Gateshead Council

HEALTH AND WELLBEING BOARD
20th April 2018

TITLE OF REPORT: Health Protection Assurance Annual Report 2016/17

Purpose of the Report

1. To seek the views of the Health & Wellbeing Board on health protection responsibilities and arrangements in Gateshead as part of the Council's statutory duties regarding health protection assurance.

Background

2. The Director of Public Health (DPH) employed by Gateshead Council is responsible for the exercise of the local authority's public health functions. This includes those conferred upon the Council by Regulation 8 of the Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives) Regulations 2013 to promote "the preparation of or participation in appropriate local health protection arrangements". This report forms part of those arrangements.

3. Health protection describes those activities and arrangements that seek to protect the population from risks to health arising from biological, environmental or chemical hazards. It includes:

   - Prevention - screening, immunisation and vaccination schemes to prevent the incidence of diseases
   - Surveillance – systems of disease notification, identifying outbreaks
   - Control - management of individual cases of certain diseases to reduce the risk of spread
   - Communication – communicating messages and risks during urgent and emergency situations).

4. The attached report (Appendix 1) provides further detail of those arrangements and activity from April 2016 to March 2017. A brief summary is provided below.

<u>Prevention</u>

<u>Immunisation</u>

5. NHS England commissions the full range of child and adult immunisation programmes for Gateshead. Key points to note include:

   - Uptake of the routine childhood immunisation programme is amongst the highest in England;

- By 12 months, 93.9% of children in Gateshead had been immunised against diphtheria, tetanus, pertussis, polio and haemophilus influenza type b (93.4% in England);
- By 24 months, 93.0% (cf. 91.6% for England) had received measles, mumps and rubella (MMR) vaccine (dose 1);
- Changes to the meningitis immunisation programme were introduced in July 2016 with the MenC vaccine given at 12 weeks being replaced with the Hib/MenC vaccine at 12-13 months.
- In 2016/7, seasonal flu vaccine was offered to those aged 65 years and over; those aged six months to under 65 in clinical risk groups, all pregnant women; all two, three, and four year olds; all children in primary school years 1, 2 and 3; primary school aged children in school years 1 to 6 in areas that previously participated in primary school pilots in 2014/15 including Gateshead; those in long-stay residential care homes or other long stay care facilities, and carers;
- Targets for uptake for adults were 75% of the eligible population. Ambitions for uptake amongst children were 40-65% of those eligible;
- Headline facts for flu vaccine uptake Gateshead in 2016/17:

    - Uptake was improved amongst all eligible adult groups compared to 2015/16 levels;
    - Uptake amongst children aged 3 years old improved but fell amongst 2 and 3 years olds compared to the previous year;
    - A programme for front line social care staff employed by the Council was established but uptake was low.

Screening

6. The screening programmes commissioned by NHS England for which the Director of Public Health has an assurance role are:

    - Cancer screening programmes (breast, bowel and cervical)
    - Diabetic Retinopathy
    - Abdominal Aortic Aneurysm
    - Ante natal and newborn

7. Uptake of the cancer screening programmes continues to be good and significantly better than levels of uptake nationally.

8. Data for the Diabetic Eye Screening Programme are unavailable at a Gateshead level. Performance reported at North East level showed an uptake of 85.2%.

9. Uptake of the Abdominal Aortic Aneurysm screening programme shows an increase in coverage in Gateshead compared to the previous year from 76.4% to 81.1% cf. 80.9% for England.

10. Coverage of the Ante-Natal and New Born screening programmes is high for those programmes for which Gateshead data are available:

- Newborn bloodspot coverage continues to be high at 98.0% for 2015/16 (97.6% in 2014/15) cf. 95.6% for England

- Newborn hearing screening coverage similarly continues to be high at 99.6% in 2015/16 (99.0% in 2014/15) cf. 98.7% for England

Emergency preparedness, resilience and response (EPRR)

11. Planning for emergency situations, such as extreme weather events, outbreaks or terror incidents, takes place at regional and local levels:

    - The Local Health Resilience Partnership (LHRP) is responsible for ensuring that the arrangements for local health protection responses are robust and resilient. The LHRP works with the Local Resilience Forum (LRF) and multiagency partners, to develop collective assurance of local arrangements.
    - Public Health England co-ordinate the health management of the response to biological, chemical, radiological and environmental incidents, including specialist services which provide management advice and/or direct support to incident responses.
    - The Gateshead Multi-Agency Resilience and Emergency Planning Group brings together different organisations to discuss multi-agency emergency preparedness, response and resilience issues. The group ensures that Gateshead is adequately prepared to respond to disruptive challenges and that there is an appropriate level of engagement from all organisations

12. The Director of Public Health continues to be part of regional on-call arrangements to chair the Scientific and Technical Advice Cell (STAC), convened by Public Health England to co-ordinate such advice in the event of an emergency incident.

13. In 2016, the north east Local Resilience Forums collaborated in an exercise to test the readiness of public sector bodies in the event of a flu pandemic. The Public Health Team and Resilience Team worked very closely together during the period of this exercise and have subsequently identified a number of recommendations to be developed. These steps will ensure the Council is prepared to respond and enable the continued provision of critical services during a genuine pandemic.

Surveillance

14. Public Health England's Health Protection Team continues to work with a wide variety of partners to ensure that adequate systems are in place to detect the existence of certain communicable diseases, and to ensure that appropriate agencies are notified.

15. The Council's Environmental Health Team noted a decrease in the number of cases of food poisoning notified in 2016/17 compared to the previous year.

16. During the year there was an outbreak of Cryptosporidiosis linked to two of Gateshead's swimming pools. This outbreak involved a rare strain of Cryptosporidium hominis rarely seen in the UK. The pools were closed in October after Public Health England alerted Gateshead Council to a possible link to a number of cases of cryptosporidiosis in the local area.

Control

Tuberculosis

17. Gateshead's population has a low incidence of tuberculosis but the prevalence of the disease per head of population has increased significantly since 2013.

Scarlet fever and invasive Group A Streptococcal infections

18. Cases of scarlet fever, a common and usually mild childhood bacterial infection, continued to rise for the fourth season in a row during 2016/17. In the North East, notifications rose from 953 in 2015 to 1131 in 2016.

Sexually transmitted infections (STIs)

19. In 2016, 1445 new sexually transmitted infections (STIs) were diagnosed in residents of Gateshead, a rate of 719 per 100,000 residents (compared to 750 per 100,000 in England).

    - The rate of new STIs excluding chlamydia diagnoses in 15-24 year olds; was 712 per 100,000 residents (compared to 795 per 100,000 in England).
    - The chlamydia detection rate per 100,000 young people aged 15-24 years in Gateshead was 2105 (compared to 1,882 per 100,000 in England).
    - The rate of gonorrhoea diagnoses per 100,000 in this local authority was 81.6 (compared to 64.9 per 100,000 in England).
    - There were 14 new HIV diagnoses in Gateshead. The diagnosed HIV prevalence was 1.55 per 1,000 population aged 15-59 years (compared to 2.31 per 1,000 in England).

Excess winter deaths

20. In Gateshead in winter 2014/15, there were 173 excess winter deaths, compared to 70 in 2013/14.
21. There is significant variation in the numbers of excess winter deaths between different years. It is not always apparent why this is the case. Winter of 2014/15 had the highest number of excess winter deaths in England and Wales since 1999/00 with 41 300 more people dying in the winter months compared with the non-winter months.
22. The majority of deaths occurred amongst people aged 75 and over. There were more excess winter deaths in females than in males in 2014/15, as in previous

years. Respiratory diseases were the underlying cause of death in more than a third of all excess winter deaths in 2014/15.

Air quality

23. Gateshead Council monitors the levels of two pollutants at a number of locations across the Gateshead - nitrogen dioxide and PM2.5 particles.

24. As a result of measured levels of Nitrogen Dioxide (NO2) exceeding the annual objective level, the council declared an Air Quality Management Area (AQMA) in April 2005 within Gateshead Town Centre. This was extended in April 2008.

25. Since 2011, the levels of NO2 have fallen below the maximum permitted levels. Gateshead Council does not currently proposing to revoke the Gateshead Town Centre AQMA at this point.

26. The mean annual concentrations of PM2.5 have been measured at two locations since 2012. Figures indicate that PM2.5 levels have reduced since 2014/15 and remain below Air Quality Objectives, European Limit Values and World Health Organisation guidelines at both monitoring locations.

27. Gateshead Council submitted an application to DEFRA for Air Quality Grant funding to support a number of work streams to help improve air quality in November 2016. The application was successful and the Council were awarded £396,000. The work streams include:

    - Air quality monitoring and traffic signalling optimisation in conjunction with the Urban Traffic Management Centre (UTMC);
    - Cleaning the taxi fleet through changes to taxi licensing policy;
    - Behaviour change: including Schools Go Smarter and Go Smarter to Work – Make the Switch;
    - Provision of additional Car club vehicles and charging infrastructure;
    - Council Fleet Vehicle Upgrade;
    - Improvements in Cycle Infrastructure.

Communications

28. Communications are a vital element of health protection arrangements. Good communications demonstrate accountability and provide confidence, especially when responding to an incident.

29. A good example of the value of clear communications arose subsequently to an incident in January 2016. Residents living near the Path Head landfill site near Blaydon reported a persistent bad smell in the air. Subsequent investigation of the problem by the Council and the Environment Agency showed that high levels of rainfall in December and January had flooded the site and overwhelmed some of the environmental controls in place. This resulted in low levels of hydrogen sulphide gas being emitted by the site.

30. This gas has a characteristic “bad eggs” smell and can be detected at very low concentrations. Using measurements taken by the Environment Agency, Public Health England confirmed that the levels of the gas present did not pose a risk to health, although the odour itself was likely to make some people feel unwell sometimes.

31. The Council worked with the Environment Agency and Public Health England to make sure that the company responsible for running the site, Suez, worked quickly to re-establish control over gas emissions. Communications proved to be a significant element of the response to concerns raised by local residents.

32. Gateshead Council, PHE and the Environment Agency agreed a clear communications plan to give people concise and regular updates of the impact of the smell on health and wellbeing, and actions being taken to resolve the situation.

Conclusions

33. Existing Health Protection Assurance arrangements are working well and have been effective in dealing with all aspects of health protection.

Proposal

34. It is proposed that Gateshead Health and Well-being Board notes the arrangements in place to assure the Board their responsibilities are being delivered.

Recommendations

35. The Health and Wellbeing Board is asked to consider the efficacy of existing arrangements and consider whether any improvement actions are necessary.

Contact: Alice Wiseman 0191 433 2777
Email: alicewiseman@gateshead.gov.uk

Appendix 1

Health Protection Assurance - Annual Report 2016/17

Introduction and purpose of the report

This report provides an overview of health protection arrangements and relevant activity in the borough of Gateshead from April 2016 to March 2017. The report supports the Director of Public Health's statutory remit to provide assurance to the Gateshead Health and Wellbeing Board and Gateshead Council in relation to health protection of the local population.

The Board should receive an annual report summarising the local position on health protection issues and priorities (noting the scope of issues set out in the background section of this report).

Background

Health protection describes those activities and arrangements that seek to protect the population from risks to health arising from biological, environmental or chemical hazards. It includes:

Prevention - screening, immunisation and vaccination schemes to prevent the incidence of diseases

Surveillance – systems of disease notification, identifying outbreaks

Control - management of individual cases of certain diseases to reduce the risk of spread

Communication – communicating messages and risks during urgent and emergency situations).

The Director of Public Health (DPH) is responsible for coordinating the Council's contribution to health protection issues. This includes planning for and responding to threats to the public's health. Public Health England's Health Protection Teams are responsible for the provision of specialist expert functions to respond directly to incidents and outbreaks and to support the Council in understanding and responding to threats. NHS England is responsible for the commissioning of screening, immunisation and vaccination schemes.

The DPH therefore has a local leadership role in providing assurance that robust arrangements are in place to protect the public's health. This means identifying any local issues and issuing advice appropriately. The responsibility and accountability to act upon that advice rests with the appropriate responsible organisation.

Improvements to the quality of local arrangements are achieved through a process of challenge and escalation. This may involve the organisation responsible, their commissioners or the Health and Wellbeing Board.

Arrangements in place to assure the Council that its responsibilities are being delivered

The Council has an internal officer group that supports the assurance activity. This is led by Public Health and also includes Environmental Health, Emergency Planning and performance management colleagues.

The performance reports in the attached Appendices demonstrate the level of performance against each activity. Targets are not set for all indicators. More recently, the Public Health Team has compiled a "dashboard" of indicators to permit local performance to be compared against national targets, and with regional and national performance (see Appendix A).

Prevention

Immunisation and screening programmes are commissioned by NHS England. The activity is co-ordinated by Public Health England's Screening and Immunisation Team. A Regional Programme Board for each screening and immunisation programme meets regularly.

Each Board meeting is attended by a Public Health representative on behalf of the regional Directors of Public Health. Further assurance is achieved through the attendance of NHS England's Public Health Commissioning Lead at the regional meeting of the Directors of Public Health.

Immunisation

Immunisation programmes help to protect individuals and communities from particular diseases. There are programmes for children and adults.

The national universal childhood immunisation programme offers protection against thirteen different vaccine preventable programmes.

The adult immunisation programme is offered to people reaching a certain age and/or those who may be at particular risk due to underlying medical conditions or lifestyle risk factors.

The full vaccination programme can be found in Appendix B. Performance for Gateshead can be found in Appendix C, but is summarised below.

Uptake in the North East for the routine childhood programme remain among the highest in England.

Meningitis

Changes to the meningitis immunisation programme were introduced in July 2016 with the MenC vaccine given at 12 weeks being replaced with the Hib/MenC vaccine at 12-13 months.

Additionally, the vaccination of adolescents with MenC vaccine which began in the 2013/14 academic year, and later the MenACWY vaccine, should sustain good herd protection and therefore the risk to infants will remain low.

Seasonal influenza

Influenza remains a potentially life-threatening illness, and it is because of this that a national vaccination programme offers flu jabs to older people, children and to those with other clinical risk factors.

