



Health Protection Report for the Health and Wellbeing Boards of Devon County Council, Plymouth City Council, Torbay Council and Cornwall and the Isles of Scilly Councils

2017 - 2018

3rd December 2018



Contents

Section	Page No
1. Introduction	3
2. Assurance Arrangements	3
3. Prevention and Control of Infectious Diseases	4
4. Immunisation and Screening	7
5. Health Care Associated Infections	17
6. Antimicrobial Resistance	19
7. Emergency Planning and Exercises	21
8. Work Programme 2017/18 – Progress Report	21
9. Work Programme 2018/19 – Priorities	22
10. Authors	23
11. Glossary	23
12. Appendices	23
1. Health Protection Committee Reporting Arrangements	24
2. Infectious Diseases Incidence and Trends 2017-18	25
3. Immunisation Performance 2017-18	29
4. Screening Programme and Performance 2017-18	32
5. Health Care Associated Infections (HCAI) 2017-18	36
6. Antimicrobial Resistance: Trends and Developments	40

1. Introduction

- 1.1 This report provides a summary of the assurance functions of the Devon and Cornwall Health Protection Committee and reviews performance for the period from 1 April 2017 to 31 March 2018, for the Health and Wellbeing Boards of Devon County Council, Plymouth City Council, Torbay Council, Cornwall Council and the Council of the Isles of Scilly.
- 1.2 The report considers the following domains of health protection:
- Communicable disease control and environmental hazards;
 - Immunisation and screening;
 - Health care associated infections and anti-microbial resistance.
- 1.3 The report sets out:
- Structures and arrangements in place to assure performance;
 - Performance and activity in all key areas during 2017-18;
 - Actions taken to date against the programme of health protection work priorities established by the committee for the period 2017 to 2018;
 - Priorities for the work programme 2018/19.

2. Assurance Arrangements

- 2.1 On 1 April 2013, the majority of former NHS Public Health responsibilities transferred to upper tier and unitary local authorities including the statutory responsibilities of the Director of Public Health. Local authorities, through their Director of Public Health, require assurance that appropriate arrangements are in place to protect the public's health. The scope of health protection in this context includes:
- Prevention and control of infectious diseases;
 - National immunisation and screening programmes;
 - Health care associated infections;
 - Emergency planning and response (including severe weather and environmental hazards).
- 2.2 The Health Protection Committee is formally mandated by the Health and Wellbeing Boards of Devon County Council, Plymouth City Council, Torbay Council and Cornwall Council and the Council of the Isles of Scilly.
- 2.3 The aim of the Health Protection Committee is to provide assurance to the Health and Wellbeing Boards of Devon County Council, Plymouth City Council, Torbay Council, Cornwall Council and the Council of the Isles of Scilly that adequate arrangements are in place for prevention, surveillance, planning and response to communicable disease and environmental hazards, required to protect the public's health.
- 2.4 Terms of Reference for the Committee were agreed by Local Authority Directors of Public Health, their Health Protection Lead Officers, and representatives from Public Health England, NHS England Area Team and the Clinical Commissioning Groups.
- 2.5 By serving four Local Authorities, the Committee allows health protection expertise from four public health teams to be pooled in order to share skill and maximise capacity. For external partners whose health protection functions serve a larger geographic footprint, this model reduces their need to attend multiple health protection meetings with similar terms of reference and considers system-wide risk more efficiently and effectively.

- 2.6 The Committee has a number of health protection groups supporting it to identify risks across the health protection system and agree mitigating activities for which the Committee provides control and oversight. As illustrated in **Appendix 1**, these include:
- Devon, Cornwall and Somerset Health Care Associated Infection Network;
 - Devon Antimicrobial Stewardship Group;
 - Cornwall Antimicrobial Resistance Group;
 - Health Protection Advisory Group for wider Devon;
 - Cornwall Directors of Infection Control Group;
 - Locality Immunisation Groups;
 - Local Health Resilience Partnership;
 - South West Seasonal Influenza Strategic Group.
- 2.7 Terms of Reference for each of these groups are regularly reviewed to ensure they reflect the assurance arrangements overseen by the Health Protection Committee.
- 2.8 The Local Authority Lead Officers review surveillance and performance monitoring information in order to identify health protection risks and/or under performance prior to Health Protection Committee meetings. Officers are responsible for liaising with relevant partners to ensure that actions have been agreed to mitigate against a particular risk identified, or to improve performance. The outcomes of these discussions are formally reported to the Health Protection Committee for consideration and agreement.
- 2.9 Meetings of the Committee 2017-18 were held quarterly.
- 2.10 A memorandum of understanding, which specifies the roles and responsibilities of the various agencies involved in Health Protection, is in place.

3. Prevention and Control of Infectious Diseases

Organisational Roles and Responsibilities

- 3.1 NHS England is responsible for managing and overseeing the NHS response to an incident, ensuring that relevant NHS resources are mobilised and commanding or directing NHS resources as necessary. Additionally, NHS England is responsible for ensuring that their contracted providers will deliver an appropriate clinical response to any incident that threatens the public's health. They also commission the national immunisation and screening programmes.
- 3.2 Public Health England, through its consultants in communicable disease control, will lead the epidemiological investigation and the specialist health protection response to public health outbreaks or incidents and has responsibility for declaring a health protection incident, major or otherwise. It also advises on screening and immunisation policy and programmes through NHSE.
- 3.3 The Clinical Commissioning Group's role is to ensure, through contractual arrangements with provider organisations, that healthcare resources are made available to respond to health protection incidents or outbreaks (including screening/diagnostic and treatment services) although financial arrangements have yet to be finalised.
- 3.4 The Local Authority, through the Director of Public Health or their designate, has overall responsibility for the strategic oversight of an incident or outbreak which has an impact on their population's health. They should ensure that an appropriate response is put in place by NHS England and Public Health England, supported by the Clinical Commissioning

Group. In addition, they must be assured that the local health protection system is robust enough to respond appropriately in order to protect the local population's health, and that risks have been identified, are mitigated against, and are adequately controlled.

Surveillance Arrangements

- 3.5 The Public Health England Centre provides a quarterly report for its catchment: Devon, Cornwall and the Isles of Scilly and Somerset. The report provides epidemiological information on cases and outbreaks of communicable diseases of public health importance. A quarterly report is also produced at council level.
- 3.6 Fortnightly bulletins are produced throughout the winter months, providing surveillance information on influenza and influenza-like illness and infectious intestinal disease activity, including norovirus. These bulletins report information for the Public Health England Centre geography (Devon, Cornwall and the Isles of Scilly, and Somerset).
- 3.7 The Health Protection Advisory Group, convened quarterly, provides a forum for hospital microbiologists, environmental health officers, consultants in public health and infection control nurses to share intelligence and any risks identified in local arrangements to manage communicable disease incidence.

Disease Outbreaks and Incidence 2017-18

Syphilis

- 3.8 In January 2018 it was noted by local Exeter sexual health services that they were seeing an increase in cases of early syphilis (primary, secondary, early latent); further investigation using bespoke data revealed that the number of cases seen per quarter had risen from on average of 2.4 from Q1 2013 to Q1 2017 to an average of 11 cases per quarter between January 2017 and March 2018 – with the caveat that this number may fall slightly following data cleaning prior to release of routine GUMCAD data. This increase in syphilis has been seen across the South West region generally and also nationally. Locally, using available data up until the end of 2017, there is some evidence of a less marked increase in Cornwall, and no increases seen in Torbay or Plymouth.
- 3.9 In response to this increase in syphilis, Public Health England is working closely with the local authorities, GUM clinics and sexual health charities to try and better understand what is driving this increase and planning interventions. Bespoke data has been collected and analysed from the clinics reporting a rise in cases and work is underway to ensure real-time reporting of new cases, thereby removing the six-month lag inherent in current routine sexual health data.

Invasive GAS in People Who Inject Drugs

- 3.10 An outbreak of Group A Streptococcus amongst the homeless and/or drug using community living in the Plymouth area was investigated and managed by Public Health England in collaboration with Plymouth City Council Public Health and Derriford Hospital Microbiology.
- 3.11 Eighteen cases have been identified as part of this outbreak with onset dates between June 2017 and March 2018; ten of the cases had invasive disease the remainder having non-invasive wounds. Information about Group A Streptococcus and infection control advice has been shared with front line staff (drugs and alcohol support workers, police, primary care, hostels) and the homeless community.

Other Outbreaks and Situations

Devon

- 3.12 In 2017/2018 there were 112 outbreaks reported in care homes; the majority were related to suspected viral gastroenteritis but, it is notable that there were 40 suspected outbreaks of influenza in care homes. Four outbreaks of scabies in care homes were reported. Fifty-four outbreaks were reported in schools or nurseries, including 33 related to suspected viral gastroenteritis; fifteen scarlet fever, three influenza and three chicken pox outbreaks were reported.

Torbay

- 3.13 In 2017/2018 there were 22 care homes outbreaks reported from Torbay, with eleven related to influenza, ten viral gastroenteritis and one scabies outbreak. Additionally, there were fifteen outbreaks in schools or nurseries; nine related to influenza, three scarlet fever, two chicken pox and one influenza.

Plymouth

- 3.14 Twenty-eight care home outbreaks were reported from Plymouth, of which only four related to influenza; twenty-two were as a result of suspected viral gastroenteritis and there were two scabies outbreaks. Eighteen outbreaks were reported in schools, predominately suspected viral gastroenteritis (nine) but also scarlet fever (four), chicken pox (three) and two outbreaks of suspected influenza. Cases of food poisoning over a two-week period were linked to a takeaway food establishment in Plymouth: Environmental Health worked closely with the manager to mitigate any further risk.

Cornwall

- 3.15 Forty-five outbreaks were reported in care homes from Cornwall, predominately related to suspected viral gastroenteritis (36) and influenza (8) in addition to a single scabies outbreak. There were 29 outbreaks reported from schools or nurseries, including 17 suspected viral gastroenteritis cases and 11 scarlet fever cases. Five cases of Campylobacter were linked to the sale of unpasteurised milk from a particular venue. An outbreak of suspected viral gastroenteritis in a Cornwall Hotel was noteworthy in that two other hotels across the South West from the same small chain were affected around the same time.

Summary of Cases Reported

- 3.16 This year was notable for a high number of cases of influenza across the South West, with levels of activity not seen since the pandemic of 2009/2010. In summary, there were 1,931 confirmed cases of influenza across Devon, Plymouth and Torbay in 2017/18 compared to 727 the previous year. The situation in Cornwall was similar, with 486 cases compared to 123 cases the previous year. No other consistent trends or notable increases were seen across the area of this report in 2017/18. For detailed case numbers please consult the quarterly surveillance reports produced by Public Health England.

4 Immunisation and Screening

Organisational Roles/Responsibilities

- 4.1 NHS England is accountable for all national screening and immunisation programmes commissioned via the Section 7A arrangements. NHS England is the lead commissioner for all immunisation and screening programmes except the six antenatal and newborn programmes that are part of the CCG Maternity Payment Pathway arrangements, though NHS England remains the accountable commissioner. A list of all national screening programmes is included at **Appendix 4**.
- 4.2 Public Health England is responsible for setting national screening and immunisation policy and standards through expert groups (the National Screening Committee and Joint Committee on Vaccination and Immunisation). At a local level, specialist public health staff in Screening and Immunisation Teams, employed by Public Health England, work alongside NHS England Public Health Commissioning colleagues to provide accountability for the commissioning of the programmes and system leadership.
- 4.3 Local Authorities, through the Director of Public Health, are responsible for seeking assurance that screening and immunisation services are operating safely whilst maximising coverage and uptake within their local populations. Public Health Teams are responsible for both protecting and improving the health of their local population under the leadership of the Director of Public Health, including supporting Public Health England in projects that seek to improve programme coverage and uptake.

Assurance Arrangements

- 4.4 Public Health England South West Screening and Immunisation Team provides quarterly reports to the Devon, Cornwall and Isles of Scilly Health Protection Committee for each of the national immunisation and screening programmes. Due to the nature of the programmes and the NHS England and Public Health England data capture and validation processes (with the exception of the seasonal influenza vaccination programme) means that real time published data are not available for all programmes and for some programme reports are up to two calendar quarters in arrears. The quarterly reports provide up-to-date commentary on current issues and risks and unpublished data, if this is necessary for assurance purposes. Reports are considered by lead Local Authority Consultants in Public Health and any risks identified are considered with Public Health England specialists to agree mitigating activities.
- 4.5 Serious incidents that occur in the delivery of programmes are reported to the Director of Public Health for the Local Authority and to the Health Protection Committee.
- 4.6 There are oversight groups (Programme Boards) for all screening programmes and these form part of the local assurance mechanisms to identify risks to delivery and to oversee continuous quality improvement. In addition, specific project groups are convened, as necessary, to oversee significant developments in the programmes and the introduction of new programmes. For all immunisation programmes, oversight and assurance is achieved through a multi-agency locality immunisation group - one for each local authority area. In addition, there is a separate Seasonal Influenza Immunisation Board for the South West. All the oversight groups have Terms of Reference and clear escalation routes to ensure accountability both within NHS England and Public Health England and into individual partner organisations.

