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

2016 - 2017

17 November 2017

Contents

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 2016 to 31 March 2017, 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 2016-17;
- Actions taken to date against the programme of health protection work priorities established by the committee for the period 2016 to 2017;
- Priorities for the work programme 2017/18.

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 subgroups 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;
- Devon, Cornwall and Isles of Scilly Screening and Immunisation Overview Groups;
- Local Health Resilience Partnership.

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 underperformance 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 2016-17 were held on 4 May 2016, 3 August 2016, 2 November 2016 and 1 February 2017.

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.

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.

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 2016-17

Measles

3.8 There were 50 confirmed cases of measles across Devon, including Torbay and Plymouth, in 2016/7, with an additional number of suspected cases. Only two confirmed cases were reported in Cornwall. Cases were noted initially in teenagers in an area of South Devon with low MMR uptake, and spread across the whole county with transmission being noted at festivals. Measles outbreaks were seen in other areas of England in 2016/7.

Hepatitis A

3.9 In 2016 a large outbreak of hepatitis A was seen across Europe, predominantly affecting men who have sex with men (MSM). Cases of acute hepatitis A were seen in Devon and West Cornwall that were linked to this outbreak. Nationally, vaccine recommendations were made and disseminated to genito-urinary medicine clinics in an attempt to reduce ongoing transmission.

Cryptosporidium

3.10 189 cases of cryptosporidium were diagnosed across Devon, Torbay and Plymouth in 2016/7, representing a year-on-year increase from 2013/4 onwards, consistent with the national picture. 112 cases were diagnosed in Cornwall. In an attempt to better understand the risk factors for this increase, a pilot of the use of an online questionnaire is being conducted across some of the South West local authorities.

Influenza incidence and outbreaks in care homes

3.11 Rates of reported influenza and flu-like illness were largely consistent with the national picture. In the 2016/7 influenza season to the end of March 2017, there was a large number of reported influenza outbreaks in care homes in Devon (18 outbreaks) and Torbay (six), with only one in Cornwall and none in Plymouth. Work is ongoing to assess levels of staff immunisation uptake in care homes, with a view to improving this for 2017/18 onwards. Influenza rates are shown in **Appendix 2**.

Meningococcal infection

3.12 During April 2016 to March 2017 there were ten cases of probable or confirmed meningococcal disease in both Devon and Cornwall, seven in Plymouth and six in Torbay. The graphs in **Appendix 2** show the rates for Devon, Plymouth, Torbay and Cornwall compared to the overall rate across the Public health England South-West centre area. It should be noted that large variations are seen in areas with small populations (such as Torbay) as a result of a small number of cases.

Tuberculosis

3.13 As of 2015 the incidence of tuberculosis across the South-West of England remained low compared to the average for England. The figure and table in **Appendix 2** demonstrate the average incidence rate by local authority from 2013-2015.

Norovirus and gastroenteritis

3.14 Incidences of norovirus and gastroenteritis were relatively high for Cornwall, low for Devon, and consistent with the England average in Torbay & South Devon, and Plymouth. Rates of norovirus and gastroenteritis are shown in **Appendix 2**.

Scarlet fever and invasive Group A Streptococcus (iGAS)

3.15 In 2016/7 there were 315 suspected or confirmed cases of scarlet fever reported across Devon, Torbay and Plymouth, largely consistent with the previous two years and just below the South West average. Numbers of invasive Group A Streptococcus (iGAS) were consistent with those seen in the preceding two years for Devon, Cornwall and Torbay, whereas Plymouth had 24 cases compared to 11 in 2015/16 and 13 in 2014/15. Rates are shown in **Appendix 2**.

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 Clinical Commissioning Group Maternity Payment Pathway arrangements, although 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 the 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) real time data are not available for all programmes and for some programme reports are up to two calendar quarters in arrears. 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. 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 multiagency locality immunisation group, one for each local authority area. In addition, there is a separate Seasonal Influenza Immunisation Board for the Devon, Cornwall and Isles of Scilly area. 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 2016-17

4.7 Immunisation performance throughout 2016-17 is detailed in **Appendix 3.** This data is taken from the national coverage statistics, which for the first time this year 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 2016-17. The dashboard can be accessed via the link below:
National annual childhood immunisation coverage 2016/17

Key points include:

- Coverage of childhood immunisations continues to be high in Plymouth, Devon and Cornwall (mostly over 90%) but the national target of 95% is not being met for several of the programmes.
- Performance across the range of childhood immunisation programmes is generally stable. However, coverage is variable and requires continued attention to ensure that the local population is protected and does not become susceptible to outbreaks of vaccine preventable diseases.
- MMR (Measles, Mumps and Rubella) coverage at 5 years has improved gradually over time and is now over 90% for all doses in all three local authority areas. Herd immunity with coverage of 95% or above is achieved for: Cornwall MMR1 at 2 years, Plymouth MMR1 at 2 years and 5 years, Devon MMR1 at 5 years.
- Rotavirus coverage in Devon (82.7%) is significantly lower than the England average (89.6%). This is an outlier and requires further investigation. This immunisation is time-limited as the first dose has to be given no later than 15 weeks and the second dose (which must be at least one month after the first dose) must be given no later than 24 weeks of age. If there is a delay in invitation or attendance for the immunisation, the baby will not be able to be vaccinated.
- Immunisation coverage is reported quarterly and in-year variation is not uncommon. Investigations suggest that these are in the main due to data issues rather than true variation in uptake. This is in part because of the challenges with manual call-recall and data flow processes between GP practices and other immunisation providers and the local Child Health Information Services (CHIS).
- HPV (Human Papilloma Virus) coverage in Devon is in line with the national rates. Coverage for the 2016/17 academic year is due to be published in Autumn 2017.
- HPV coverage in Cornwall has historically been reported as low. Up until September 2016, all school-aged immunisations were delivered in GP practices, and the programme was run over a whole 12 month period. As a result, not all immunisations were captured in the national reporting process and this has in part explained the lower uptake. From September 2016, all school aged immunisations in Cornwall are now delivered in the school setting and it is hoped that the 2016/17 data, when published, will report rates more in line with regional and national averages.
- The 2016/17 annual data for Shingles is awaited. Uptake has been static with rates averaging around 50-60% (2015/16 England rate is 54.9%). Work is underway to support practices to increase uptake (see below).
- Highlights of the influenza vaccination uptake in 2016/17 were:
    - A large increase in uptake of vaccination in frontline healthcare workers in all providers except Cornwall GP practices - almost certainly due to the national CQUIN;

- An increase in uptake in children, particularly in the school age programme (exceptions were children aged 4 in Cornwall, and year 2 children in South Devon and Torbay);
- A small increase in uptake across all adult groups with a few exceptions.

Developments in national immunisation programmes during 2016-17

Childhood immunisations

4.8 Meningitis B was introduced in the routine schedule in September 2015 and coverage, as expected, has continued to be high during 2016/17.

4.9 Although uptake in Plymouth, Devon, Cornwall and the Isles of Scilly is generally good, nationally there is a small downward trend in uptake of childhood immunisations. A national group has been set up to review the evidence for improving uptake and to make recommendations for action. Locally, these actions will be incorporated into the work of the locality immunisation groups.

4.10 As part of the work the Screening and Immunisation Team is doing to support an improvement in coverage and reduction of inequalities, a South West needs assessment for 0-5 year old vaccinations and a survey of GP practices have been completed. The main recommendations for Plymouth, Devon, Cornwall and 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 (this will also have a knock on effect on improving uptake for the other ages), 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. These findings are being considered by the locality immunisation groups and will result in more targeted action plans in each area.

4.11 Nationally, MMR has been agreed as a priority and a UK Measles and Rubella Elimination Strategy, the UK contribution to the WHO European regional target to eliminate both measles and rubella infections by 2020, is being developed. NHS England 2017/18 commissioning intentions support this work. The Screening and Immunisation Team is working through the locality immunisation groups to develop robust multiagency action plans to achieve 95% MMR coverage and address low uptake generally. The recommendations of the needs assessment are informing these plans. The local work and strategy have been used to inform the recently published MMR Spotlight report. This highlights the need for a multiple, individualised, and a “never too late” approach, as the parents declining MMR and other childhood immunisations are not a single homogenous group.

4.12 In Sept 2017, the World Health Organisation (WHO) confirmed that the UK, as at the end of 2016, is among 42 of the 53 countries within the WHO European Region that have achieved ‘measles elimination’. Elimination is defined an absence of endemic measles transmission for a period of at least 12 months. In practical terms this means that there is evidence of interruption in transmission of infections when a case occurs, such that there are either no further cases in the contact group or only a small number of cases and no spread of infection into the wider community. This is a significant achievement and reflects the continued work by many partners nationally and locally to continue to drive uptake upwards, and to achieve and then maintain 95% coverage of the MMR vaccine and herd immunity. Over the past three years, there have been several thousand cases of measles across the UK, and a handful of deaths, and these are all likely to have originated from overseas. It is important to remember that although measles is no longer endemic to the UK, measles cases continue to occur as a result of infections from abroad,

and that unvaccinated individuals and communities continue to be vulnerable, so the work to maximise coverage needs to continue.

Targeted immunisations – Hepatitis B and BCG

4.13 The Screening and Immunisation Team has developed a robust pathway and failsafe process to follow-up babies born to Hepatitis B positive mothers to try to ensure all infants complete the full schedule, thus minimising the risk of contracting the infection. The Screening and Immunisation Team has also launched the dried bloodspot scheme for Hepatitis B serology testing at 12 months, which it is hoped will result in greater uptake of the test.

4.14 During 2016, there was an international shortage of BCG (Tuberculosis) vaccine. This situation continues to be managed by the National Immunisation Team. An interim alternative supply of a UK unlicensed vaccine was secured, and in order to minimise the impact and protect the most vulnerable, national priority groups were agreed. Vaccine has primarily been restricted to the infant neonatal programme as they are at greatest risk from infection. Since August 2017, a new supply of UK licenced vaccine has become available. This will remain restricted to the highest priority groups and catch-up for children up to age 12 months in the first instance, and then children up to six years.

School aged immunisations

4.15 In September 2016, delivery of school aged immunisations in Cornwall moved to a school setting, following a procurement process for this service. All areas of the South (South West) now have school-based delivery. It is hoped that this will lead to further improvement of uptake rates.

4.16 2016/17 was the last academic year of the MenACWY (Meningitis) catch-up for Year 11 (school based) and Year 13 (GP based) vaccinations. From September 2017, Td/IPV (teenage booster) will move to Year 9 school based vaccination and will be delivered alongside the routine MenACWY cohort.

Child Health Information Services (CHIS)

4.17 NHS England/Screening and Immunisation Team has set up quarterly CHIS monitoring meetings to formalise the governance of CHIS services. These include monitoring of key performance indicators, and quality audits.

4.18 The Screening and Immunisation Team has been working with the South West Child Health Information Service (CHIS) Managers' Communities of Practice Group to improve the CHIS immunisation call-recall processes and pathways, and standardise these as far as possible across the South West.

4.19 The timeliness and comprehensiveness of immunisation information sharing between GP practices and CHIS, and the internal CHIS processes, can have a significant impact on the quality of nationally reported data and can account for some of the variation in coverage over time. The Screening and Immunisation Team has therefore been working closely with several of the CHIS teams as they have undertaken detailed work to review processes and to synchronise data between practices and to improve the timeliness of return of immunisation data by GP practices to CHIS. It is expected that this will help to improve coverage rates. The Screening and Immunisation Team is liaising closely with the relevant Local Medical Committees, some of whom have raised concerns, and will continue to keep them up to date with progress.

Adult immunisations

Pertussis and flu vaccination in pregnancy

4.20 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. Due to ongoing infection rates and deaths, the programme has been continued. The most recent national data, extracted from 93% of GP systems across the South West, shows that uptake in 2016 has significantly increased and is at its highest level of 76.4%. This is higher than the England average. It is thought that this increase is due to the change in policy that means immunisation can be given earlier, from 16 weeks gestation, although it is normally given after the mid trimester foetal anomaly scan. The Screening and Immunisation Team has been working closely with the Children and Maternity Strategic Clinical Network to improve uptake of all vaccinations in pregnancy, through enhanced partnerships between primary care and maternity, and awareness training for midwives.

Shingles

4.21 For the past year, the Screening and Immunisation Team has been feeding back practice level rates to GP practices to encourage additional activities to target eligible patients, and using national resources to promote the eligible age cohorts with the public. As uptake rates remain static, plans are being made for additional work during 2017/18, and these will come to the locality immunisation group for tailoring to each local area.

Influenza Immunisation

4.22 In 2016/17, the key changes in the South West seasonal flu programme were the successful expansion of the child flu programme to include all children aged 2, 3 and 4, and to all children in school years 1, 2 and 3. Also, the Community Pharmacy Seasonal Influenza Vaccination programme was recommissioned after a successful first year in 2015/16, when almost 250,000 additional patients chose to receive vaccinations in a community pharmacy.

Key issues for immunisation programmes in Plymouth, Devon, Cornwall and Isles of Scilly in 2017/18

4.23 In August 2017, universal Hepatitis B vaccination is to be introduced in to the primary immunisation schedule. This will be via a new hexavalent vaccine. The current targeted neonatal immunisation programme for babies born to Hepatitis B positive mothers will remain.

4.24 The national CHIS digital strategy was launched in 2016. This is likely to have a significant impact on the model of CHIS services in the future and the way that parents are offered immunisations for their children. It will also increase the efficiency of data sharing processes and lead to improvements in the timeliness and accuracy of immunisation data. The aim of the strategy is to achieve full interoperability between CHIS and GP practices and other related systems and to achieve web-based access to parents and professionals working with children. In the South West, NHS England will be reviewing service specifications to ensure that as this work evolves, providers of CHIS services and child health IT services develop services to meet the requirements of the digital strategy. The strategy includes a move to an electronic Red Book (Parent held Child Health Record).

4.25 During 2017/18, NHS England will be undertaking a procurement for CHIS services (for the whole of the South (South West) area, and for school aged immunisations (for Bristol, North Somerset and South Gloucester and Devon).

4.26 To further increase uptake of pertussis and flu vaccination in pregnancy, the Screening and Immunisation Team will be working with all maternity units and hopes to achieve a primarily maternity-based delivery model for pertussis and flu in pregnancy rather in general practice. It is envisaged that by offering immunisation as part of routine obstetric care that this will enable more women to take up the offer of immunisation. This has already been piloted in some maternity units and it is hoped that by the end of 2017/18 all providers will have introduced this new offer.