The purpose of the vaccination programme is to reduce the number of cases of severe flu and the numbers of deaths resulting from infection. The programme therefore:

- provides direct protection to recipients, thus preventing a large number of cases of flu, and
- provides indirect protection by lowering flu transmission within the community as a whole

In 2016/17, influenza immunisations were offered to:

- those aged 65 years and over
- those aged six months to under 65 in clinical risk groups
- all pregnant women
- all two, three, and four year olds
- all children in primary school years 1, 2 and 3
- primary school aged children in school years 1 to 6 in areas that previously participated in primary school pilots in 2014/15 including Gateshead
- those in long-stay residential care homes or other long stay care facilities
- carers

A requirement of the NHS England North (Cumbria and North East (CaNE)) Public Health Commissioning Team for 2016/17 was to ensure that flu immunisation was offered to everyone in these categories in order to achieve:

- As high an uptake as possible in those aged 65 years and over, with the aim of reaching a minimum of 75% uptake;
- Improved vaccine uptake for those in clinical risk groups. Particular emphasis was placed on those groups at highest risk of severe disease and mortality from flu that had low rates of vaccine uptake, including people with chronic liver and neurological disease and people with learning disabilities. The uptake ambition for people at clinical risk was 55%;
- Uptake between 40-65% for the children's flu immunisation programme.

Although not part of the NHS commissioned immunisation programme, the team also supported the system to aim to achieve:

- A minimum uptake of 75% amongst healthcare workers. Trusts needed to ensure that a 100% offer of flu vaccination was made for frontline staff to achieve 75% uptake.

Headline facts for flu vaccine uptake Gateshead in 2016/17:

- Uptake was improved amongst all eligible adult groups compared to 2015/16 levels;
- Uptake amongst children aged 3 years old improved but fell amongst 2 and 3 years olds compared to the previous year;

- A programme for front line social care staff employed by the Council was established but uptake was low.

Influenza Vaccine uptake – adults

Eligible Group	2014/15 (%)	2015/16 (%)	2016/17 (%)
Aged 65+	74.9	72.6	73.8
Aged under 65 and at clinical risk	55.1	50.3	54.9
Pregnant women	48.3	46.1	49.8
Gateshead FT staff	57.2	66.6	76.1

CASE STUDY

In December 2016, a resident from a care home in Gateshead tested positive for flu. Over the next few days further residents and staff members developed symptoms. Respiratory infections such as flu can spread rapidly within environments such as care homes and older people or those with underlying health conditions are more susceptible to severe infection.

The symptoms of flu can last for a number of days. Affected staff members need to stay off work and facilities may be closed because of the risk of transmission to vulnerable residents. Following this outbreak, the care home was closed for two weeks. Closures can have an impact upon discharges from hospital, discharges from the care facility itself and admissions from the community.

At the start of the 2016/17 flu season, staff at the care home were offered vouchers for vaccination. Some accepted these and others indicated that they either did not want the vaccination or that they would get it from elsewhere. Five staff members were identified during the outbreak who were at risk of more severe illness themselves, only one of whom had been vaccinated at that time. Unvaccinated, vulnerable staff and residents required treatment with associated prescription costs.

The team manager at the care home said 'Apart from the effect on the service and the delay to service users regarding admission/discharges, one of the main issues was ensuring that we maintained safe staffing levels. This was achieved, but due to the fact that we were unable to use staff from other sites or agency staff, this relied heavily on those staff within the service who were unaffected. Considering this also took place over the Christmas period, it was a difficult time for all! I am hopeful that due to the experiences of last winter, our staff members will recognise the impact that these outbreaks can have. I am also hoping that this year the uptake of flu vaccination will be much higher and will be reminding all of my staff of the importance of the flu jab!'

Influenza Vaccine uptake – children

Eligible Group	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)
2 years old	47.8	38.7	40.5	38.5
3 years old	45.6	43.3	42.7	46.4
4 years old	N/A	51.5	34.4	34.5

Evidence suggests that uptake of 40-65% in school aged children is effective in reducing transmission of flu in the population.

The local authority areas of Gateshead, South Tyneside and Sunderland took part in a national pilot programme in 2013/14 in which all primary school aged children were eligible for vaccination. The success of the pilot led to the current childhood flu programme. While a phased approach for implementation was adopted nationally, pilot areas were permitted to continue to offer vaccination to all children in school years one to six, on the basis that the offer had already been made previously. As such, in Gateshead, South Tyneside and Sunderland, all children in school years one to six were eligible for vaccination in 2016/17.

Screening programmes

Screening is the process of identifying people who appear healthy but may be at increased risk of a disease or condition.

Screening programmes protect the health of the population by carrying out tests on individuals to determine whether they have or are likely to develop particular, often life threatening, conditions. Individuals are selected for screening programmes based on eligibility criteria including age, gender and pre-existing conditions.

The screening progammes which are commissioned by NHS England and for which the DPH has an assurance role are:

- Cancer screening programmes (breast, bowel and cervical)
- Diabetic Retinopathy
- Abdominal Aortic Aneurysm
- Ante natal and newborn (ANNB)

The performance of screening programmes is given in Appendix D. This does not include information for some of the ante natal and newborn screening programmes (HIV, thalassaemia, sickle cell anaemia) as Gateshead coverage data for these for the year 2016/17 is incomplete. Last year's Assurance report highlighted data issues with regard to the ANNB at Gateshead Health NHS Foundation Trust, similarly to other Trusts across the region. Those issues have now been resolved and, while data for the entire year in unavailable, the data that is available for both of these programmes does show high levels of coverage. In general, uptake rates for screening programes is higher in Gateshead than across England as a whole.

Cervical Screening

The cervical screening programme is offered to women aged 25 to 49 every three years and to women aged 50 to 64 every five years.

In 2016, 74.8% of eligible women in Gateshead had been adequately screened in the last 3.5 or 5.5 years, slightly down on 2015 (75.8%). This is lower than the North East (75.2%) but higher than England (72.7%).

The national, regional and local trend for uptake of cervical screening has shown a general downward trend since 2010.

Breast Screening

The aim of breast screening is to reduce mortality by finding breast cancer at an early stage when any changes in the breast are often too small to detect.

Screening is offered to women aged 50 to 70 every three years. Women aged over 70 can self-refer.

In Gateshead, the coverage of the breast screening programme increased from 78.5% of eligible women in 2015 to 78.9% in 2016. This is higher than the North East (77.3%) and England (75.5%) averages.

In Gateshead, the trend has increased since 2013, while nationally the trend has decreased.

Bowel Cancer Screening

The Bowel Cancer Screening Programme aims to detect bowel cancer at an early stage when treatment is more likely to be effective. It is offered to men and women aged 60 to 74 every two years. Those aged 75+ can request screening.

In 2015, 60% of eligible people were screened, higher than North East (59.4%) and England (57.1%). This was the first year that the data has been published at local authority, regional and national level. In 2016, 60.4% of those eligible in Gateshead were screened, again higher than the north east and England averages.

Diabetic Eye Screening

People with diabetes are at risk of damage to their eyes from a condition called diabetic retinopathy. The condition occurs when high sugar levels affect small blood vessels at the back of the eye (the retina). Damage to the blood vessels in a particular part of the retina can lead to a condition (diabetic maculopathy) that can lead to sight loss if it is not treated.

Diabetic retinopathy is one of the most common causes of sight loss among people of working age. The condition doesn’t usually cause noticeable symptoms in the early stages. It can be detected by examining the blood vessels at the back of the eye and, if present, treated.

Early detection and treatment can slow or stop further vision loss. This is why the NHS Diabetic Eye Screening Programme was introduced. Everyone aged 12 and over with diabetes is offered screening once a year. In North of Tyne and Gateshead, diabetic eye screening is carried out by Medical Imaging UK Ltd. (rebranded as EMIS Care from April 2016).

Reporting of uptake of the Diabetic Eye Screening Programme is available at North East level, showing an uptake of 85.2%. The North of Tyne and Gateshead programme achieves an uptake of well above the 70% minimum standard and, at the beginning of 2015/16, was starting to exceed the 80% "achievable uptake" rate. The provider for the service is required to demonstrate a continuous increase in uptake rates.

Abdominal aortic aneurysm screening

Abdominal aortic aneurysm (AAA) screening is a way of detecting a dangerous swelling (aneurysm) of the aorta – the main blood vessel that runs from the heart, down through the abdomen to the rest of the body.

Screening is a way of detecting an aneurysm early and can cut the risk of dying from an AAA by about half.

This swelling is far more common in men aged over 65 than it is in women and younger men, so men are invited for screening in the year they turn 65.

The most recent data (2016/17) for the programme shows an increase in coverage in Gateshead compared to the previous year from 76.4% to 81.1% cf. 80.9% for England.

Ante-natal and new born screening programmes

Ante-natal and new born screening programmes include:

- NHS fetal anomaly screening programme (FASP)
- NHS infectious diseases in pregnancy screening (IDPS) programme
- NHS newborn and infant physical examination (NIPE) screening programme
- NHS newborn blood spot (NBS) screening programme
- NHS newborn hearing screening programme (NHSP)
- NHS sickle cell and thalassaemia (SCT) screening programme

Performance data is included in Appendix C for those programmes for which data are available.

Key points to note are:

- Newborn bloodspot coverage continues to be high at 98.0% for 2015/16 (97.6% in 2014/15) cf. 95.6% for England

- Newborn hearing screening coverage similarly continues to be high at 99.6% in 2015/16 (99.0% in 2014/15) cf. 98.7% for England

Emergency preparedness, resilience and response (EPRR)

Local health protection arrangements must also plan for, and respond to, a wide range of incidents and emergencies that could affect health or patient care. These could be anything from extreme weather conditions to an outbreak of an infectious disease, a major transport accident or a terror attack.

Planning takes place at regional and local levels:

- The Local Health Resilience Partnership (LHRP) is responsible for ensuring that the arrangements for local health protection responses are robust and resilient. The

LHRP works with the Local Resilience Forum (LRF) and multiagency partners, to develop collective assurance of local arrangements.

- Public Health England co-ordinate the health management of the response to biological, chemical, radiological and environmental incidents, including specialist services which provide management advice and/or direct support to incident responses.
- The Gateshead Multi-Agency Resilience and Emergency Planning Group brings together different organisations to discuss multi-agency emergency preparedness, response and resilience issues. The group ensures that Gateshead is adequately prepared to respond to disruptive challenges and that there is an appropriate level of engagement from all organisations

The Director of Public Health continues to be part of regional on-call arrangements to chair the Scientific and Technical Advice Cell (STAC), convened by Public Health England to co-ordinate such advice in the event of an emergency incident.

In 2016, the north east Local Resilience Forums collaborated in an exercise to test the readiness of public sector bodies in the event of a flu pandemic. A flu pandemic is one of the most significant risks to public health, resulting in mass fatalities and increased demand for health services while up to 50% of the workforce could be unavailable for work. The exercise scenario highlighted the possible stresses on different organisations, which have the potential for wide ranging impacts on business continuity and community welfare as a consequence of high rates of employee sickness absences and pressures on critical services.

The Public Health Team and Resilience Team worked very closely together during the period of this exercise and have subsequently identified a number of recommendations to be developed. These steps will ensure the Council is prepared to respond and enable the continued provision of critical services during a genuine pandemic.

Surveillance

Effective surveillance systems ensure the early detection and notification of particular communicable diseases. Public Health England's Health Protection Team obtains data from a wide variety of sources, including GPs, healthcare staff, hospitals, sexual health services, local authority environmental health teams, care homes, schools and nurseries. This information is closely monitored to make sure that individual cases of disease are effectively treated and prevented from spreading, and that outbreaks of infections are monitored, analysed and controlled.

Gastrointestinal Infections

Gateshead Council's Environmental Health team are an important resource in identifying and investigating cases and outbreaks of, especially, foodborne infections, including food poisoning.

Throughout the year the Council received notification of 167 cases of campylobacter, an reduction over the previous year. Other food related infectious disease notifications also fell to 135 cases. This includes all cases of Salmonella reported to the Council. The incidence of food poisoning tends to increase during the summer months.

Improvements in the use of DNA analysis of samples has led to an improvement in linking cases together and linking cases to any food recovered during the investigation of a food

poisoning outbreak. This was a significant help in a small community outbreak of Salmonella within Gateshead. Cases were linked together, but food samples from suspect premises were able to be excluded.

The Council now records all reported cases of food related infectious disease on a secure electronic database. This enables easier handling of cases and comparison of yearly statistics. It also assists in the early identification of exceedances and links between cases, suggesting possible outbreaks.

During the year there was an outbreak of Cryptosporidiosis linked to two of Gateshead's swimming pools. This outbreak involved a rare strain of Cryptosporidium hominis rarely seen in the UK. The pools were closed in October after Public Health England alerted Gateshead Council to a possible link to a number of cases of cryptosporidiosis in the local area. The council closed the pools voluntarily as a precaution and to allow a deep-clean of the pool water and filtration system to take place. Subsequent water quality testing at Dunston, Blaydon, Gateshead and Heworth Leisure Centres and Birtley Swimming Centre confirmed all pools to be clean and safe for use.

It is highly likely the contamination, which can cause sickness and diarrhoea, was introduced to the two pool facilities by a pool user; the pools themselves were not considered a likely source of the infection. However, Gateshead Council took the decision to voluntarily close the pools to avoid exposing customers to any potential risk.

Excess winter deaths in 2014/15 and 2015/16

Detailed information on excess winter deaths at a local level is not usually available until the following year. This section of the report will detail what is now known about excess winter deaths in 2014/15, and what is currently known about excess winter deaths in 2015/16.