Immunisation Performance 2017-18

4.7 Key highlights from immunisation performance include:

- Childhood immunisation performance throughout 2017-18 is detailed in **Appendix 3**. This data is taken from the national coverage statistics, which is accompanied by an interactive web-based data dashboard that allows users to visualise vaccine coverage data down to local authority level and has local and national trends for the years 2013-14 to 2017-18. The dashboard can be accessed via the link below: [National COVER statistics 2017/18](#).
- The national target for coverage of childhood immunisation is 95%. Coverage of childhood immunisations continues to be high in Devon, Torbay, Plymouth, Cornwall and the Isles of Scilly. Of the 13 routine childhood vaccination programmes, the national target has been achieved for 12 programmes in Plymouth, eight programmes in Torbay, five programmes in Devon, and three programmes in Cornwall. All programmes in Plymouth and Cornwall also achieved over 90% coverage. Only two programmes in Devon (Rotavirus and pre-school booster) and one programme in Torbay (pre-school booster) achieved less than 90%.
- There is a year on year pattern of small fluctuations in coverage rates across vaccination programmes and geographical areas and this remains evident in the 2017/18 data. However, as coverage is variable, a continued focus on maintaining and improving coverage is needed to ensure that the local population is protected and does not become susceptible to outbreaks of vaccine preventable diseases.
- Improving MMR uptake is a national and local priority, with work continuing during 2017/18 in all areas, overseen by the multi-agency Locality Immunisation Groups. Herd immunity with coverage of 95% or above has been maintained for MMR1 at five years of age in all four local authority areas. For MMR2 at five years, all four areas have achieved over 90% with further increases in coverage in all areas except Devon.
- Rotavirus coverage in Devon has been significantly lower than the England average (82.7% vs 89.6% in 2016/17). This has been felt to be at least in part to data flow issues between GP practices and the Child Health Information Service. There has been a significant increase in coverage during 2017/18 with coverage now 88.1%. This remains below performance in the other three local authority areas and the England average. More detailed analysis is planned to understand if this is a data issue or an issue with system or parent factors.
- HPV (Human Papilloma Virus) coverage for 2017/18 has been submitted for national validation but is not yet published.
- The latest published data for Shingles is from January 2018 (cumulative monthly uptake from September 2013 to January 2018):

CCG	Routine cohort aged 70 (%)	Catch-up cohort aged 78(%)
England	34.6	34.8
Kernow	31.1	34.7
NEW Devon	36.1	37.0
South Devon and Torbay	37.3	37.0

- At a national level, there has been a decrease in uptake of about 5% compared to January 2017. This is considered to be mainly due to a data artefact resulting from the change in eligibility criteria for the vaccination programme in April 2017, whereby people turning 70 and 78 at any time in the financial year become eligible on 1st April. This means that some people have received the vaccine aged 69 and 77 therefore are not included in the uptake data. However, coverage among 69 and 77 year olds, which includes individuals eligible under the new eligibility criteria, has increased by 3.9% and 4.0% respectively. It is therefore likely that most of the decrease in coverage evaluated in January 2018 is a data artefact related to the change in eligibility criteria. Even after taking this into account, coverage has decreased compared to that achieved at the end of January 2017, however, the rate of decrease appears to be slower than in previous years. From September 2018, a new quarterly collection will evaluate coverage of adults who have become eligible under the revised criteria since April 2018 thus removing the data anomaly.
- Uptake of the influenza vaccination in 2017/18 increased in all population groups, except carers, where the uptake remained the same (see **Appendix 3**). In addition, there was a further increase in uptake of vaccination in frontline healthcare workers - almost certainly due to the national CQUIN.

Developments in National Immunisation Programmes During 2017-18

Childhood Immunisations

- 4.8 Although coverage in Devon, Torbay, Plymouth, Cornwall and the Isles of Scilly is very good, each locality immunisation group continues to focus on targeted work to reduce the inequalities that remain, building on the action plans following the South West Needs Assessment for 0 - 5 year old vaccinations, including the survey of GP practices that was undertaken last year. The Screening and Immunisation Team will be reviewing the arrangements of these groups to ensure they are working effectively going forward. Key to this is the partnership working with the Local Authority Public Health teams.
- 4.9 The main recommendations of the Needs Assessment for Devon, Torbay, Plymouth, Cornwall and the Isles of Scilly included a need to better understand some of the inequalities in the area, a focus on MMR by the age of 5, improving data flows between Child Health and GP practices, targeted support for practices with low uptake, and improving awareness in general practice of immunisation training. Work across all these areas has been progressing well. In addition, an MMR Innovation Fund has been set up to support practices to do specific work to improve the MMR uptake. The project will run over a year and will be evaluated in the near future. Learning will be shared via the locality immunisation groups and through primary care routes.
- 4.10 Nationally, measles continues to be a concern. During 2017/18, and more recently, there have been regular cases and a number of significant outbreaks in the Bristol and Gloucester area. In Devon, Cornwall and the Isles of Scilly, there have been several ad-hoc cases but no recent outbreaks. A multi-agency South West Strategic Oversight Group is in place and is co-ordinating the outbreak response. Despite the outbreaks, the main strategy to combat measles is to continue to improve coverage of the routine MMR vaccination programme and achieve herd immunity. This is a local priority for the Screening and Immunisation Team and interventions are being delivered jointly with key partners through the locality immunisation groups.

Targeted Immunisations – Hepatitis B and BCG

- 4.11 The pathway and failsafe process to follow up babies born to HepB+ mothers to try to ensure all infants complete the full schedule is now well established and working well. This pathway is an important part of the process to minimise the risk of the infant contracting the infection. The dried bloodspot scheme for HepB serology testing at 12 months, which was launched last year, has been successfully embedded into practice.
- 4.12 From 1st August 2017, universal Hepatitis B immunisation was introduced into the routine childhood immunisation programme. This was accomplished by the move to a hexavalent vaccine, combining a Hepatitis B vaccine with the other primary vaccines. The enhanced HepB vaccination programme continues for babies born to HepB+ mothers.
- 4.13 In 2015, stock of the only UK-licensed BCG vaccine was interrupted. In response, Public Health England issued advice on prioritisation of BCG vaccine stock for newborns and infants of recognised high-risk groups for tuberculosis, or to tuberculin negative children under 6 years of age. In 2016, PHE secured an interim supply of BCG vaccine and, more recently, a new UK-licensed BCG vaccine has been procured and will become available in the near future.

School-aged Immunisations

- 4.14 Developments during last year with the move to delivery of school-aged immunisations in Cornwall to a school setting, and the shift to Year 9 for the Td/IPV (teenage booster), alongside the routine MenACWY cohort in all areas, are now well embedded into practice and running well.
- 4.15 During 2017/18, NHS England undertook a procurement for school-aged immunisations for the whole of Devon. Virgin Healthcare is the new provider and the service has been successfully mobilised ready for the start of term in September 2018. A key focus of the procurement was for the service to be fully accessible to young people, to improve uptake, reduce inequalities, and to make use of technology such as e-consent and developments such as self-consent.

Child Health Information Services

- 4.16 During 2017/18, NHS England has completed a successful procurement of Child Health Information Services for the South West area. The new provider, Health Intelligence, will be prioritising the move to electronic data flow between GP practices and the Child Health Information System, and moving towards a greater role in failsafe and follow up of children who have incomplete vaccination schedules. It is hoped this will greatly improve the timeliness, accuracy and completeness of immunisation data and contribute to improvement in coverage rates.

Adult Immunisations

Pertussis and Flu Vaccination in Pregnancy

- 4.17 There has been good progress across Devon, Cornwall and the Isles of Scilly providers to establish vaccination of pregnant women within the maternity services. All providers have signed up and delivery is going well with levels of activity close to what was planned. More detailed work is needed to ensure reporting processes are fully embedded so that performance fully reflects activity.

- 4.18 Across Devon, Cornwall and the Isles of Scilly, up to 31 March 2018, 2,882 flu vaccinations were delivered to pregnant women by Trusts (compared to 5,393 by GP practices by the end of Jan 2018). Overall, uptake went up by 6% in Devon and 3% in Cornwall, however, it is not possible to conclude this is purely due to the maternity activity. Evaluation to date shows that most providers delivered as many flu vaccines between January and March 2018 as they did during November to December 2017, which suggests that the service is providing additional access to that provided in primary care during the later stages of the influenza vaccination programme.
- 4.19 Pertussis vaccination in pregnancy was introduced in England in 2012 as an outbreak response to a nationwide rise in pertussis infections and deaths in the very young. From September 2017, all Devon, Cornwall and the Isles of Scilly providers of antenatal care signed up to offer pertussis vaccination as part of antenatal care, meaning women do not have to make an additional appointment at their GP practice. Since its introduction, providers have delivered 3,457 pertussis vaccinations up to the end of March 2018.
- 4.20 The most recent national data, extracted from Sentinel practice GP systems across the South West, shows that overall uptake of pertussis across Devon, Cornwall and the Isles of Scilly, as at December 2017, has dipped a little to 71.8% from its highest level of 76.9% in January 2017. However, at a CCG level, uptake has continued to increase to its highest levels in NEW Devon CCG (80.7%) and in South Devon and Torbay CCG (81.3%), well above the England average (74.7%). Reported uptake in Kernow CCG was only 35.7%, however, this is due to an IT system data issue that is disproportionately affecting Cornwall, and there is no operational reason to believe that uptake in Kernow CCG is not following the national trend of a continuous increase. It is thought that the increase in coverage is due to the policy change resulting in immunisation being able to be given from 16 weeks gestation.

Shingles

- 4.21 During 2017/18, a Shingles work plan has been introduced to reduce variation in uptake across the wider South West area. The first phase of this work is to undertake a data validation exercise of CQRS claims and ImmForm records to confirm accuracy of the uptake rates, followed by targeted work with practices with low uptake. A Good Practice Guide has been published and learning shared from those practices with a good uptake. The Screening and Immunisation Team is also exploring a pilot to incentivise GP practices to send 70th birthday cards with invitation letter to all patients as they turn 70.

Influenza Immunisation

- 4.22 In 2017/18, the key changes in the South West seasonal flu programme were the successful continued expansion of the child flu programme to include:
- all children aged 2, 3 and 4, and to all children in school years 1, 2, 3 and 4
 - inclusion of patients who are morbidly obese in the GP offer
 - local roll-out across South West providers of the maternity service offer to pregnant women
 - delivery of the programme to care home workers and social workers as an addition to access through their employer occupational health scheme
 - continuation of the Advanced Community Pharmacy Seasonal Influenza Vaccination programme
 - extension of the CQUIN for frontline health care workers for a second year.
- 4.23 Uptake rates of the vaccine increased in almost all groups and in all areas.

Key Issues for Immunisation Programmes in Plymouth, Devon, Cornwall and Isles of Scilly in 2018/19

- 4.24 Improving uptake and reducing inequalities of MMR will continue to be a top priority for all areas, working in partnership through the locality immunisation groups.
- 4.25 As a result of the introduction of the universal Hepatitis B vaccination, a national review of the programme for babies born to HepB+ mothers is to be undertaken during 2018/19. The aim of the review is to strengthen the enhanced programme for these mothers and babies and to develop a suite of guidance and resources that will support maternity units and primary care, in particular, to deliver the full programme to all babies.
- 4.26 In light of the anticipated supply of a new UK-licensed BCG vaccine, work will be undertaken with BCG vaccination providers to introduce the new vaccine and to support them to catch up eligible children who may have had delayed vaccination.
- 4.27 There is a need to work closely with the new school-aged immunisation providers in Devon and Cornwall, and the new SW CHIS provider to deliver the benefits identified during procurement. For school-aged immunisations, this focuses on increasing engagement of young people to develop a fully accessible service and making best use of technology, and for CHIS to implement in the first year fully electronic transfer of immunisation data between CHIS and GP practices, in particular, followed by other immunisation providers.
- 4.28 In July 2018, it was announced that the existing adolescent HPV vaccination programme for girls to prevent cervical cancer, will be extended to boys aged 12-13. The vaccine will not only protect men from HPV-related diseases, such as oral, throat and anal cancer, but will enhance the reduction of the overall number of cervical cancers in women, though herd immunity. Details about the timescales for implementation and operational guidance is awaited.
- 4.29 To continue to work to improve the uptake of the Shingles vaccination through work with GP practices and health promotion activities to raise awareness and increase demand from the public.
- 4.30 To continue to expand the Seasonal Influenza Vaccination programme by offering vaccination to all children aged 2 up to 9 years of age with a specific focus on pre-school children where uptake is not as high as in school-age children. Extension of the offer to care home workers and social workers for a second year, to include for the 2018/19 season, the offer to voluntary managed hospice sector to hospice workers. To deliver a gold standard vaccine offer of quadrivalent vaccine for those under 65 at risk groups and adjuvanted trivalent for those over 65 years, in addition to the quadrivalent vaccine for the children's programme.
- 4.31 Men who have sex with men (MSM) are a group at high risk of HPV infection and associated disease but receive very little indirect health benefit from the current HPV vaccination programme for girls, which was introduced to protect against cervical cancer. In November 2015, the Joint Committee on Vaccination and Immunisation (JCVI) advised that a targeted HPV vaccination programme should be established for MSM, aged up to and including the age of 45 years, who attend Level 3 Specialist Sexual Health Services (SSHS) and HIV clinics. This setting was chosen because it is by far the most accessed sexual health service by self-declaring MSM. MSM accessing SSHS services tend to be at greater risk of 'risky behaviour' and STI transmission. Following a successful pilot led by PHE, ministerial approval was given in February 2018 to roll out the programme nationally, with effect from April 2018, as part of the S7A agreement.

- 4.32 Active support from Local Authority colleagues and teams for the locality immunisation groups is important to ensure that work to increase the overall uptake of MMR and other immunisations, and to reduce local inequalities in uptake is being appropriately targeted, and that best use is being made of all available resources across the wider system to achieve the population coverage targets.

Screening Performance 2017-18

- 4.33 Screening coverage 2017-18 for the main cancer and non-cancer screening programmes is detailed in **Appendix 4**. Key points related to performance against national standards are:

- Performance in antenatal screening programmes continues to be excellent. The only area of persistent under-performance in two providers is the ST2 KPI that measures the timeliness of completion of screening for women at high risk of haemoglobinopathy. This is due to the low-prevalence model where first trimester screening blood tests are aligned to the foetal anomaly screening programme, with exceptions for high-risk women. This has always been accepted by the Screening Quality Assurance Service until recent QA visits, where recommendations for improvement have been made. Providers have been asked to review their delivery model to ensure the national standards are achieved.
- Performance of the newborn bloodspot screening programme has improved with a significant improvement in the avoidable repeat rate (KPI NB2). This has been achieved through a concerted effort by providers to improve a number of areas of practice and system processes, coupled with more robust Trust internal governance processes. This work has been supported by a local 2 year CQUIN.
- Completion of newborn bloodspot screening for some children up to a year old who move in to the area (KPI NB4) is proving a challenge. Systems are in place but it can be difficult to gather information for some children, particularly those who move in from abroad. In general, non-compliance is due to lack of data recorded on the CHIS rather than incomplete screening. The Screening and Immunisation Team will be working with providers and the CHIS team to investigate and identify any additional interventions that can be taken to improve performance.
- The roll-out of the NIPE SMART IT system has helped to increase the robustness of the failsafe processes ensuring all babies are identified and offered screening.
- Diabetic Eye Screening coverage has remained good in all programmes during 2017 and all providers are above the national acceptable target of 75%, with two above the achievable target of 85%.
- Cervical screening coverage remains below the national target of 80% in all areas and continues to decrease, however, rates remain above the national average.
- Breast screening coverage is just below the 80% target in all areas and significantly so in Torbay. All areas remain above the national average.
- Bowel screening coverage remains above the 60% target in all areas and is well above the national average. Devon coverage has increased by approximately 2% for the last two years.
- Performance in the abdominal aortic aneurysm (AAA) screening programme continues to be excellent. Coverage is stable and meets acceptable national standards.

