations where exceedance of objectives for NO₂ has been measured and relevant exposure to this pollution occurs. Once an air quality management area has been

declared, an air quality action plan is required to identify measures aimed at achieving compliance with the air quality objectives.

A relatively small reduction in the population's exposure to PM_{2.5} and NO₂ can lead to significant reductions in the numbers of people affected and resulting costs. It can also have multiple co-benefits, such as increasing workers' productivity and promoting active travel, including walking and cycling. This increase in physical activity can help reduce the burden of chronic diseases such as obesity and Type 2 diabetes. Improving air quality is therefore an important tool to improve our health.

Successes

In most of Rotherham, air quality is good, but Rotherham, along with most urban areas in England, has areas of elevated air pollution which have been declared as Air Quality Management Areas (AQMA, see link below). [Rotherham Air Quality monitoring](#) Whilst traffic emissions continue to impact on the quality of air in Rotherham, air quality along Wellgate AQMA has continued to improve.

The Government has provided funding for the rollout of public Electric Vehicle (EV) Charging Points throughout Rotherham borough during 2018. These public charging points are being installed in Rotherham's main town centre car parks, our country parks, and at our leisure centres. Many of the public EV Charging Points will be installed in conjunction with solar panels and battery storage which will also increase public awareness to alternatives to petrol and particularly diesel vehicles. See the latest South Yorkshire Care4air campaign 'Fuelling Change' <https://fuellingchange.co.uk/>

Clean Air Zone

The UK Government Secretary of State mandated Rotherham Council's as a Clean Air Zone authority with a requirement to produce a plan to meet the EU Limit Values for nitrogen dioxide in the shortest possible time. The Council has worked with Sheffield City Council during the past year to produce a Feasibility Study for a Clean Air Zone which was submitted to the Secretary of State on 24 December 2018.

Challenges and future work

Rotherham has proposed specific measures, subject to funding from Central Government, from the Clean Air Fund to improve air quality in its AQMAs.

- Statutory public consultation on the Clean Air Zone will take place during the first few months of 2019.
- The emphasis of future work will be to reduce the emissions of air pollutants from vehicles.
- In order to improve air quality as quickly as possible, everyone in Rotherham needs to contribute. A Hearts and Minds Campaign will run during 2019

working with car dealerships so car buyers in Rotherham will be able to make an informed choice in future vehicle purchases.

SUCCESSSES AND CHALLENGES IN 2018

SCREENING AND IMMUNISATION

The NHS Screening and Immunisation programmes reduce illness and death from vaccine preventable and screening detectable conditions, contributing to the delivery of the NHS and Public Health Outcomes Frameworks. These services are commissioned by NHS England (North) Yorkshire and the Humber (South Yorkshire and Bassetlaw) and assurance is received through the South Yorkshire & Bassetlaw Screening and Immunisation Oversight Group (SY&B SIOG). There are also a range of local multi-agency implementation sub-groups which report to the SY&B SIOG which share best practice and drive quality improvement to support safe, effective and high quality programmes.

Routine Vaccination and Immunisation

The population is offered routine vaccinations for protection against 15 infectious diseases in childhood, adolescence and as adults, with another four vaccines for eligible at risk groups. Given at various points across a person's lifetime, at times when they are vulnerable to disease, it is one of the most effective ways of protecting against serious infectious diseases bringing major improvements in morbidity and mortality over recent decades.

NOTIFICATIONS	2018	2017	2016	2015	2014
Meningococcal Infection	16	13	10	13	34
Measles	11	<5	9	<5	13
Mumps	27	24	34	23	39
Rubella	5	0	0	<5	<5
Diphtheria	7	0	0	0	0
Scarlet Fever	102	118	66	110	65
Whooping cough	5	19	25	17	16

Cases of vaccine preventable infections in Rotherham by calendar year 2014-2018, Source HP Zone, PHE (includes all cases, possible, probable and confirmed).

Performance across the range of immunisation programmes is improving, however, coverage is variable and this requires attention to ensure that the local population is protected and does not become susceptible to outbreaks of these diseases.

Successes

Whilst there are specific screening and immunisation standards within RCGP's Primary Care Quality Contract, The Screening and Immunisation Team (SIT), Child Health Records Department (CHRD), primary care and other partners have focused on the following areas for improvement:

- Pre-school booster immunisation in areas with a lower uptake of MMR, Diphtheria and other vaccines
- Significantly reducing GP practice waiting lists for childhood vaccinations using local data on DNA (Did Not Attend) rates.
- Adolescent immunisations programmes through school programmes.
- Additional flu vaccination drop-in sessions provided for eligible Council employees working with vulnerable adults in Health and Social Care.

Rotherham Immunisation Team (TRFT) received a 'Proud award' for their excellent partnership work during a rare local incident and national recognition for their professional and effective approach with successful population outcomes.

Challenges

This season, there was a national recommendation for the use of two different flu vaccines, one for the over 65's (limited access) and the other for the under 65's 'at risk'. Despite these challenges uptake remains comparable to last year and reflects the commendable efforts of GP practice teams.