4.27 To improve the uptake of shingles vaccination, during Autumn 2017 the Screening and Immunisation Team will be providing GP practices with their individual practice level uptake data and a newly developed resource pack including policy updates on changes to eligibility, a best practice guide that outlines key actions to improve uptake, and a range of Public Health England promotional materials. The resource pack is being developed from best practice across South West GP practices that are achieving high vaccine uptake. The Screening and Immunisation Team is also planning a patient facing communications campaign, supported by the NHS England Communication Teams, to raise awareness and increase demand from the public.

4.28 At the end of the influenza season, a South West stakeholder debrief meeting for all parts of the programme was held and priorities for 2017/18 identified by consensus:

- Care home and housebound patients: strengthening commissioning of split services payments;
- Social care staff: joint research project to look at how to increase uptake planned (NHS England, PHE Field Epidemiology Service and PHE National Flu Lead);
- Childhood flu programme: reception age, special schools, under 2s at risk;
- Pregnant women: commissioning maternity services to deliver immunisation, GP/ Pharmacy collaborative working pilot based on lessons from the Beacon practice in Plymouth;
- Hard to reach groups: looked after children, traveller groups;
- Deep dive work to identify why uptake rates tend to be lower in south of the South West compared to the north of the patch.

4.29 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 to achieve the population coverage targets.

Screening performance 2016-17

4.30 Screening coverage 2016-17 for the main cancer and non-cancer screening programmes is detailed in **Appendix 5**. Key points are:

- Performance in antenatal screening programmes continues to be excellent.
- Performance in certain aspects of the newborn screening programmes continues to be a challenge. The avoidable repeat rate was high, but provider action plans are in

place and are now having an impact, with improving performance. The roll-out of the NIPE (Newborn Infant Physical Examination) SMART IT system is helping to increase the robustness of the failsafe processes, ensuring all babies are identified and offered screening.

- Diabetic Eye Screening coverage remained stable in all areas in 2016 and was also above the national target of 80%.
- Cervical screening coverage remains below the national target of 80% in all areas, with a decrease in Cornwall to 75.7% in 2016. All areas, however, remain above the national average.
- Breast screening coverage in 2016 is stable in Cornwall at 80%, meeting the national target of 80%. In Devon, coverage has reduced slightly below target to 78.8% but this remains above the national average.
- Bowel screening coverage increased in 2016 in all areas and also remains above the national target of 60% and above the national average.
- Performance in the abdominal aortic aneurysm (AAA) screening programmes continues to be excellent, and coverage is stable and meets acceptable national standards.

Developments in national screening programmes during 2016-17

4.31 The key changes and developments during 2016-17 included:

Antenatal and Newborn

4.32 Antenatal screening for rubella ceased on 1st April 2016. Instead there is renewed focus on improving Measles Mumps and Rubella (MMR) immunisation uptake across the whole population as a more effective way of preventing congenital rubella infection.

4.33 In the Foetal Anomaly Screening Programme, screening for Trisomy13 and Trisomy18 was introduced to the combined first trimester screening test, and the 3-vessel/trachea (3VT) screening was introduced into the mid-trimester foetal anomaly scan.

4.34 There were ongoing challenges due to pressures locally and across the country in obstetric ultrasound capacity due to the introduction of new national maternity guidelines for babies small for their gestation age. This has at times had an impact on completing screening scans in the correct timeframe. Work has been undertaken with providers to enhance tracking and failsafe systems to ensure that all women are offered a scan at the correct gestation and to follow-up women if they do not attend. A new key performance indicator was introduced in April 2017 to monitor performance of this part of the screening pathway. A national working group has been set up to look at obstetric radiology capacity.

4.35 Newborn bloodspot screening on day 5 is mostly undertaken by community midwives. There is a drive to minimise the avoidable repeat rate to a very low level. Despite best efforts, in Devon, Cornwall and Isles of Scilly providers have found it very challenging to reduce this to the nationally acceptable level of 0.5%. The Screening and Immunisation Team has been closely monitoring performance in this area and the 2016/17 and 2017/18 service specifications have required all providers to develop detailed action plans, which have been monitored via the Screening Programme Boards. NHS England South (Southwest) has offered a local CQUIN for 2017/18 and 2018/19 with the aim of reducing repeat rates to below 2%. The newborn bloodspot laboratory also reviewed its processes and set up a new laboratory PO Box to minimise delays within the hospital.

4.36 The Newborn and Infant Physical Examination (NIPE) screening programme saw the roll-out of the new IT system, NIPE SMaRT. This, for the first time, has provided a systematic and robust way of identifying the eligible cohort for the NIPE examination, for recording screening results, referral in to diagnostic services and outcomes, and for failsafe. The Royal Cornwall Healthcare Trust, as part of the implementation of NIPE SMaRT, from April 2017 has introduced a maternity led NIPE service, and GPs no longer undertake this examination on a routine basis. This enables the Head of Midwifery to have oversight of the whole screening pathway. Shared learning from a number of incidents in the NIPE programme has led to improvements in provider screening policies and procedures.

4.37 The move from Health Visitor registered to resident populations required the Newborn Hearing Screening Programme teams to work together to address boundary changes and ensure all babies were offered screening. In addition, the new national IT screening system, Smart4Hearing (S4H) went live in December 2016. Both these transitions were achieved without disruption to patients and screening services.

4.38 Quality assurance visits for antenatal and newborn programmes have continued and all of the Devon, Cornwall and Isles of Scilly programmes will have been visited by the end of 2018. As these are the first round of formal quality assurance visits, all programmes have had significant numbers of recommendations, but the visits have not identified any immediate areas of concern and show that in the main, programmes are delivering high quality and safe screening services that meet national standards.

Diabetic Eye Screening

4.39 Diabetic eye screening programmes continued to perform well across the area, with few issues or incidents. One significant development was the re-procurement of the Plymouth programme that became necessary as the incumbent provider gave notice on the contract. The transition to the new provider on 1 April 2017 went smoothly with no disruption to patients.

4.40 The Screening and Immunisation Team has been working closely with the provider teams to facilitate an improvement in the accuracy and completeness of screening registers. These rely on information being shared and validated by both the GP practice and the screening team. Audits have been undertaken to assess accuracy, and work to improve this has been undertaken where needed.

Cervical screening

4.41 The cervical screening programmes in the South West have continued to perform well with no significant issues or incidents. Reducing coverage has been the main issue over several years, with local rates mirroring the slow but consistent reduction in national rates. The Screening and Immunisation Team has identified cervical screening coverage as a priority and has targeted work to groups where uptake is lowest.

4.42 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, including escalation procedures, 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

4.43 Breast screening services in Devon, Cornwall and the Isles of Scilly continued to meet the majority of the national minimum standards but have struggled to maintain consistent performance in some key areas, such as time between screening and assessment. 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. The workforce issue has been escalated nationally and a working group is developing options to address the issue.

4.44 In some areas, the increasing number of GP practice mergers and closures is having a negative impact on round length. As breast screening is a three yearly cycle, women who have to re-register, or move into a new practice due to a merger, may have their screening invitation date delayed depending on where the practice is the three year cycle. These women have to be slotted in to already busy routine lists across the area, creating pressure on the service and impacting temporarily on key performance measures. This issue is affecting all areas of the country and has been escalated nationally. Potential solutions are being investigated for the service and also to track affected women to ensure screening is offered within the appropriate timescales as far as possible.

Bowel screening

4.45 There continues to be a lot of activity in the bowel screening programme. This is primarily due to the continued roll-out of Bowel Scope screening and ongoing work to maintain delivery to national standards in the face of a national shortage of endoscopists and radiographers that have created significant pressures within colonoscopy services. Providers have so far maintained key indicator performance despite these challenges.

4.46 Bowel Scope has been successfully implemented in Torbay, North Devon and Exeter, and Plymouth is due to roll-out in November 2017. Planning is advanced in Cornwall with an original go-live date of November 2017, however the closure of the Bodmin Treatment Centre has meant that the bowel screening services have had to be relocated back to Royal Cornwall Hospital and this may delay introduction of bowel scope screening.

Key issues for screening programmes 2017/18 onwards

Antenatal and newborn

4.47 The National Screening Committee has announced the introduction of NIPT (non-invasive pre-natal testing) 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 to oversee the change but there is no date yet for implementation. A big 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. NIPT is already available privately and maternity services are dealing with increasing numbers of women requesting NIPT, who are being referred on.

4.48 High newborn bloodspot avoidable repeat rates continues to be a national issue. The national screening team in conjunction with the Screening Quality Assurance Service has set up a project to look at this issue (working with the best performers) to identify best practice that can be shared. Local provider action plans will be updated in light of this learning from elsewhere.

Diabetic Eye Screening

4.49 The roll out of a new national system, GP2DRS, has commenced in some areas and is expected to be completed during 2017/18. This will automatically extract patient data from GP systems into the local screening register, replacing the current manual information and data validation processes. This is a very positive move but accuracy of screening registers will continue to rely heavily on correct coding by GP practices of eligible patients. Recent audits by the Screening an Immunisation Team show that coding is not always correct, so work will still be needed with GP practices to improve coding. This issue has been escalated to the national team.

4.50 A national decision is awaited about a change from the current annual screening interval to a two year interval. At this stage, it is not anticipated that this will take place during 2017/18.

Cervical screening

4.51 In July 2016, the National Screening Committee announced that primary HPV testing was to be introduced during 2018, with a full roll-out by 2019. Women will have samples taken in the same way, but rather than initial cytology followed by HPV testing if cytology is abnormal, the initial test will be for HPV infection with subsequent cytology only for samples that are found to be positive for high risk HPV infection (HR-HPV). Primary HPV testing enables the programme to more effectively identify women at higher risk of developing cervical cancer so that they can be investigated and kept under surveillance, and returns more women at lower risk back to routine screening, reducing the number undergoing unnecessary enhanced screening.

4.52 One impact of primary HPV testing is that the demand for cytology testing will decrease significantly. As part of the implementation, there is therefore to be a reduction in the number of cytology labs. A national procurement is underway and the final numbers of labs has yet to be announced. This has created immediate risks to the sustainability of the current cytology service due to staffing losses and a significant deterioration in lab turnaround times. This is a national risk and national and local mitigation plans have been put in place to try to minimise the impact on reduced turnaround times so that women do not experience too long a delay before receipt of results.

4.53 In addition to the lab re-configuration, primary HPV testing requires significant changes to the screening IT system (currently known as the Exeter system). The screening call-recall function transferred to CAPITA in April 2016 as part of the primary care services procurement, and as part of this contract, CAPITA are designing a new screening IT platform. This will go-live ahead of primary HPV testing.

4.54 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.

Bowel screening

4.55 A national decision has been taken to replace the current Faecal Occult Blood Test (FOBT) by the FIT test (Faecal Immunochemical Test) and this is due to be rolled out by 2019. National discussions are ongoing to plan the implementation. This includes testing parameters and cut offs that are due to be agreed in the near future. These are important as they will potentially determine the impact of this change on demand for services and on the capacity required to deliver, and will need to be built in to local plans for endoscopy services.

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 and Western Devon and South Devon and 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 coordinated 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 and also reporting into the Health Protection Committee. There is also cross attendance between the Devon and Cornwall groups.

5.7 The Devon Health Care Associated Infection Programme Group annual workshop was held on 5 July 2016. The lack of a community infection prevention, management and control service was highlighted as a potential 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 2017/18 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 association infections incidence 2016-17

5.10 Healthcare associated infection incidence is given in **Appendix 6**. Key points are:

MRSA

The national target for MRSA is no cases. Four cases of MRSA were reported in NEW Devon, two in South Devon and Torbay, and seven in Cornwall, in 2016/17. All were investigated and processes reviewed.

MSSA

Rates of reported MSSA were within target levels. Reported community-acquired MSSA bacteraemia rates in NEW Devon increased in the final quarter of the year and this trend is being investigated.

C.difficile infection

Numbers were in line with targets in Devon, with Cornwall exceeding the target by one case, reflecting the impact of significant work by all organisations to reduce rates.

E.coli bacteraemia

E.coli bacteraemia rates, chiefly community acquired, were static or increasing during the year and are a target for infection prevention and control work in 2017/18. Efforts are focused around urinary sources including catheter use, hydration, training, and improving communications between acute and community settings when patients are transferred.

6 Anti-microbial resistance

Data and trends

6.1 A monitoring report is included at **Appendix 7**. 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;

- Carbopenamase producing organisms, resistant to certain anti-microbials, remain relatively uncommon but are continuing to increase year on year, including in 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 anti-microbial resistance

6.2 A successful antimicrobial resistance steering group has been in place in Cornwall for a number of years and there is now a similar group covering NEW Devon and Torbay.

6.3 The Cornwall Antimicrobial Resistance Group was set up in January 2013 and is chaired by Denis Cronin, Public Health Consultant, and convenes five times a year.

6.4 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 BANES CCG.

6.5 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[1].

6.6 The target set for NHS Kernow CCG for total antibacterial items/STAR PU was 1.172 by the end of March 2016. The target for the percentage of broad spectrum antibiotics (Co-Amoxiclav, Cephalosporins & Quinolones) was <11.3 by the end of March 2016. NHS Kernow CCG achieved both of the targets set in the Quality Premium 2015/16, ending the year in March 2016 at 1.056 for total antibacterial items/STAR PU and 10.3% for the percentage of Co-amoxiclav, Cephalosporins & Quinolones.

[1] One Health Eden Conference on AMR
https://www.youtube.com/playlist?list=PL6Y4vyTaqfNDlmRXmIyk3zYs3pAT-vZbR

6.7 In March 2017 the twelve month rolling total number of prescribed antibiotic items per STAR-PU[2] for Cornwall was 1.05 compared to 1.07 for England. In March 2017, the twelve month rolling percentage of prescribed antibiotic items from Co-Amoxiclav, Cephalosporins & Quinolones was 9.92 compared to 8.92 for England. However, this was not a statistically significant difference.

6.8 The Devon Antimicrobial Stewardship Group (DASG) meets four times a year and is chaired by Iain Carr, Pharmacy Lead, NEW Devon CCG.

6.9 In March 2017, the twelve month rolling total number of prescribed antibiotics items per STAR-PU for NEW Devon CCG was 1.04 compared to 1.08 for South Devon and Torbay CCG and 1.07 for England. In March 2017, the twelve month rolling percentage of prescribed antibiotic items from Co-Amoxiclav, Cephalosporins & Quinolones was 10.98 for NEW Devon CCG compared to 10.43 for South Devon and Torbay CCG and 8.92 for England. However, this was not a statistically significant difference.

7 Emergency planning and exercises

7.1 All Councils continue to engage with the Local Resilience Forum in undertaking their annual exercise programme, responding to incidents and undertaking learning as required.