Developments in National Screening Programmes During 2017-18

4.34 The key developments during 2017/18 included:

Antenatal and Newborn

- 4.35 Roll-out of the new KPIs for mid-trimester foetal anomaly scan has highlighted significant challenges due to pressures in obstetric ultrasound capacity. The enhanced monitoring has led to actions to improve service delivery and access for women. Work has also been undertaken with providers to enhance the tracking and failsafe of women to ensure that all women are offered a scan at the correct gestation and to follow-up women if they do not attend.
- 4.36 Extended working in the newborn lab to process bloodspot samples on Bank Holidays and Saturday mornings, has led to improved turnaround times and speedier results to parents.
- 4.37 Introduction of electronic transfer of newborn bloodspot results between the newborn lab and the CHIS service in Devon has led to more timely availability of results and a reduced risk of transcription errors due to manual data entry. It was not possible to roll-out to Cornwall during 2017/18 due to technical issues and this will be achieved as part of the mobilisation to the newly procured CHIS service.
- 4.38 A review of transport arrangements for newborn bloodspot samples leading to several improvements that have contributed to the improvement of NB2 KPI.
- 4.39 The introduction of the new IT system, NIPE SMaRT for the Newborn and Infant Physical Examination (NIPE) screening programme and the roll-out of new NIPE KPIs has led to significant improvements in the tracking and failsafe of screen-positive babies through screening, referral and attendance for assessment. Learning has been shared locally and nationally and has informed the development of a new national good practice guidance and led to improvements in provider screening policies and procedures.
- 4.40 Quality assurance visits for antenatal and newborn programmes have continued and all the Devon, Cornwall and Isles of Scilly programmes have been visited. All have had positive visits and show that programmes are delivering high quality and safe screening services that meet the majority of national standards. Work is underway in all providers to implement the QA recommendations.

Diabetic Eye Screening

- 4.41 Diabetic eye screening programmes continued to perform well across the area.
- 4.42 During 2017/18, NHS England South West commenced a large procurement for all South West Diabetic eye screening services. The new provider/s will be in place for 1st April 2019. A key focus of the procurement is the approach to locality working and access for patients to improve uptake and reduce inequalities.
- 4.43 The Screening and Immunisation Team has been working closely with the provider teams to facilitate a continued improvement in the accuracy and completeness of screening registers. These rely on information being shared and validated by both the GP practice and the provider screening team. Audits have been undertaken to assess accuracy and work to improve this has been undertaken where needed. During the last year, all providers are now moving towards implementation of GP2DRS, which enables details of registered patients eligible for screening to be automatically extracted from practice systems. This should improve the timeliness and accuracy of the identification of the eligible cohort as long as GP practices continue to ensure accurate coding of diabetes in patient records.

Cervical Screening

- 4.44 2017/18 has been a challenging year for the national cervical screening programme. South West providers have continued to perform well across most of the KPIs and standards, however, more recently there has been a marked deterioration in the cytology lab turnaround time. This is a consequence of the transition to primary HPV testing, which is being implemented to achieve further improvements in the screening programme and greater benefits to women. Primary HPV testing will mean a reduction in the demand for cytology laboratory services long-term and staffing levels are reducing, impacting on the ability of labs to maintain throughput within the two-week target. National and local mitigation plans are in place to sustain the current service ahead of the full implementation of primary HPV testing.
- 4.45 Reducing coverage has been a major concern over several years, with local rates mirroring the slow but consistent reduction in national rates. The Screening and Immunisation Team had identified cervical screening coverage as a top priority for 2017/18 planning a range of activities, working alongside Jo's Trust and other local Screening and Immunisation Teams to share learning. In view of the intense pressure on local screening labs and services resulting from the national programme changes, the focus was shifted in-year to work with GP practices on improving systems and processes, and to deliver training for practice reception staff.
- 4.46 Sample-taker training and its effective oversight is a critical factor in the quality and safety of the screening programme. The Screening and Immunisation Team has reviewed and updated the training policy and created a single South West sample-taker database to ensure that all sample-takers are registered, have a unique ID code to track samples, and are alerted to when they need to update.

Breast Screening

- 4.47 Breast screening services in Devon, Cornwall and the Isles of Scilly continue to meet the majority of the national minimum standards. A particular challenge in some areas includes maintaining consistent performance against the standard for time between screening and assessment. The West Devon service has seen a significant improvement in performance and quality since last year. There has been significant and continued pressure on the programmes due to a combination of demand from the symptomatic service and capacity pressures within screening teams due to shortages of key staff (radiographers, radiologists, and specialist breast care nurses). This is a national problem that is starting to affect many programmes across the country.
- 4.48 Last year, the increasing number of GP practice mergers and closures was having a negative impact on round length. When women have to re-register with a new practice their screening invitation date may be affected. This affects the women and the service has to find capacity for unplanned appointments. This can create pressure on the service temporarily affecting performance against targets and this is a national issue. Local action by NHS England South West to improve communication of practice changes has enabled the screening units to plan ahead for these fluctuations, thus minimising the disruption to women and the screening service.

Bowel Screening

- 4.49 Roll-out of bowel scope screening remains a significant challenge across Devon, Cornwall and Isles of Scilly providers due to a range of issues, including for Cornwall, the closure of the Bodmin Treatment Centre. Staffing issues continue, particularly for endoscopists and radiographers, thus sustaining the pressure on both screening and symptomatic endoscopy services. However, performance against national standards is mostly being maintained.

- 4.50 Following national consultation, a decision has been taken to introduce FIT120 as a screening test in to the bowel screening programme, to replace the current faecal occult blood test (see 4.59 below). In light of this decision, national work is underway to review and consult on the long-term implications for the bowel scope programme. At present, roll-out is continuing in all Devon, Cornwall and Isles of Scilly providers to the agreed trajectories.

Key Issues for Screening Programmes 2018/19 Onwards

Antenatal and Newborn

- 4.51 Providers who are not yet achieving ST2 KPI have been recommended, through QA visits, to review their services and make changes to ensure compliance with this KPI and the associated service standards. The Screening and Immunisation Team will be monitoring progress via the screening programme boards.
- 4.52 The Screening and Immunisation Team will undertake a specific piece of work with the maternity providers and Health Intelligence (CHIS provider) to investigate the low NB4 KPI (movers-in newborn bloodspot) to identify any additional interventions that can be taken to improve performance.
- 4.53 NIPT (non-invasive pre-natal testing) is to be introduced into the first trimester foetal anomaly screening programme. Women who screen positive in first trimester combined testing will be offered NIPT instead of invasive testing. A national implementation team is in place and the exact timeline is awaited. A large reduction in the number of invasive diagnostic tests (amniocentesis and CVS) is expected and this is likely to have an impact on foetal medicine services.

Diabetic Eye Screening

- 4.54 Contract award for the newly procured services will take place in Autumn 2018, and the Screening and Immunisation Team will be supporting the Public Health Commissioning Team and the new providers to mobilise the new services.
- 4.55 The current programme invites all eligible patients for annual screening. During 2018/19, screening intervals will be extended and those patients whose screening history identifies them to be at lower risk of retinopathy will be invited every two years. Other patients will continue to be invited every year.

Cervical Screening

- 4.56 Work is well underway to implement primary HPV testing. The aim of this change is to more effectively identify women at greatest risk of developing cancer (those who are positive for high risk HPV infection) and, at the same time, return a high proportion of women who are HPV negative (and at lower risk of cancer) back to routine screening intervals. A national procurement of a small number of new primary HPV screening labs is underway and this is being accompanied by a new national cervical screening IT system. Women's experience of the cervical screening test will be the same.
- 4.57 A national decision is awaited about a possible change to screening intervals (currently three or five years depending on age) following the introduction of primary HPV testing. It is unlikely that this will be during 2018/19.
- 4.58 Work is being undertaken to procure a new sample-taker database with increased functionality to support the sample takers and the programme. This is progressing well during the year and will be in place by the end of the 2018/19 financial year.

Bowel Screening

- 4.59 Following national consultation, a decision has been taken to introduce FIT120 as a screening test into the bowel screening programme to replace the current faecal occult blood test. Current planning is for FIT120 to go live from December 2018, or April 2019 at the latest, with a phased roll-out. Detailed operational guidance and funding agreements are awaited. National survey data in 2017 indicated that many providers, including those in the South West, would have difficulty rolling out FIT due to the expected increase in the number of colonoscopies. The Public Health Commissioning Team and the Screening & Immunisation Team are working closely with providers to support local planning.

5 Health Care Associated Infections

Organisational Roles and Responsibilities

- 5.1 NHS England sets out and monitors the NHS Outcomes Framework which includes Domain Five (safety): treating and caring for people in a safe environment and protecting them from avoidable harm. The Area Teams of NHS England hold local Clinical Commissioning Groups to account for performance against indicators under this domain, which includes incidence of healthcare associated methicillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia and incidence of *Clostridium difficile* infection (CDI).
- 5.2 Public Health England, through its consultants in communicable disease control, leads the epidemiological investigation and the specialist health protection response to wider community non-hospital outbreaks, and is responsible for declaring a health protection incident.
- 5.3 The Clinical Commissioning Group's role is to ensure, through contractual arrangements with provider organisations, that health care associated infection standard operating procedures are in all provider contracts and are monitored regularly. Northern Eastern & Western Devon and South Devon & Torbay Clinical Commissioning Groups deploy this role through the Nursing and Quality portfolio. NHS Kernow Clinical Commissioning Group employs a nurse consultant for health care associated infections. This is an assurance and advisory role. In addition, Clinical Commissioning Groups must be assured that the Infection Prevention and Control Teams covering the hospital and NHS community healthcare provided services sector are robust enough to respond appropriately to protect the local population's health, and that risks of health care associated infection have been identified, are mitigated against, and are adequately controlled.
- 5.4 The Local Authority, through the Director of Public Health or their designate, has overall responsibility for the strategic oversight of a health care associated infection incident affecting their population's health. They should ensure that an appropriate response is put in place by NHS England and Public Health England, supported by the Clinical Commissioning Group.

Health Care Associated Infection Forums

- 5.5 The Devon Health Care Associated Infection Programme Group was a sub-group of the Health Protection Committee during 2014-17, working towards the elimination of avoidable health care associated infections (HCAI) for the population of Devon, including the Unitary Authorities of Plymouth and Torbay. The group covered health and social care interventions in clinical, home and residential care environments, through the identification of risks, the planning of risk mitigation actions, and the sharing of best practice in the field. The group was co-ordinated by NEW Devon Clinical Commissioning Group and was a cross-agency forum involving Acute and Community NHS Trusts, Ambulance and Out of Hours Doctors, Local Authority Public Health, Public Health England, Medicines Optimisation and the NHS England Area Team.

- 5.6 In Cornwall there is a Directors of Infection Control Group with multi-agency attendance working on a similar agenda, also reporting into the Health Protection Committee. There is cross-attendance between the Devon and Cornwall groups.
- 5.7 The final Devon Health Care Associated Infection Programme Group meeting was held in July 2017, when E. coli reduction strategies were discussed and the lack of a community infection management service highlighted as a risk.
- 5.8 The Devon Health Care Associated Infection Programme Group became the Devon, Cornwall and Somerset Health Care Associated Infection Network at the beginning of 2017/18.
- 5.9 Key areas for action in 2018-19 are:
- Community infection prevention, management and control;
 - Gram negative bacteraemia reduction;
 - Continued monitoring of health care acquired infection by Clinical Commissioning Group area for C.difficile infection, MRSA, MSSA and E.coli;
 - Outbreak monitoring to ensure timely patient transfers, system flow and resilience.

Healthcare Associated Infections Incidence 2017-18

- 5.10 Healthcare associated infection incidence is given for NEW Devon and South Devon and Torbay and Kernow CCGs in **Appendix 5**. Key points for Devon and Cornwall are:

MRSA

- 5.11 The national target for MRSA is no cases. In 2017-18, five cases of MRSA were reported in NEW Devon; three in South Devon & Torbay, and five in Cornwall. All cases were investigated, and processes reviewed. As of April 2018, the requirements for MRSA post-infection reviews (PIR) have changed. There is no longer a national requirement for a PIR to be completed although local reviews are still expected. This change has been communicated to all providers.

MSSA

- 5.12 Rates of reported MSSA were within target levels. Reported community-acquired MSSA bacteraemia rates in South Devon & Torbay increased in the final quarter of the year, and full root cause analysis is now being undertaken on all cases for a three-month period. MSSA rates have also increased in Cornwall and line care has been targeted for improvement in the acute setting with further work needed to understand the drivers for this.

C.difficile Infection

- 5.13 Devon, as a whole, matched the national C.difficile target, however, there was considerable local variation. North, West and South Devon providers breached the national target. All cases were investigated, and the CCGs are assured that the number of avoidable cases remains low. Cornwall exceeded the target by 24 cases with only seven avoidable cases identified in the hospital onset cohort.

E.coli Bacteraemia

- 5.14 E.coli bacteraemia rates, chiefly community acquired, increased during 2017-18 across Devon. Reduction efforts are focused around urinary sources, including catheter use, hydration, training, and improving communications between acute and community settings when patients are transferred. A community infection management service business case is being drafted, and this is a key aspect of the reduction strategy in Devon.

- 5.15 In Cornwall, hospital cases have reduced but community onset cases continue to increase. Reduction work streams focus on urinary and hepatobiliary sources and antimicrobial stewardship.

6 Antimicrobial resistance

Data and Trends

- 6.1 A monitoring report is included at **Appendix 6**. Key points are:
- There has been an increase in gram-negative bloodstream infections (eg E.coli and Klebsiella), both nationally and locally, with a related increase in antibiotic resistance. Resistant E.coli particularly affects older people and infants.
 - The Secretary of State for Health has announced an ambition to reduce gram-negative bloodstream infections by 50% by 2021. Surveillance of these organisms changed from April 2017 to include Klebsiella and Pseudomonas.
 - Carbapenamase producing organisms, resistant to certain anti-microbials, remain relatively uncommon but are continuing to increase year on year, including within the Peninsula. Public Health England has confirmed with hospitals within the region that they are confident in following procedures for dealing with cases identified.

System-wide Action to Address Antimicrobial Resistance

- 6.2 A successful antimicrobial resistance steering group has been in place in Cornwall for several years and now there is a similar group covering the whole of Devon (The Devon Antimicrobial Stewardship Group).
- 6.3 Outputs from the Cornwall Antimicrobial Resistance Group include the launch of the Antimicrobial Resistance (AMR) section of the Kernow CCG webpage; the availability of primary care antibiotic guidelines in mobile phone application format, and the appointment of two Drug and Bug nurse educators who delivered Infection Prevention and Control, Antimicrobial Stewardship and Antimicrobial Resistance education to 88% of nursing homes in Cornwall. The nurses also delivered education around infection control and urinary tract infection management based on the “To Dip or Not to Dip” project, initiated by Bath and North East Somerset CCG. Eden One Health Conference in May 2017 brought together a diverse group of practitioners from different sectors in Cornwall, including vets and podiatrists, for a one-day session on AMR from a One Health perspective. The day showcased a variety of AMR-related subjects and was highly evaluated by delegates. The lectures from the event are available on YouTube and have been shared widely with stakeholders.
- 6.4 The Devon Antimicrobial Stewardship Group has widened its membership to include academia and dentistry and is exploring links to animal health. The group is working on the development of a comprehensive action plan to ensure effective co-ordination of a Devon-wide approach to addressing antimicrobial resistance. This includes actions to reduce inappropriate antimicrobial demand and use, and actions to prevent and limit the spread of infections across Devon. As part of this the group is supporting the development of a business case for a Devon-wide community infection prevention and control service. The group is supporting World Antibiotic Awareness Week and European Antibiotic Awareness Day 2018. Discussions are also taking place as to whether community IPC is dealt with within AMS or via another pan Devon group with a community IPC focus.
- 6.5 The following table summarises the most up-to-date prescribing indicator data for Devon and Cornwall (Data Source = AMR Fingertips).

