HEALTH AND WELLBEING BOARD
30 November 2018

TITLE OF REPORT: **Health Protection Assurance Annual Report 2017/18**

Purpose of the Report

1. Present an overview of the health protection system and outcomes for Gateshead as part of the Director of Public Health's responsibility to provide assurance to the Health and Wellbeing Board that the current arrangements for health protection are robust and equipped to meet the needs of the population.

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 2017 to March 2018.

5. An analysis of the data regarding health protection outcomes for screening, immunisation, communicable diseases and air quality has highlighted that there are areas that require improvement and these form the assurance priorities for next year 2018/19. These include

    - Uptake of cancer screening programmes is generally very good, however there is evidence of variation at a local level in uptake of cancer screening programmes and a decline in uptake of the cervical screening programme.

- The Childhood Immunisation programme in Gateshead achieves a 90% or higher coverage rate for all of the children, however MMR 2 doses at 5 years and the Dtap/IPV/Hib booster at 5 years; are both well below the WHO target of >95% population coverage.

- The uptake of the influenza vaccination for clinical risk groups, pregnant women and frontline social care staff requires improvement.

- As part of the antimicrobial resistance work Public Health in partnership with the CCG and the wider local health economy need to be assured that NICE Guidance 63 - Antimicrobial stewardship: changing risk-related behaviours in the general population is implemented in Gateshead.

- Improving and monitoring air quality in Gateshead, which will bring together public health, environmental health and transport and support local action on air quality improvement.

Conclusions

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

Proposal

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

Recommendation

7. 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, Director of Public Health.

Appendix 1

Health Protection Assurance Report 2017/18

Executive Summary

1. Gateshead has robust systems in place in the management of existing and emerging health protection issues. These systems are shared across health, social care, environmental health and public protection and transport and planning, this framework is outlined in appendix 1.

2. An analysis of the data regarding health protection outcomes for screening, immunisation, communicable diseases and air quality has highlighted that there are areas that require improvement and these indicate the priority areas for next year 2018/19. These include:

- Uptake of cancer screening programmes is generally very good, however there is evidence of variation at a local level in uptake of all of the cancer screening programmes and a decline in uptake of the cervical screening programme.

- Gateshead achieves a 90% or higher coverage rate for all of the childhood immunisation programmes, however MMR 2 doses at 5 years and the Dtap/IPV/Hib booster at 5 years; are both well below the WHO target of >95% population coverage.

- The uptake of the influenza vaccination for clinical risk groups, pregnant women and frontline social care staff requires improvement.

- In some areas, data is only available at a Newcastle Gateshead CCG level. This means that assurance at a local authority level is limited. Uptake of the AAA and cancer screening programmes in the Newcastle Gateshead CCG area continues to be either similar or above the national average

- As part of the antimicrobial resistance work Public Health in partnership with the CCG and the wider local health economy need to be assured that NICE Guidance 63 - Antimicrobial stewardship: changing risk-related behaviours in the general population[3] is implemented in Gateshead.

- Improving and monitoring air quality in Gateshead, which will bring together public health, environmental health and transport.

Introduction

3. The Director of Public Health (DPH) has a statutory responsibility for the strategic leadership of health protection for Gateshead Council[1]. The DPH, on behalf of the Council, should be assured that the arrangements to protect the health of their local communities are robust and are implemented appropriately. Guidance suggests that, through their DPH, Health and Wellbeing Boards will wish to be assured that acute and longer term health protection arrangements properly meet the health needs of the local

population[2]. Accordingly, this report is to inform the Health and Wellbeing Board about arrangements and outcomes for health protection in Gateshead.

4. The most recent data available has been used in the analysis for this report. In circumstances where the data is not available, assurance for Gateshead is limited to the overall assurance we have in respect of the programme or the period for which we do have data.

Background

5. Health protection is the domain of public health action that seeks to prevent or reduce the harm caused by communicable diseases, and to minimise the health impact of environmental hazards such as chemicals and radiation, and extreme weather events.