8 Work Programme 2016/17 - progress report

8.1 This section includes an update on priorities identified in the 2016/17 annual report. Areas highlighted for action were:

- **Involvement with Short Sermon –** Devon, Plymouth and Cornwall Local Authorities were involved with the Short Sermon exercise in September 2016, testing responses in the event of a nuclear accident at Devonport.

- **Antimicrobial resistance** – See anti-microbial resistance section above. Progress has been made on setting up local groups and consolidating the work programme. Antimicrobial Resistance continues to be a priority area in 2017/18.

- **Review locality Immunisation groups** - The South West Screening and Immunisation Team undertook a review of all Devon, Cornwall and Isles of Scilly locality immunisation groups. All groups now have an action plan in place that is aimed at increasing coverage rates, achieving national targets, and reducing inequalities in their area. This work is underpinned by the childhood immunisation needs assessment.

- **Childhood Flu review** - The child influenza immunisation programme has been successfully expanded, with good coverage rates across the area. Plans for further roll-out to meet the national programme requirements are underway.

- **Port Health Review** – a scoping exercise was carried out and an event is being planned for 2017/18.

[2] STAR-PU (Specific Therapeutic group Age-Sex Related Prescribing Unit): a measure of the volume of antibiotic prescribing which reflects not only the number of patients but also the age and sex mix of the group

- **Lyme disease** – a press release was issued on tick awareness and social media posting was undertaken in the Devon Council area, which was taken up by the media locally. This is planned to be repeated in 2017/18.

- **Tuberculosis work programme** - following the health needs assessment, priorities for local implementation have been identified and an action plan developed for implementation 2017/18 onwards. Priorities are: (i) Latent TB Infection screening in low prevalence areas targeting students and care home staff (ii) Collaborative working and commissioning (iii) Ongoing education to improve early diagnosis.

9 Priorities for the 2017/18 work programme

9.1 Priorities identified for 2017/18 are:

- **Infection prevention and control**
  - Health Protection Committee members will be reviewing community infection prevention and control and looking at options to support social and primary care sectors to strengthen local arrangements.
  - There will be enhanced surveillance of E.coli bacteraemias, driven by the national reduction expectation and the CCG quality premium. Actions will be put in place to improve prevention.

- **Improving the resilience of the health protection system**
  - Local Health Resilience Partnerships will be taking part in a national assurance process to look at the resilience of the system under the new arrangements.
  - New arrangements are being introduced in the South West for Public Health specialty training in health protection in local authorities, including emergency planning and response.

- **Air quality**
  - Public Health England will be working alongside Local Authorities in Devon to bring together stakeholders relevant to air pollution in a coordinated event to agree a programme of local action.

- **Antimicrobial resistance**
  - A 'One Health' approach to Antimicrobial Resistance will be followed within both Devon and Cornwall, with opportunities pursued for public and professional engagement. A whole health economy approach is needed to enable health systems to meet government ambitions for reducing Gram-negative Blood Stream Infections and inappropriate antimicrobial prescribing.
  - A Devon-wide baseline assessment of NICE guideline 63 (Antimicrobial Stewardship: changing risk-related behaviours in the general population) is being led by Plymouth City Council, with support from Public Health England. Local authorities are auditing progress in relation to implementation of the guideline and a summary report will be presented to the NICE Panel Advisory Group and the NEW Devon Antimicrobial Resistance Group in 2017.

- NEW Devon CCG is hosting a workshop on E.coli bacteraemias and how to deal with them, in July 2017, with the aim of agreeing an action plan for reduction.
- A pilot for implementing a tool to promote antimicrobial stewardship and self-care advice in community pharmacies is planned within Devon and Cornwall. This project is being led by Public Health England South West.

- **Influenza vaccination for care home and domiciliary staff and special schools**
  - Health and social care providers have a responsibility to ensure vaccination uptake amongst front line staff in order to protect the vulnerable populations from the effects of influenza.

- **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.

10 Authors

Julia Chisnell, Specialty Registrar in Public Health, on behalf of and in association with members of the Health Protection Committee.

16 November 2017

11 Glossary

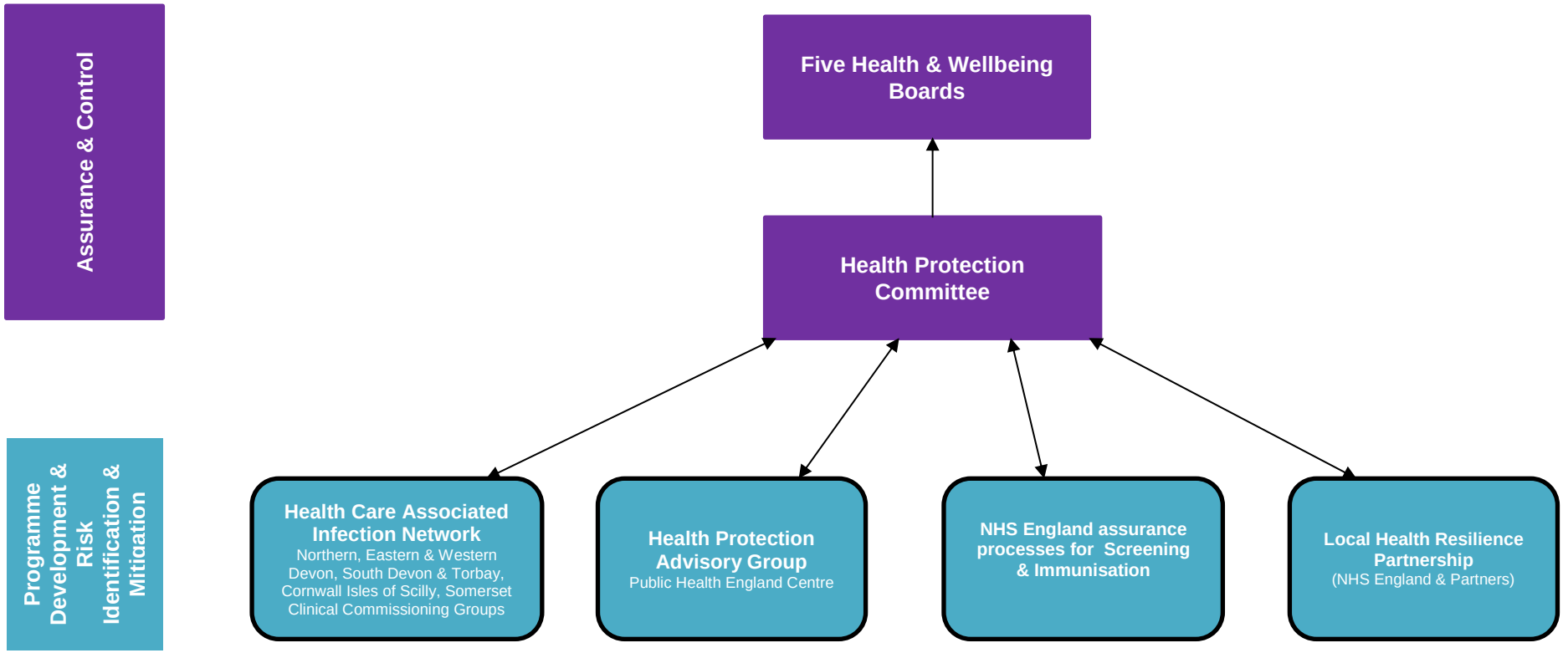
AMR	Anti microbial resistance
BCG	Tuberculosis (Bacillus Calmette-Guerin) vaccination
CCG	Clinical Commissioning Group
C.diff	Clostridium difficile
CHIS	Child Health Information Services
CVS	Chorionic villus sampling (antenatal screening)
E.coli	Escherichia Coli
HPV	Human papillomavirus testing (for 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

(1) 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 or planned Health Protection Partnership Forums



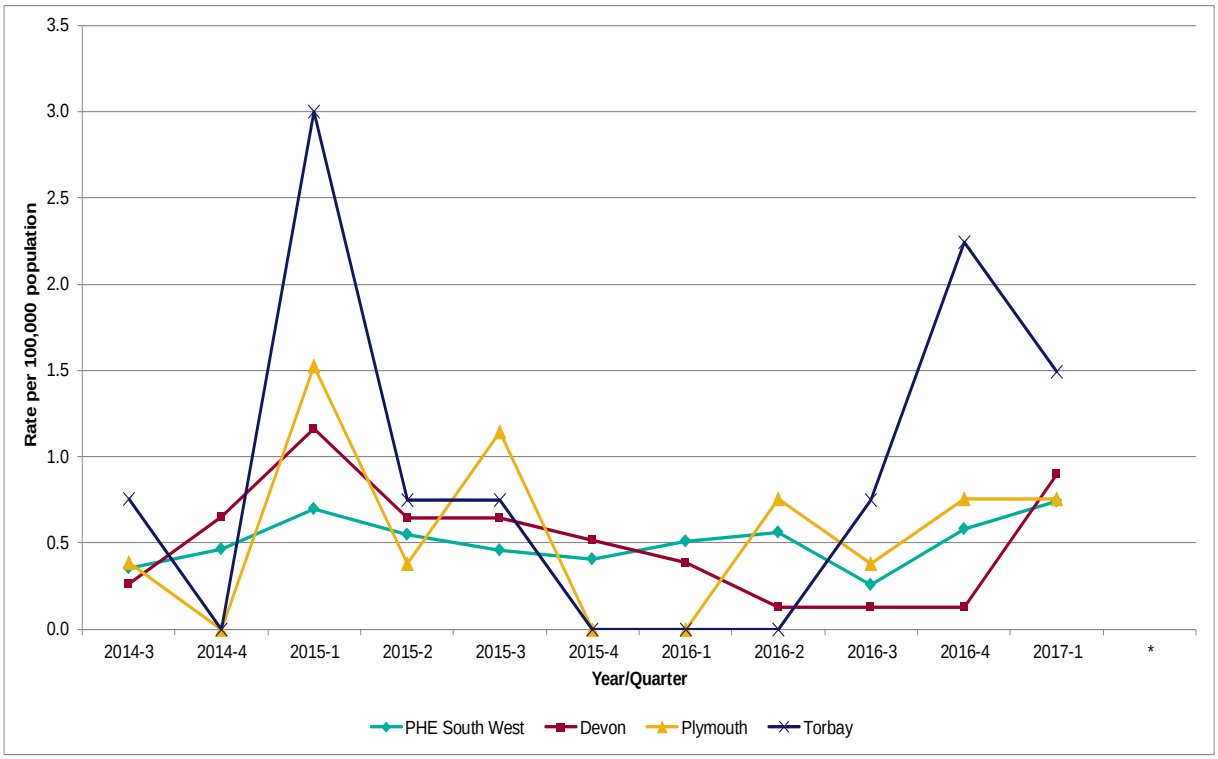
Appendix 2

(2) Infectious disease incidence and trends 2016-17

Meningococcal disease

Figure 1: Quarterly rates (per 100,000 population) of probable cases of meningococcal infection by local authority and PHE South West Q3 2014 to Q1 2017

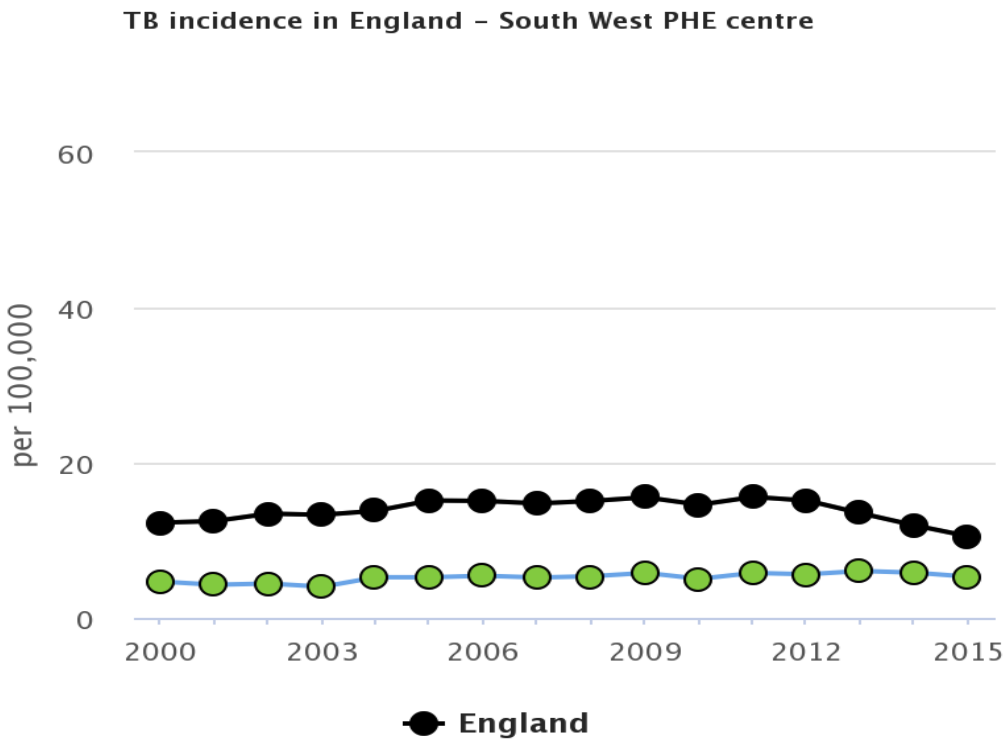
Quarterly rates (per 100,000 population) of confirmed and probable cases of meningococcal infection by local authority and PHE South West



Tuberculosis

As of 2015 the incidence of tuberculosis across the South-West of England remained low compared to the average for England. The figure and table below demonstrates the average incidence rate by local authority from 2013-2015.

Figure 2: Tuberculosis incidence in England 2000 – 2015



Source: PHE South West England Centre

Table 1: Average number of TB cases per year and incidence per 100,000 population in Devon, Plymouth, Torbay and Cornwall/Isles of Scilly 2013 – 2015

	Average number of cases per year 2013-2015	Average annual rate per 100,000 (95% CI) 2013-2015
Devon	29	3.8 (3.1-4.7)
Cornwall (Not IoS)	13	2.4 (1.7-3.3)
Plymouth	14	5.4 (3.9-7.2)
Torbay	8	6.0 (3.9-9.0)

Three-year average TB rates by local authority district, England, 2013-2015

Norovirus and gastroenteritis

Norovirus is the most common cause of infectious gastroenteritis (diarrhoea and vomiting) in England and Wales, and is highly infectious. The illness is generally mild and people usually recover fully within two to three days. Infections can occur at any age because immunity does not last. Historically known as 'winter vomiting disease', the virus is more prominent during the winter months, but can occur at any time of year. Outbreaks are

common in semi-closed environments such as hospitals, nursing homes, schools and cruise ships.