Screening Programmes

Cancer is the leading cause of all deaths in Rotherham accounting for over 28% of deaths in 2017 (ONS). Furthermore, for the 3 years 2015-2017 combined, Rotherham experienced a premature mortality rate (deaths under 75 years of age) for cancer of 2.0% higher than the Yorkshire and Humber Region and 8.8% higher than England (PHE via data from the ONS). Screening and early detection can significantly improve the health outcomes for both the individual and population.

People living in Rotherham who fall within the eligibility criteria are able to access three cancer screening programmes, breast, cervical and bowel cancer which account for 42% of all cancers (21 year prevalence to end of 2015, National Cancer Registration and Analysis System (NCRAS) and 16% of all cancer deaths (2017, ONS) each year. Bowel cancer is the second largest cause of cancer death after lung cancer (2017, ONS). Numbers of new cases of female bowel cancer have fluctuated over time but are 22% higher in 2014 than in 2001 (PHE Cancer Analysis System).

There are a total of 11 screening programmes in England, 6 for Antenatal and Newborn (mothers during pregnancy and Newborn babies), and 5 to detect Breast, Bowel and Cervical cancers and screening for Abdominal Aortic Aneurysm and Diabetic Eye Screening. The Screening and Immunisation Team (SIT) work closely

with partners to identify areas for improvement and promote screening and programmes across the Rotherham.

Successes

The SY&B communications and engagement team (NHSE/PHE), Be Cancer Safe, Cancer Research UK and Macmillan support, advise and educate on the importance of screening to vulnerable and hard to reach groups, agencies and charities (e.g. Voluntary Action Rotherham, Unity Community Centre, Rotherham college, Department of Work and Pensions Rotherham job centres, Tassibee and Mencap).

Targeted work and assurance for lower performing practices continues in respect of all eligible cohort groups. The 'Be Cancer Safe' screening and 'signs and symptoms' messages are all linked into TV monitors operating in GP practices. In addition, there is a GP Endorsed DNA Screening letter initiative to improve uptake in areas where people have not attended screening appointments

Cancer screening coverage has been stable in recent years to 2017 for both breast (over 79%) and cervical cancer screening (over 76%) and increased from 59.5% to 60.2% between 2016 and 2017 for bowel cancer screening. Rotherham is significantly higher than England (RAG-rated green) and ranks in the top 3-4 of 15 CIPFA nearest neighbours for all these in 2017.

Challenges

The announcement of a national Breast Screening incident in May 2018 resulted in all the identified women being offered an appointment and subsequently screened. The national incident has now been closed and the internal PHE investigation report was published in December 2018.

The SITs has been working closely with CCG colleagues to promote and encourage extended GP opening hours to improve access to cervical screening and immunisation.

Making the best use of local health intelligence data and health promotion messages to target interventions in areas where people have failed to attend for screening appointments and/or are mental ill health and/or learning disability/ hard to reach.

SUCCESSSES AND CHALLENGES IN 2018

INFECTION, PREVENTION, CONTROL AND ANTIMICROBIAL RESISTANCE

Good infection prevention and control, and appropriate antimicrobial use are essential in ensuring safe and effective care for those receiving health and social care and in managing and controlling the spread of communicable diseases. Effective prevention and control of infection must be part of everyday practice and be applied consistently by everyone (Health and Social Care Act: Code of Practice, DH 2008).

As the regulator of health and adult social care in England, the Care Quality Commission (CQC) provides assurance that the care people receive meets the fundamental standards of quality and safety. These are set out in regulations. The Health and Social Care Act 2008 (code of practice on the prevention and control of infections and related guidance) outlines what registered providers should do to ensure compliance with registration requirement 12 (2) (h) “Assessing the risk of, and preventing, detecting and controlling the spread of, infections, including those that are health care associated.” It also sets out 10 compliance criteria against which registered providers will be assessed.