The ONS standard method defines the winter period as December to March, and compares the number of deaths that occurred in this winter period with the average number of deaths occurring in the preceding August to November and the following April to July:

EWM = winter deaths - average non-winter deaths

The EWM index is calculated so that comparisons can be made between sexes, age groups and regions, and is calculated as the number of excess winter deaths divided by the average non-winter deaths, expressed as a percentage:

$$\textbf{EWM Index} = \frac{\textbf{EWM}}{\textbf{Average of non-winter deaths}} \times 100$$

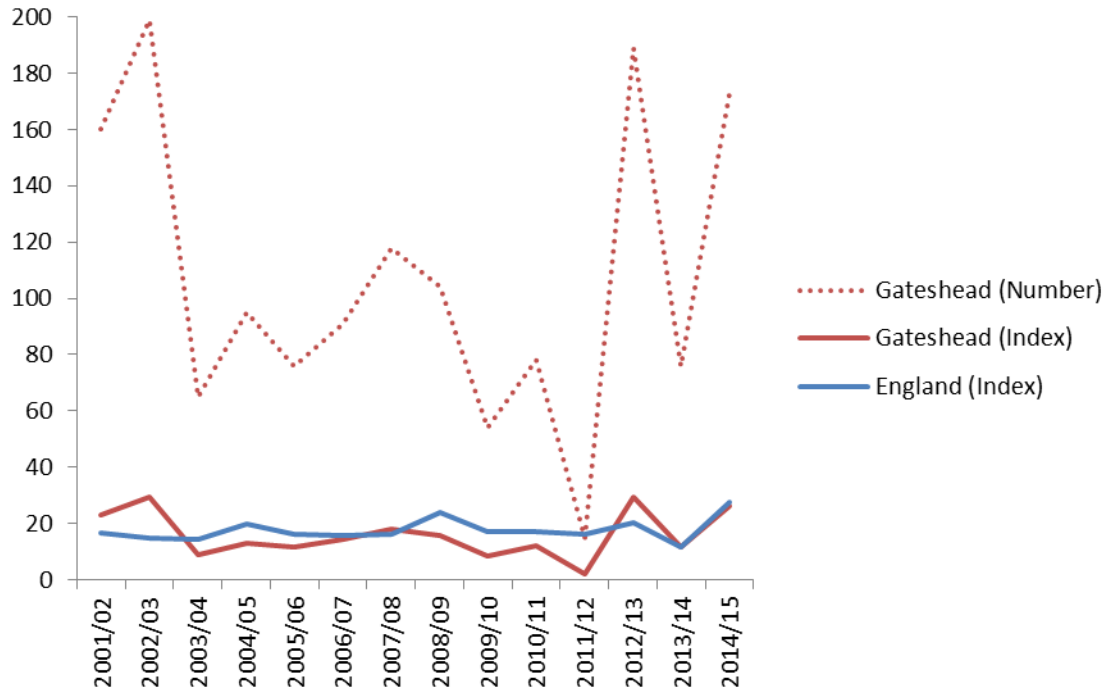
The most recent data available are for the 2014/15 winter, when in Gateshead there were 173 excess winter deaths, compared to 70 in 2013/14. The EWM index for 2014/15 shows that there were 26 per cent more deaths in the winter compared with the non-winter period. The position of Gateshead is typical of NE authorities, and not significantly different to England.

In 2014/15 in Gateshead the majority of deaths occurred amongst people aged 75 and over. There were more excess winter deaths in females than in males, as in the previous 5 years.

Respiratory diseases were the underlying cause of death in more than a third of all excess winter deaths. See data presented earlier in this report on the uptake of flu vaccine.

There is significant year-on-year variation in the numbers of excess winter deaths, and in the EWM index (see figure 1):

Figure 1: Number and Index of Excess Winter Deaths



It is not always apparent why this is the case. The winter of 2014/15 had the highest number of excess winter deaths in England and Wales since 1999/00 with 41,300 more people dying in the winter months compared with the non-winter months, although the number of excess deaths in Gateshead was higher in 2012/13 and 2002/03. The local index has been significantly different from England's in only 2 years since 2001(one year it was better, one year worse).

The 2030 Vision is for all Gateshead homes to be energy efficient. Efficiency ratings vary by tenure and geographical locality, and a small proportion of Gateshead homes, particularly in the private sector, would fail the Housing Health and Safety Rating System due to excess cold.

It is estimated that approximately 11% of households in Gateshead are in fuel poverty. This is little changed since 2013, when 10.9% (9,855) of households in Gateshead were deemed fuel poor, but the number of households in fuel poverty has increased (to 10,108). This is significantly higher than the England average of 10.4%, although lower than the regional figure.

Residents in some areas of Gateshead are more likely to live in fuel poverty than others. In 2015, fuel poverty in different Lower Super Output Areas in Gateshead ranged from 6.7% to 20.7% of households. Households in the Bensham area and parts of Chopwell have the highest levels of fuel poverty.

In 2015 The Council's Communities & Place Overview and Scrutiny Committee undertook a review of Domestic Energy Management & Fuel Poverty. This made a number of

recommendations, and progress is reported annually. There is also third sector activity, including the work of CAB, Age UK and others to raise uptake of benefits and National Energy Action which seeks to end fuel poverty.

Air quality

Poor air quality is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of respiratory disease, heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.

Action to manage and improve air quality is largely driven by European (EU) legislation.

Nationally, the Government are required to carry out monitoring and modelling to ensure compliance with the the 2008 ambient air quality directive (2008/50/EC). The directive sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen dioxide (NO_2). Due to action by the European Commission and ClientEarth (an environmental activist group of lawyers), the Government was directed to produce a revised Air Quality Plan by July 2017 requiring the implementation of measures to improve air quality in the quickest possible time.

Locally, the Environment Act 1995 requires Gateshead Council to review and assess the air quality in the Borough under Local Air Quality Management (LAQM) arrangements. The Government has set specific air quality objective standards for pollutants that should not be exceeded. When pollutants are found to be close to or higher than these standards, local Councils are required to declare Air Quality Management Areas (AQMA) and take steps to reduce air pollution.

Gateshead Council brings together a number of service areas and professions to tackle poor air quality, and works collaboratively with neighbouring authorities and external bodies (such as the Environment Agency) on matters of transport, planning and air quality.
There are two pollutants in particular that cause problems with air quality in Gateshead and are related substantially to the use of transport. They are nitrogen dioxide (NO_2) and particulate matter less than 2.5 microns in size ($PM_{2.5}$) - both have short and long term effects on human health.

Gateshead Council monitors these two pollutants at a number of locations across the Gateshead Borough using automatic and non-automatic monitoring arrangements. Some of these monitoring locations represent the worst case scenario of road traffic flows/congestion in Gateshead in areas where there are residents who are exposed to these pollutants. By monitoring and understanding pollutant concentrations in these locations we can be satisfied that other areas in the borough will be well below air quality objective standards.

As a result of measured levels of Nitrogen Dioxide (NO_2) exceeding the annual objective level, the council declared an Air Quality Management Area (AQMA) in April 2005 within Gateshead Town Centre. This was extended in April 2008.

Since 2011, the levels of NO_2 have fallen below the air quality annual mean objective and the monitoring data for 2016 shows that NO_2 levels continue to remain below the mean objective level of 40µg/m3 within the AQMA. The monitoring data also indicates that there were no exceedances of the annual mean objective outside of the AQMA in 2016. Gateshead Council does not currently propose to revoke the Gateshead Town Centre AQMA.

The mean annual concentrations of $PM_{2.5}$ have been measured at two locations since 2012. Figures indicate that $PM_{2.5}$ levels are below Air Quality Objectives, European Limit Values and World Health Organisation guidelines at both monitoring locations.

Despite these improvements in Gateshead's air quality there is still more work to be done. Gateshead Council submitted an application to DEFRA for Air Quality Grant funding to support a number of work streams to help improve air quality in November 2016. The application was successful and the Council were awarded £396,000. The work streams include:

- Air quality monitoring and traffic signalling optimisation in conjunction with the Urban Traffic Management Centre (UTMC);
- Cleaning the taxi fleet through changes to taxi licensing policy;
- Behaviour change: including Schools Go Smarter and Go Smarter to Work – Make the Switch;
- Provision of additional Car club vehicles and charging infrastructure;
- Council Fleet Vehicle Upgrade;
- Improvements in Cycle Infrastructure.

Control – Specific Disease

Tuberculosis (TB)

Tuberculosis (TB) is an infection that can be caught by breathing in bacteria from someone who has infectious TB.

People who live in areas with high levels social deprivation are most vulnerable to developing TB. These include those who are homeless, poor housing, live in poverty or are drug users.

Gateshead has small numbers of cases of TB, though there was a significant rise in cases between 2010-12 and 2014-16, from 24 cases to 45 cases, respectively (see Appendix D).

Scarlet fever IGAS

Cases of scarlet fever, a common and usually mild childhood bacterial infection, continued to rise for the fourth season in a row during 2016/17. In the North East, notifications rose from 953 in 2015 to 1131 in 2016.

The bacterium responsible for scarlet fever can also cause potentially lethal infections called invasive group A streptococcal infections (IGAS).

Cases of this more serious infection have also increased across the North East from 75 in 2011 to 165 in 2016. Each case is extensively investigated by the regional Health Protection Team with all contacts followed up and offered advice and/or treatment as necessary.

Sexually transmitted infections (STIs)

Gateshead Council is responsible for commissioning comprehensive, open access sexual health services.

A new model Integrated Sexual Health Service was commissioned by the Council from 1st April 2015. Based in Gateshead town centre, it is supported by local clinics and outreach services (www.gatesheadsexualhealth.co.uk).

Gateshead data regarding STIs in 2016 (unless otherwise specified) shows that:

- Overall 1445 new sexually transmitted infections (STIs) were diagnosed in residents of Gateshead, a rate of 719 per 100,000 residents (compared to 750 per 100,000 in England).

- The rate of new STIs excluding chlamydia diagnoses in 15-24 year olds; was 712 per 100,000 residents (compared to 795 per 100,000 in England).

- The chlamydia detection rate per 100,000 young people aged 15-24 years in Gateshead was 2105 (compared to 1,882 per 100,000 in England).

- The rate of gonorrhoea diagnoses per 100,000 in this local authority was 81.6 (compared to 64.9 per 100,000 in England).

- Among sexual health clinic patients from Gateshead who were eligible to be tested for HIV, 65.7% were tested (compared to 67.7% in England)

- There were 14 new HIV diagnoses in Gateshead. The diagnosed HIV prevalence was 1.55 per 1,000 population aged 15-59 years (compared to 2.31 per 1,000 in England).

- In Gateshead, between 2014 and 2016, 43.3% of HIV diagnoses were made at a late stage of infection (CD4 count <350 cells/mm^3 within 3 months of diagnosis), similar to the England percentage of 40.1%.

Communications

Communications are a vital element of health protection arrangements. Good communications demonstrate accountability and provide confidence, especially when responding to an incident.

A good example of the value of clear communications arose subsequently to an incident in January 2016. Residents living near the Path Head landfill site near Blaydon reported a persistent bad smell in the air. Subsequent investigation of the problem by the Council and the Environment Agency showed that high levels of rainfall in December and January had flooded the site and overwhelmed some of the environmental controls in place. This resulted in low levels of hydrogen sulphide gas being emitted by the site. This gas has a characteristic “bed eggs” smell and can be detected at very low concentrations.

The Council worked with the Environment Agency and Public Health England to make sure that the company responsible for running the site, Suez, worked quickly to re-establish control over gas emissions. It became clear that regaining control would require substantial works on the site that would take some weeks to complete. This meant that the smell was likely to persist.

Communications proved to be a significant element of the response to concerns raised by local residents. Gateshead Council, PHE and the Environment Agency agreed a clear communications plan to give people concise and regular updates of the impact of the smell on health and wellbeing, and actions being taken to resolve the situation.

Actions extended well into 2016 which led to a significant reduction in complaints about odour from the site.

Reporting

This report will be presented to Cabinet, the Gateshead Health and Wellbeing Board and to the Newcastle/Gateshead Clinical Commissioning Group, to ensure that NHS partners are aware of the Council's Health Protection Assurance role and facilitate and reinforce multiagency cooperation.

The Director of Public Health reports to the Chief Executive of Gateshead Council and is a member of the Health and Wellbeing Board and the CCG Governing Body.

Conclusion

Existing Health Protection Assurance arrangements are working well and have been effective in dealing with all aspects of health protection.

As the changes across the health and social care economy are embedded, it is important to keep the arrangements in Gateshead under review.

Alice Wiseman

Director of Public Health

INDICATOR	LATEST PERFORMANCE	PREVIOUS PERFORMANCE	DIRECTION OF TRAVEL	TARGET	LATEST NORTH EAST PERFORMANCE	BENCHMARKING vs NORTH EAST	LATEST ENGLAND PERFORMANCE	BENCHMARKING vs ENGLAND
3.03iii - Population vaccination coverage - Dtap/IPV/Hib (12 months)	**93.9% (2168) (2016/17)**	95.2% (2172) (2015/16)	↓	**90% - 95%**	95.2% (2016/17)	Lower than the North East average	93.4% (2016/17)	Higher than the England average
3.03iv - Population vaccination coverage - MenC (12 months)	**88.0% (Q4 2016-17)**	96.4% (2199) (2015/16)	↓	**<90%**	90.1% (Q4 2016-17)	Lower than the North East average	84.7% (Q4 2016-17)	Higher than the England average
3.03v - Population vaccination coverage - PCV (12 months)	**93.5% (2158) (2016/17)**	94.3% (2153) (2015/16)	↓	**90% - 95%**	95.2% (2016/17)	Lower than the North East average	93.5% (2016/17)	Similar to the England average
Population vaccination coverage - Rota (12 months)	**92.0% (2125) (2016/17)**	N/a	-	**90% - 95%**	93.3% (2016/17)	Lower than the North East average	89.6% (2016/17)	Higher than the England average
Population vaccination coverage - MenB (12 months)	**92.5% (Q1 2017-18)**	N/a	-	**90% - 95%**	**96.1% (Q1 2017-18)**	Lower than the North East average	**92.2% (Q1 2017-18)**	Higher than the England average
3.03iii - Population vaccination coverage - Dtap/IPV/Hib (24 months)	**97.5% (2209) (2016/17)**	97.2% (2142) (2015/16)	↑	**>=95%**	97.4% (2016/17)	Higher than the North East average	95.1% (2016/17)	Higher than the England average
3.03vii - Population vaccination coverage - PCV booster (24 months)	**92.6% (2098) (2016/17)**	92.3% (2034) (2015/16)	↑	**90% - 95%**	94.9% (2016/17)	Lower than the North East average	91.5% (2016/17)	Higher than the England average