Table 1: Summary of Prescribing Indicator Data for Devon and Cornwall from December 2017, AMR Fingertips

Indicator	England	South West	Kernow CCG	NEW Devon CCG	South Devon and Torbay CCG	Comment
Twelve month rolling total number of prescribed antibiotic items per STAR-PU by Clinical Commissioning Group (CCG) within England ^[1]	1.03	1.00	1.02	1.01	1.04	No confidence intervals available
Twelve month rolling percentage of prescribed antibiotic items from cephalosporin, quinolone and co-amoxiclav class (%) ^[2]	8.82	8.70	9.90	10.21	10.36	No confidence intervals available

Explanatory text

Total number of prescribed antibiotic items per STAR-PU

Numerator: Total number of antibiotic items prescribed in practices located within the area ie in a primary care setting. The number of items is a measure of how often a prescriber has decided to write a prescription. It is often used to look at prescriber behaviour as every prescription is an opportunity to change treatment. The item is a reasonable measure of the number of courses of treatment.

Denominator: STAR-PU are weighted units to allow comparisons adjusting for the age and sex of patients' distribution of each practice.

STAR-PU removes confounding effects of age and sex in the comparison of prescribing between different geographical areas.

In this specific indicator, a higher value is associated with increased prescribing, with all CCG areas being greater than the South West average, with SDT and Torbay being greater than the NHSE average.

This indicator does not take into account any antibiotics given through a non-oral route.

Percentage of prescribed antibiotic items from cephalosporin, quinolone and co-amoxiclav class (%)

The percentage of broad-spectrum items prescribed in primary care settings accounted for by the following antimicrobials; cephalosporin, fluoroquinolone and co-amoxiclav as a percentage of all antibacterial agents, as defined by the British National Formulary (BNF).

This is a target to reduce the usage of broad-spectrum antibiotics. The respective proportions of broad-spectrum prescribing within specific geographical areas and percentage change over time can be seen.

In this specific indicator, a higher value is associated with increased levels of prescribing, with all CCG areas being greater than the South West and NHS E average.

In this specific indicator, a higher value is associated with increased prescribing, with all CCG areas being greater than the South West average, with SDT and Torbay being greater than the NHSE average.

This indicator does not take into account any antibiotics given through a non-oral route.

^[1] In order to fully appreciate antimicrobial prescribing, it is necessary to take into consideration demographic characteristics of the population as it may influence levels of prescribing. For that reason, STAR-PU data is adjusted for both age and sex.

STAR-PU is an indirectly standardised ratio that removes confounding effects of age and sex in the comparison of prescribing between different geographical areas. This method allows for more accurate comparison of prescribing. In this specific indicator, a higher value is associated with increased prescribing.

^[2] This indicator specifically shows the rolling twelve-month percentage of broad-spectrum items that are being prescribed. It is a target to reduce the proportion of broad-spectrum antibiotics consumed. Using this indicator, individuals will be able to see the respective proportion of broad-spectrum prescribing within specific geographical areas, and also monitor the trend of the proportion over time.

7 Emergency Planning and Exercises

- 7.1 All Councils continue to engage with the Local Resilience Forum and the Local Health Resilience Partnership in undertaking their local engagement, joint working, annual exercise programme, responding to incidents and undertaking learning as required.
- 7.2 All Councils contributed to the Health Protection Audit, which was completed in September 2017.

8 Work Programme Priorities 2017/18 - Progress Report

8.1 Infection Prevention and Control

- Health Protection Committee members are routinely updated on community infection prevention and control and have been kept apprised of, and have supported, plans for a Community Infection Management Service.
- The enhanced surveillance of E.coli bacteraemias, driven by the national reduction expectation and the CCG quality premium, has proven to be challenging in 2017/18. Actions are in place for 2018/19 to improve this aspect of E.coli reduction, including regional collaboration and NHS England involvement.

8.2 Improving the Resilience of the Health Protection System

- A full review has been completed with results shared with the Health Protection Committee. This work continues to be taken forward with full engagement of all Local Authorities and Health partners. A full regional exercise was held in October to validate the new radiation monitoring unit guidance before a final plan can be implemented.
- A system wide approach to health protection training for speciality registrars in public health was introduced in 2017 in the South West, including emergency planning and response. This process ensures that registrars understand the wider system of health protection, which includes civil and public protection delivered by the Local Authority, including the wider system of Emergency Planning, Resilience and Response (EPRR) as well as Environmental Health.

8.3 Air Quality

- In 2017/2018, Public Health England, in collaboration with Local Authority colleagues across the South West, planned an air quality conference which was held on 13th June 2018.

8.4 Antimicrobial Resistance

- The Cornwall Antimicrobial Resistance Group (CARG) is well established and is seen as a beacon in AMR partnership working and the One Health approach. The Devon AMR Group is newer but getting established and widening its membership. At present, it is supporting the development of a business case for a community infection control service for Devon.
- The Devon baseline assessment of NICE guideline 63 was presented to the National Performance Advisory Group by the Devon AMR Group, and a Devon-wide action plan has been developed following this.

- The E.coli bacteraemia reduction work is progressing, with each individual provider creating and implementing an E.coli reduction action plan. NEW Devon CCG and South Devon & Torbay CCG are involved in work streams emerging from this, including the Community Infection Management Service business case.
- A pilot for implementing a tool to promote antimicrobial stewardship and self-care advice in community pharmacies was planned within Devon and Cornwall led by Public Health England South West. This project is now finished, the data has been collected and data analysis is underway.

8.5 Influenza Vaccination for Care Home and Domiciliary Staff and Special Schools

- Local Authorities worked with PHE and other partners to support the care sector in promoting staff flu vaccination to protect their residents. A Winter toolkit and a flu bulletin were produced, and guidance was shared and discussed at local care manager forums across the Peninsula. Free vaccination for care staff was introduced nationally from October 2017; this was extended in 2018.

8.6 Implementation of National MMR Initiative

- A national UK Measles and Rubella elimination strategy is being developed in line with the World Health Organisation target to eliminate these diseases in Europe by 2020. Public Health England Screening and Immunisation Team will be working, through the locality immunisation groups, to develop robust multiagency action plans to further improve MMR uptake. It is anticipated that this will have a beneficial effect on all childhood immunisation programmes.

9 Work Programme Priorities 2018/2019

- MMR vaccination programme – this continues to be a priority with the aim of achieving 95% coverage of the second dose by 5 years of age.
- Flu vaccination programme – ensuring uptake of vaccination rates are achieved and that there is a smooth roll-out of the additional cohorts, with a particular focus on frontline health and care workers to support winter preparedness and the extension to the childhood programme.
- The establishment of a comprehensive Community Infection Prevention and Control Service across the system.
- Assurance that actions are in place following the National Health Protection Audit.
- Air Quality – ensure programmes to improve air quality are in place and continue to secure improvements to air quality.
- Antimicrobial resistance.
- Emerging threats.

10 Authors

- Nick Young, Public Health England
- Lorraine Webber and Alistair Harlow, South Devon & Torbay Clinical Commissioning Group and Northern, Eastern and Western Devon Clinical Commissioning Group
- Neil Vine, NHS England
- Chaamala Klinger, Public Health England
- Dr Alison Mackenzie, Public Health England/NHS England South (South West)

In association with members of the Health Protection Committee.

11 Glossary

AMR	Anti-microbial resistance
BCG	Tuberculosis (Bacillus Calmette-Guerin) vaccination
CCG	Clinical Commissioning Group
C.diff	Clostridium difficile
CHIS	Child Health Information Services
CVS	Chorionic villus sampling (antenatal screening)
E.coli	Escherichia Coli
HPV	Human papillomavirus testing (for risk of developing cervical cancer)
MMR	Measles, Mumps and Rubella (immunisation)
MRSA	Methicillin resistant Staphylococcus aureus
MSSA	Methicillin sensitive Staphylococcus aureus
NEW Devon	Northern, Eastern and Western Devon (Clinical Commissioning Group)
NIPE	Newborn Infant Physical Examination
NIPT	Non-invasive pre-natal testing
PHE	Public Health England
NHSE	NHS England
CQUIN	Commissioning for Quality and Innovation (incentivised payment system)
TB	Tuberculosis

12 Appendices

Appendix 1: Health Protection Committee Reporting Arrangements

Appendix 2: Infectious Disease Incidence and Trends 2017-18

Appendix 3: Immunisation Performance 2017-2018

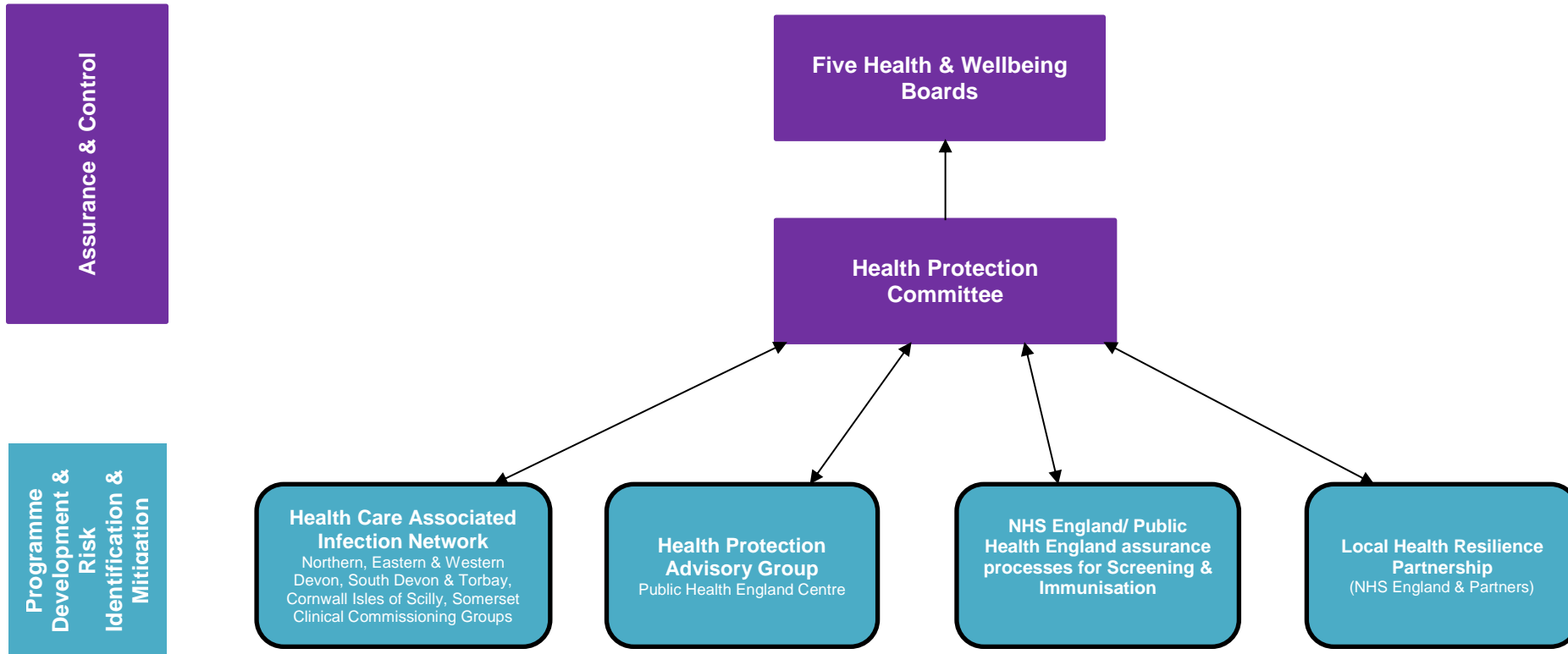
Appendix 4: Screening Performance 2017-2018

Appendix 5: Healthcare Associated Infections (HCAI) 2017-18

Appendix 6: Antimicrobial Resistance: Trends and Developments

Health Protection Committee Reporting Arrangements

Reporting to the Devon, Plymouth, Torbay, Cornwall and Council of the Isles of Scilly Health & Wellbeing Boards and relationship to existing Health Protection Partnership Forums



Infectious Disease Incidence and Trends 2017-18

Influenza

Figure 1: All reports of influenza-like illness outbreaks/clusters (suspected or confirmed) by setting, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay local authorities, Week 14 2017 to Week 13 2018

Source: HP Zone

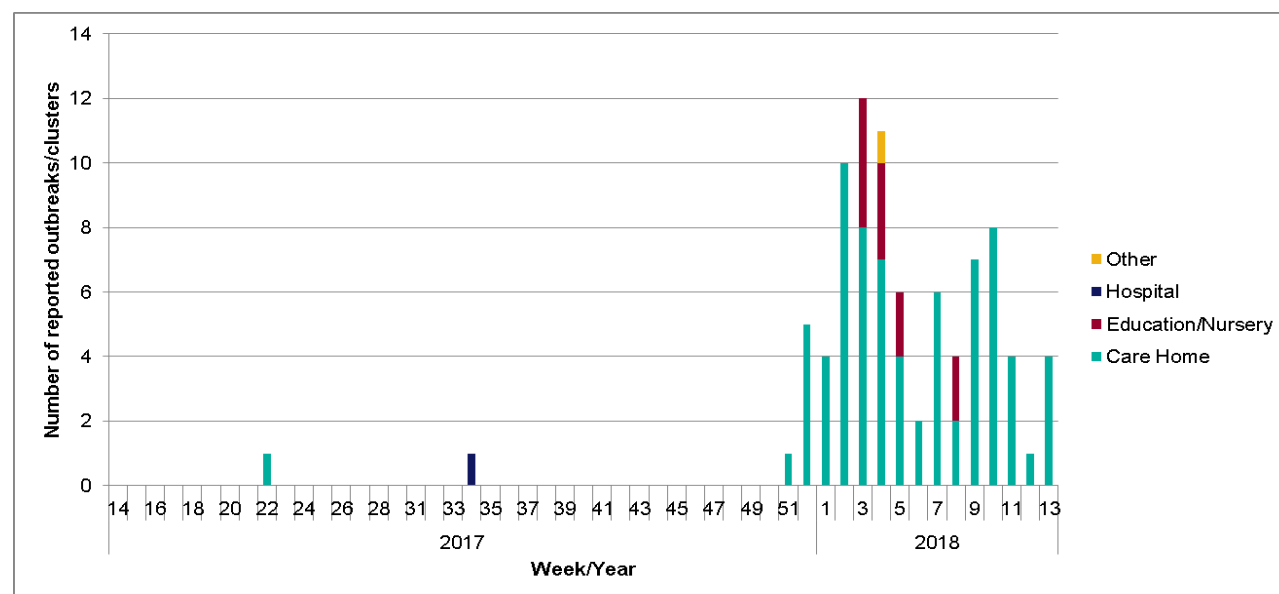


Table 1: All reports of influenza-like illness outbreaks/clusters (suspected or confirmed) by setting, Cornwall (including Isles of Scilly), Devon, Plymouth and local authorities, 2017/2018

Source: HP Zone

Local Authority	Care Home	Education/Nursery	Hospital	Other	Total
Cornwall (including Isles of Scilly)	9	1	0	0	10
Devon	45	6	0	0	51
Plymouth	4	2	1	0	7
Torbay	16	2	0	1	19

‡ Outbreak/cluster data extracted based on date entered onto HP Zone.