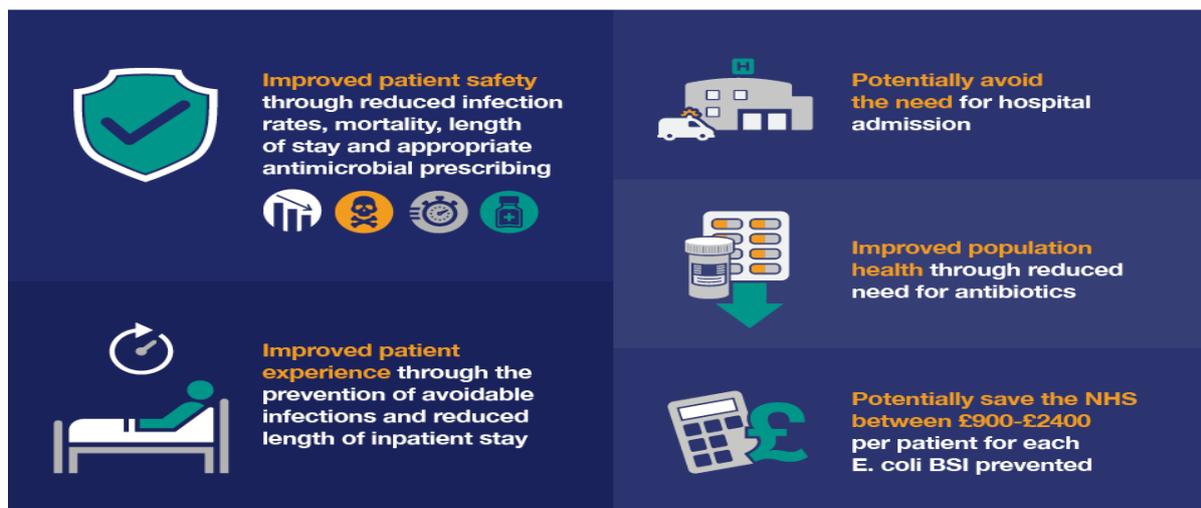
The Council, RCGC commissioners and the CQC will need to be assured that patient safety and service quality are maintained for Infection Prevention and Control in the public and independent sectors who deliver regulated services.

Preventing healthcare associated infections (HCAI) is an important component of infection, prevention and control and patient safety. The National Institute for Health and Care Excellence (NICE) estimated that 300,000 patients a year in England acquire a healthcare associated infection as a result of care in the NHS. In 2007, methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections (BSI) and *Clostridium difficile* infections were recorded as the underlying cause of or a contributory factor in, approximately 9000 deaths in hospital and primary care in England. Healthcare associated infections are estimated to cost the NHS approximately £1 billion a year and £56 million of this is estimated to be incurred after patients are discharged from hospital.

HEALTH CARE ASSOCIATED INFECTIONS

Healthcare Associated Infections (HCAs) can pose a serious risk to patients, staff and visitors. They may incur significant costs for the NHS and partners and cause significant morbidity to those affected. Infection prevention and control is therefore a

key priority for protecting the health of the population in Rotherham.



HCAI surveillance in Rotherham includes Meticillin-Resistant Staphylococcus Aureus (MRSA), Clostridium difficile (C.difficile), Meticillin-Sensitive Staphylococcus Aureus (MSSA) and Escherichia coli (E.coli) bacteraemia.

All patients identified with MRSA Blood Stream Infection (BSI) are subject to a comprehensive Post-Infection Review (PIR), which upon completion, is submitted to Public Health England. The purpose of the PIR is to identify how each case occurred and to agree actions to prevent the same circumstances recurring.

Similarly all cases of C. difficile are subject to a root cause analysis (RCA) investigation to identify learning and share best practice to reduce the incidence of infections.

Meticillin-Resistant Staphylococcus Aureus (MRSA)

The nationally agreed, 'zero' 'no tolerance' trajectory, was exceeded in 17/18 in the cases attributed to TRFT which totalled 3. These were primarily due to contaminated blood samples and not clinical infection. This also occurred in 18/19 however with only 1 case. The measures that TRFT had put in place to reduce the level of all blood culture contamination rates played a part in the reduction.

In 2017/18 RCCG were officially attributed zero following a successful arbitration panel review of a case. In 18/19 RCCG exceeded the trajectory with 3 cases. All 3 cases would have been taken to the arbitration panel however this was not an option due to the MRSA guidance changes.

https://improvement.nhs.uk/documents/2512/MRSA_post_infection_review_2018_changes.pdf

Meticillin-Sensitive Staphylococcus Aureus (MSSA)

During 2017/18 and 18/19 there have been 7 cases of MSSA Blood stream infections (BSI's) in the acute trust TRFT).

During 2017/18 and 18/19 there were 45 and 61 cases, respectively, allocated to RCCG.

Although no national target has been set and the numbers remain fairly stable, both hospital and community cases of MSSA bacteraemia continue to be reported on, and monitored by the Director of Infection Prevention and Control (DIPC) and Infection Prevention and Control Team based at TRFT.

E coli

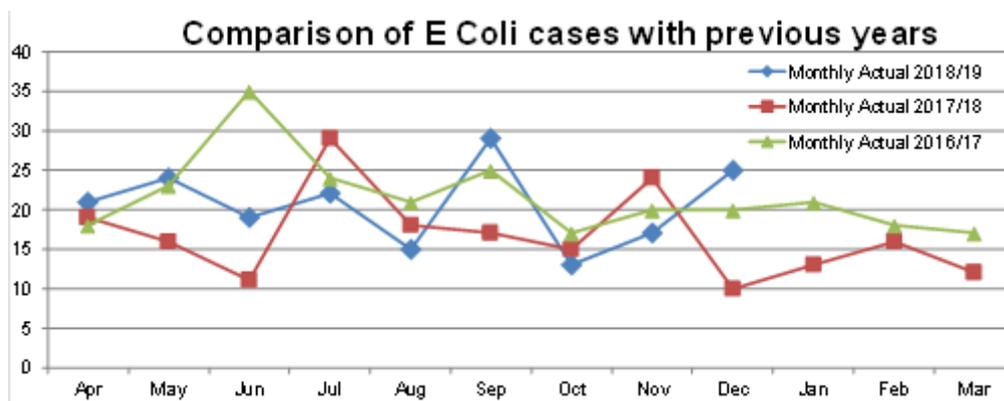
E. coli blood stream infection rates are nationally high and have increased in the last 5 years, although it is considered that only 50% are HCAs. The Department of Health documented that the plans to reduce infections in the NHS should have an emphasis on E. coli, with an aim of halving the number of cases by 2021. Consequently, there was a national set of quality premium targets for 2017-18 with a reduction expectation of 10%, and again a further quality premium target of a further ambition target of a 10% reduction for 2018-19 with additional milestones of 15% and 20% <https://www.england.nhs.uk/ccg-out-tool/qual-prem/> .