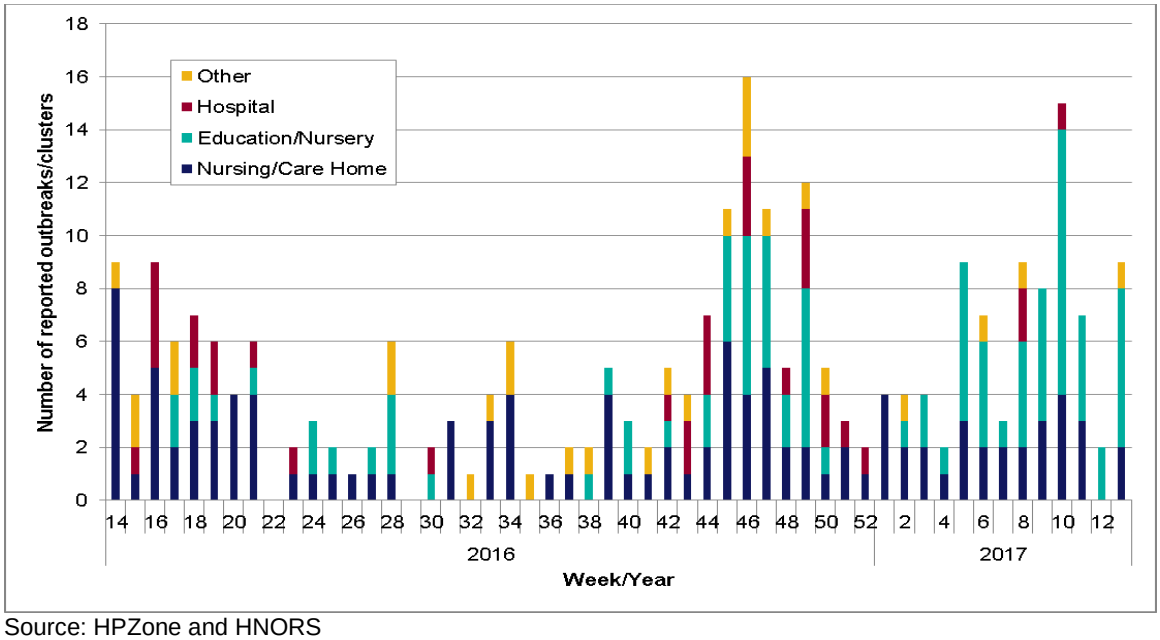
NB These are incidence figures and not rates.

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, 2016/17

Local Authority	Care Home	Education/ Nursery	Hospital	Other	Total
Cornwall (including Isles of Scilly)	30	19	8	9	66
Devon	60	49	17	15	141
Plymouth	14	13	2	4	33
Torbay	9	10	5	3	27

Source: HPZone and HNORS. Outbreak/cluster data extracted based on date entered onto HPZone

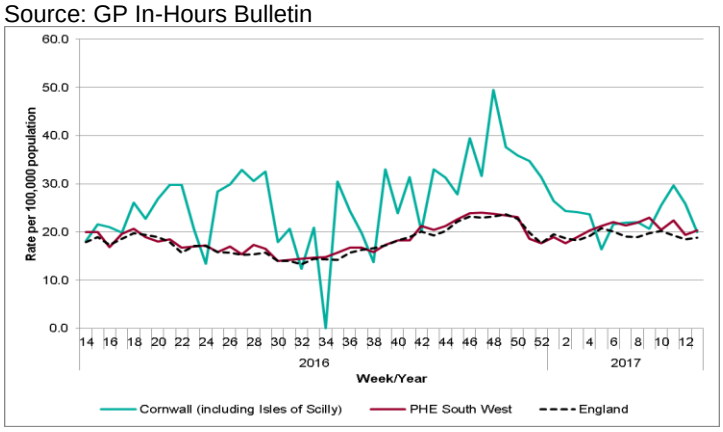
Figure 3: All reports of clusters/outbreaks of gastrointestinal infection (suspected or laboratory confirmed), by setting, including food poisoning outbreaks, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay local authorities, Week 14 2016 to Week 13 2017

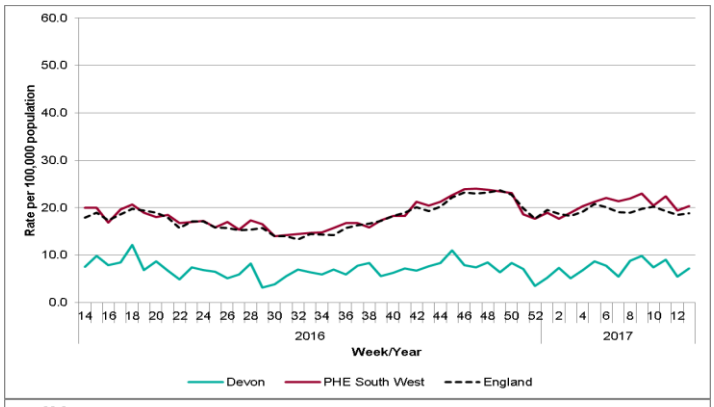


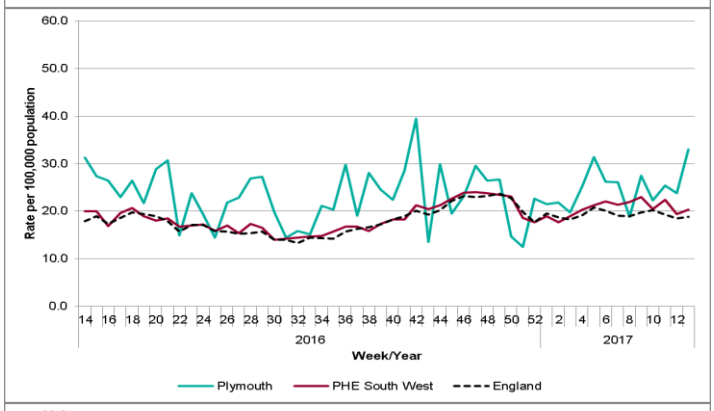
Source: HPZone and HNORS

Figure 4: GP (In hours) vomiting consultation rate, Cornwall (including Isles of Scilly), Devon, Plymouth, Torbay local authorities, PHE South West and England, 2016/17 (Week 14 2016 - Week 13 2017)

Source: GP In-Hours Bulletin







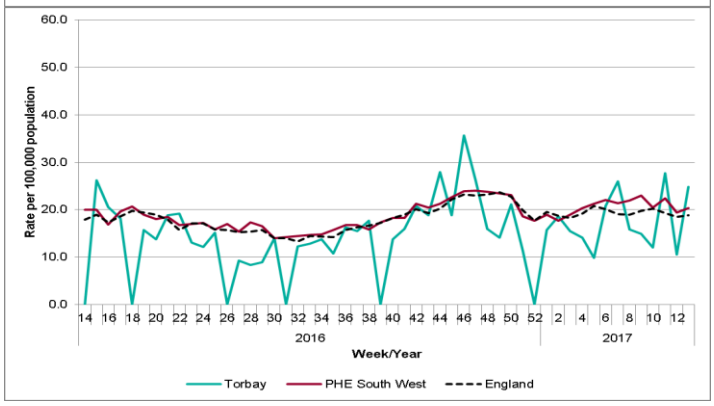
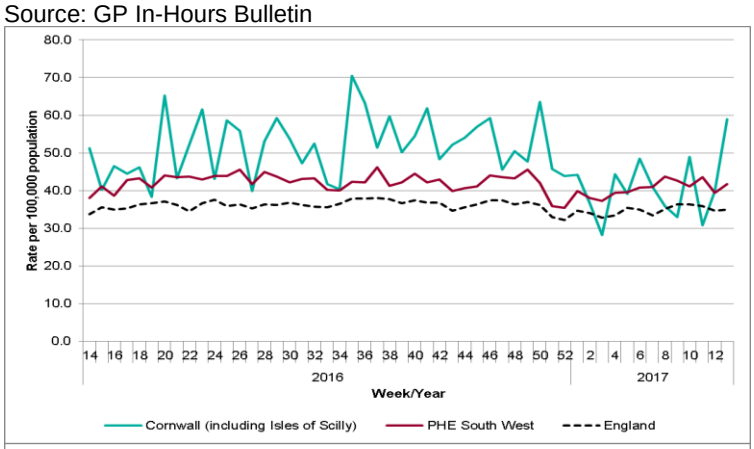
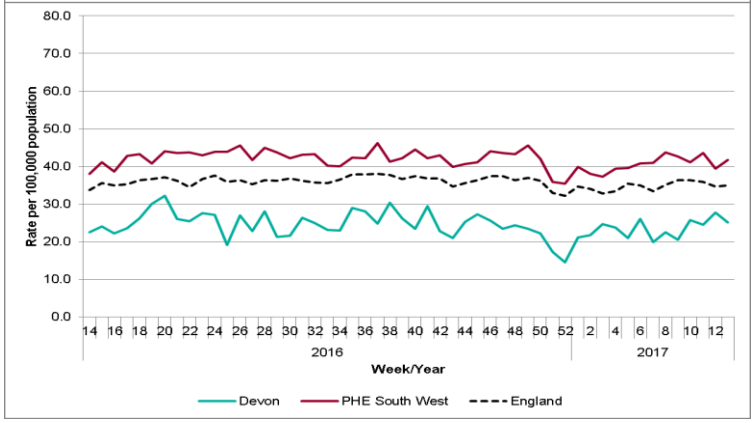
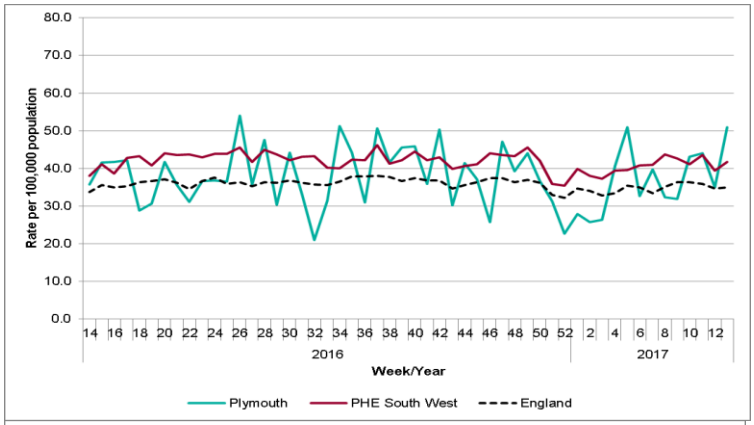


Figure 5: GP (In hours) diarrhoea consultation rate, Cornwall (including Isles of Scilly), Devon, Plymouth, Torbay local authorities, PHE South West and England, 2016/17 (Week 14 2016 - Week 13 2017)

Source: GP In-Hours Bulletin







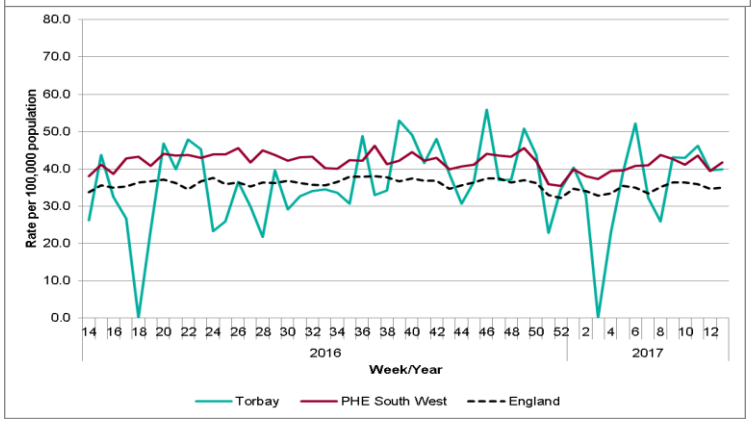


Figure 6: GP (In hours) gastroenteritis consultation rate, Cornwall (including Isles of Scilly), Devon, Plymouth, Torbay local authorities, PHE South West and England, 2016/17 (Week 14 2016 - Week 13 2017)

Source: GP In-Hours Bulletin

Scarlet Fever

Scarlet fever is a common childhood infection caused by Streptococcus pyogenes (also known as Group A Streptococcus [GAS]). Some people carry these bacteria in their nose and throat, or on their skin without suffering active infections. Under some circumstances and in some people, GAS can cause infections such as pharyngitis, impetigo and scarlet fever (these are regarded as non-invasive infections). On rare occasions they can cause severe disease, including streptococcal toxic shock syndrome, necrotising fasciitis, and other invasive GAS (iGAS) infection.

Routine national surveillance data for invasive and non-invasive GAS infections suggests a cyclical pattern with higher incidence peaks evident in notifications approximately every four years. Seasonal trends show that increased levels of GAS infections typically occur between December and April, with peak incidence usually in March.

Table 3: Rates (per 100,000 population) of scarlet fever notifications, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay local authorities and PHE South West, 2016/17

Local Authority	Rate per 100,000 population
Cornwall (including Isles of Scilly)	18.71
Devon	18.72
Plymouth	24.98
Torbay	25.40
PHE South West	26.54

Source: PHE Notifications of Infectious Diseases (NOIDs)

Table 4: Rates (per 100,000 population) of confirmed cases of invasive group A streptococcal infection, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay local authorities and PHE South West, 2016/17

Local Authority	Rate per 100,000 population
Cornwall (including Isles of Scilly)	4.14
Devon	6.03
Plymouth	9.46
Torbay	8.22
PHE South West	4.82

Source: HPZone

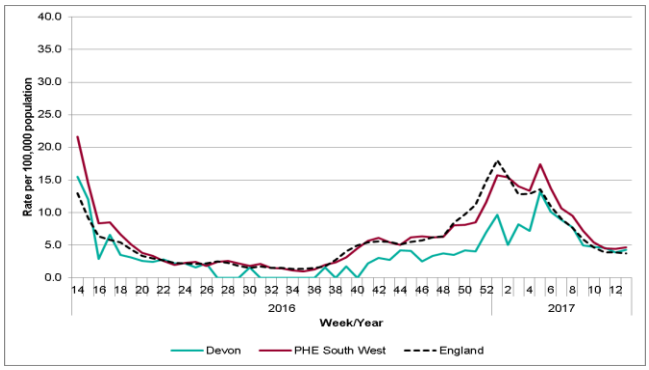
Table 5: All reports of clusters/outbreaks of streptococcus group A, by setting and type, Cornwall (including Isles of Scilly), Devon, Plymouth and Torbay local authorities, 2016/17

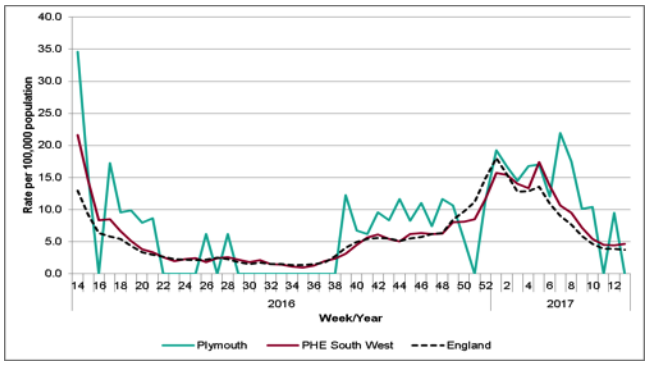
	Type	Scarlet Fever			GAS/ iGAS	
	Setting	School	Nursery	College/ University	Care Home	Total
Local authority	Cornwall (including Isles of Scilly)	6	3	0	0	9
	Devon	8	4	1	2	15
	Plymouth	5	3	0	1	9
	Torbay	7	2	0	1	10

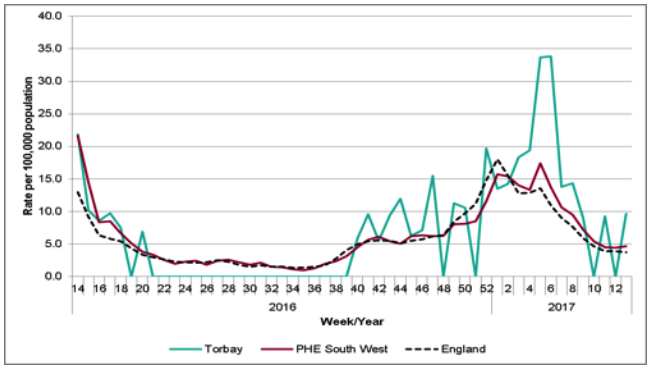
Source: Outbreak/cluster data extracted based on date entered onto HPZone.