3.03vi - Population vaccination coverage - Hib / MenC booster (24 months)	**92.9% (2105) (2016/17)**	92.6% (2039) (2015/16)	↑	**90% - 95%**	94.9% (2016/17)	Lower than the North East average	91.5% (2016/17)	Higher than the England average
3.03viii - Population vaccination coverage - MMR for one dose (24 months)	**93.0% (2108) (2016/17)**	92.4% (2036) (2015/16)	↑	**90% - 95%**	94.9% (2016/17)	Lower than the North East average	91.6% (2016/17)	Higher than the England average
Population vaccination coverage - Dtap/IPV/Hib (5 years)	**96.8% (2359) (2016/17)**	97.1% (2423) (2015/16)	↓	**>=95%**	97.7% (2016/17)	Lower than the North East average	95.6% (2016/17)	Higher than the England average
3.03ix - Population vaccination coverage - MMR for one dose (5 years old)	**96.3% (2347) (2016/17)**	96.9% (2418) (2015/16)	↓	**>=95%**	97.5% (2016/17)	Lower than the North East average	95.0% (2016/17)	Higher than the England average
3.03x - Population vaccination coverage - MMR for two doses (5 years old)	**89.0% (2169) (2016/17)**	86.3% (2153) (2015/16)	↑	**<90%**	92.4% (2016/17)	Lower than the North East average	87.6% (2016/17)	Higher than the England average
Population vaccination coverage - Dtap/IPV/Hib (booster) (5 years)	**90.0% (2193) (2016/17)**	87.3% (2179) (2015/16)	↑	**90% - 95%**	92.1% (2016/17)	Lower than the North East average	86.2% (2016/17)	Higher than the England average
3.03vi - Population vaccination coverage - Hib / Men C booster (5 years old)	**93.6% (2281) (2016/17)**	94.5% (2359) (2015/16)	↓	**90% - 95%**	95.4% (2016/17)	Lower than the North East average	92.6% (2016/17)	Higher than the England average
3.03xiii - Population vaccination coverage - PPV	73.1% (27866) (2015/16)	73.0% (27760) (2014/15)	↑	**65% - 75%**	72.2% (2015/16)	Higher than the North East average	70.1% (2015/16)	Higher than the England average

3.03xvii - Population vaccination coverage - Shingles vaccination coverage (70 years old)	54.3% (964) (2015/16)	58.9% (1150) (2014/15)	↓	**50% - 60%**	57.1% (2015/16)	Lower than the North East average	54.9% (2015/16)	Lower than the England average
3.03xiv - Population vaccination coverage - Flu (aged 65+)	73.8% (23236) (2016/17)	72.6% (28710) (2015/16)	↑	**<75%**	72.4% (2016/17)	Higher than the North East average	70.5% (2016/17)	Higher than the England average
3.03xv - Population vaccination coverage - Flu (at risk individuals)	54.9% (11513) (2016/17)	50.3% (13829) (2015/16)	↑	**<55%**	49.5% (2016/17)	Higher than the North East average	48.6% (2016/17)	Higher than the England average
3.03xviii - Population vaccination coverage - Flu (2-4 years old)	39.8% (2666) (2016/17)	39.2% (2714) (2015/16)	↑	**<40%**	39.5% (2015/16)	Higher than the North East average	38.1% (2016/17)	Higher than the England average
3.03xii - Population vaccination coverage - HPV vaccination coverage for one dose (females 12-13 years old)	91.5% (941) (2015/16)	86.6% (869) (2014/15)	↑	**>=90%**	92.0% (2015/16)	Lower than the North East average	87.0% (2015/16)	Higher than the England average
3.03xvi - Population vaccination coverage - HPV vaccination coverage for two doses (females 13-14 years old)	86.2% (865) (2015/16)	Not available	-	**80% - 90%**	90.1% (2015/16)	Lower than the North East average	85.1% (2015/16)	Lower than the England average
MenACWY adolescent vaccine (13-14 year olds) born between 01/09/2001 and 31/08/2002	93.6% (865) (Sep 15/Aug 16)	2015/16 was the first year of the MenACWY Programme	-	-	N/a	Benchmarking not available	84.1% (2015/16)	Higher than the England average
MenACWY adolescent vaccine (14-15 year olds) born between 01/09/2000 and 31/08/2001	Not available		-	-	N/a	Benchmarking not available	77.2% (Sep 15/Aug 16)	Benchmarking not available

MenACWY adolescent vaccine (15-16 year olds) born between 01/09/1999 and 31/08/2000	78.7% (865) (Sep 15/Aug 16)		-	-	N/a	Benchmarking not available	71.8% (Sep 15/Aug 16)	Higher than the England average

2.20i - Cancer screening coverage - breast cancer	78.9% (17527) (2016)	78.5% (17316) (2015)	↑	-	77.3% (2016)	Significantly better than the North East average	75.5% (2016)	Significantly better than the England average
2.20ii - Cancer screening coverage - cervical cancer	74.8% (38219) (2016)	75.8% (38526) (2015)	↓	-	75.2% (2016)	Significantly worse than the North East average	72.7% (2016)	Significantly better than the England average
2.20iii - Cancer screening coverage - bowel cancer	60.4% (17923) (2016)	60.0% (17681) (2015)	↑	-	59.4% (2016)	Significantly better than the North East average	57.9% (2016)	Significantly better than the England average
2.20iv - Abdominal Aortic Aneurysm Screening - Coverage	76.4% (830) (2015/16)	78.2% (892) (2014/15)	↓	-	77.6% (2015/16)	Not significantly different to the North East average	79.9% (2015/16)	Significantly worse than the England average
2.20xi - New-born Blood Spot Screening - Coverage	98.0% (2187) (2015/16)	97.6% (2138) (2014/15)	↑	-	97.9% (2015/16)	Not significantly different to the North East average	95.6% (2015/16)	Significantly better than the England average

2.20xii - New-born Hearing Screening - Coverage	99.6% (2241) (2015/16)	99.0% (2255) (2014/15)	↑	-	99.1% (2015/16)	Significantly better than the North East average	98.7% (2015/16)	Significantly better than the England average
2.20xii - New-born Hearing Screening - Coverage	99.6% (2241) (2015/16)	99.0% (2255) (2014/15)	↑	-	99.1% (2015/16)	Significantly better than the North East average	98.7% (2015/16)	Significantly better than the England average
ID1: Antenatal infectious disease screening – HIV coverage	99.8% (581/580) (Q4 2016/17)	99.6% (555/557) (Q3 2016/17)	↑	**>=95.0% Achievable Threshold**	99.1% (Q4 2016/17)	Higher than the North East average	99.5% (Q4 2016/17)	Higher than the England average
ST1: Antenatal sickle cell and thalassaemia screening – coverage	100.0% (581/581) (Q4 2016/17)	99.6% (555/557) (Q3 2016/17)	↑	**>=99.0% Achievable Threshold**	98.8% (Q4 2016/17)	Higher than the North East average	99.2% (Q4 2016/17)	Higher than the England average
200996 (2015 mid year population estimates used by PHE to calculate rates per 100,000)	*Rate per 100,000 used for the infectious diseases is an anualised rate based on the quarterly data being mainteined for a full year*							
Infectious Diseases - Campylobacter	93.5 per 100,000 47 Cases (Q2 2017)	119.4 per 100,000 60 Cases (Q2 2016)	↓	-	125 per 100,000 (Q2 2017)	Lower than the North East Rate	N/a	Significance not Calculated
Infectious Diseases - Salmonella	21.9 per 100,000 11 Cases (Q2 2017)	8.0 per 100,000 4 Cases (Q2 2016)	↑	-	12.3 per 100,000 (Q2 2017)	Higher than the North East Rate	N/a	Significance not Calculated
Infectious Diseases - Cryptosporidium	10.0 per 100,000 5 Cases (Q2 2017)	6.0 per 100,000 3 Cases (Q2 2016)	↑	-	8.4 per 100,000 (Q2 2017)	Higher than the North East Rate	N/a	Significance not Calculated

Infectious Diseases - Escherichia Coli O157	0.0 per 100,000 0 Cases (Q2 2017)	0.0 per 100,000 0 Cases (Q2 2016)	**No Change**	-	0.8 per 100,000 (Q2 2017)	Lower than the North East Rate	N/a	Significance not Calculated
Infectious Diseases - Giardia	15.9 per 100,000 8 Cases (Q2 2017)	11.9 per 100,000 6 Cases (Q2 2016)	↑	-	8.5 per 100,000 (Q2 2017)	Higher than the North East Rate	N/a	Significance not Calculated

The routine immunisation schedule from Autumn 2017

Age due	Diseases protected against	Vaccine given and trade name		Usual site
Eight weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, *Haemophilus influenzae* type b (Hib) and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa	Thigh
	Pneumococcal (13 serotypes)	Pneumococcal conjugate vaccine (PCV)	Prevenar 13	Thigh
	Meningococcal group B (MenB)	MenB	Bexsero	Left thigh
	Rotavirus gastroenteritis	Rotavirus	Rotarix	By mouth
Twelve weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa	Thigh
	Rotavirus	Rotavirus	Rotarix	By mouth
Sixteen weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa	Thigh
	Pneumococcal (13 serotypes)	PCV	Prevenar 13	Thigh
	MenB	MenB	Bexsero	Left thigh
One year old (on or after the child's first birthday)	Hib and MenC	Hib/MenC	Menitorix	Upper arm/thigh
	Pneumococcal	PCV	Prevenar 13	Upper arm/thigh
	Measles, mumps and rubella (German measles)	MMR	MMR VaxPRO[2] or Priorix	Upper arm/thigh
	MenB	MenB booster	Bexsero	Left thigh
Two to eight years old[1] (including children in reception class and school years 1-4)	Influenza (each year from September)	Live attenuated influenza vaccine LAIV[3]	Fluenz Tetra[2]	Both nostrils
Three years four months old or soon after	Diphtheria, tetanus, pertussis and polio	DTaP/IPV	Infanrix IPV or Repevax	Upper arm
	Measles, mumps and rubella	MMR (check first dose given)	MMR VaxPRO[2] or Priorix	Upper arm
Girls aged 12 to 13 years	Cervical cancer caused by human papillomavirus (HPV) types 16 and 18 (and genital warts caused by types 6 and 11)	HPV (two doses 6-24 months apart)	Gardasil	Upper arm
Fourteen years old (school year 9)	Tetanus, diphtheria and polio	Td/IPV (check MMR status)	Revaxis	Upper arm
	Meningococcal groups A, C, W and Y disease	MenACWY	Nimenrix or Menveo	Upper arm
65 years old	Pneumococcal (23 serotypes)	Pneumococcal Polysaccharide Vaccine (PPV)	Pneumococcal Polysaccharide Vaccine	Upper arm
65 years of age and older	Influenza (each year from September)	Inactivated influenza vaccine	Multiple	Upper arm
70 years old	Shingles	Shingles	Zostavax[2]	Upper arm

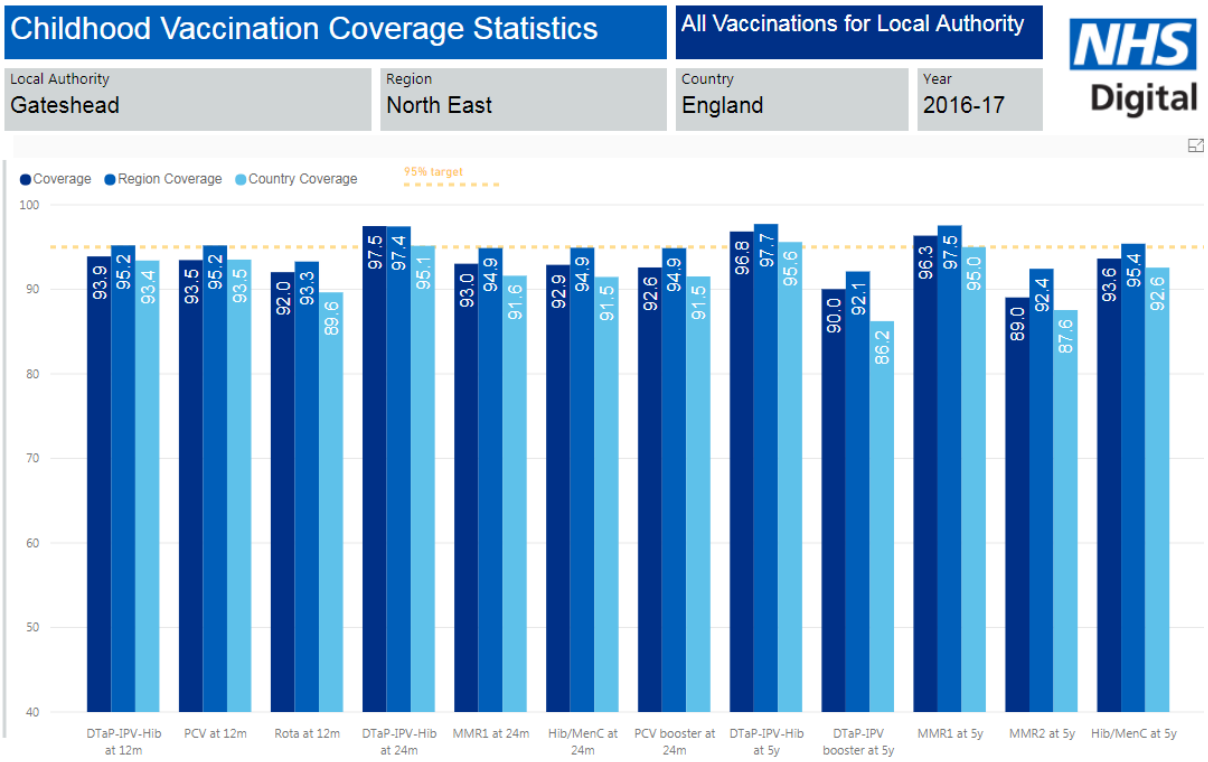
Selective immunisation programmes

Target group	Age and schedule	Disease	Vaccines required
Babies born to hepatitis B infected mothers	At birth, four weeks and 12 months old[1,2]	Hepatitis B	Hepatitis B (Engerix B/HBvaxPRO)
Infants in areas of the country with TB incidence >= 40/100,000	At birth	Tuberculosis	BCG
Infants with a parent or grandparent born in a high incidence country[3]	At birth	Tuberculosis	BCG
Pregnant women	During flu season At any stage of pregnancy	Influenza	Inactivated flu vaccine
Pregnant women	From 16 weeks gestation	Pertussis	dTaP/IPV (Boostrix-IPV or Repevax)