Rotherham CCG and TRFT continue with enhanced surveillance and a range of actions centred on reducing E -Coli's. The 3 main areas continue to focus on patients with:

- Previous UTIs.
- Urinary catheters.
- A positive E. Coli urine culture.

Local monitoring of E.coli has been underway over the year to inform the joint RCCG and TRFT action plan. This plan which centres on reducing E. coli's has been shared with NHS England along with other supporting documentation.

The chart below shows a comparison of the number of E Coli cases in 2016/17, 2017/18 and 2018/19.

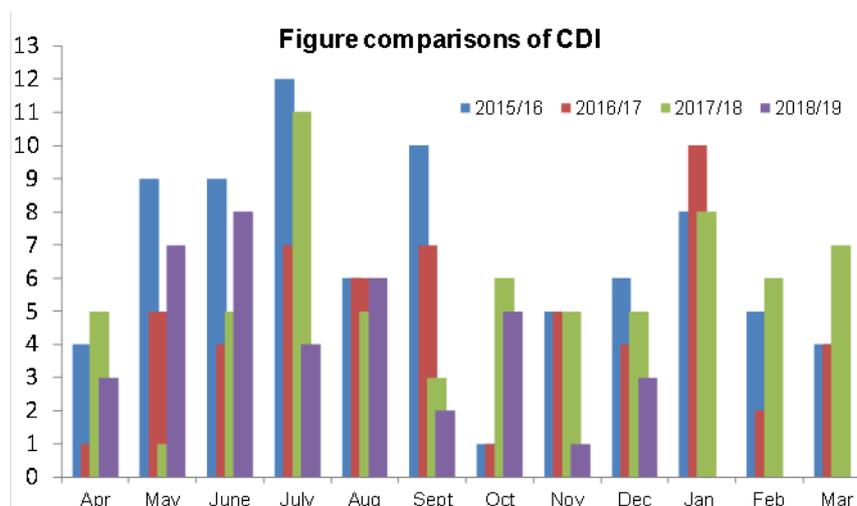


Clostridium difficile Infections (CDI)

The number of C.difficile infections attributed to the Hospital Trust were within the annual trajectory set by NHSE for 2017/18, as follows;

- TRFT trajectory for 17/18 was 26 with an actual figure of 15.
- TRFT trajectory for 18/19 is 25 with an actual figure of 7 (up until end Jan)
- RCCG trajectory for 17/18 was 63 with an actual figure of 70.
- RCCG trajectory for 18/19 is 62 with an actual figure of 43 (up until end Jan)

The chart below shows a comparison of the number of CDI cases in 15/16, 16/17, 17/18 & 18/19 for RCCG.



E-Coli

Gram negative bloodstream infections are caused by a class of bacteria which rapidly develop resistance to existing treatments (the main organisms in this group are E.coli, Klebsiella and Pseudomonas). These are the leading causes of healthcare associated bloodstream infections. The government has set a target of halving healthcare associated gram-negative bloodstream infections by 2021 and has set an ambition of reducing inappropriate antimicrobial prescribing by 50%, over the same time frame (English Surveillance Programme for Antimicrobial Utilisation and Resistance ESPAUR, PHE, 2018).

Between 2012 and 2016, overall antibiotic prescribing in England reduced by 5% in humans, with declines across all drug classes (ESPAUR, PHE, 2018). Cases of E. coli, the most common gram negative bloodstream infection, have continued to rise in line trends described in the Health Profile for England 2017.