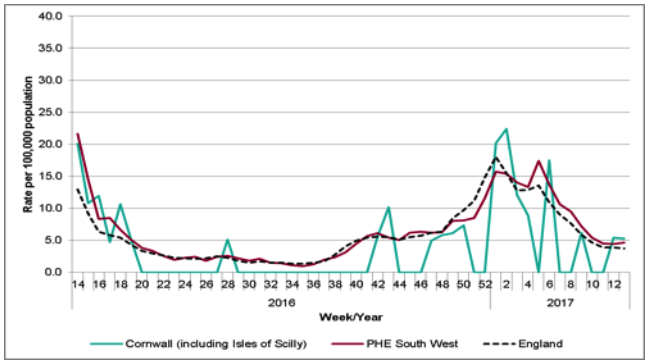
Seasonal influenza

Figure 7: GP (In hours) influenza-like illness consultation rate (i) Devon, (ii) Plymouth, (iii) Torbay (iv) Cornwall (including Isles of Scilly) local authorities, PHE South West and England, 2016/17 (Week 14 2016 - Week 13 2017)









Due to suppression of rates due to low numbers, for weeks in which the trend graph shows a rate of 0.0, this will not always reflect the true rate.

Figure 8: All reports of influenza-like illness outbreaks/clusters (suspected or confirmed) by setting, Devon, Plymouth, Torbay and Cornwall (including Isles of Scilly) local authorities, Week 14 2016 to Week 13 2017

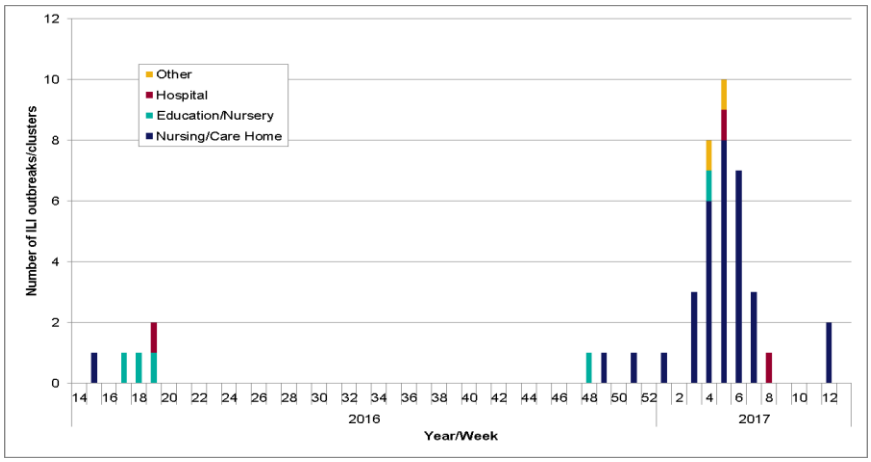


Figure 9: All reports of influenza-like illness outbreaks/clusters (suspected or confirmed) by setting Devon, Plymouth, Torbay and Cornwall (including Isles of Scilly) local authorities, 2016/17

Local Authority	Care Home	Education/Nursery	Hospital	Other	Total
Cornwall (including Isles of Scilly)	2	2	2	0	6
Devon	24	2	1	2	29
Plymouth	0	1	0	0	1
Torbay	7	0	0	0	7

Outbreak/cluster data extracted based on date entered onto HPZone

Data Sources

GP In-Hours Bulletin

Weekly GP in hours consultation rate data for influenza like illness accessed from the PHE GP In Hours Syndromic Surveillance Bulletin.

The GP in hours syndromic surveillance system monitors the number of visits to GPs during regular surgery hours for known clinical indicators, including influenza-like illness. The consultation rates are checked daily, and published weekly rates per 100,000 practice population are presented in this worksheet. This system covers about 55% of England's population.

Care should be taken when comparing rates between areas as differences in rates may be due to differences in the provider coverage which varies across England.

Data is available here:
https://www.gov.uk/government/publications/gp-in-hours-bulletin.

HPZone

HPZone 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 proportion 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.

HPZone reports were extracted and analysed on date entered.

HNORS

The Hospital Norovirus Outbreak Reporting Scheme (HNORS) is a voluntary web-based surveillance system, introduced in order to help the NHS share information about norovirus outbreaks in Trusts.

HNORS reports were extracted and analysed on date of outbreak onset.

PHE Notifications of Infections Diseases (NOIDs)

Please note this data is notifications only, not laboratory confirmation. Data is based on date of notification.

Appendix 3

(3) Immunisation performance 2016-17

Annual childhood immunisations by local authority showing percentage coverage for latest three years

Cohort	Indicator	Standard [1]	Geography	2014/15	2015/16	2016/17
12 months	3.03iii - Population vaccination coverage - Dtap / IPV / Hib	95	Devon	95.7	92.0	92.6
			Plymouth	96.7	95.5	96.9
			Torbay	95.7	95.5	96.3
			Cornwall & IoS	93.0	94.5	93.9
			England	94.2	93.6	93.4
	3.03iv - Population vaccination coverage - MenC	95	Devon		95.2	
			Plymouth		97.3	
			Torbay		97.4	
			Cornwall & IoS		96.3	
			England		-	
	3.03v - Population vaccination coverage - PCV	95	Devon	95.6	92.4	93.1
			Plymouth	96.3	95.4	96.9
			Torbay	95.7	95.9	96.4
			Cornwall & IoS	92.5	94.7	94.0
			England	93.9	93.5	93.5
24 months	3.03iii - Population vaccination coverage - Dtap / IPV / Hib (2 years old)	95	Devon	96.9	96.2	95.3
			Plymouth	98.3	97.7	97.6
			Torbay	97.9	97.5	98.0
			Cornwall & IoS	94.4	95.8	96.1
			England	95.7	95.2	95.1
	3.03vi - Population vaccination coverage - Hib / MenC booster	95	Devon	93.6	91.8	92.4
			Plymouth	95.2	95.1	94.5
			Torbay	94.2	94.9	94.8
			Cornwall & IoS	90.8	92.6	92.6
			England	92.1	91.6	91.5
	3.03vii - Population vaccination coverage - PCV booster	95	Devon	93.8	91.9	92.7
			Plymouth	96.0	94.9	94.5
			Torbay	94.9	94.7	95.1
			Cornwall & IoS	91.0	93.2	93.0
			England	92.2	91.5	91.5
	3.03viii - Population vaccination coverage - MMR for one dose	95	Devon	93.7	92.5	93.4
			Plymouth	95.6	95.4	95.3
			Torbay	94.5	95.2	95.2
			Cornwall & IoS	91.7	92.5	93.0
			England	92.3	91.9	91.6

Cohort	Indicator	Standard [1]	Geography	2014/15	2015/16	2016/17
5 years	3.03ix - Population vaccination coverage - MMR for one dose	95	Devon	95.2	95.5	95.7
			Plymouth	96.4	96.6	97.4
			Torbay	94.1	96.8	97.8
			Cornwall & IoS	95.8	96.2	96.1
			England	94.4	94.8	95.0
	3.03vi - Population vaccination coverage - Hib / Men C booster	95	Devon	89.7	94.9	94.8
			Plymouth	94.3	94.8	95.3
			Torbay	92.8	96.1	96.9
			Cornwall & IoS	93.5	95.1	95.1
			England	92.4	92.6	92.6
	3.03x - Population vaccination coverage - MMR for two doses	95	Devon	90.6	91.5	91.3
			Plymouth	89.5	90.4	91.4
			Torbay	89.9	92.1	92.1
			Cornwall & IoS	91.0	91.6	90.9
			England	88.6	88.2	87.6

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 adult immunisations by local authority showing percentage coverage for latest three years

Indicator	Standard[1]	Geography	2014/15	2015/16	2016/17
3.03xii - Population vaccination coverage - HPV (%)	86.1	Devon	87.2		
		Plymouth	86.7		
		Torbay	87.2		
		Cornwall & IoS	81.4		
		England	89.4		
3.03xiii - Population vaccination coverage - PPV (%)	68.9	Devon	70.2	70.2	
		Plymouth	69.4	68.7	
		Torbay	68.1	67.5	
		Cornwall & IoS	66.3	67.0	
		England	69.8	70.1	
3.03xiv - Population vaccination coverage - Flu (aged 65+) (%)	75	Devon	70.8	69.8	69.8
		Plymouth	73.4	71.5	70.3
		Torbay	67.3	66.4	66.4
		Cornwall & IoS	70.4	69.4	68.4
		England	72.7	71	70.5
3.03xv - Population vaccination coverage - Flu (at risk individuals) (%)	75	Devon	44.5	42	46.2
		Plymouth	49.9	44.9	46.0
		Torbay	44.6	40.6	45.8
		Cornwall & IoS	49.4	45.6	44.4
		England	50.3	45.1	48.6
3.03xviii - Population vaccination coverage - Flu (2-4 years old) (%)		Devon	41.6	41.3	44.3
		Plymouth	36.3	33.6	37.2
		Torbay	37.0	34.8	38.4
		Cornwall & IoS	34.6	33.8	34.2
		England	37.6	34.4	38.1
3.03xvii - Population vaccination coverage - Shingles vaccination coverage (70 years old) (%)		Devon	64	60.3	
		Plymouth	59.2	54.3	
		Torbay	59.3	52.6	
		Cornwall & IoS	61.5	53.8	
		England	59	54.9	

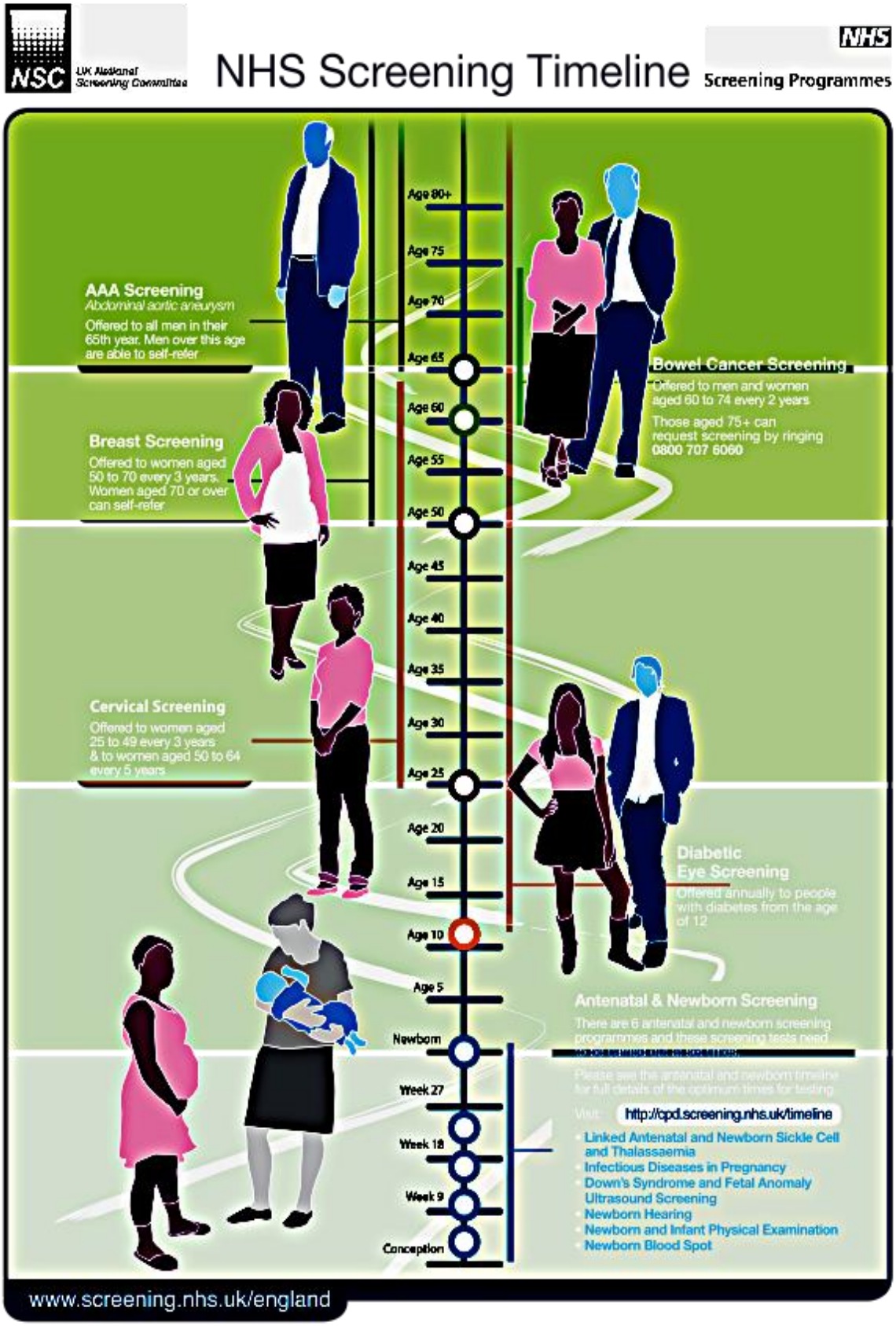
Source: Public Health Outcomes Framework, Public Health England.