Gastrointestinal Infection

Figure 2: All reports of clusters/outbreaks of gastrointestinal infection (suspected or laboratory confirmed), by setting, including food poisoning outbreaks, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay Local Authorities, Week 14 2017 to Week 13 2018.

Source: HP Zone and HNORS

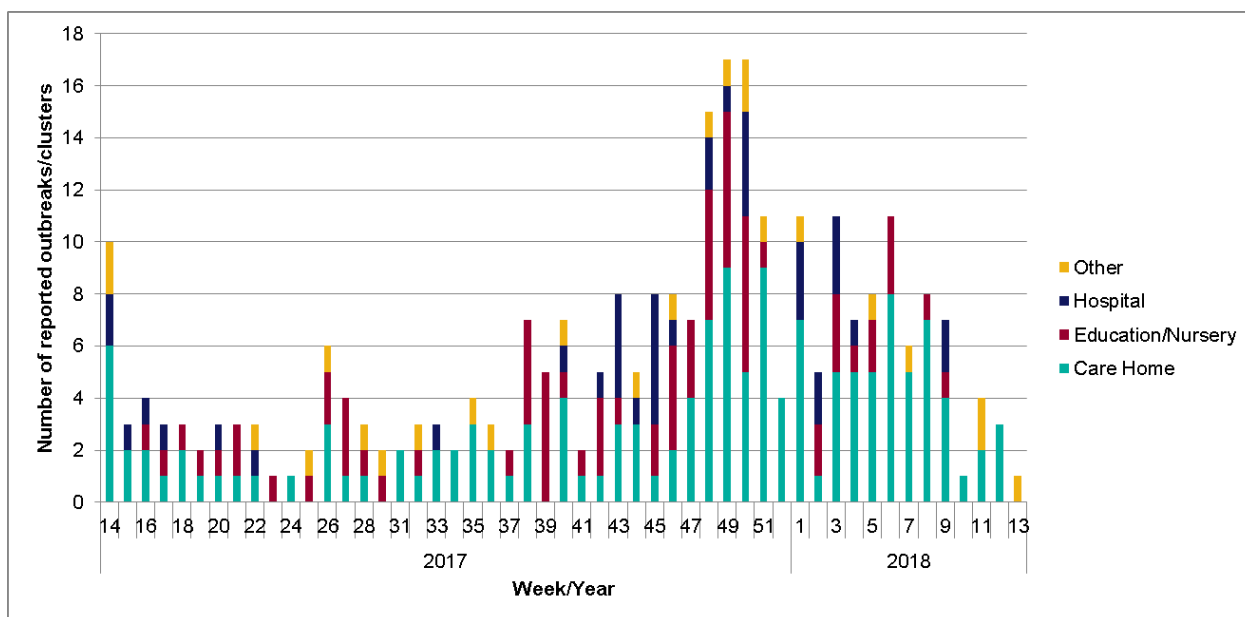


Table 2: All reports of clusters/outbreaks of gastrointestinal infection (suspected or laboratory confirmed), by setting, including food poisoning outbreaks, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay Local Authorities, Week 14 2017 to Week 13 2018.

Source: HP Zone and HNORS

Local Authority	Care Home	Education/Nursery	Hospital	Other	Total
Cornwall (including Isles of Scilly)	40	19	9	9	77
Devon	73	33	30	12	148
Plymouth	22	11	0	1	34
Torbay	10	10	0	2	22

‡ Outbreak/cluster data extracted based on date entered onto HP Zone.

Data sources:

HP Zone

HP Zone is a case management system that captures data on suspected or laboratory confirmed outbreaks within the community that have been reported to the Public Health England Centres (PHECs).

It is believed that reporting of outbreaks is not uniform or consistent and it is likely that only a small portion of outbreaks have samples collected for microbiological confirmation. As such these should be interpreted with caution as it is likely to underestimate the level of community activity. HP Zone reports were extracted and analysed on date entered.

Hospital Norovirus Outbreak Reporting Scheme (HNORS)

The Hospital Norovirus Outbreak Reporting Scheme (HNORS) is a voluntary web-based surveillance system introduced to help the NHS share information norovirus outbreaks in Trusts. Please note the system is voluntary and may underestimate the number of hospital norovirus outbreaks.

HNORS reports were extracted and analysed on date entered.

Meningococcal Disease

In 2017-2018, there were eight cases of probable or confirmed meningococcal disease in Devon; 13 in Cornwall; fewer than five in Torbay, and nine in Plymouth. These figures are largely consistent with those from 2016-2017.

Scarlet Fever

In 2017-2018, 189 suspected or confirmed cases of scarlet fever were reported across Devon (previous year 185); 155 from Cornwall (127); 42 from Torbay (48) and 73 from Plymouth (89). Forty-eight cases of confirmed invasive group A streptococcal disease were reported from Plymouth (47 in previous year); 34 from Cornwall (23); four from Torbay (11) and 25 from Plymouth (25). Given the severity of this infection, these figures represent a significant burden of disease.

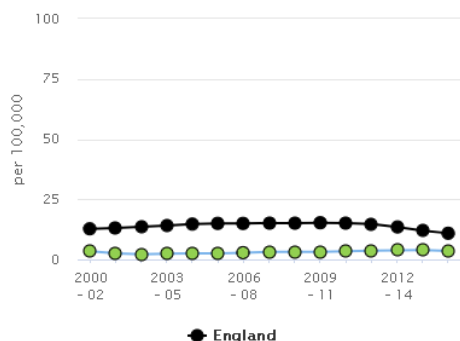
Tuberculosis

Figure 3: TB Incidence (three-year average)

Source: PHE Fingertips¹

TB incidence (three year average) Devon Crude rate - per 100,000

 Export chart as image  Show confidence intervals



Recent trend: -

Period	Count	Value	Lower CI	Upper CI	South West	England
2000 - 02	72	3.4	2.7	4.3	4.5	12.7
2001 - 03	54	2.5	1.9	3.3	4.2	13.1
2002 - 04	47	2.2	1.6	2.9	4.6	13.5
2003 - 05	51	2.4	1.8	3.1	4.8	14.1
2004 - 06	55	2.5	1.9	3.3	5.3	14.7
2005 - 07	54	2.5	1.9	3.2	5.3	15.0
2006 - 08	62	2.8	2.2	3.6	5.3	15.0
2007 - 09	70	3.2	2.5	4.0	5.5	15.1
2008 - 10	70	3.1	2.5	4.0	5.4	15.1
2009 - 11	71	3.2	2.5	4.0	5.5	15.2
2010 - 12	76	3.4	2.7	4.2	5.5	15.1
2011 - 13	83	3.7	2.9	4.6	5.8	14.7
2012 - 14	86	3.8	3.0	4.7	5.8	13.5
2013 - 15	88	3.8	3.1	4.7	5.7	11.9
2014 - 16	81	3.5	2.8	4.3	5.1	10.9

Source: Enhanced Tuberculosis Surveillance system (ETS) and Office for National Statistics (ONS)

¹ <https://fingertips.phe.org.uk/search/tb#page/4/gid/1/pat/6/par/E12000009/ati/102/are/E06000027>

Figure 4: TB Incidence (three-year average)

Source: PHE Fingertips²

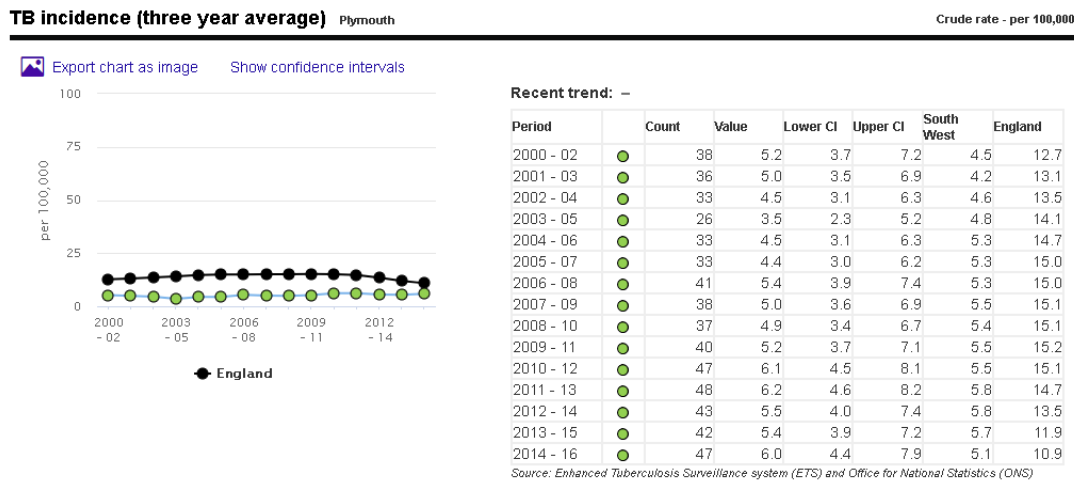


Figure 5: TB Incidence (three year average)

Source: PHE Fingertips³

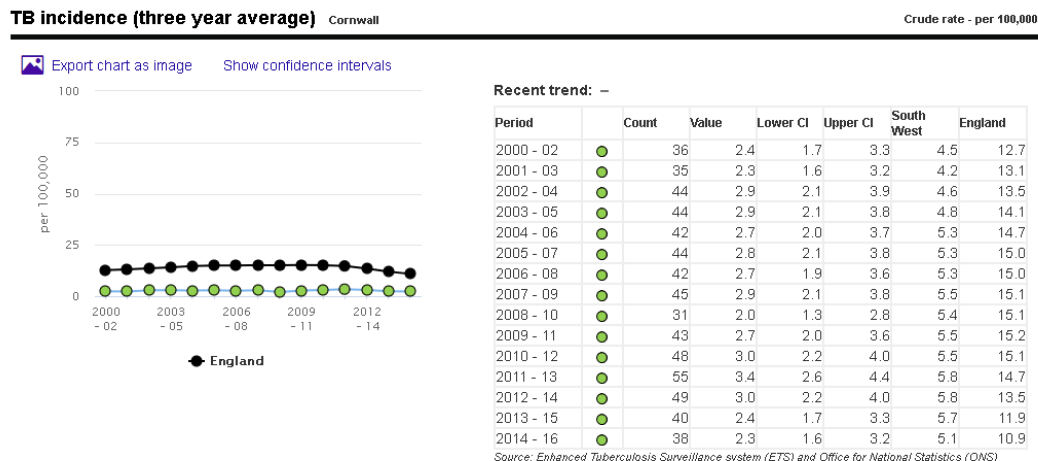
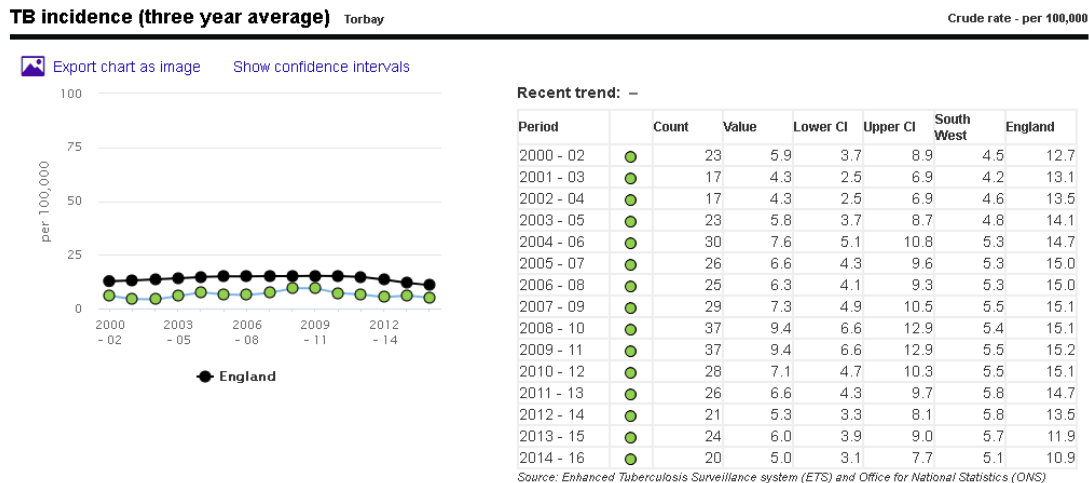


Figure 6. TB Incidence (three year average)

Source: PHE Fingertips⁴



² <https://fingertips.phe.org.uk/search/tb#page/4/gid/1/pat/6/par/E12000009/ati/102/are/E06000027>

³ <https://fingertips.phe.org.uk/search/tb#page/4/gid/1/pat/6/par/E12000009/ati/102/are/E06000027>

⁴ <https://fingertips.phe.org.uk/search/tb#page/4/gid/1/pat/6/par/E12000009/ati/102/are/E06000027>

Immunisation Performance 2017-2018

Annual Childhood Immunisations by Local Authority Showing Percentage Coverage for Latest Three Years

Cohort	Indicator	Standard ¹	Geography	2015/16	2016/17	2017/18
12 months	3.03iii - Population vaccination coverage - Dtap / IPV / Hib	95	Devon	92.0	92.6	94.3
			Plymouth	95.5	96.9	96.1
			Torbay	95.5	96.3	95.1
			Cornwall & IoS	94.5	93.9	93.9
			England	93.6	93.4	93.1
	3.03iv - Population vaccination coverage - MenC	95	Devon	95.2		
			Plymouth	97.3		
			Torbay	97.4		
			Cornwall & IoS	96.3		
	3.03v - Population vaccination coverage - PCV	95	Devon	92.4	93.1	94.6
			Plymouth	95.4	96.9	96.2
			Torbay	95.9	96.4	95.7
Cornwall & IoS			94.7	94.0	93.9	
Population vaccination coverage - MenB	95	Devon			93.9	
		Plymouth			96.0	
		Torbay			95.5	
		Cornwall & IoS			93.6	
24 months	3.03iii - Population vaccination coverage - Dtap / IPV / Hib (2 years old)	95	Devon	96.2	95.3	95.7
			Plymouth	97.7	97.6	97.7
			Torbay	97.5	98.0	97.0
			Cornwall & IoS	95.8	96.1	95.5
			England	95.2	95.1	95.1
	3.03vi - Population vaccination coverage - Hib / MenC booster	95	Devon	91.8	92.4	91.9
			Plymouth	95.1	94.5	95.7
			Torbay	94.9	94.8	94.6
			Cornwall & IoS	92.6	92.6	91.4
	3.03vii - Population vaccination coverage - PCV booster	95	Devon	91.9	92.7	92.2
			Plymouth	94.9	94.5	95.9
			Torbay	94.7	95.1	94.8
Cornwall & IoS			93.2	93.0	91.7	

Cohort	Indicator	Standard ¹	Geography	2015/16	2016/17	2017/18
	3.03viii - Population vaccination coverage - MMR for one dose	95	Devon Plymouth Torbay Cornwall & IoS England	92.5 95.4 95.2 92.5 91.9	93.4 95.3 95.2 93.0 91.6	92.7 95.7 95.4 91.4 91.2
5 years	3.03ix - Population vaccination coverage - MMR for one dose	95	Devon Plymouth Torbay Cornwall & IoS England	95.5 96.6 96.8 96.2 94.8	95.7 97.4 97.8 96.1 95.0	95.2 97.9 97.2 95.9 94.9
	3.03vi - Population vaccination coverage - Hib / Men C booster	95	Devon Plymouth Torbay Cornwall & IoS England	94.9 94.8 96.1 95.1 92.6	94.8 95.3 96.9 95.1 92.6	94.1 96.5 95.5 94.6 92.4
	3.03x - Population vaccination coverage - MMR for two doses	95	Devon Plymouth Torbay Cornwall & IoS England	91.5 90.4 92.1 91.6 88.2	91.3 91.4 92.1 90.9 87.6	90.3 94.1 93.9 95.6 92.4

1 National Screening and immunisation Programme standard. Where this is blank, no standard has been set.

Where coverage is blank, no programme was in place or data is not yet available.