Additional vaccines for individuals with underlying medical conditions

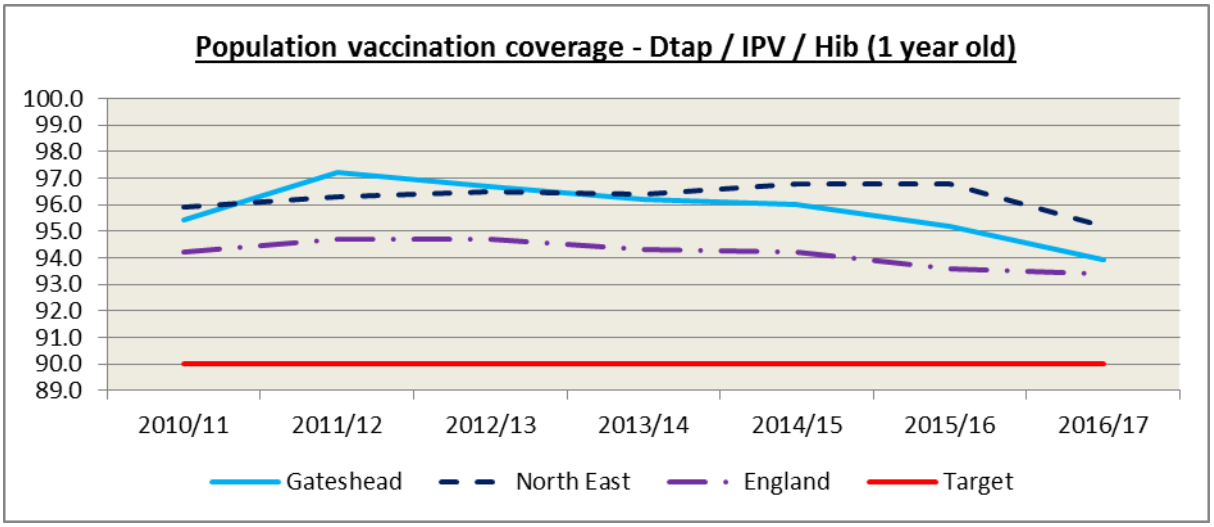
Medical condition	Diseases protected against	Vaccines required[1]
Asplenia or splenic dysfunction (including due to sickle cell and coeliac disease)	Meningococcal groups A, B, C, W and Y Pneumococcal Haemophilus influenzae type b (Hib) Influenza	Hib/MenC MenACWY MenB PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine
Cochlear implants	Pneumococcal	PCV13 (up to two years of age) PPV (from two years of age)
Chronic respiratory and heart conditions (such as severe asthma, chronic pulmonary disease, and heart failure)	Pneumococcal Influenza	PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine
Chronic neurological conditions (such as Parkinson's or motor neurone disease, or learning disability)	Pneumococcal Influenza	PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine
Diabetes	Pneumococcal Influenza	PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine
Chronic kidney disease (CKD) (including haemodialysis)	Pneumococcal (stage 4 and 5 CKD) Influenza (stage 3, 4 and 5 CKD) Hepatitis B (stage 4 and 5 CKD)	PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine Hepatitis B
Chronic liver conditions	Pneumococcal Influenza Hepatitis A Hepatitis B	PCV13 (up to two years of age) PPV (from two years of age) Annual flu vaccine Hepatitis A Hepatitis B
Haemophilia	Hepatitis A Hepatitis B	Hepatitis A Hepatitis B
Immunosuppression due to disease or treatment[3]	Pneumococcal Influenza	PCV13 (up to two years of age)[2] PPV (from two years of age) Annual flu vaccine
Complement disorders (including those receiving complement inhibitor therapy)	Meningococcal groups A, B, C, W and Y Pneumococcal *Haemophilus influenzae* type b (Hib) Influenza	Hib/MenC MenACWY MenB PCV13 (to any age) PPV (from two years of age) Annual flu vaccine

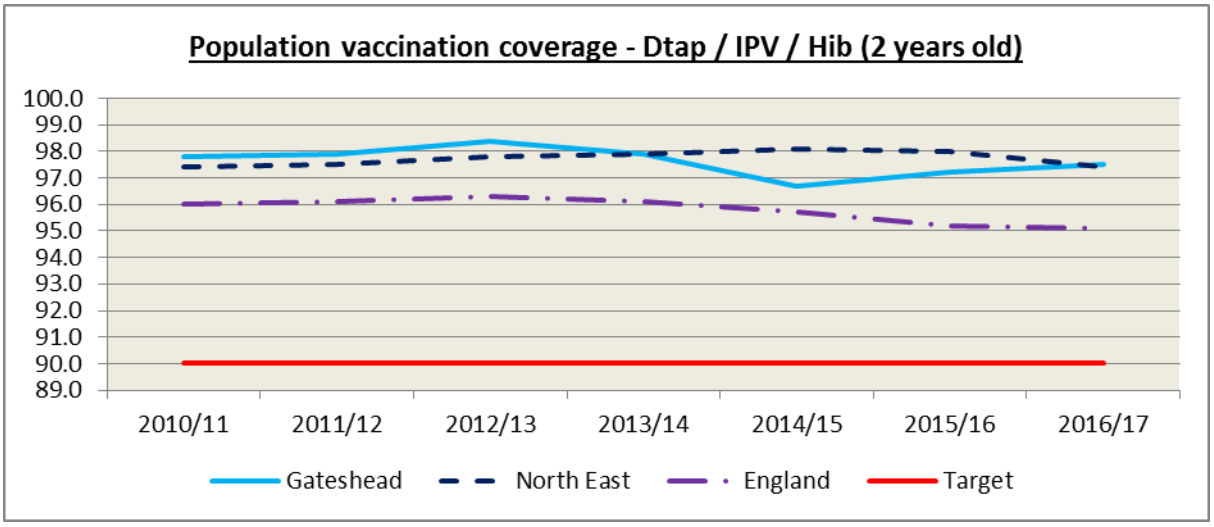
Appendix C

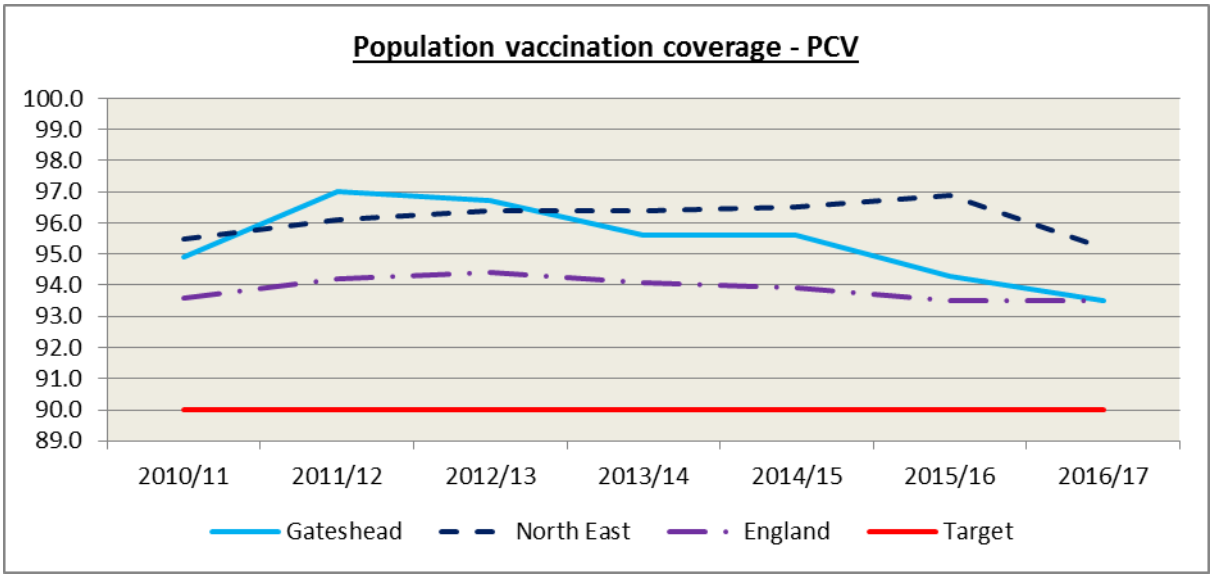


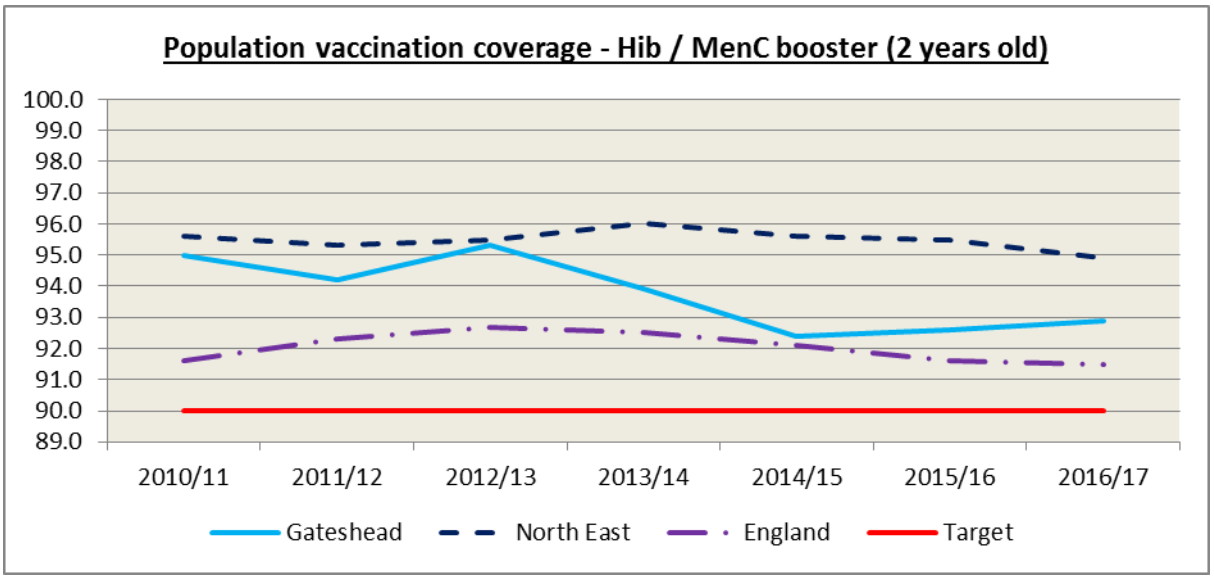
Dtap/IPV/Hib

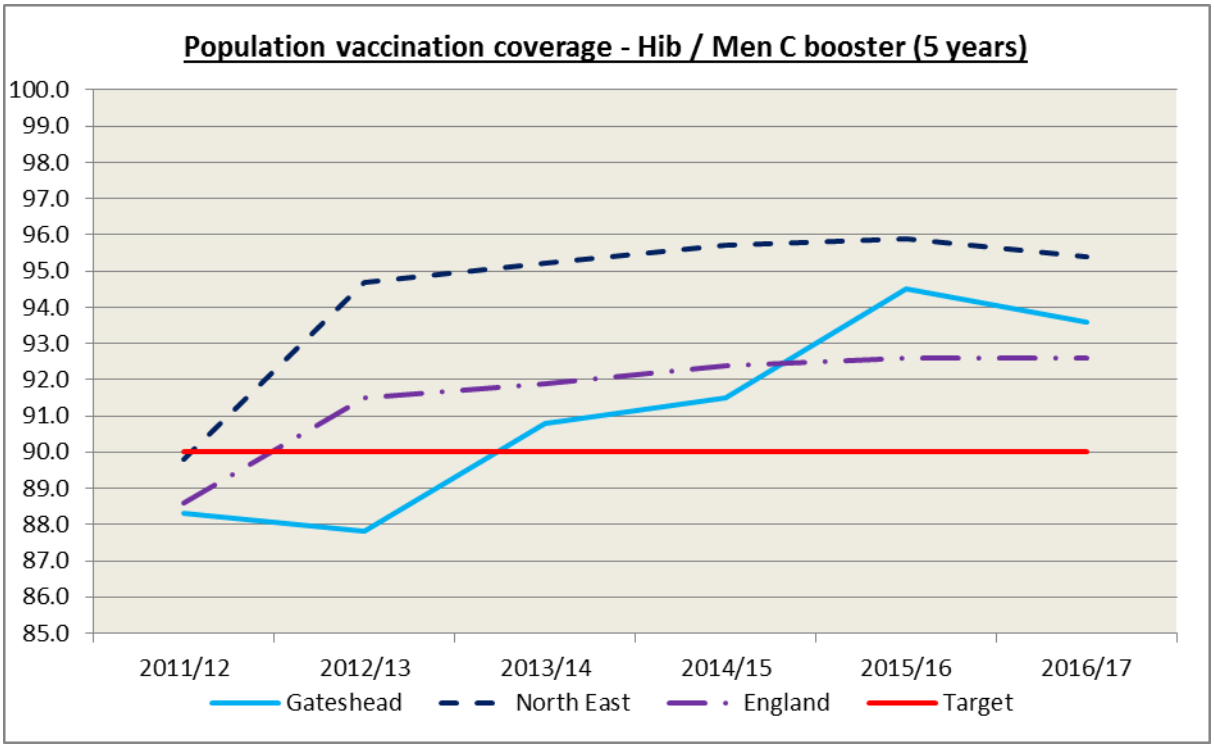
This single jab contains vaccines to protect against five separate diseases: diphtheria, tetanus, whooping cough (pertussis), polio and Haemophilus influenzae type b (known as Hib – a bacterial infection that can cause severe pneumonia or meningitis in young children)