[1] National Screening and Immunisation Programme standard.

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

Appendix 4

(4) National screening programmes - summary



(5) Screening performance

Cancer screening (breast, cervical, bowel) – showing percentage coverage for latest three years

Indicator	Lower threshold [1]	Standard [2]	Geography	2014	2015	2016
Breast Cancer screening coverage	70	80	Devon	79.1	79.1	78.8
			Plymouth	78.4	79.1	79.3
			Torbay	76.5	76.7	74.7
			Cornwall	80.1	80.3	80.0
			England	75.9	75.4	75.5
Cervical Cancer screening coverage	75	80	Devon	77.5	77.7	77.1
			Plymouth	75.9	75.5	74.5
			Torbay	76.0	75.9	74.8
			Cornwall	76.3	76.4	75.7
			England	74.2	73.5	72.7
Bowel Cancer screening coverage	55	60	Devon		60.5	62.6
			Plymouth		61.3	61.6
			Torbay		62.0	61.4
			Cornwall		58.3	60.5
			England		57.1	57.9

[1] Threshold based on 2017-18 Public Health Functions Agreement.

[2] National Screening and Immunisation Programme Standard.

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

Non cancer screening – showing percentage coverage for latest three years

Indicator	Acceptable[1]	Achievable[2]	Geography	2013/14	2014/15	2015/16	Trust/Service	2014/15 Q4	2015/16 Q4	2016/17 Q4
				Annual figure				Quarterly figure		
Infectious diseases in pregnancy - HIV coverage	>=90	>=95	Devon				Royal Devon and Exeter NHS Foundation Trust	99.8	99.1	100.0
							Northern Devon Healthcare NHS Trust	99.1	99.8	99.5
			Plymouth				Plymouth Hospitals NHS Trust	99.7	99.6	99.7
			Torbay				South Devon Foundation Trust	97.4		
							Torbay and South Devon NHS Foundation Trust		97.2	99.2
			Cornwall				Royal Cornwall Hospitals NHS Trust	99.3	99.7	99.9
			England	98.9	98.9	99.1				
Sickle cell and Thalassaemia	>=95	>=99	Devon				Royal Devon and Exeter NHS Foundation Trust	99.6	99.5	100.0
							Northern Devon Healthcare NHS Trust	99.3	99.8	99.5
			Plymouth				Plymouth Hospitals NHS Trust	99.8	99.8	99.7
			Torbay				South Devon Foundation Trust	98.6		
							Torbay and South Devon NHS Foundation Trust		97.7	99.2
			Cornwall				Royal Cornwall Hospitals NHS Trust	99.4	99.7	99.9
			England	98.9	98.9	99.1				
Newborn blood spot	>=95	>=99.9	Devon	90.9	85.1	82.2	NHS North, East, West Devon (CCG at birth)	86.5	90.7	97.6
			Plymouth	91.9	82.0	83.2	NHS North, East, West Devon	86.5	90.7	97.6
			Torbay	94.7	99.8	77.4	NHS South Devon and Torbay	99.5	86.0	94.1
			Cornwall	89.2	-	-	NHS Kernow	72.4	86.9	92.3
			England	93.5	95.8	95.6				
Newborn hearing	>=95	>=99.5	Devon	98.6	98.7	98.8	North Devon	98.8	98.6	98.5
							Torbay and Teignbridge	98.9	98.7	99.4
			Plymouth	99.2	99.4	99.4	Plymouth	99.0	99.5	99.2
			Torbay	98.9	99.4	99.4	Torbay and Teignbridge	98.9	98.7	99.4
			Cornwall	99.5	99.8	99.8	Cornwall and Isles of Scilly	99.8	99.9	99.7
			England	98.5	98.5	98.7				

Indicator	Acceptable[1]	Achievable[2]	Geography	2013/14	2014/15	2015/16	Trust/Service	2014/15 Q4	2015/16 Q4	2016/17 Q4
Newborn & infant physical examination	>=95	>=99.5	Devon				Royal Devon and Exeter NHS Foundation Trust	-	98.5	98.6
							Northern Devon Healthcare NHS Trust	98.9	97.9	99.1
			Plymouth				Plymouth Hospitals NHS Trust	100.0	97.6	96.2
			Torbay				South Devon Foundation Trust	-	97.3	97.0
							Torbay and South Devon NHS Foundation Trust	99.5	86.0	94.1
			Cornwall				Royal Cornwall Hospitals NHS Trust	-	-	-
			England		93.3	94.9				
* Diabetic eye screening	>=70	>=80	Devon				North and East Devon Diabetic Eye Screening Programme	82.8	82.6	87.5
							South Devon NHS Diabetic Eye Screening Programme	86.9	87.7	87.1
			Plymouth				Plymouth Diabetic Eye Screening Programme	79.9	80.1	79.6
			Torbay				South Devon NHS Diabetic Eye Screening Programme	86.9	87.7	87.1
			Cornwall				Cornwall Diabetic Eye Screening Programme	81.4	81.5	78.8
			England		82.9	83.0				
* Abdominal Aortic Aneurysm	>=67.5	>=75	Devon	87.4	87.3	86.1	South Devon AAA Screening Cohort	99.9	99.9	99.9
							Somerset and North Devon AAA Screening Cohort	100.0	99.8	100.0
			Plymouth	83.1	81.2	83.1	Peninsula AAA Screening Cohort	99.3	99.7	99.9
			Torbay	85.4	84.3	80.2	South Devon AAA Screening Cohort	99.9	99.9	99.9
			Cornwall	83.8	83.3	83.5	Peninsula AAA Screening Cohort	99.3	99.7	99.9
			England	77.4	79.4	79.9				

* All figures are for coverage except provider figures for diabetic eye screening which represent uptake, & AAA figures which represent 'completeness of offer'.

(6) Healthcare association infections (HCAI) 2016-17

MRSA

NEW Devon

Four cases were recorded in NEW Devon Clinical Commissioning Group between April 2016 and March 2017. Three were community acquired and one in an acute hospital. None of the four cases were connected. All cases have had Post Infection Reviews (PIRs) completed and lessons learned shared with relevant involved teams.

South Devon and Torbay

There was one recorded acute acquired MRSA and one community case.

NHS Kernow

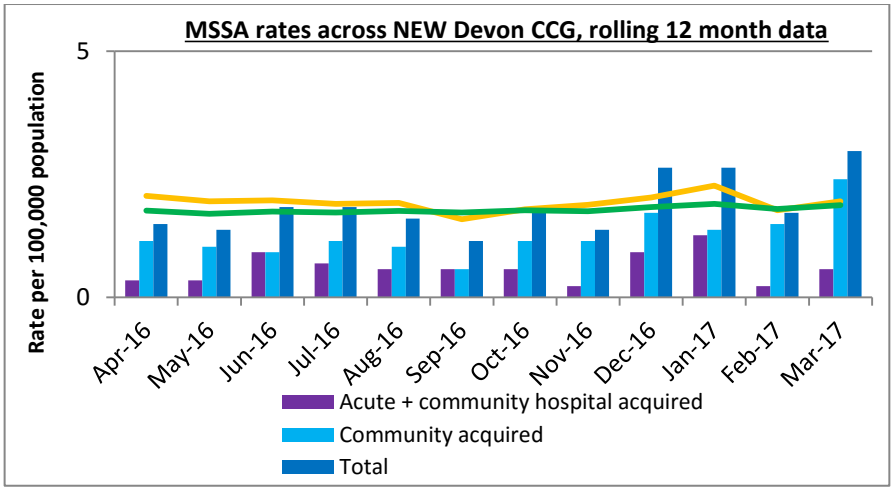
Seven cases were recorded in Cornwall patients in 2016-17: two acute assigned, three CCG assigned, two third party assigned. One patient accounted for two cases and one case was in an injecting drug user.

MSSA

NEW Devon

MSSA bacteraemia rates for the NEW Devon Clinical Commissioning Group population have fluctuated above and below the Public Health England, England and South West average rate lines. Providers of hospital and community services provide information to the clinical commissioning group as part of their performance reporting obligations. There has been a recent rise in community-acquired MSSA bacteraemia, and the reasons for this have not yet been established.

Figure 1 Methicillin sensitive staphylococcus aureus bacteraemias by month for NEW Devon Clinical Commissioning Group



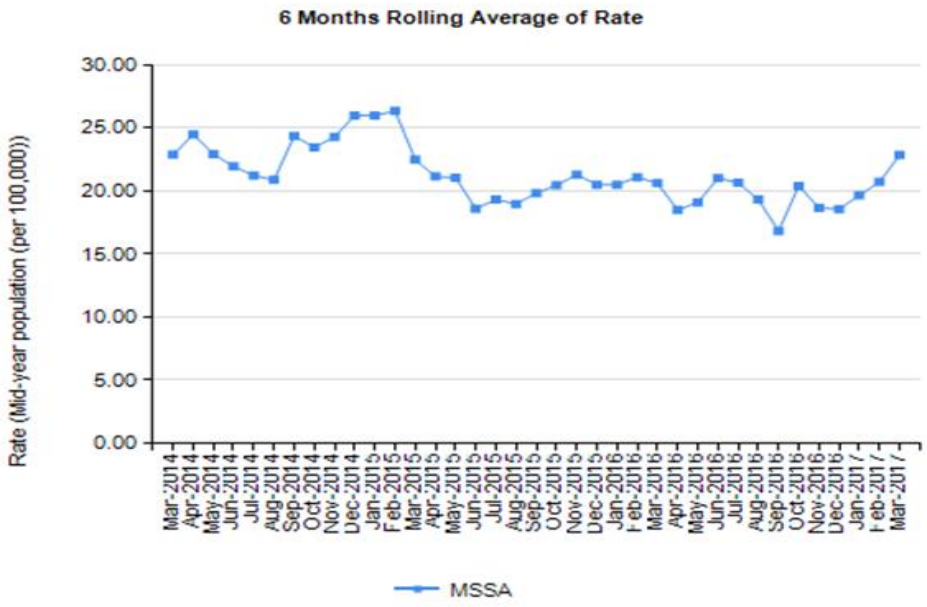
South Devon and Torbay

For the year ending March 2017 there were a total of 105 cases of MSSA reported against a target of 145. There were 16 acute acquired MSSA bacteraemia against a target of 8. This may be in part due to the installation of the new BD Bactec Fx which is more sensitive and will isolate more Staphylococci. Review and root cause analysis identified 'lapse in care' for 6 of the 16 cases.

NHS Kernow

MSSA rates in NHS Kernow were below the South West rates during 2016-17. The Royal Cornwall Hospital experienced an increased incidence during the first quarter.

Figure 2: NEW Kernow MSSA rates 2014 - 2017

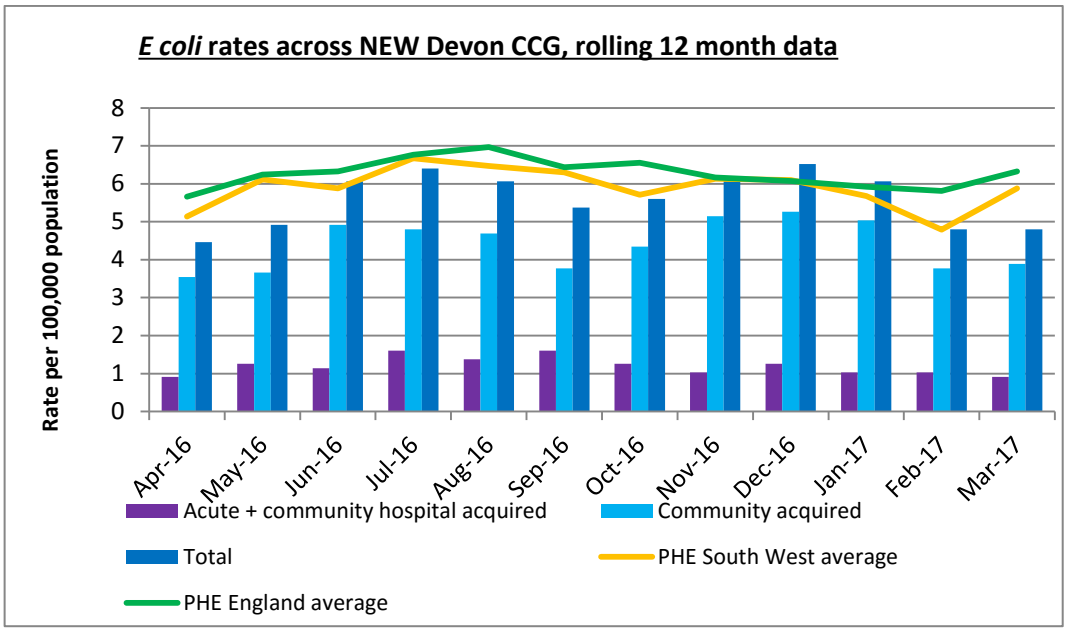


E.coli bacteraemia

NEW Devon

E. coli bacteraemias for the NEW Devon Clinical Commissioning Group hospital sector and clinical commissioning group population in the rolling 12 months as shown in the graph below broadly track the averages provided by Public Health England for England and the South West. The Clinical Commissioning Group Patient Safety and Quality Team monitor data by locality and hospital to scrutinise trends and enable performance to be questioned as required. The Quality Premium for Gram negative bloodstream infections aims to reduce E.coli numbers, and is being supported by the CCG.

Figure 3: Rates of E.coli bacteraemia, by month, April 2016 – March 2017 for NEW Devon Clinical Commissioning Group



South Devon and Torbay Clinical Commissioning Group

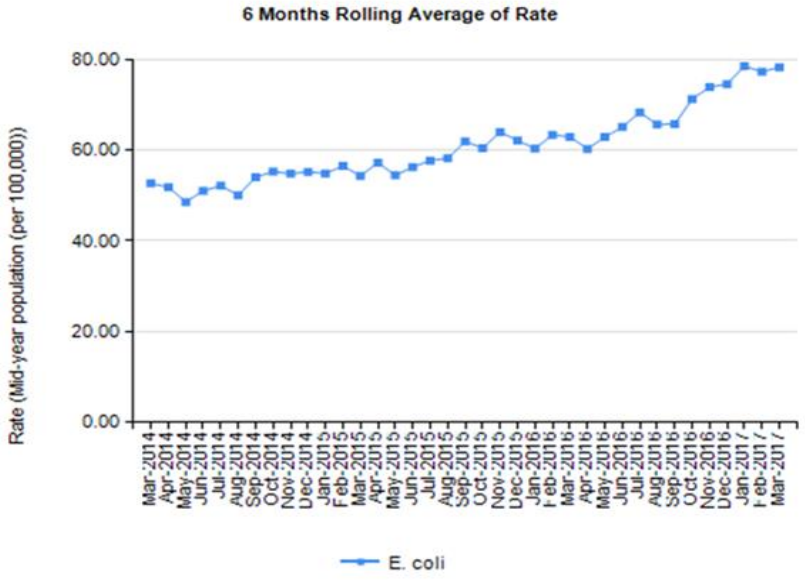
For the year ending March 2017 there was a total of 236 cases of E-coli bacteraemia reported across South Devon & Torbay.