Annual adolescent, adult and influenza immunisations by local authority showing percentage coverage for latest three years

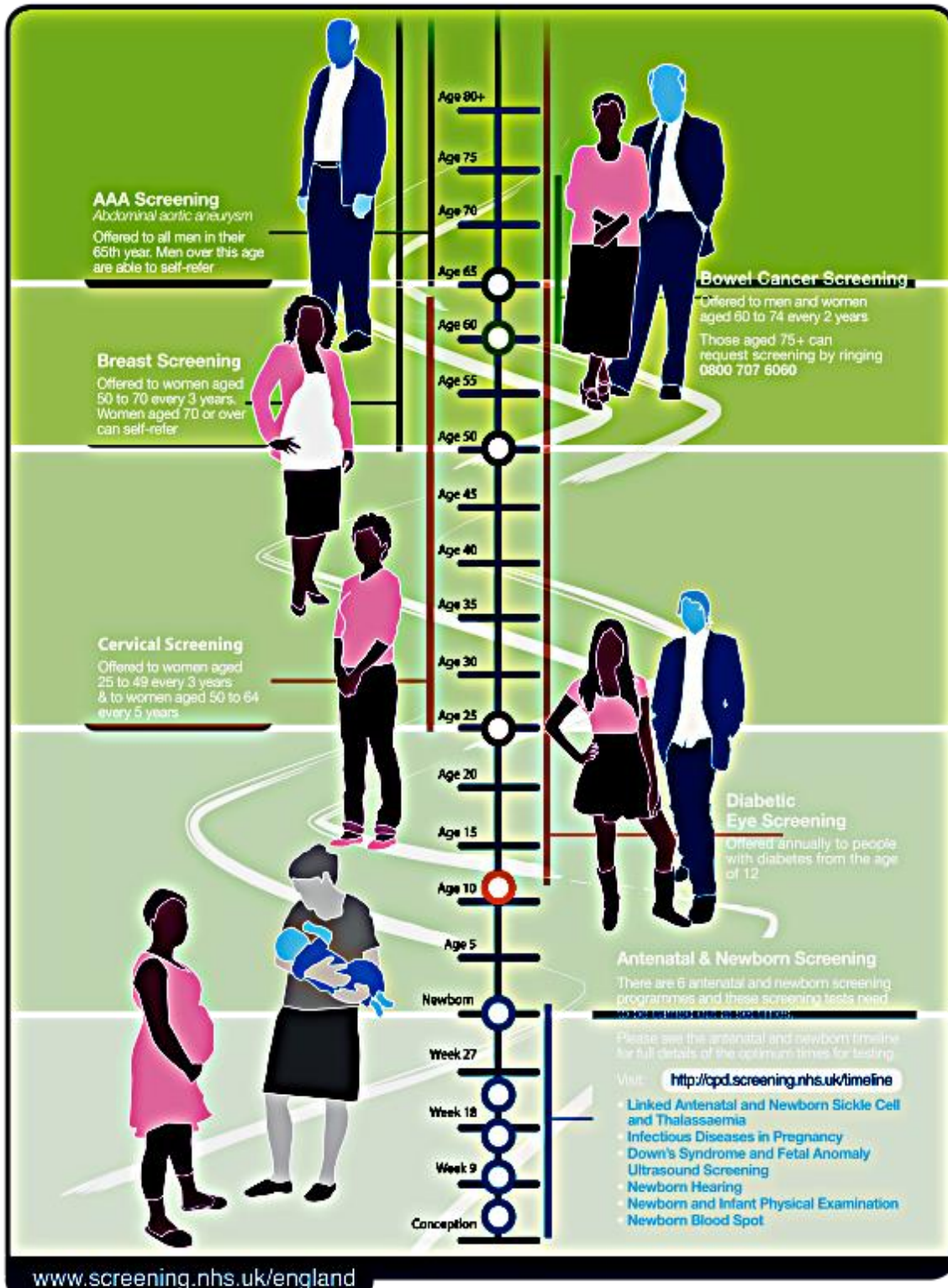
Indicator	Standard ¹	Geography	2015/16	2016/17	2017/18
3.03xii - Population vaccination coverage - HPV (%)	86.1	Devon	86.9	86.2	Not yet published
		Plymouth	89.4	85.1	Not yet published
		Torbay	83.1	85.0	Not yet published
		Cornwall & IoS	79.5	78.6	Not yet published
		England	87.0	87.2	Not yet published
3.03xiii - Population vaccination coverage – PPV (aged 65+) (%)	68.9	Devon	70.2	70.5	69.9
		Plymouth	68.7	68.7	67.1
		Torbay	67.5	67.7	68.8
		Cornwall	67.0	66.7	66.2
		England	70.1	69.8	69.5
3.03xiv - Population vaccination coverage - Flu (aged 65+) (%)	75	Devon	69.8	69.8	72.4
		Plymouth	71.5	70.3	71.5
		Torbay	66.4	66.4	71.2
		Cornwall & IoS	69.4	68.4	71.1
		England	71	70.5	72.6
3.03xv - Population vaccination coverage - Flu (at risk individuals) (%)	75	Devon	42	46.2	49.1
		Plymouth	44.9	46.0	47.5
		Torbay	40.6	45.8	48.6
		Cornwall & IoS	45.6	44.4	47.0
		England	45.1	48.6	48.9
3.03xviii - Population vaccination coverage - Flu (2-4 years old up to 2016/17, 2017/18 2-3 year olds) (%)		Devon	41.3	44.3	51.2
		Plymouth	33.6	37.2	44.0
		Torbay	34.8	38.4	44.3
		Cornwall & IoS	33.8	34.2	38.2
		England	34.4	38.1	43.5
3.03xvii - Population vaccination coverage - Shingles vaccination coverage (70 years old) (%)		Devon	60.3	52.3	Not yet published
		Plymouth	54.3	51.8	Not yet published
		Torbay	52.6	42.4	Not yet published
		Cornwall & IoS	53.8	40.1	Not yet published
		England	54.9	48.3	Not yet published

Source: National vaccination coverage statistics, Public Health England (GOV.UK) ¹
National Screening and Immunisation Programme standard

National Screening Programmes - Summary



NHS Screening Timeline



Screening Performance

Cancer Screening (Breast, Cervical, Bowel) – Showing Percentage Coverage for Latest Three Years

Indicator	Lower threshold ¹	Standard ²	Geography	2015	2016	2017
Breast Cancer screening coverage	70	80	Devon	79.1	78.8	78.3
			Plymouth	79.1	79.3	79.0
			Torbay	76.7	74.7	74.1
			Cornwall	80.3	80.0	79.3
			England	75.4	75.5	75.4
Cervical Cancer screening coverage	75	80	Devon	77.7	77.1	76.6
			Plymouth	75.5	74.5	73.6
			Torbay	75.9	74.8	73.9
			Cornwall	76.4	75.7	74.9
			England	73.5	72.7	72.0
Bowel Cancer screening coverage	55	60	Devon	60.5	62.6	64.2
			Plymouth	61.3	61.6	61.1
			Torbay	62.0	61.4	61.8
			Cornwall	58.3	60.5	61.7
			England	57.1	57.9	58.8

¹ Threshold based on 2017-18 Public Health Functions Agreement

² National Screening and Immunisation Programme Standard

Non Cancer Screening – Showing Percentage Coverage for Latest Three Years at Quarter 4

Indicator	Acceptable ¹	Achievable ²	Geography	Trust/Service	2015/16 Q4	2016/17 Q4	2017/18 Q4
				Quarterly figure			
Infectious diseases in pregnancy - HIV coverage	≥90	≥95	Devon	Royal Devon and Exeter NHS Foundation Trust	99.1	100.0	99.7
				Northern Devon Healthcare NHS Trust	99.8	99.5	98.9
			Plymouth	Plymouth Hospitals NHS Trust	99.6	99.7	99.9
			Torbay	South Devon Foundation Trust	-	-	-
				Torbay and South Devon NHS Foundation Trust	97.2	99.2	99.1
			Cornwall	Royal Cornwall Hospitals NHS Trust	99.7	99.9	99.9
			England				
Sickle cell and Thalassaemia coverage	≥95	≥99	Devon	Royal Devon and Exeter NHS Foundation Trust	99.5	100.0	99.7
				Northern Devon Healthcare NHS Trust	99.8	99.5	98.9
			Plymouth	Plymouth Hospitals NHS Trust	99.8	99.7	99.9
			Torbay	South Devon Foundation Trust	-	-	-
				Torbay and South Devon NHS Foundation Trust	97.7	99.2	98.1
			Cornwall	Royal Cornwall Hospitals NHS Trust	99.7	99.9	100.0
			England				
Newborn blood spot coverage	≥95	≥99.9	Devon	NHS North, East, West Devon (CCG at birth)	90.7	97.6	92.6
			Plymouth	NHS North, East, West Devon	90.7	97.6	92.6
			Torbay	NHS South Devon and Torbay	86.0	94.1	99.1
			Cornwall	NHS Kernow	86.9	92.3	93.2
				England			
Newborn hearing coverage	≥95	≥99.5	Devon	North Devon	98.6	98.5	98.9
				Torbay and Teignbridge	98.7	99.4	99.1
			Plymouth	Plymouth	99.5	99.2	98.9
			Torbay	Torbay and Teignbridge	98.7	99.4	99.1
			Cornwall	Cornwall and Isles of Scilly	99.9	99.7	99.6
				England			

Indicator	Acceptable ¹	Achievable ²	Geography	Trust/Service	2015/16 Q4	2016/17 Q4	2017/18 Q4
Newborn & infant physical examination coverage	>=95	>=99.5	Devon	Royal Devon and Exeter NHS Foundation Trust	98.5	98.6	98.9
				Northern Devon Healthcare NHS Trust	97.9	99.1	98.6
			Plymouth	Plymouth Hospitals NHS Trust	97.6	96.2	96.6
			Torbay	South Devon Foundation Trust	97.3	97.0	98.4
				Torbay and South Devon NHS Foundation Trust	86.0	94.1	98.4
			Cornwall	Royal Cornwall Hospitals NHS Trust	-	-	90.8
		England					
* Diabetic eye screening uptake	>=70	>=80	Devon	North and East Devon Diabetic Eye Screening Programme	82.6	87.5	88.8
				South Devon NHS Diabetic Eye Screening Programme	87.7	87.1	86.3
			Plymouth	Plymouth Diabetic Eye Screening Programme	80.1	79.6	79.3
			Torbay	South Devon NHS Diabetic Eye Screening Programme	87.7	87.1	86.3
			Cornwall	Cornwall Diabetic Eye Screening Programme	81.5	78.8	76.7
				England			
* Abdominal Aortic Aneurysm Completeness of offer	>=67.5	>=75	Devon	South Devon AAA Screening Cohort	99.9	99.9	84.3
				Somerset and North Devon AAA Screening Cohort	99.8	100.0	99.7
			Plymouth	Peninsula AAA Screening Cohort	99.7	99.9	87.4
			Torbay	South Devon AAA Screening Cohort	99.9	99.9	84.3
			Cornwall	Peninsula AAA Screening Cohort	99.7	99.9	87.4
				England			

* All figures are for coverage except provider figures for diabetic eye screening which represent uptake

* AAA 2015/16 Represented 'completeness of offer'; AAA 2017/18 changed to Coverage of annual surveillance screen
Where data field is blank, no programme was in place or data is not available.

Healthcare Associated Infections (HCAI) 2017-18

Healthcare Associated Infections Report for Northern, Eastern and Western Devon Clinical Commissioning Group and South Devon and Torbay Clinical Commissioning Group (the Devon CCGs), 2017-18.

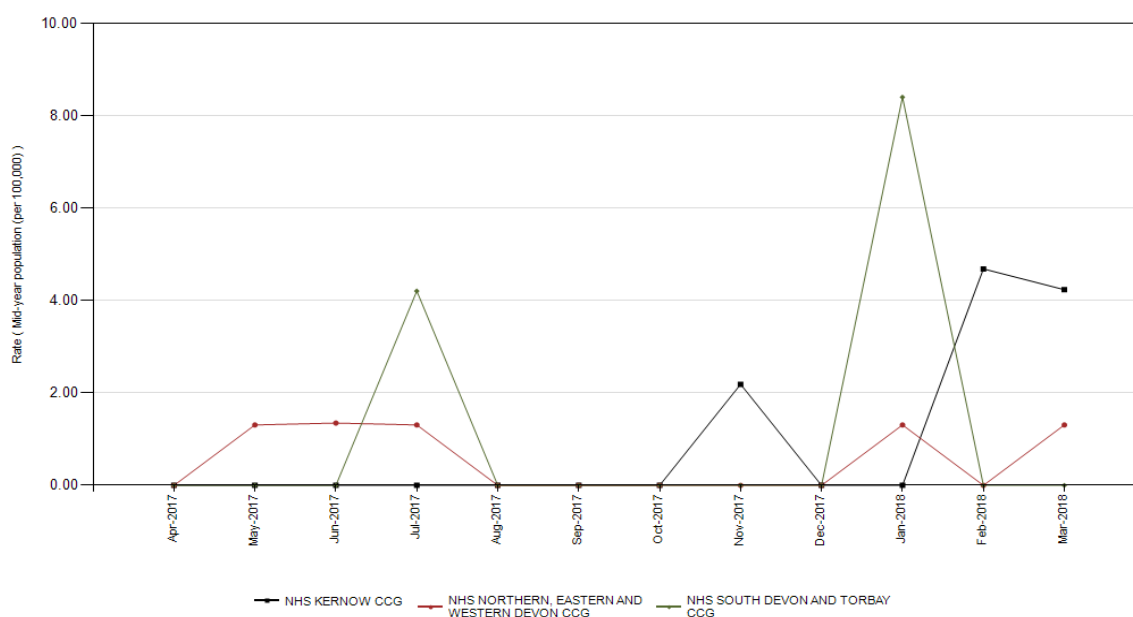
Extracted and amended from May 2018 Joint Quality Committee report with additions for Cornwall.