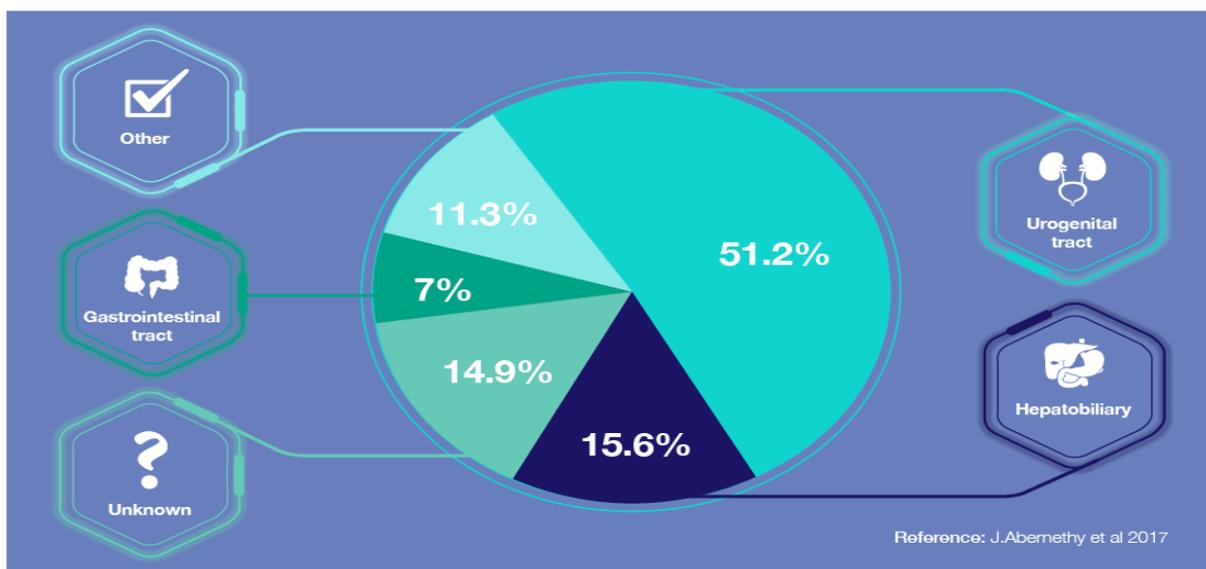
Successes

- TRFT remained within the Clostridium Difficile annual trajectory (2017/18) for C.difficile.

- RCGG look likely to remain within the annual Clostridium Difficile trajectory 2018/19.
- The ambition target figure for E.coli bacteraemia in 2017/18 was 221. The actual figure for 2017-18 was 200 – therefore RCGG achieved a reduction of 18%. Only 28 CCGs out of 195 achieved above a 10% reduction.

Challenges and future work

- The ambition target figure for E. Coli bacteraemia for 2018/19 is 199. The actual figure for 2018/19 to the end of Jan 2019 is 200 already exceeding the ambition target (financial year).
- CCG’s have been given an aim to reduce the rate of E.coli bacteraemia by 10% in year one and increasing to a 50% reduction of all gram negative bloodstream infections by 2020. This remains an on-going challenge and therefore future work plans will need to be continually reviewed as further national evidence becomes available.
- The cases of health care acquired MSSA bacteraemia appear to be increasing and although this does not have an identified national target/trajectory RCGG and TRFT will review local actions to reverse this trend.
- National changes to the Clostridium difficile reporting algorithm for financial year 2019/20 have reduced the number of days to identify hospital onset healthcare associated cases from ≥ 3 to ≥ 2 days following admission. Additionally, if a case of C.difficile is detected in the community and the patient has been an inpatient in the trust within the last 4 weeks, a Root Cause Analysis (RCA) will also be required. These will also have a significant impact on the number of CDI’s which count against the hospital.



ANTIMICROBIAL RESISTANCE

The overuse of antimicrobials in clinical and other settings (e.g. in animal health) is leading to increasing resistance to antibiotics that is spreading worldwide. A particular concern globally is the spread of carbapenemase-producing gram-negative infections (CPE) which are resistant to carbapenem antibiotics – often the last line of treatment in severe bacterial infections. Antimicrobial resistance to carbapenems is currently at low levels in England. However, there is considerable variation across Europe. In 2017, there was less than 1% resistance in most of northern Europe, including the UK, in contrast to 8.6% in Portugal, 31.4% in Romania, 22.5% in Italy and 64.7% in Greece (European Centres for Disease Prevention and Control, 2018, Surveillance Atlas of Infectious Diseases).

<https://atlas.ecdc.europa.eu/public/index.aspx>

Of concern is the potential for levels to rise quickly. For example, Italy had 1% to 2% resistance from 2006 to 2009 but by 2014 this had increased to 33% at which point control efforts became expensive and challenging. This reinforces the need for proactive control measures which are vital to prevent the rapid development of resistance.

Antimicrobial Resistance (AMR) makes treating infections caused by multi-drug resistant organisms increasingly difficult, which is both costly and a safety risk (source Local Health and Care Planning: Menu of interventions PHE, Nov 2016). The government published a UK 5 Year Antimicrobial Resistance Strategy 2013 to 2018 (DH, 2013) which sets out actions to slow the development and spread of antimicrobial resistance. Part of this strategy has included a national voluntary point prevalence surveillance (monitoring) for HCAI and antimicrobial stewardship to benchmark performance and to be able to compare primary care prescribing rates for co-amoxiclav, cephalosporins, and quinolones. TRFT have been active participants although the full report for the National and European results have not yet been published.