NHS Kernow

E-coli rates continue to rise. Work began in 2016-17 to prepare a focus on E-coli bacteraemia reduction. Best practice indicators are being explored in the acute setting to enable evaluation of care lapses linked to cases with biliary sources. In the community, actions are planned around:

- Catheter Passport;
- Re-launch of the trial without catheter (TWOC) pathway tool;
- Adult Community Services (ACS) sites are moving over to RIO for electronic notes (looking to add a prompt function for indwelling devices);
- Use of an illustrative tool for ACS ward staff (catheter insitu);
- Focus on hydration;
- Stewardship (comms around new first line choice of ABX for UTIs, Audit);
- Joint visit to the ward with highest prevalence rate of catheters the previous month by IPAC and Continence Nurse;
- Roadshow/masterclass on catheters/bladder scanners/TWOC;
- Bladder scanners - identifying where they are, whether staff know how to use them and when to use them. Consideration of a capital bid if more are required.

Figure 4: NHS Kernow E-Coli bacteraemia rates 2014-2017



C. difficile infection

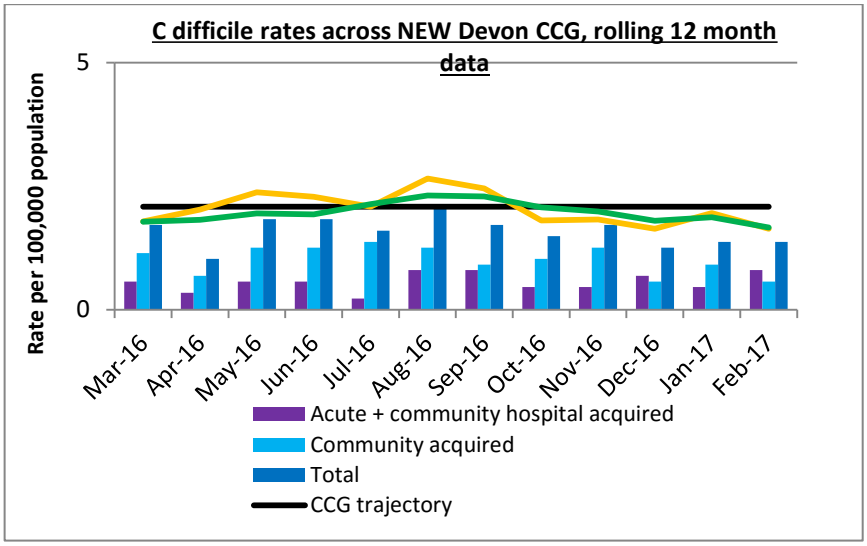
NEW Devon

The graph below shows community acquired infection (CAI) and hospital acquired infection (HAI) cases of C.difficile infection. The community acquired infection cases, which make up the larger proportion of the population cases, are not scrutinised for avoidability like those in acute and community hospitals. A system to inform General Practices of these cases and request Significant Event Audits (SEAs) on behalf of NHS England South, South West is in place.

The Clinical Commissioning Group was under its nationally set trajectory of 219 cases with a total of 181 cases. This shows that C.difficile infection is reasonably under control.

The Clinical Commissioning Group will not be offering a local CQUIN to Acute Trusts on the exploration of value of a community infection management service. The Clinical Commissioning Group will only be offering national CQUINs in 2017-18 for Acute Trusts, due to the overarching situation of the Success Regime.

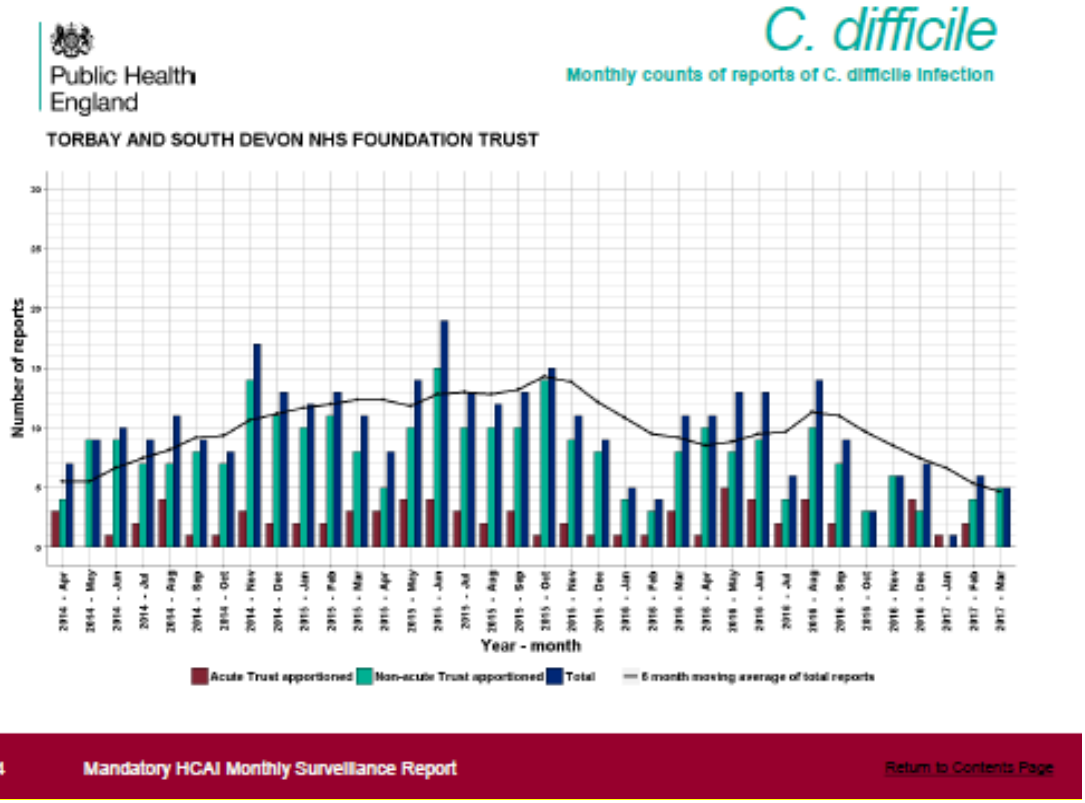
Figure 5: Rates of C.difficile infection, by month, April 2016 – March 2017 for hospital and community acquired infections for NEW Devon CCG



South Devon and Torbay

The CCG target given to provider was set at no more than 18 'lapses in care' from 1/4/16 to 31/3/17. Torbay hospital had 8 'lapses in care'. For the community hospitals an internal target of 4 'lapses in care' was set and there was zero 'lapses in care' identified. All hospitals were within targets set for *C.difficile* and the reduction in *C.difficile* in Torbay can be seen in the graph below.

Figure 6: South Devon and Torbay C.difficile rates 2014-2017

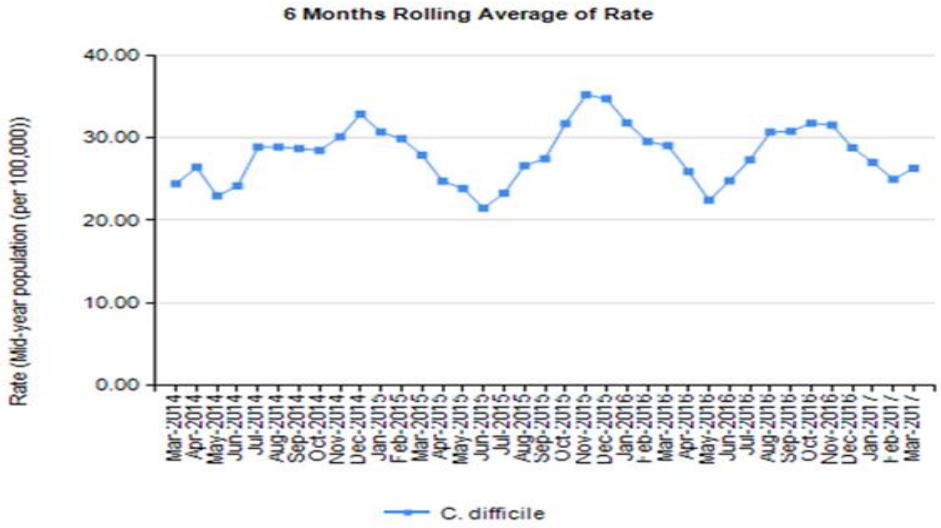


A faecal transplant service has now been introduced at Torbay & South Devon NHS Foundation Trust for patients with recurrent C.difficile, in accordance with NICE Interventional Procedure Guidance (NG485) recommendations. To date five patients have been offered faecal transplant; two declined and three were successful.

NHS Kernow

The Clinical Commissioning Group exceeded the 2016-17 objective of 25.00 cases with an outturn of 28.09 (per 100,000 population), which is above the South West figure of 25.45. The majority of acute cases were assessed as avoidable via the lapse in care system.

Figure 7: NHS Kernow C.difficile rates 2014-2017

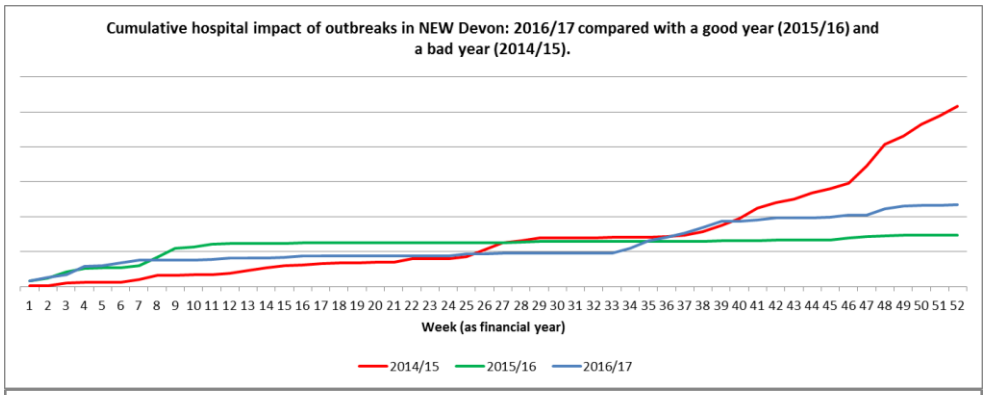


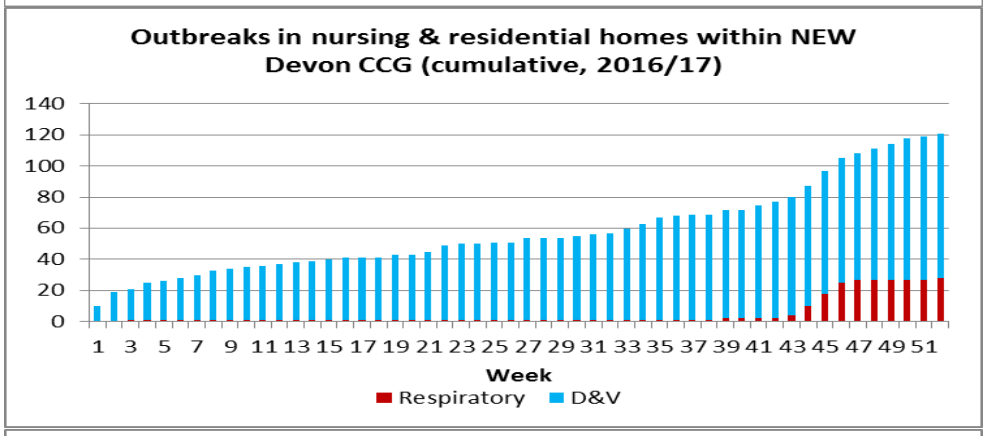
HCAI outbreaks

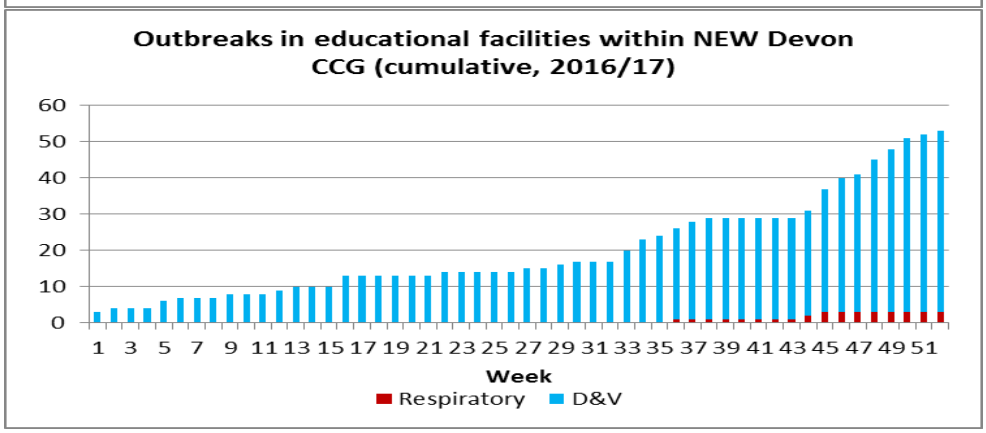
NEW Devon

The following outbreaks graph shows the amount of ward and bay closures occurring in NEW Devon Clinical Commissioning Group hospitals as a proxy for the impact on service. The two graphs beneath it show the comparative outbreak types in nursing homes and educational facilities over the same time period.