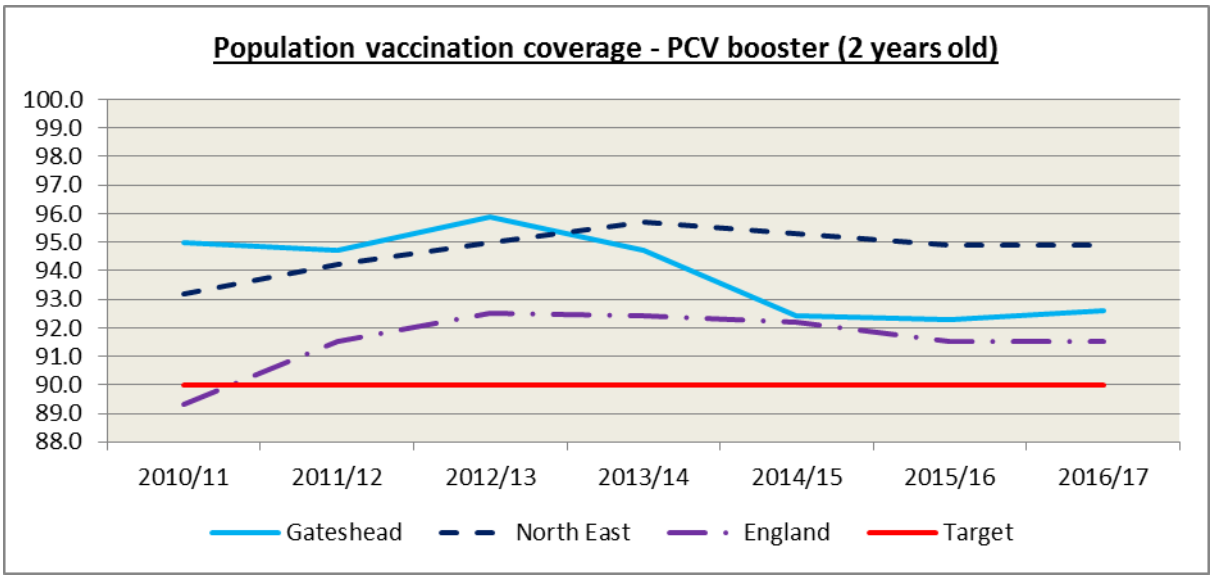


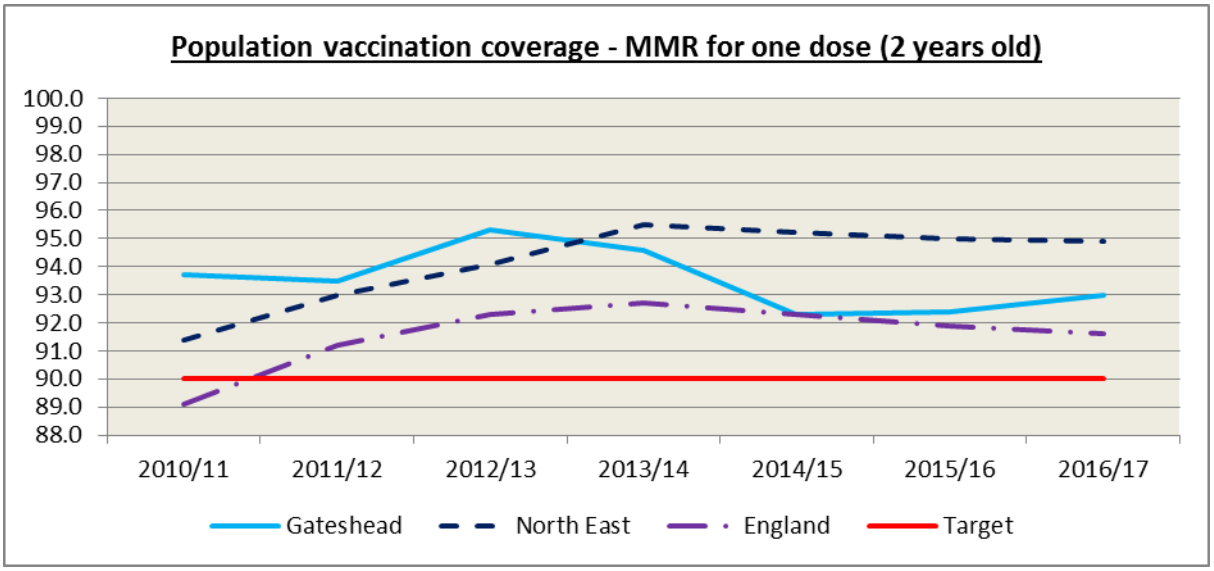

Population vaccination coverage - Dtap / IPV / Hib (2 years old)
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

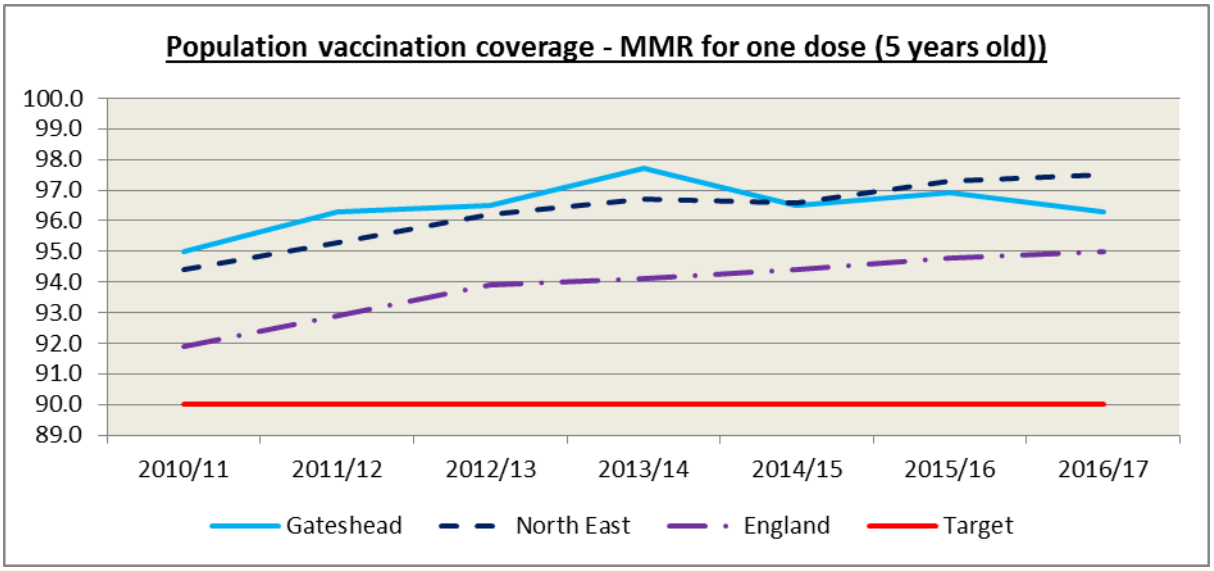

Population vaccination coverage - PCV
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

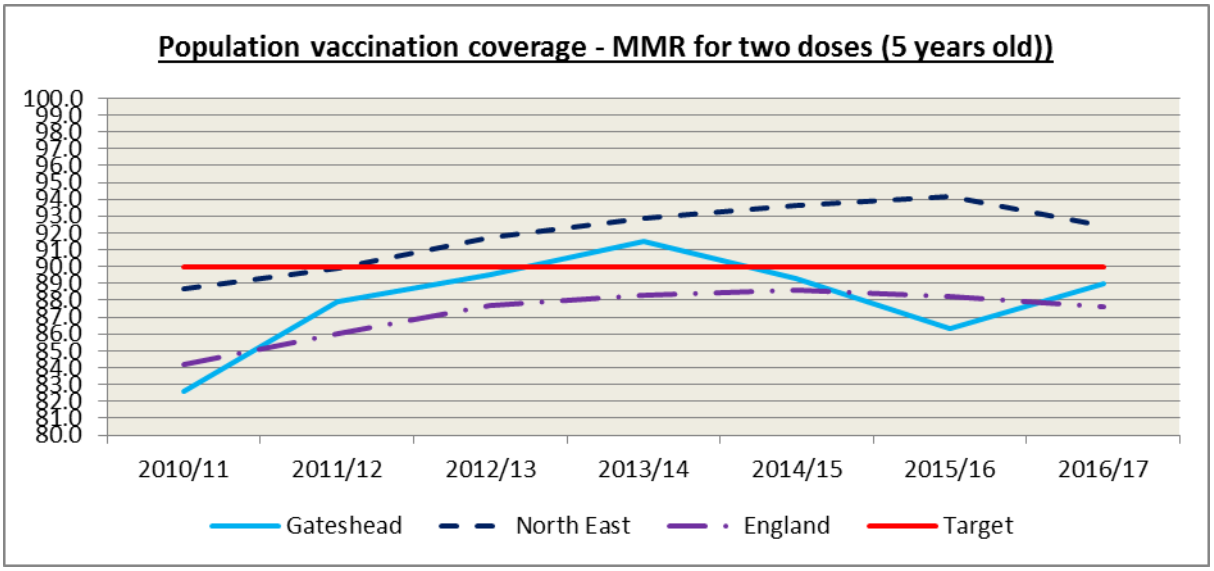

Population vaccination coverage - Hib / MenC booster (2 years old)
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

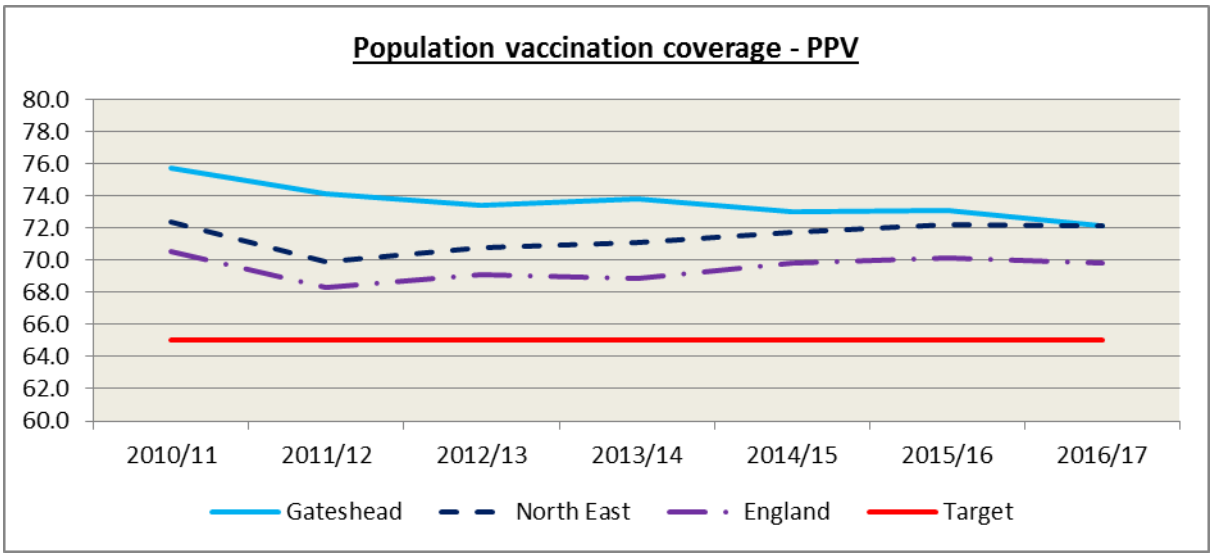

Population vaccination coverage - Hib / Men C booster (5 years)
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
88.0
87.0
86.0
85.0
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

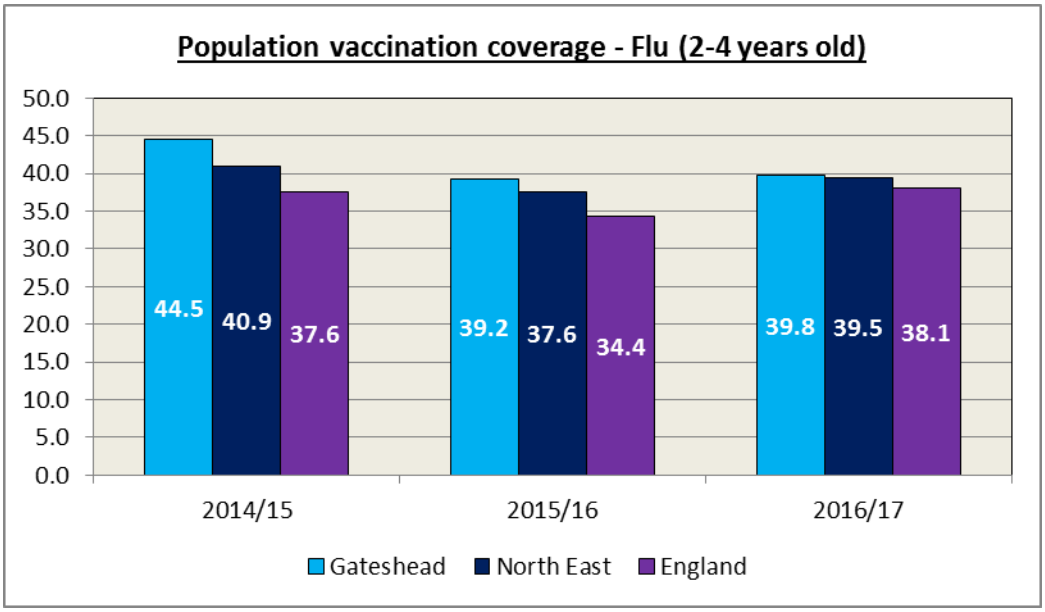

Population vaccination coverage - PCV booster (2 years old)
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
88.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

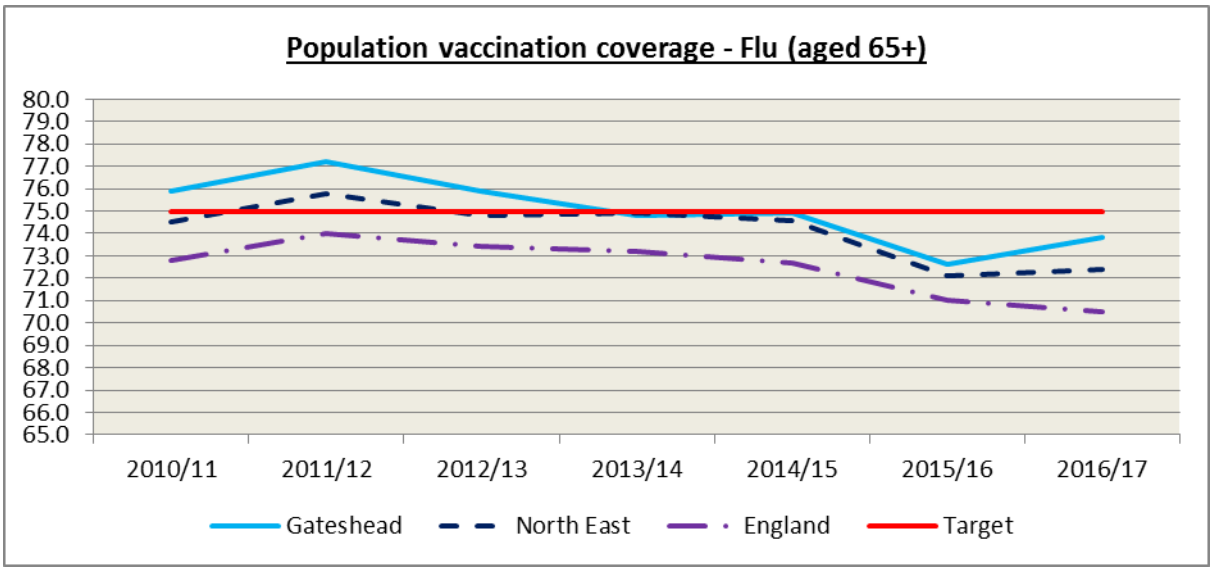

Population vaccination coverage - MMR for one dose (2 years old)
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
88.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