6. This broad definition includes the following functions within its scope, together with the timely provision of information and advice to relevant parties, and on-going surveillance, alerting and tracking of existing and emerging threats:

    - National programmes for screening and immunisation which may be routine or targeted;

    - Management of environmental hazards including those relating to air pollution and food;

    - Health Emergency Preparedness Resilience and Response (EPRR), the management of individual cases and incidents relating to communicable disease (e.g. meningococcal disease, tuberculosis (TB), influenza) and chemical, biological, radiological and nuclear hazards;

    - Infection prevention and control in health and social care community settings and in particular, Healthcare Associated Infections (HCAIs);

    - Other measures for the prevention, treatment and control of the management of communicable disease (e.g. TB, blood-borne viruses, seasonal influenza).

7. The DPH is responsible for the Council's contribution to health protection matters and exercises its functions in planning for, and responding to, emergencies that present a risk to public health. The DPH is also responsible for providing information, advice, challenge and advocacy to promote health protection arrangements by relevant organisations operating in the Local Authority area. This report forms part of those arrangements.

Health protection a multi-agency function

8. Local Authorities are responsible for providing independent scrutiny and challenging the arrangements of NHS England (NHSE), Public Health England (PHE) and providers. The responsibility for the provision of the health protection function is spread across the following organisations:

9. Gateshead Council, through the leadership role of the DPH, has a delegated health protection duty from the Secretary of State to provide information and advice to relevant

organisations so as to ensure all parties discharge their roles effectively for the protection of the local population[4]. This leadership role relates mainly to functions for which the responsibility for commissioning or coordinating lies elsewhere. The Council also provides local support for the prevention and investigation of local health protection issues through the Public Protection Environmental Health (EH) function.

10. Screening and Immunisation Teams (SITs) employed by PHE are embedded in NHSE. The SITs provide local leadership and support to providers in delivering improvements in quality and changes in screening and immunisation programmes. The SITs are also responsible for ensuring that accurate and timely data is available for monitoring vaccine uptake and coverage.

11. PHE brings together a wide range of public health functions and is responsible for delivering the specialist health protection response to cases, incidents and outbreaks; and provides expert advice to NHSE to commission immunisation and screening programmes, as well as a number of other responsibilities relating to surveillance and planning.

12. All organisations have responsibility to protect their staff, customers and visitors etc. with appropriate infection control, staff vaccination and information programmes.

13. NHS Newcastle Gateshead CCG commissions treatment services (e.g. hospital inpatient treatment, nurses working with specific infections, such as TB) that comprise an important component of strategies to control communicable disease.

14. Emergency preparedness, resilience and response functions are provided by all category one responders; this includes the Local Authority, PHE, NHSE, Emergency Services and NHS Foundation Trusts. Those organisations form the Gateshead Multi-Agency Resilience and Emergency Planning Group.

Screening

15. Screening is used in a population to identify the possible presence of an as-yet undiagnosed disease or increased risk of disease in individuals without signs or symptoms. The purpose of screening is to identify and intervene early to reduce potential harm. Each programme is underpinned by rigorous quality assurance, including a programme of visits by the PHE screening quality assurance service and monitoring arrangements to ensure that the target population benefit from the service and those individuals are not exposed to potential harms (e.g. failures to correctly identify individuals requiring further tests).

16. The screening programmes, commissioned by NHSE for which the DPH has an assurance role are:
    - Cancer screening programmes (breast, bowel and cervical)
    - Diabetic Retinopathy
    - Abdominal Aortic Aneurysm (AAA)
    - Antenatal and newborn screening programme

17. The most recent data for the adult and ante-natal and newborn screening programmes are for 2016/17[3]. In these circumstances, assurance for Gateshead is limited to the overall assurance we have in respect of the programme or the period for which we do have data.

18. There are two key indicators that can be used as measures of assurances that can be used alongside the national uptake of screening programmes, these are:
    - National baseline indicators based upon the 2016-17 Public Health Function agreements
    - Clinical standards that are required to ensure patients safety and control disease.

19. Uptake of the AAA and cancer screening programmes in the Newcastle Gateshead CCG area continues to be either similar or above the national average. The table below present's coverage for the adult screening programmes.
20. Data for the Diabetic Eye Screening Programme is unavailable at a Gateshead level. Performance, reported at North of Tyne and Gateshead area level, suggests that uptake exceeds 80%. The SITs are also aware of inequalities in the uptake of the service, with lower uptake amongst younger age groups and those from more deprived socioeconomic areas.