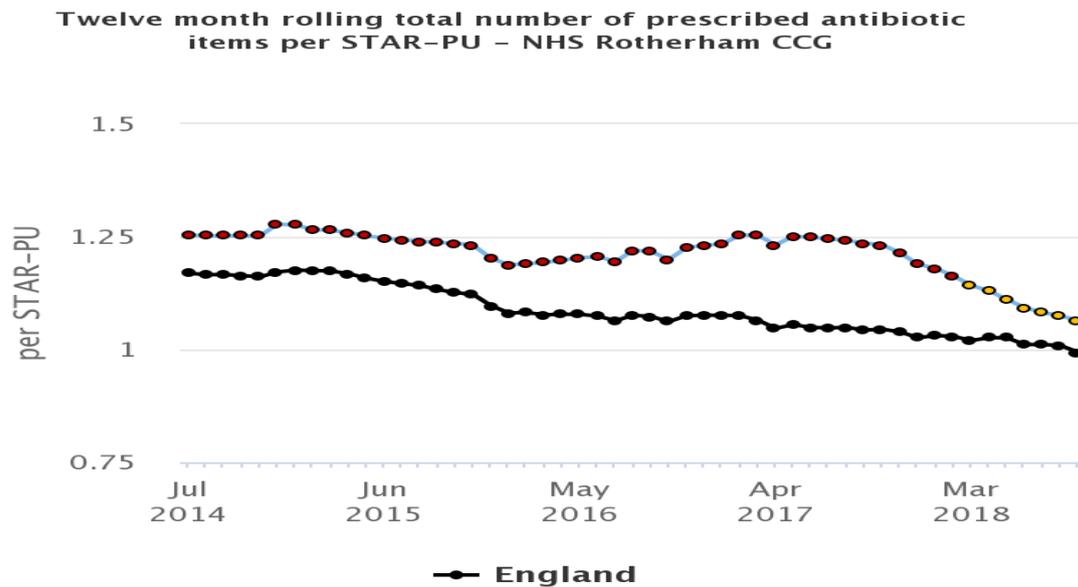
There is also a UK wide Antibiotic Guardian campaign to raise awareness and to stimulate behaviour change in members of the public, healthcare professionals and other local stakeholders who can sign up to these national aspirations.

Successes

A national Quality Premium (QP) target, initially introduced in 2016/17 for primary care, has been refreshed each year to reduce the overall prescribing of antibiotics equal to or below the England 2013/14 mean performance of 1.161 items per STAR-PU (Specific Therapeutic group Age-sex Related Prescribing Unit).

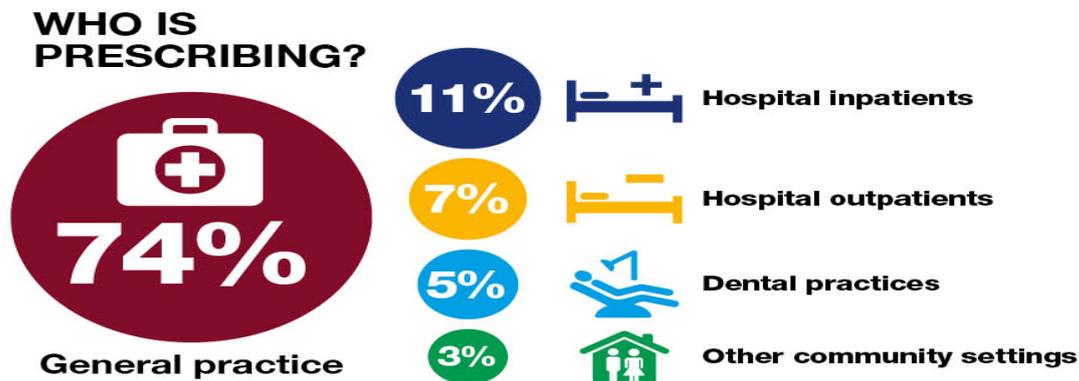
<https://www.nhs.uk/Scorecard/Pages/IndicatorFacts.aspx?MetricId=443>). More specifically, this aims to reduce the prescribing of cephalosporin, quinolone and co-amoxiclav (due to broad spectrum antibiotics being associated with an increased risk of Clostridium difficile infection and antimicrobial resistance).

The Medicines Management Team (RCCG) have been working closely with colleagues, partners and GP practices amongst the top ten prescribers (in terms of the highest volume of antibiotics prescribed) to reduce antibiotic usage through delayed prescriptions and increased testing/swabbing. Rotherham is continuing to successfully reduce the total amount of antibiotics used, along with the targeted trimethoprim and cephalosporins (see following graph).



In addition to this, clinicians across Rotherham have access to locally endorsed evidence based guidance on the use of antibiotics in primary care and hospital settings. Such guidance helps prescribers to choose the most appropriate antibiotic for the infection they are treating, and to prescribe it for the most appropriate duration. These guidelines encourage the use of narrow-spectrum antibiotics rather than broad-spectrum antibiotics where appropriate and are updated every two years or more frequently if there are significant changes to national guidance or recommendations.