1. Executive Summary

This report provides information and updates against the following Infection Prevention and Control areas:

- Healthcare Associated Infections (HCAI)
- Gram negative Bloodstream Infection Reduction (GNBSI)

2. Healthcare Associated Infections - Methicillin Resistant *Staphylococcus Aureus* (MRSA)

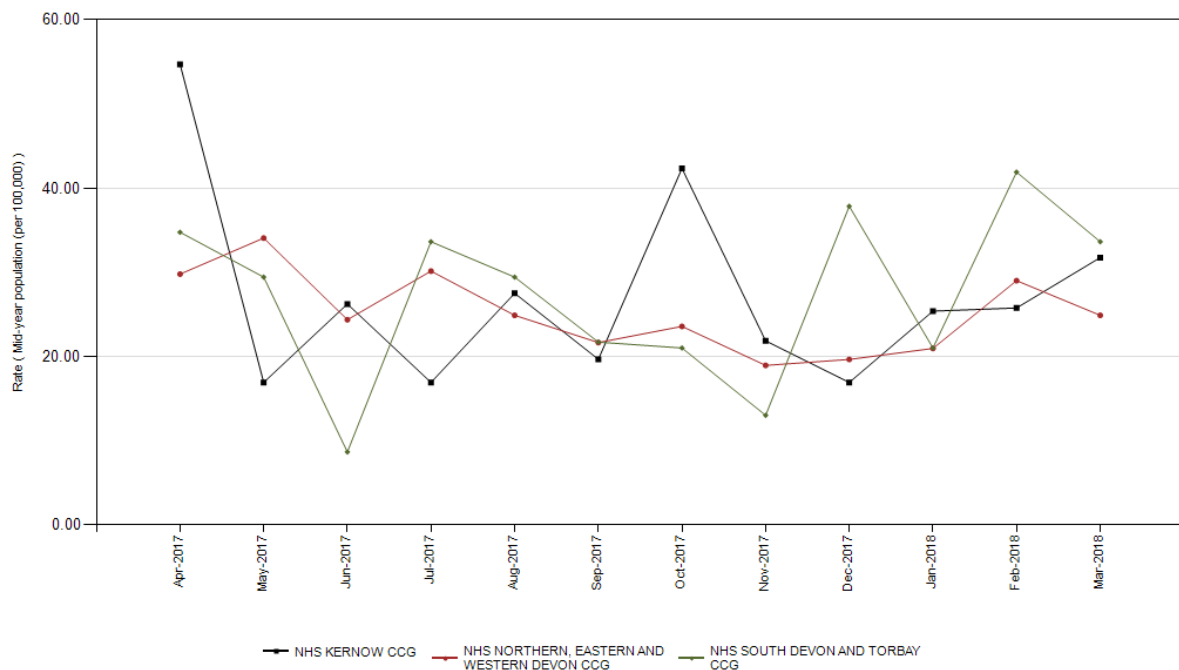


The above graph courtesy of Public Health England.

As of April 2018, the requirements for MRSA post-infection reviews (PIR) have changed. There is no longer a national requirement for a PIR to be completed, although local reviews are still expected. This change has been communicated to all NHS providers.

In Cornwall, rates remain low and the post infection review process continues despite the relaxed requirements.

3 Healthcare Associated Infections - Methicillin Sensitive *Staphylococcus Aureus* (MSSA)



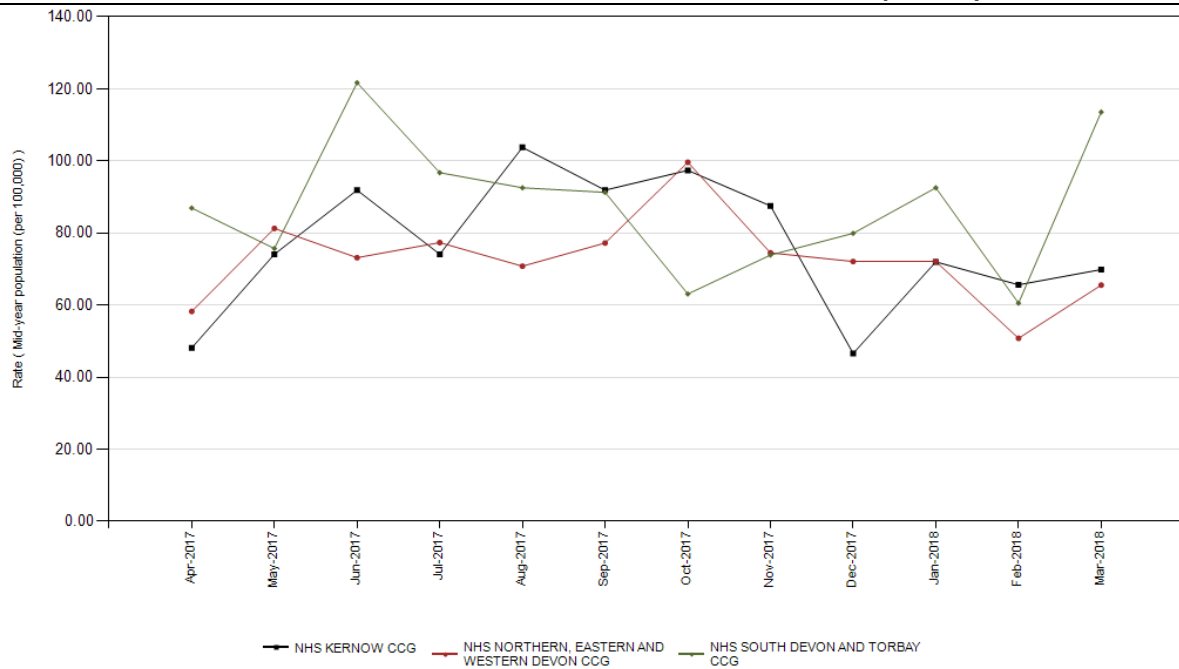
The above graph courtesy of Public Health England.

In NEWD CCG, MSSA bacteraemia rates remain steady.

SDTCCG has a smaller population so the rate is more volatile - the increases seen on this graph are down to one or two patients per month and so conclusions cannot be drawn at this time. However, in discussion with the NHS provider, thematic reviews will be undertaken of all MSSA cases identified across acute and community settings for a period of three months.

In Cornwall some work has in the acute setting has focussed on line care.

4 Healthcare Associated Infections - *Escherichia Coli* (E coli)



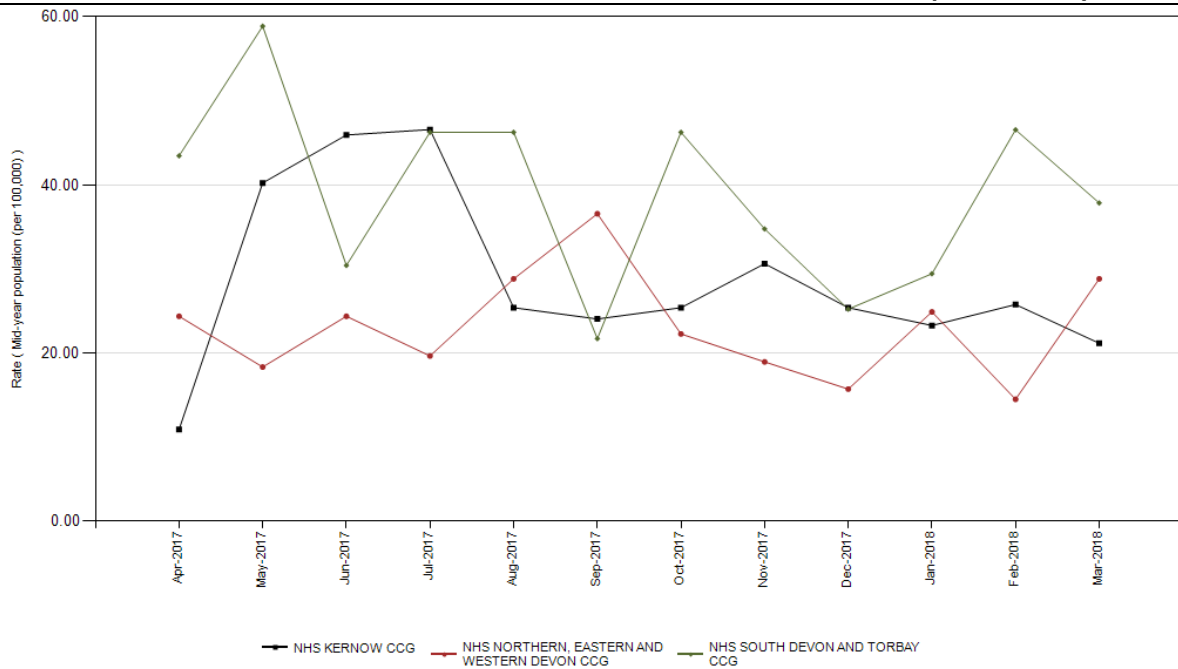
The above graph courtesy of Public Health England.

E.coli bacteraemia across both CCGs, as shown in the graph above, broadly track the averages provided by Public Health England (PHE) for England and the South West.

The Quality Premium for 2017-18 includes a 10% E.coli bacteraemia reduction. This work is being taken forward jointly by NEW Devon CCG and South Devon & Torbay CCG, and is being reported quarterly to the Quality Committees in Common. This target has not been achieved this year. The target for 2018/19 has not yet been released but is likely to include a further 10% reduction.

In Cornwall, rates continue to rise. Joint work programmes focus on urinary sources. Clear reduction strategies are not emerging.

5 Healthcare Associated Infections - *Clostridium difficile* (*C difficile*)



The above graph courtesy of Public Health England.

The graph above shows all cases of *C difficile* within NEWDCCG. The community acquired cases, which make-up the larger proportion of the population cases, are not scrutinised for avoidability like those in acute and community hospitals.

The case numbers for NEWD CCG (208) are below the nationally set trajectory (219). The case numbers for SDT CCG (109) are above the nationally set trajectory (96).

The nationally mandated targets for acute providers have all been reduced by one case for 2018/19.

In Cornwall, the majority of hospital onset cases occur despite good care.

Antimicrobial Resistance: Trends and Developments

Table 1: *E.coli* bacteraemia rates per 100,000 population, by CCG and England, 2013/14 to 2017/18

Source: HCAI Data Capture System

Source: HCAI Data Capture System

Financial Year	North, East and West (NEW) Devon CCG	South Devon and Torbay CCG	Kernow CCG	England
2013/14	57.2	78.2	55.9	63.7
2014/15	66.9	77.2	53.7	65.9
2015/16	68.4	80.1	61.4	69.8
2016/17	69.6	87.6	71.0	74.1
2017/18	72.9	87.5	77.0	74.3

Figure 1: Rates of *E. coli* bacteraemia resistant to third-generation cephalosporins or ciprofloxacin in patients of different age groups. Data derived from voluntary reports to SGSS; 85% of isolates were subject to susceptibility tests

Source: ESPAUR Report 2017

Please see ESPAUR Report 2017 for figures:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/656611/ESPAUR_report_2017.pdf

Figure 2: Rolling quarterly average proportion of *E. coli* blood specimens non-susceptible to 3rd generation cephalosporins, by quarter

Source: PHE AMR local indicators¹

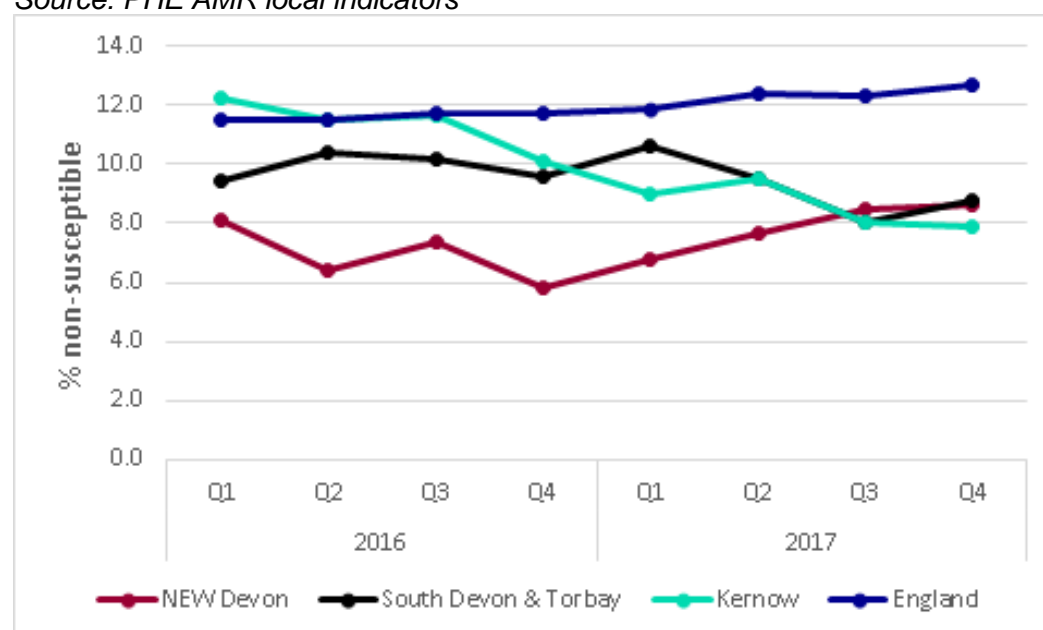


Figure 3: Rolling quarterly average proportion of *E. coli* blood specimens non-susceptible to gentamicin, by quarter