Table 1: Adult Screening Programme Coverage 2017

Screening Programme	National Standard	% Coverage (2017)	
		England	Gateshead
Cervical Cancer (25-64 years)	80%	72.0%	74.3%
Breast Cancer (50-70 years)	70%	75.4%	76.7%
Bowel Cancer (60-69 years)	NA	58.8%	61.3%
AAA (men 65 years)	75%	80.9%	81.1%
Diabetic eye screening*	80%	82.2%	82.2%*

*North of Tyne and Gateshead diabetic eye screening programme data (2016/17)

21. The Antenatal and Newborn screening programme covers six areas:
    - Fetal anomaly
    - Sickle cell and thalassemia
    - Infectious diseases in pregnancy
    - Newborn infant physical examination
    - Newborn hearing screening
    - Newborn bloodspot screening

22. Data on the coverage of the entire Ante-Natal and Newborn screening programme is not available at a Gateshead level, however CCG level uptake at population level suggests that coverage is within acceptable levels.

23. Newborn bloodspot coverage across the North East region continues to be high at 98.7% for 2016/17 (England 96.5%).

24. Newborn hearing screening coverage across North East region continues to be high at 99.0% for 2016/17 (England 98.4%).

25. National data for the antenatal and newborn screening programme is only available for 2016/17.

Table 2: Antenatal and newborn screening coverage [1,6]

Screening programme	National Standard	% Coverage (2016/17)	
		England	Gateshead
Infectious Diseases in Pregnancy	99.0%	99.5%	99.7%*
Sickle Cell and Thalassaemia	99.0%	99.3%	99.8%*
Newborn Blood Spot Screening	99.9%	96.5%	99.0%**
Newborn Hearing Screening	99.5%	98.4%	99.2%***
Newborn and Infant Physical Examination Screening	99.5%	93.5%	86.7%****

* This is the data for Q3 and Q4 combined for 2016/17 there were no submissions made by Gateshead FT for the first two quarters of 16/17 year and consequently no end of year figure was published.

** Data is for NHS Newcastle/Gateshead.

*** Data is a combined Sunderland South Tyneside and Gateshead.

**** Although this screening level appears very low initial data for the first 3 quarters of 2017/18 has shown a continuing upward trend with Gateshead's screening level now above 93% as of Q3 17/18.

Immunisation and vaccination

26. Immunisation remains one of the most effective public health interventions for protecting individuals and the community from serious diseases. The national routine childhood immunisation programme currently offers protection against 13 different vaccine-preventable infections (a full schedule is attached in appendix 3). In addition to the routine childhood programme, selective vaccination is offered to individuals reaching a certain age or with underlying medical conditions or lifestyle risk factors.

27. NHSE is responsible for commissioning local immunisation programmes and accountable for ensuring local providers of services will deliver against the national service specification and meet agreed population uptake and coverage levels as specified in the Public Health Outcomes Framework and Key Performance Indicators[6].

Routine childhood immunisation programme

28. Current coverage for routine childhood immunisation programme in Gateshead is presented in table 3 below. Achieving population coverage of >95% is important as this is the point at which the entire population is protected, including the 5% that are not vaccinated. This is referred to as herd immunity.

Table 3: Coverage routine childhood immunisation programme Gateshead 2016/17[1,6]

Vaccine and booster programme	Age cohorts					
	12 months		24 months		5 years	
	England	G'head	England	G'head	England	G'head
Diphtheria, tetanus, pertussis, polio, haemophilus influenza type b (DTaP/IPV/Hib)	93.4%	93.9%	95.1%	97.5%	86.1% ****	89.4% ****
Meningitis C**	NA	98.4%	91.6%*	97.4%*		
PVC	93.5%	93.5%	91.5%*	92.6 %*		
Measles, mumps and rubella (MMR)			91.6%	93.0%	87.6%***	89.0%***
Hib/Men C booster			91.5%	92.9%	92.6%*	93.6%*

<90% Coverage | 90% to 95% Coverage | ≥95% Coverage

*Boosters
** 2016/17 data
*** 2 doses MMR 16/17
**** Booster is the average of first published data (Q1-Q4 17/18) for this immunisation[13].