The multi-disciplinary Rotherham Antimicrobial Stewardship Group continues to meet monthly to monitor TRFT compliance with local and national prescribing policies and develop systems to address sub-optimal antimicrobial prescribing. Below gives some indication of the levels of prescribing across the health economy.



Health Matters, PHE, 2015

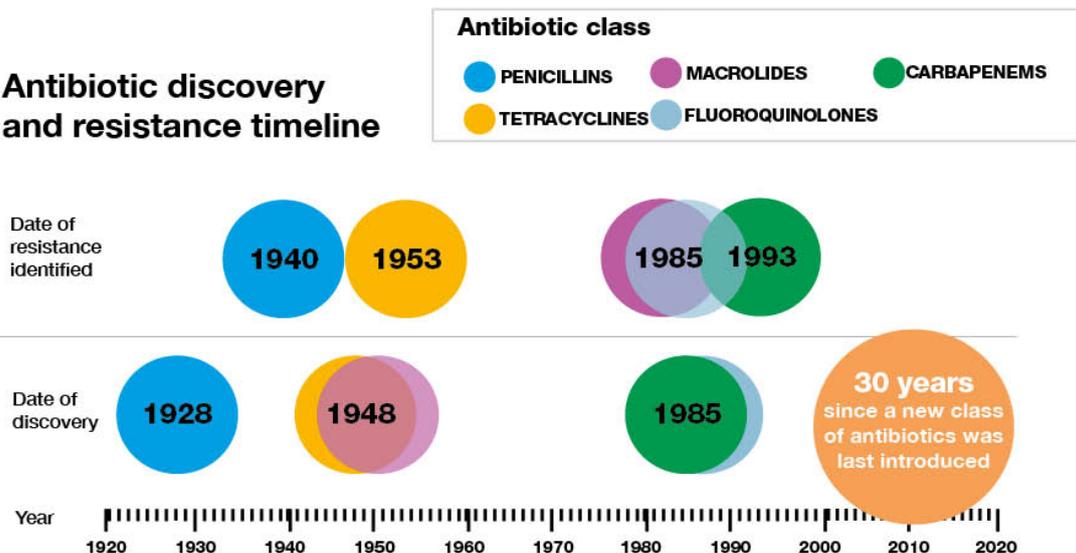
Challenges and future work

With an aging population, increased co-morbidities and surgery, it is important to reduce unnecessary and inappropriate antibiotic use in both the community and hospital (PHE, 2017). Particularly challenging areas remain in the community to ensure that policies are implemented on appropriate prescribing and review. In the coming year RCGG and TRFT will therefore be working on the following areas:

- Long term Urinary Tract Infection (UTI) management.
- Review of prophylactic antibiotic regimens of GP patients (in terms of length of course and appropriateness of treatment choice) in conjunction with microbiology at TRFT to inform future joint actions.
- Review long term and repeated 'rescue medication' in Chronic Obstructive Pulmonary Disease (COPD) management.
- Review prophylactic antibiotic regimens of GP patients in terms of appropriateness of treatment choice and frequency of repeat courses in conjunction with microbiology (TRFT).

One of the main drivers of AMR is the use of antibiotics. On a global level, it is estimated that antimicrobial resistance is responsible for 700,000 deaths each year which could increase to 10 million deaths per year by 2050 without coordinated action. This includes better sanitation, improved public awareness and a rapidly developed new drug pipeline (O'Neil J [chair] (2016) Tackling Drug-Resistant Infections Globally Accessed 20 July 2018) (Health Profile for England, PHE, 2018).

Antibiotic discovery and resistance timeline



Health Matters, PHE, 2015

SUCCESSSES AND CHALLENGES IN 2018

EMERGENCY PREPAREDNESS, RESPONSE AND RESILIENCE

Infectious diseases and environmental threats are once again at the forefront of public health, after decades of decline. This year marks the centenary of the 1918 H1N1 ('Spanish flu') pandemic which killed between 20 to 40 million people. Pandemic influenza remains the most significant civil risk facing the UK (discussed in the Health Profile for England 2017) (from Health Protection Profile, PHE, 2018)

In the UK, 5 million properties are at risk of flooding from rivers or the sea, with substantial implications for mental health and public finances. The 2015 to 2016 floods cost £1.6 billion alone (Health Profile for England, PHE, 2018). In England, hot and cold weather events are associated with increases in mortality and morbidity. During the winter 2015 to 2016 there were an estimated 24,300 excess deaths (Health Profile for England, PHE, 2017).

Successes

Working with Local Resilience Forum partners, the council has participated in a number of multi-agency exercises, aimed at testing a variety of scenarios, such as off-site response to a COMAH incident, exploring a large scale, multi occupancy, long term evacuation and associated risks and vulnerabilities, as well as a walk

through and exercise of counter terrorism arrangements across the Local Resilience Forum footprint. Within the council, a number of exercises have taken place, namely the corporate exercise to test the arrangements as documented in the council Major Incident Plan, alongside smaller scale tests and rehearsals for staff throughout the year.