Source: *PHE AMR local indicators*¹

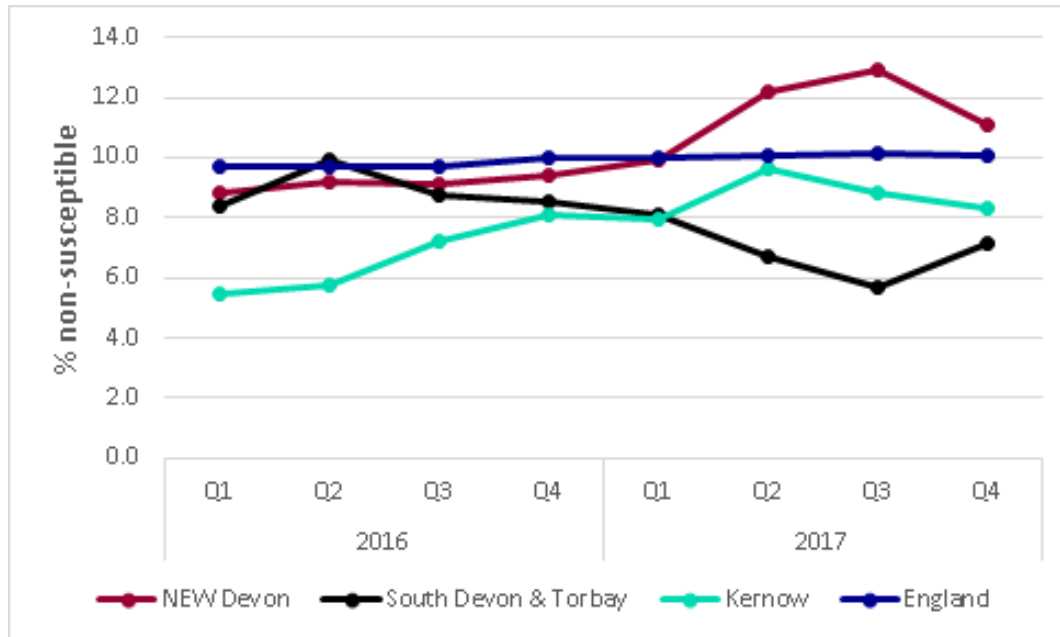


Figure 4: Rolling quarterly average proportion of *E. coli* blood specimens non-susceptible to piperacillin/tazobactam, by quarter

Source: *PHE AMR local indicators*¹

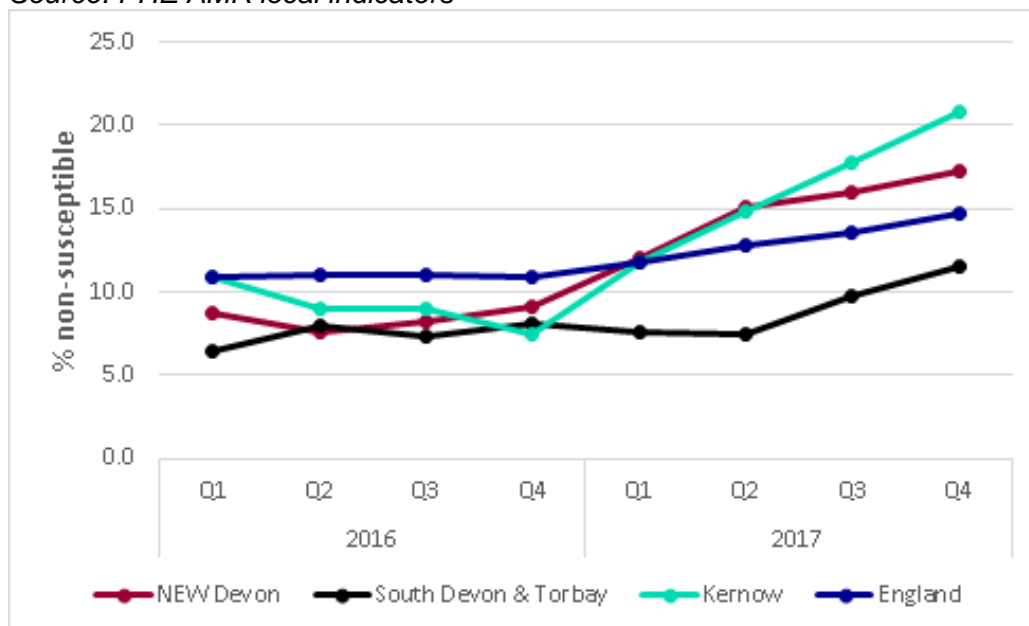
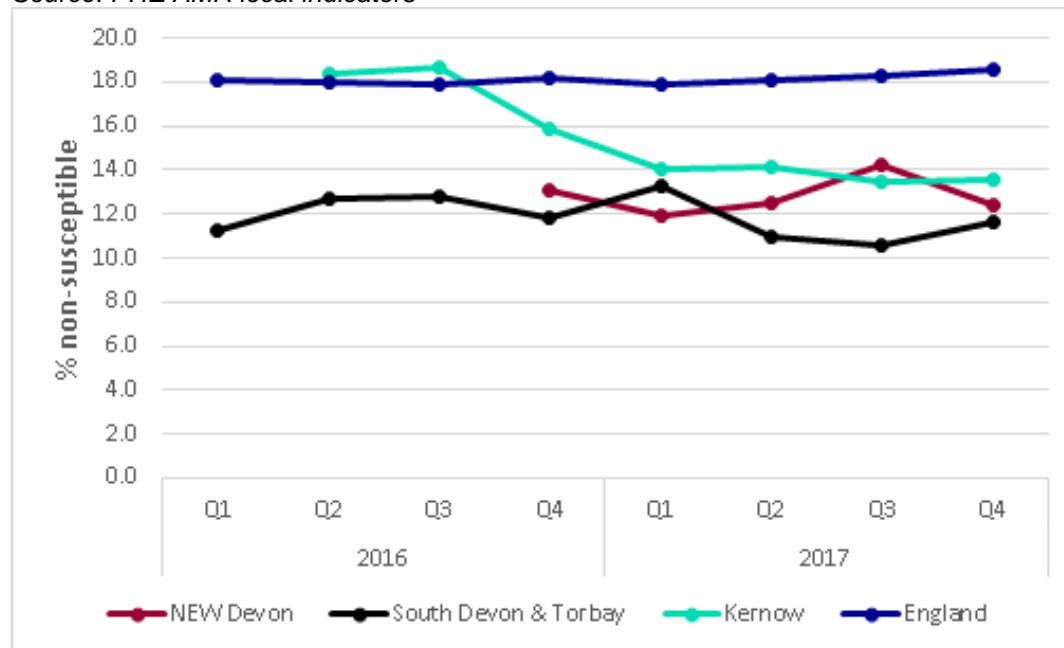


Figure 5: Rolling quarterly average proportion of *E. coli* blood specimens non-susceptible to ciprofloxacin, by quarter*

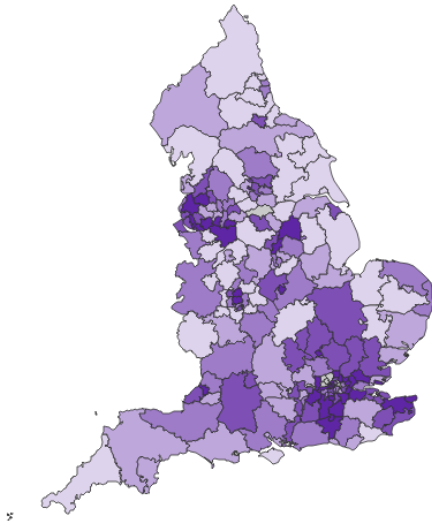
Source: PHE AMR local indicators¹



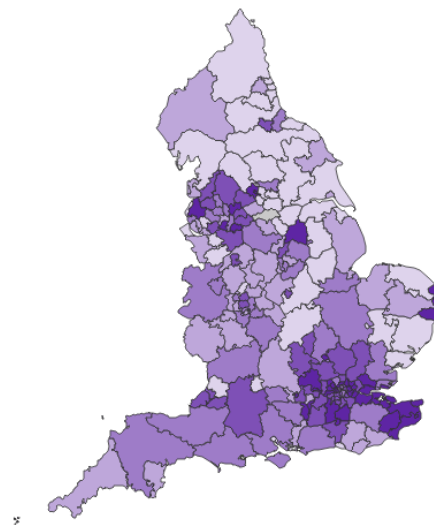
*Where less than 70% specimens have been tested for a particular CCG the results have been suppressed for data quality reasons.

Figure 6: Rolling quarterly average proportion of *E. coli* from blood non-susceptible to: A (a 3rd generation cephalosporin), B (gentamicin), C (piperacillin/tazobactam), D (ciprofloxacin). Data presented by CCG for quarter four 2017. The colour coding for the level of resistance is presented in quintiles. Source: PHE AMR local indicators¹

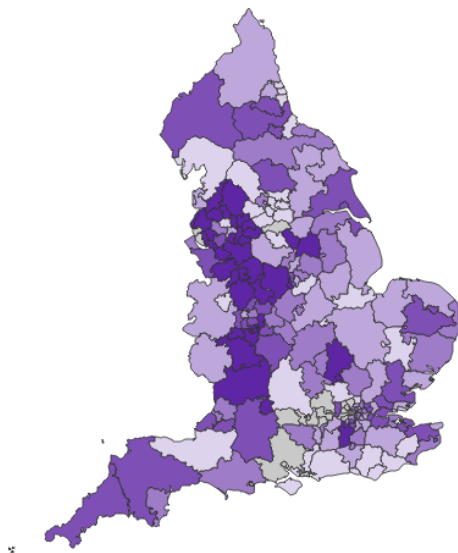
A



B



C



D

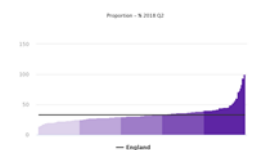
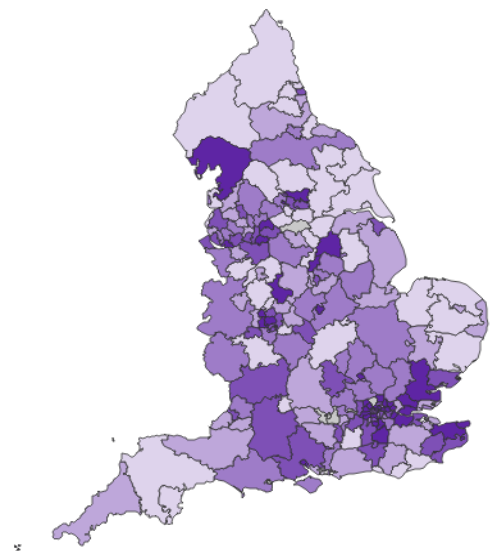
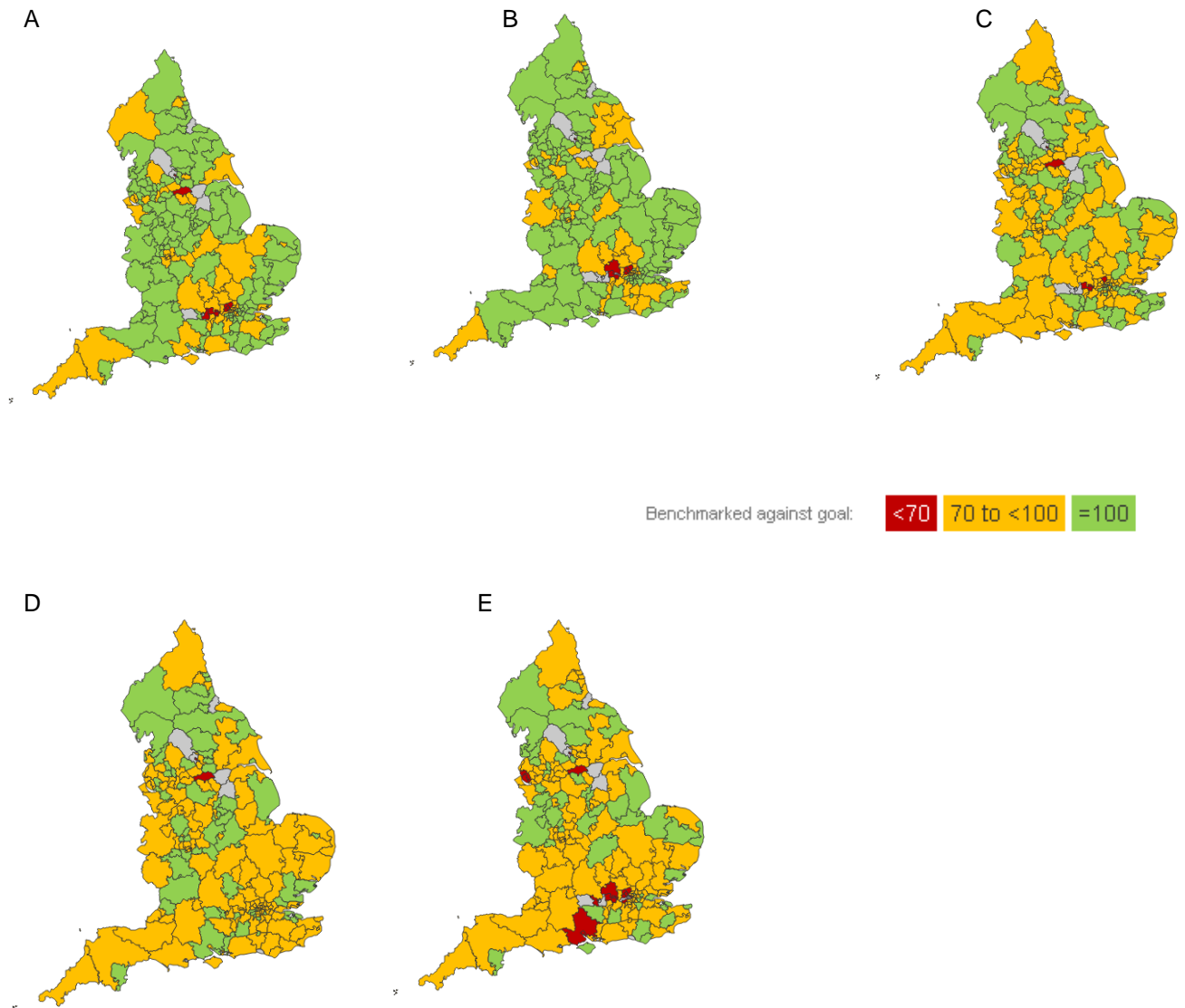


Figure 7: Proportion of *E.coli* from blood tested for susceptibility to: A (a carbapenem), B (a 3rd generation cephalosporin), C (ciprofloxacin), D (gentamicin), E (piperacillin/tazobactam). Data presented by CCG for quarter four 2017

Source: PHE AMR local indicators¹



Carbapenemase producing organisms

In 2017/18 there were 12 episodes referred from hospitals within Devon, Torbay, Cornwall and Plymouth local authorities that were confirmed as CPOs by AMRHAI, an increase from 2016/17, in which 11 episodes were confirmed CPOs.

References

1. Public Health England. AMR Local Indicators <https://fingertips.phe.org.uk/profile/amr-local-indicators>