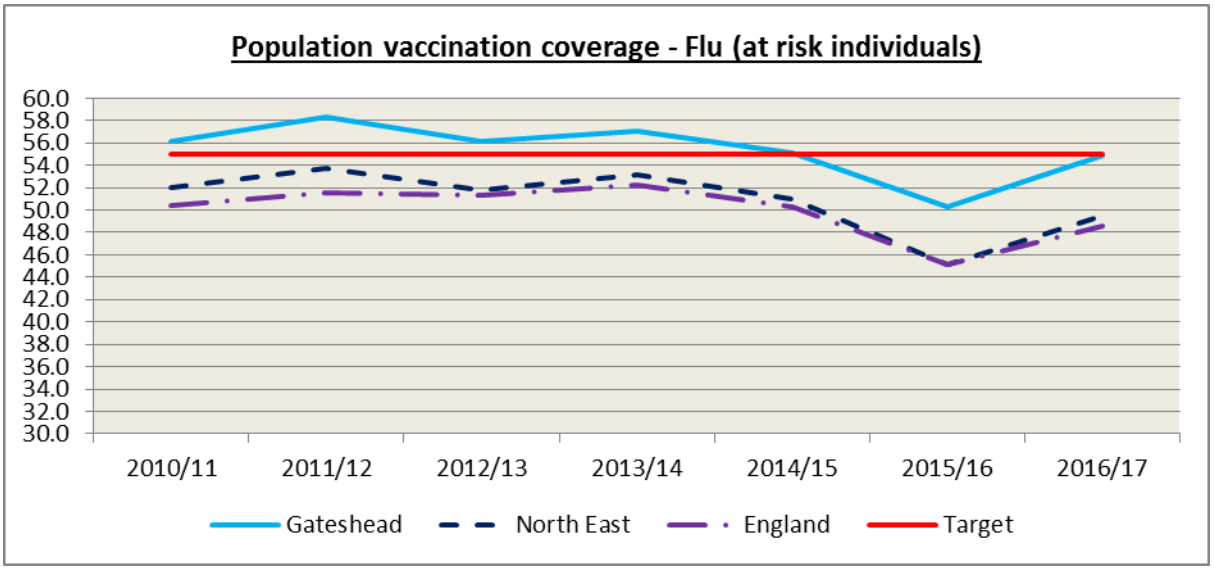

Population vaccination coverage - MMR for one dose (5 years old))
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

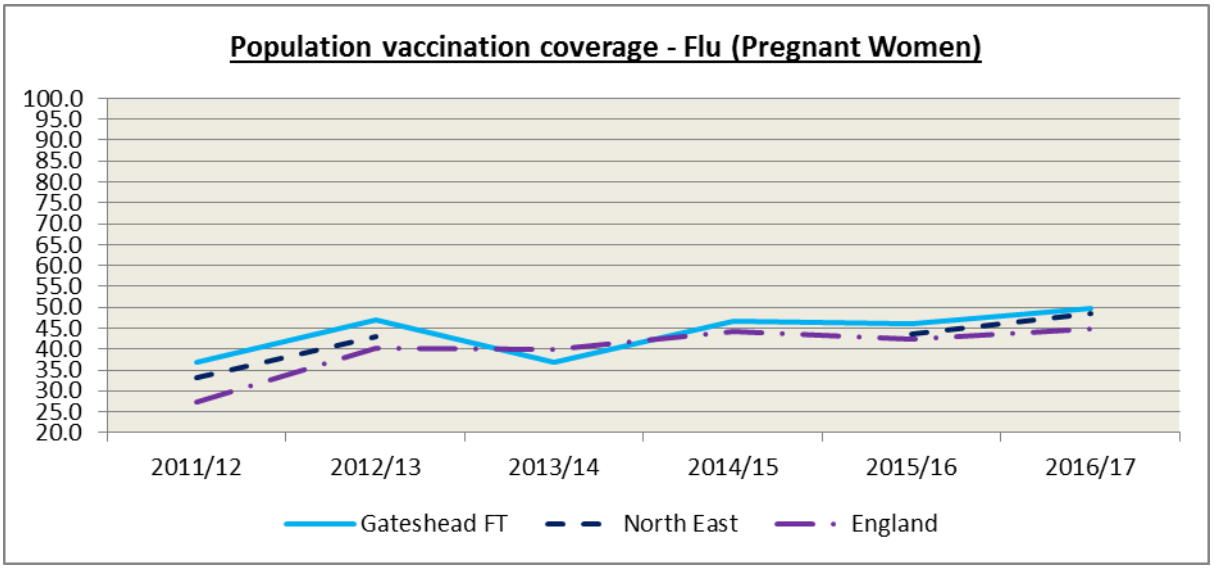

Population vaccination coverage - MMR for two doses (5 years old))
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
89.0
88.0
87.0
86.0
85.0
84.0
83.0
82.0
81.0
80.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

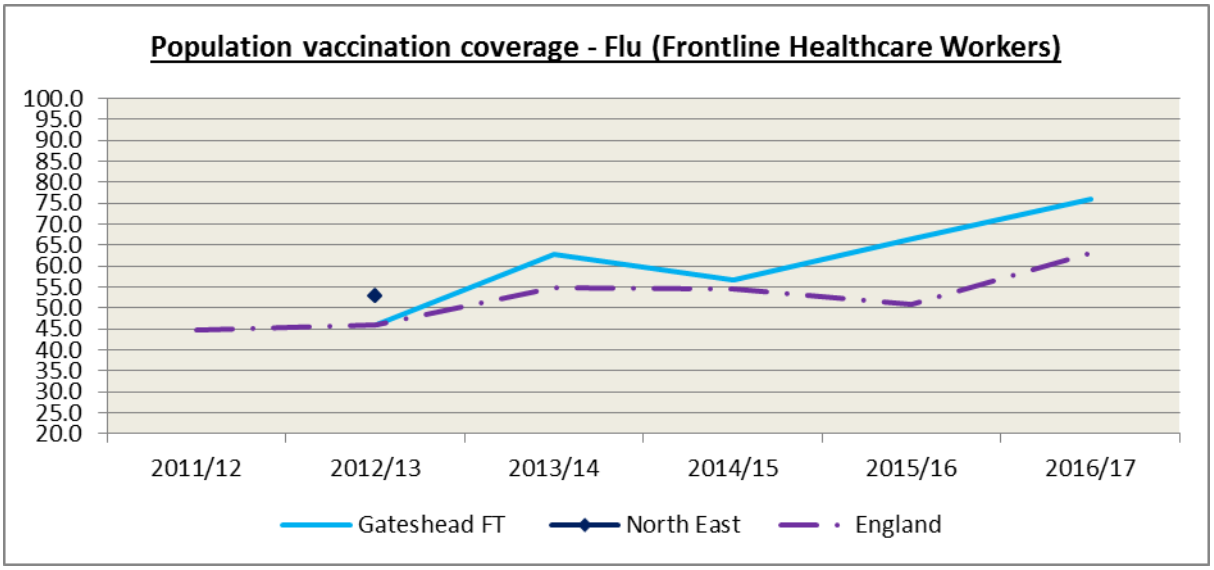

Population vaccination coverage - PPV
80.0
78.0
76.0
74.0
72.0
70.0
68.0
66.0
64.0
62.0
60.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

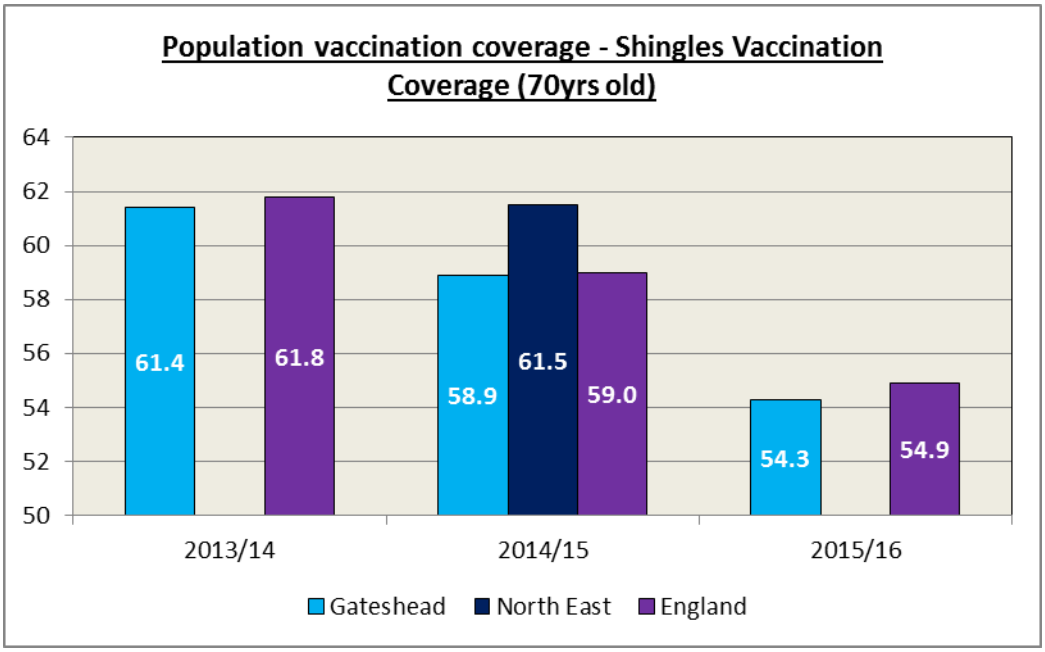

Population vaccination coverage - Flu (2-4 years old)
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
44.5
40.9
37.6
39.2
37.6
34.4
39.8
39.5
38.1
2014/15
2015/16
2016/17
Gateshead
North East
England

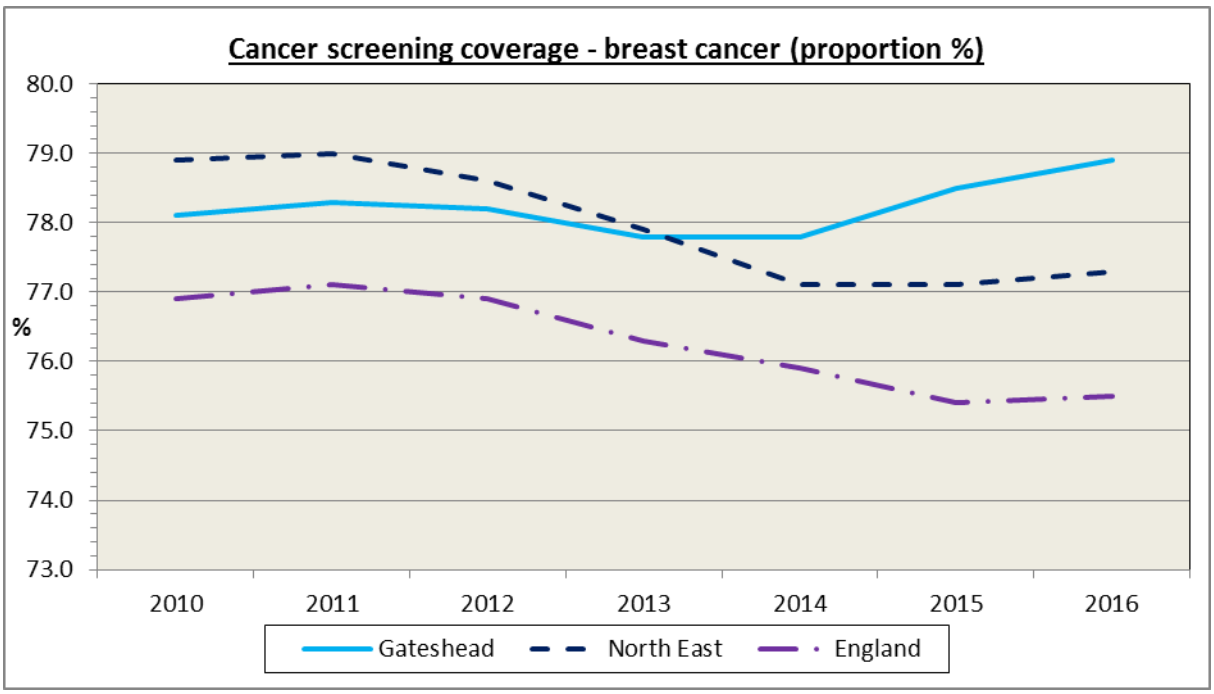

Population vaccination coverage - Flu (aged 65+)
80.0
79.0
78.0
77.0
76.0
75.0
74.0
73.0
72.0
71.0
70.0
69.0
68.0
67.0
66.0
65.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target

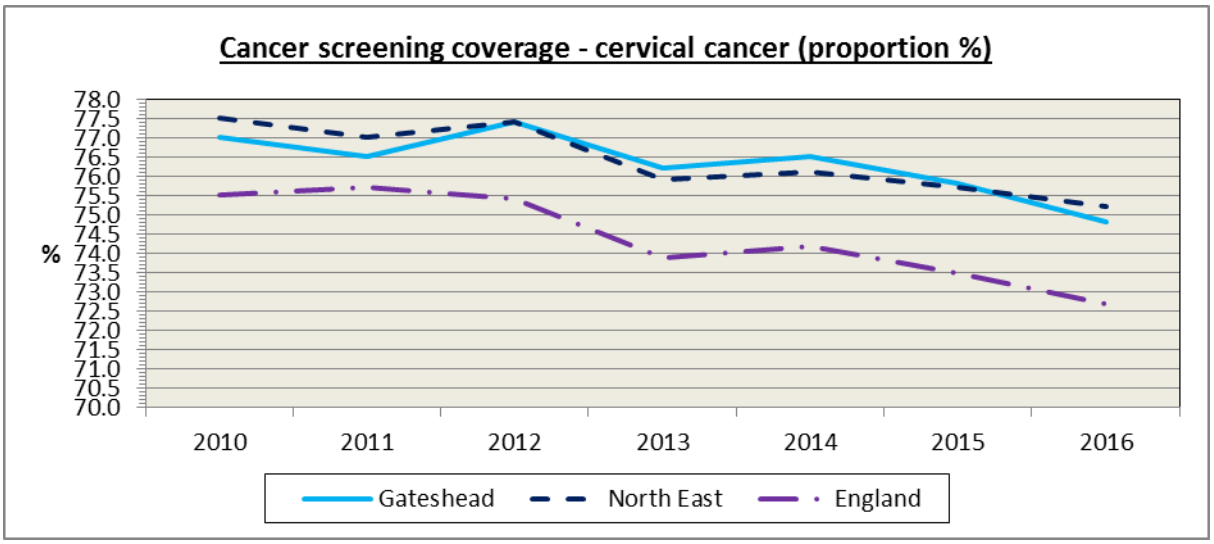

Population vaccination coverage - Flu (at risk individuals)
60.0
58.0
56.0
54.0
52.0
50.0
48.0
46.0
44.0
42.0
40.0
38.0
36.0
34.0
32.0
30.0
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead
North East
England
Target