Challenges

Within the council, a focus on uplifting capability of key responding roles through:

- Increased training
- Updating incident management protocols
- Focussing on planning for recovery from Major incidents or disruptions
- Business Continuity Management
- Aligning to Cabinet Office UK National Resilience Standards and benchmarking through the councils corporate resilience group.

LOOKING AHEAD 2019

OUR COMMITMENT TO ROTHERHAM

The following describes the key areas RHPC plans to focus on during 2019. The topics have been chosen either because RHPC has identified a priority issue that requires closer scrutiny, or that it considers there is value in partner organisations collectively looking at existing arrangements and considering whether there is anything further that could be done to make improvements. Where appropriate, reference is made to the Key Recommendation. On-going monitoring will continue across all areas of health protection, and where issues arise, mitigating actions taken implemented to improve outcomes for the Rotherham population.

Communicable Diseases

Continue to build on inter-agency work to ensure that;

- there is prompt and effective monitoring of infectious diseases
- there is effective communication across all organisations
- relevant health information, advice and support is offered in a timely manner
- all incidents/clusters/outbreaks are managed and controlled effectively
- the response is proportionate and learning from incidents is shared with partners

Run a table top exercise with local stakeholders to explore a communicable disease scenario/s in order to further clarify roles, responsibilities and local funding arrangements for incidents/outbreaks.

Sexually Transmitted Infections

Although Rotherham has seen a significant fall in diagnosis of gonorrhoea and reducing transmission, ensuring treatment-resistant strains do not persist and spread

remains a public health priority. The first detected case of *Neisseria gonorrhoea* with resistance to both ceftriaxone and azithromycin (the two antibiotics currently used as first-line dual therapy) was detected in the UK in March, 2018. Prompt diagnosis and treatment according to national treatment guidelines, testing for antibiotic resistance and identifying and managing potential treatment failures effectively are key to controlling these infections.

See Key Recommendation:

Maintain effective monitoring, communication and response to incidents or outbreaks and consolidate multi agency arrangements which includes an agreed approach to funding.

Infection Prevention, Control and Antimicrobial Resistance

Maintaining an oversight of infection prevention and control outside hospital settings, to ensure all partners, including the local authority, CCG, NHS England and Public Health England are sighted and aligned on infection prevention and control risks.

This will include:

- An action for the RHPC to review borough wide services and make recommendations for local improvements
- Maintaining improved prescribing practices for antibiotics (including broad spectrum antibiotics) so that the right people receive the right antibiotics at the right time.
- A local review of the E.coli data collated over 2018 to inform future local prevention initiatives and good practice.

See Key recommendation:

Review borough wide Infection Prevention and Control services and make recommendations for improvements to the patient pathway and the sustainability of local services (including Tuberculosis Specialist services)

Screening and Immunisation

Reducing inequalities overseen by the multi-agency operational Rotherham Improvement Group. This will include targeting areas with poor uptake and specific cohorts such as people with learning disabilities, black and minority ethnic groups and mental health. Further challenges and future work include:

- Halting the decline in screening and immunisation uptake by the poorer GP practices.
- A Task and Finish Group to improve pre-school booster vaccines (DTaP/IPV and MMR) to maintain uptake at 95% (WHO target), underpinned by mapping of health intelligence data for population migrant groups and exploring the barriers to accessing the childhood immunisation programme.

- Improving the shingles vaccine uptake with the development of promotional materials and resource packs for GP practices.
- Improving uptake rates in the younger cohort of women in both the cervical and breast screening programmes.
- The introduction of a screening pathway tool to empower and assist primary care navigators when consulting with their practice population to promote screening across the lifetime (including non-cancer screening programmes).
- Supporting the implementation of the new HPV vaccine programme for boys in the 2019/2020 academic year.
- Delivering the Primary Care Quality Contract.
- Encouraging maternity services to offer pertussis and supporting the uptake of flu vaccination.

See Key recommendation:

Improve the uptake of Measles, Mumps and Rubella (MMR) vaccination to achieve minimum herd immunity, routine immunisations for the hard to reach communities and seasonal flu vaccination for staff and the eligible population.

Environmental Hazards and Control

There are opportunities to reduce air pollution and address climate change together, as the causes are similar, with 'co-benefits' for both reducing non-communicable diseases and improving wellbeing (Health Profile for England, PHE, 2018).

Partnership working will continue through the co-ordination of the Health Protection Committee and the development of a local Steering Group. Links will continue to be strengthened between transport, active travel, planning and public health work within the Council , to drive improvements whilst providing a focused link into regional work.

Emergency Planning

Continue to engage with Local Resilience Forum Partners to review:

- Risk assessments (pending national guidance)
- Local plans and preparedness
- Testing local plans through exercises and

Council directorates to agree:

- A robust exercise which highlights Business Continuity Management issues and plan maturity
- Undertaking a table top exercise to test the Rotherham Pandemic Flu Response Plan