Figure 8: Ward and Bay closures across NEW Devon Clinical Commissioning Group by month showing comparison with 2015/16 and 2014/15







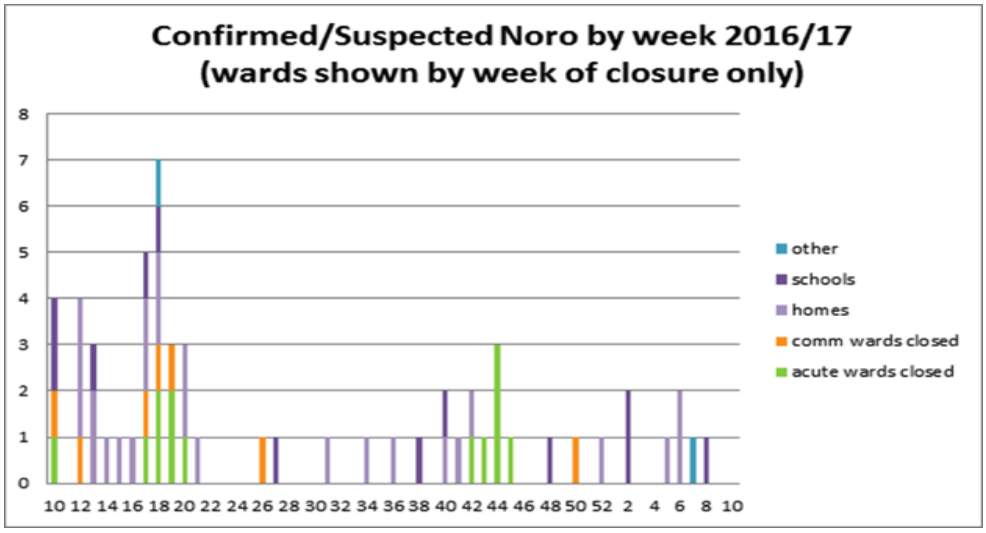
South Devon and Torbay

Between April 2016 and March 2017 there were six ward closures (15 days total closure) within the acute hospital. In the community hospitals there were four ward closures (22 days total closure). Overall the KPI of individual ward closure for no more than 12 days was maintained.

NHS Kernow

The chart below shows combined hospital and community outbreak notifications of suspected Norovirus.

Figure 9: NHS Kernow HCAI ward closures 2016/17



(7) Anti-microbial resistance: trends and developments

E. coli bacteraemia

Rates of *E.coli* bacteraemia cases reported through the Healthcare Associated Infections (HCAI) mandatory scheme have increased both nationally and locally in recent years (**Table 1**). The rate of *E.coli* bacteraemia per 100,000 population increased by 16% in England between 2013/14 and 2016/17, and by 22% in North, East & West (NEW) Devon CCG, 12% in South Devon and Torbay CCG and 27% in Kernow CCG over the same time period. Between 2015/16 and 2016/17 the rate of *E.coli* bacteraemia per 100,000 population increased by 6% in England, and by 2% in NEW Devon CCG, by 9% in South Devon and Torbay CCG and by 16% in Kernow CCG.

Table 1: *E.coli* bacteraemia rates per 100,000 population, by CCG and England, 2013/14 to 2016/17

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

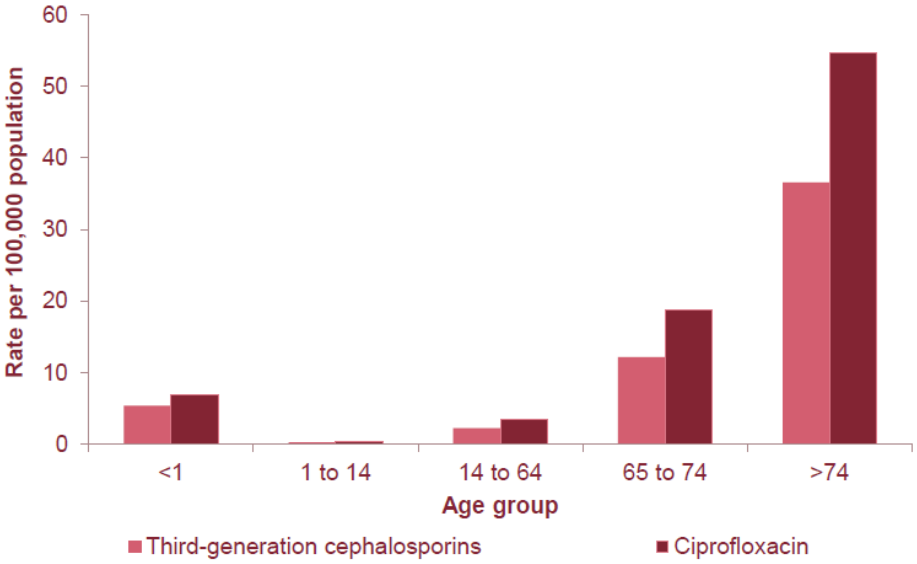
Source: HCAI Data Capture System

The PHE Health Protection Report on *E.coli* bacteraemia[1] reported that between 2012 and 2016 in England there was no change in the antibiotic resistance of *E.coli* isolates to selected antimicrobials, except for resistance to piperacillin/tazobactam and amoxicillin/clavlulanate which increased from 10% to 12% and from 37% to 41% respectively. However, these increases are likely to be due to changes in testing methods.

In 2016 in England, resistance of *E.coli* bacteraemia isolates to gentamicin, ciprofloxacin, third generation cephalosporins, piperacillin/tazobactam and amoxicillin/clavulanate were 10%, 19%, 22%, 12% and 41% respectively. Therefore, the increases in *E.coli* bacteraemia infections mean that the number of people affected by antibiotic-resistant infections is increasing.

Rates of *E.coli* resistant bacteraemia are substantially higher in the elderly, with elevated rates also seen in infants (<1 year old). **Figure 1**, taken from the English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report 2016[2], demonstrates this for two antibiotic classes. Therefore, when implementing interventions to reduce antibiotic resistance it may be necessary for particular focus to be placed on these age groups[2].

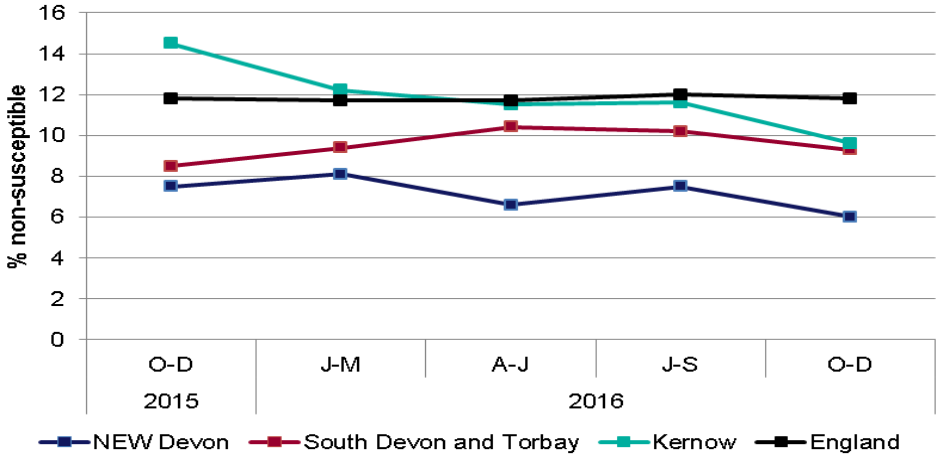
Figure 1: Rates of *E. coli* bacteraemia resistant to third-generation cephalosporins or ciprofloxacin in patients of different age groups.



Data derived from voluntary reports to SGSS; 85% of isolates were subject to susceptibility tests
Source: ESPAUR Report 2016[2]

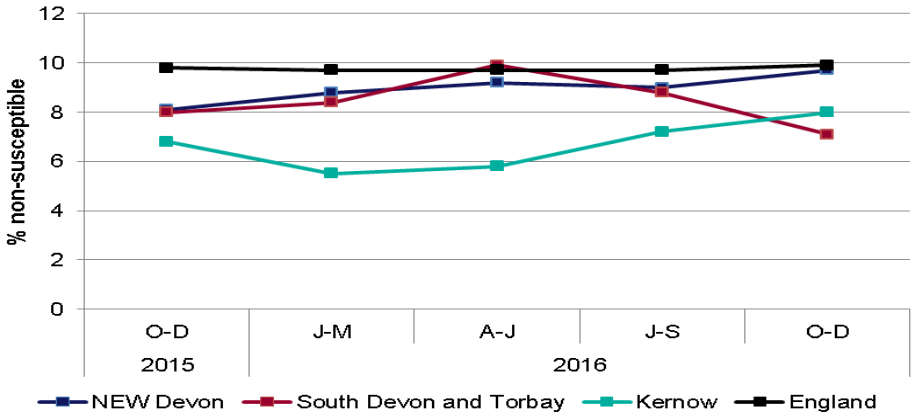
The AMR local indicators provide further local data on the resistance of *E.coli* to important antibiotics. The indicators present the proportion of *E.coli* blood specimens that are non-susceptible to certain antibiotics (3rd generation cephalosporins, ciprofloxacin, gentamicin and piperacillin/tazobactam), where non-susceptible means that the organism isolated from the specimen is resistant to the antibiotic. Data from these indicators for NEW Devon, South Devon and Torbay and Kernow CCG are presented below.

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



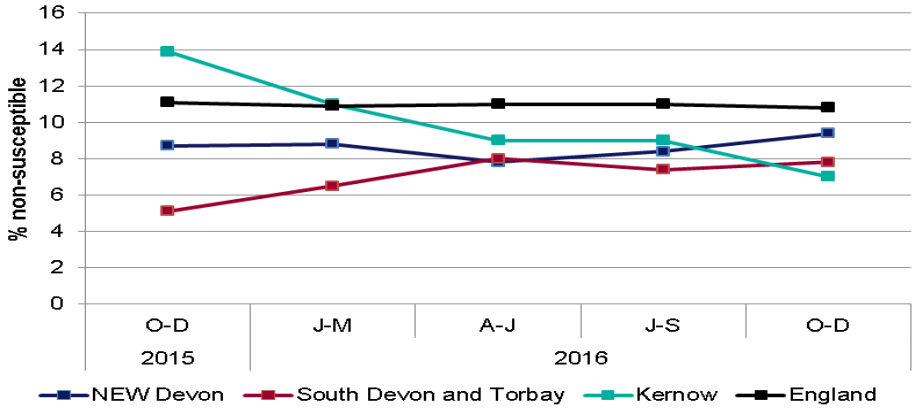
Source: PHE AMR local indicators[3]

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



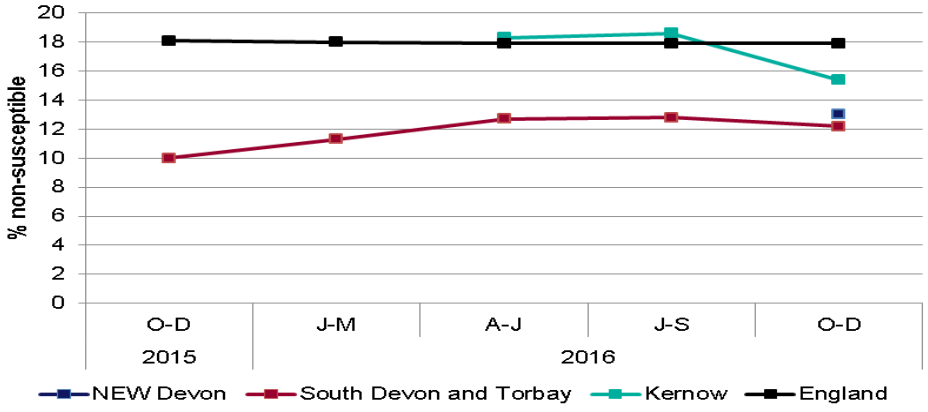
Source: PHE AMR local indicators[3]

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



Source: PHE AMR local indicators[3]

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



*Where less than 70% specimens have been tested for a particular CCG the results have been suppressed for data quality reasons.
Source: PHE AMR local indicators[3]

For these particular drug/bug combinations, resistance within the Devon and Cornwall areas are similar to or lower than those in England. For NEW Devon, Kernow and South Devon and Torbay CCGs, these proportions were in the lower three quintiles of all CCGs in England. However, it must be noted that these are only a small subsection of antimicrobial resistance data.
In order to effectively monitor changes in antibiotic resistance it is vital that isolates are tested for their susceptibility to antibiotics.

The AMR local indicators also provide data on the percentage of *E.coli* blood specimens that are tested against various antibiotics (3rd generation cephalosporins, ciprofloxacin, gentamicin, piperacillin/tazobactam and a carbapenem), with this data benchmarked against the goal of 100% of blood specimens susceptibility tested.

For these antibiotic classes, testing in NEW Devon CCG did not reach the benchmark of 100% of *E.coli* blood specimens tested in quarter 4 of 2016. In quarter 4 of 2016, Kernow CCG also did not reach the benchmark for *E.coli* blood specimens tested against gentamicin and NEW Devon, Kernow and South Devon & Torbay CCGs all did not reach the 100% benchmark for *E.coli* blood specimens tested against piperacillin/tazobactam. However, it must be noted that in all instances where an aforementioned CCG did not reach the 100% benchmark, testing of *E. coli* blood specimens remained high, at over 95%.

Klebsiella bacteraemia

Between 2015 and 2016 the total number of reports of *Klebsiella spp.* bacteraemia in England, Wales and Northern Ireland increased by 15%, an increase in population rate from 13.0 to 15.0 per 100,000 population. Between 2012 and 2016 antimicrobial resistance in *Klebsiella spp.* bacteraemia isolates in England and Northern Ireland remained relatively stable. Increases in resistance to piperacillin/tazobactam were seen with resistance reported in 17% of isolates in 2016 compred to 13% in 2012[4]. However, this may reflect recent changes to testing. Nevertheless, as with *E.coli* bacteraemia, increases in *Klebsiella* spp. bacteraemia will result in increases in the number of antibiotic resistant infections occurring.

Changes to mandatory surveillance

The increases in gram-negative bloodstream infections, as described above in relation to *E.coli* and *Klebsiella spp*., have resulted in a focus on these infections. The Secretary of State for Health has announced an ambition to reduce healthcare associated Gram-negative bloodstream infections by 50% by 2021. Consequently, from April 2017 the surveillance of bacteraemias has been extended to include *Klebsiella spp.* and *Pseudomonas aeruginosa* infections. Although not yet mandatory, it is expected that this additional surveillance will become mandatory, and the mandate will be backdated to April 2017.

Carbapenemase producing organisms

Carbapenemase-producing organisms (CPO) are organisms that have resistance to carbapenems through the production of enzymes called carbapenemases. Although carbapenem resistance remains uncommon, data from the PHE Antimicrobial Resistance and Healthcare Associated Infections (AMRHAI) Reference Unit show a continued year-on-year increase in the numbers of confirmed CPOs, with 1893 Enterobacteriaceae confirmed as carbapenemase-producing in 2015[2].
In 2016/17 there were 13 isolates referred from hospitals within Devon, Torbay, Cornwall and Plymouth local authorities that were confirmed as CPOs by AMRHAI, an increase from 2015/16, in which 9 isolates were confirmed CPOs. The Health Protection Team liaised with each Trust involved to ensure that they were comfortable with following the procedures for dealing with CPO positive cases as outlined in the Trust toolkit.

References

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