Population vaccination coverage - Flu (Pregnant Women)
100.0
95.0
90.0
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead FT
North East
England


Population vaccination coverage - Flu (Frontline Healthcare Workers)
100.0
95.0
90.0
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
Gateshead FT
North East
England

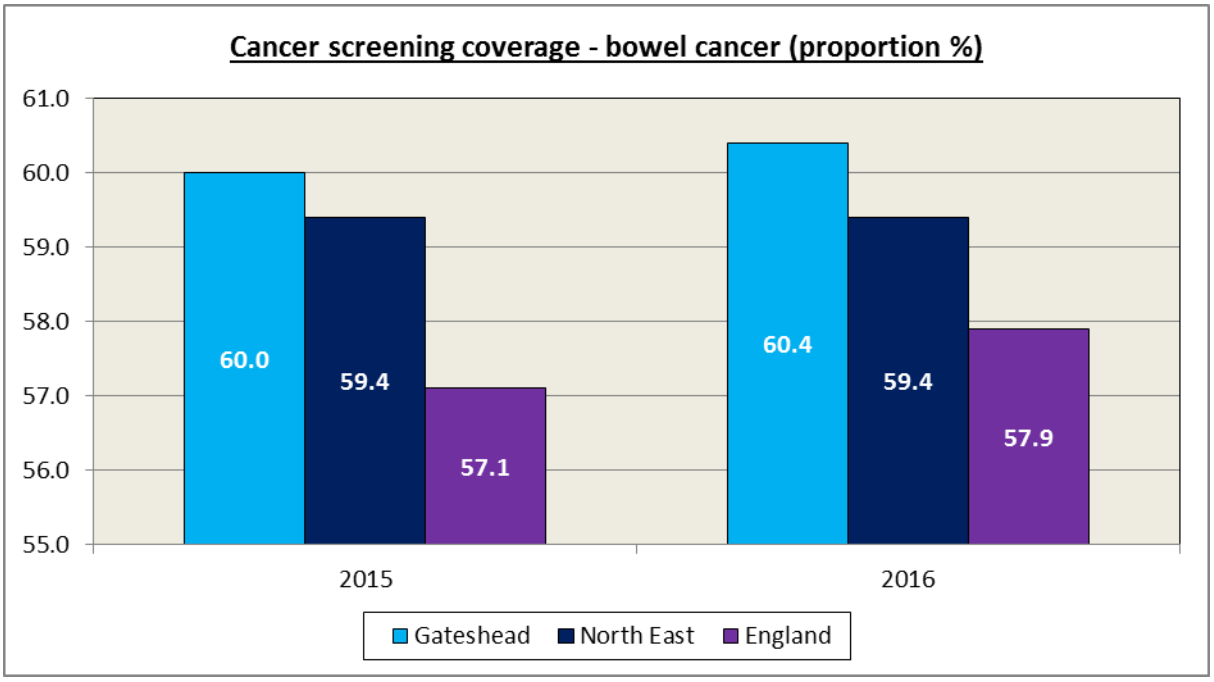

Population vaccination coverage - Shingles Vaccination Coverage (70yrs old)
64
62
60
58
56
54
52
50
61.4
61.8
58.9
61.5
59.0
54.3
54.9
2013/14
2014/15
2015/16
Gateshead
North East
England





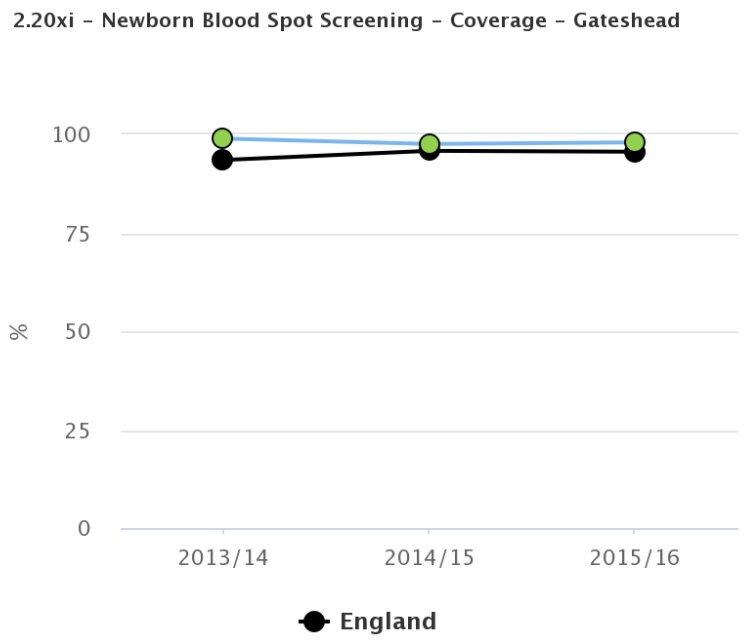
Uptake of the Diabetic Eye Screening Programme 2015-16

Area	**Percentage (%)**
North of Tyne & Gateshead Diabetic Eye Screening Programme	**82.2**
North East	**84.6**
England	**82.2**

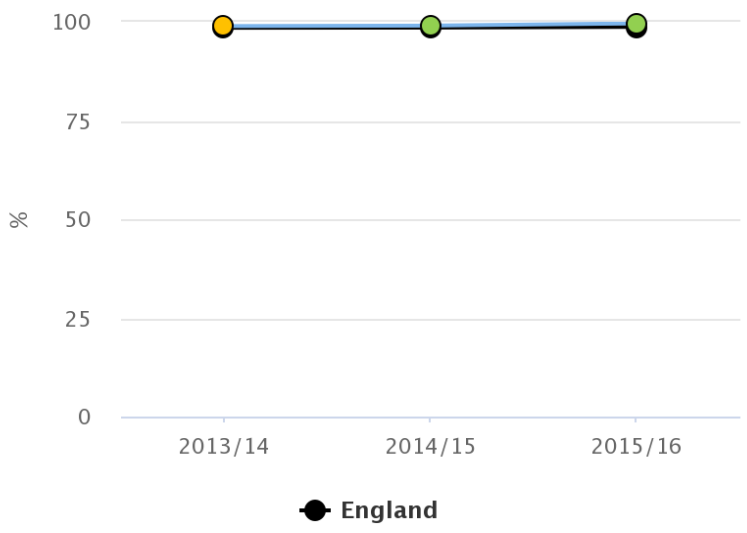


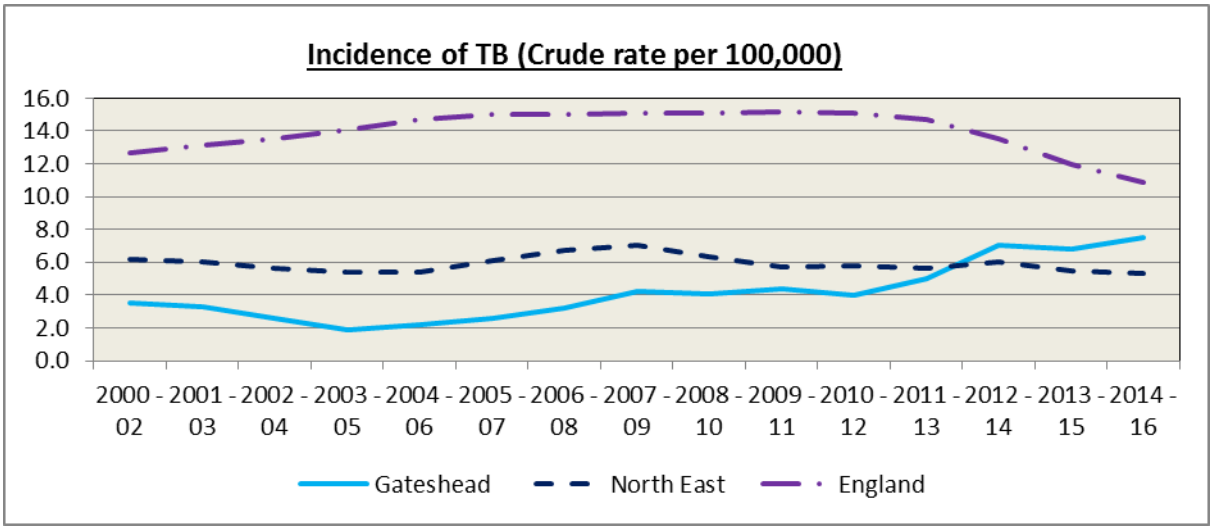
Abdominal Aortic Aneurysm Coverage

	Period	Gateshead	North East	England
1	2013/14	74.5	76.1	77.4
2	2014/15	78.2	76.5	79.4
3	2015/16	76.4	77.6	79.9

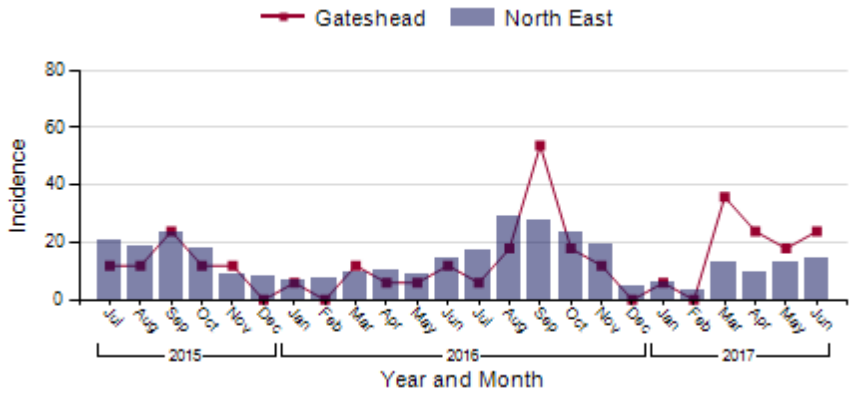


2.20xii - Newborn Hearing Screening - Coverage - Gateshead

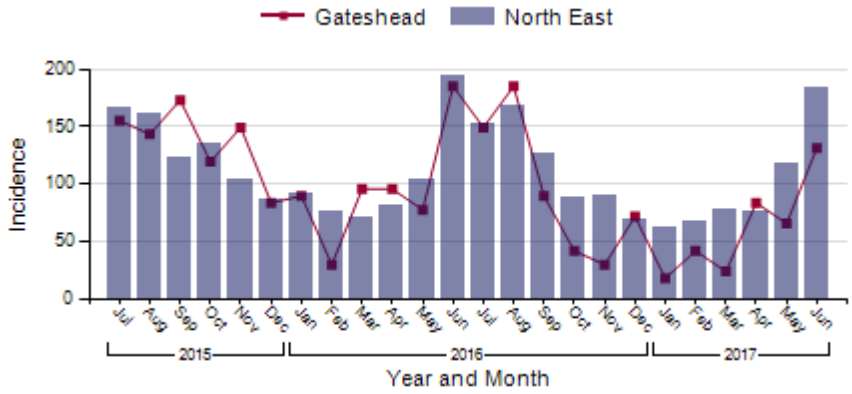




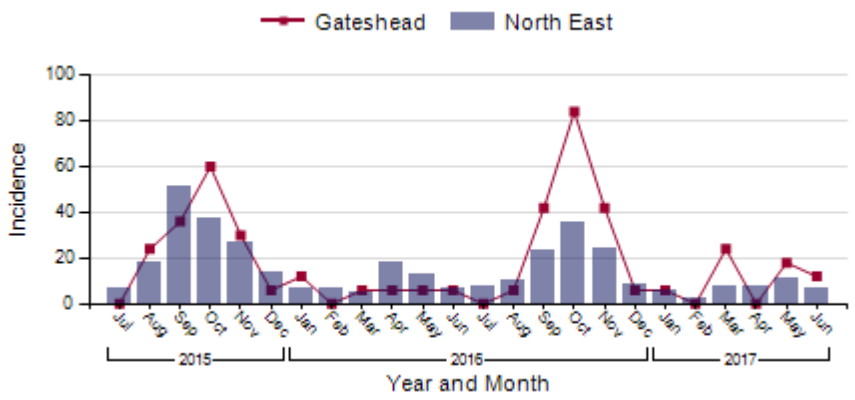
Incidence of Salmonella (per 100 000)



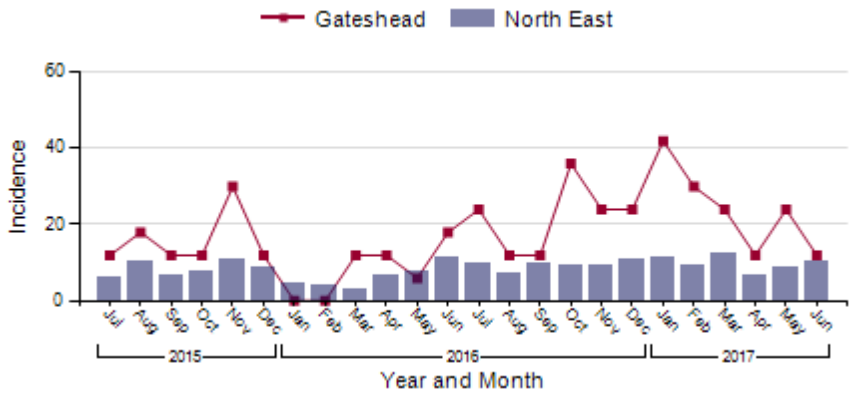
Incidence of Campylobacter (per 100 000)



Incidence of Cryptosporidium (per 100 000)



Incidence of Giardia (per 100 000)



Incidence of E. coli 0157 and VTEC (per 100 000)