29. Gateshead achieves a 90% or higher coverage rate for all of the childhood immunisation programmes apart from the MMR 2 doses at 5 years and the Dtap/IPV/Hib booster at 5 years. In both vaccination rates remain higher than the national average.

30. Gateshead only reaches the 95% coverage level for Meningitis C at 12 months and the booster for Meningitis C at 24 months.

31. All girls aged 12 to 13 are offered HPV (human papilloma virus) vaccination as part of the childhood vaccination programme. The vaccine protects against cervical cancer. It's usually given to girls in year eight at schools in England with a second dose administered within 6 to 12 months. In Gateshead the coverage is better than the national standard of 90% (see Table 4 below).

32. Td/IPV (tetanus, diphtheria and polio) teenage booster is the final dose of the routine childhood immunisation programme. The national plan is to provide the Td/IPV booster in year 9 alongside the final MenC booster. Gateshead has a higher coverage rate than England.

Table 4: HPV and Td/IPV Booster 2016/17[2,8]

Vaccine and booster programmes	Age Cohorts			
	Year 9		Year 10	
	England	Gateshead	England	Gateshead
HPV[2]	87.2%	91.7%	83.1%	90.5%
Td/IPV[4]	83.0%	93.1%		

33. Significant changes to the immunisation programme for meningitis were introduced in 2015. The MenACWY immunisation was added to the national immunisation programme in August 2015 in response to the rising number of meningococcal W (MenW) cases in teenagers and young adults. Catch-up campaigns were arranged to reach older teenagers and "freshers" at university.

34. In Gateshead, from September 2016 up to 31 Aug 2017, 84.3% (83.6% England) of Year 9 students (aged 13-14) received the MenACWY vaccination[5].

At risk immunisation programme

35. The at risk immunisation comprises the following:
    - Pneumococcal (PPV) vaccine single dose at 65 years
    - Shingles vaccine single dose at 70 years (catch up for 78 and 79 year olds)

Table 5: Pneumococcal (PPV) and Shingles immunisation coverage [1,6]

Vaccination	England	Gateshead
PPV (2016/17)	69.8%	72.1%
Shingles (70 years old) (2016/17)	48.3%	48.8%

36. The coverage rate for the adult immunisation programme in Gateshead is higher or similar to the England rate. A national shortage of PPV vaccine is contributing to decreases in percentage vaccinated over time.

Seasonal flu vaccine programmes

37. In 2017/18 seasonal flu vaccine offered annually to:
    - Those aged 65 years and over
    - Those aged six months to under 65 in clinical risk groups
    - All pregnant women
    - All two and three year olds
    - All children in school years Reception, 1, 2, 3 and 4
    - Those in long-stay residential care homes or other long stay care facilities
    - Carers
    - Frontline health and social care workers

38. Targets for uptake in the adult population were 75% of the eligible population. Ambitions for uptake amongst children were 40-65% of those eligible. The table below presents the data that is available on the seasonal flu vaccine.

Table 6: Seasonal flu Vaccination Coverage Gateshead 2017/18[6]

Adult Seasonal flu Vaccination			
	National Standard	England	Gateshead
Aged 65+	75%	72.6%	75.4%
Clinical risk groups	75%	48.9%	54.4%
Pregnant women	55%	47.2%	52.7%
Front-line staff (NHS FT)	75%	68.7%	76.1%
Children Seasonal flu Vaccination			
Age	National Standard	England	Gateshead
2yrs	40 – 65%	42.8%	44.4%
3yrs		44.2%	44.1%
4-5yrs (Reception)		62.6%	62.7%

5-6yrs (Year 1)		61.0%	62.3%
6-7yrs (Year 2)		60.4%	63.8%
7-8yrs (Year 3)		57.6%	62.3%
8-9yrs (Year 4)		55.8%	60.6%

Below min standard	Within standard range	Exceeds standard

39. Gateshead has higher coverage rate than England across most aspects of the seasonal flu vaccination programme. The adult programme is close to or above the expected minimum standard for adults, the childhood age groups are all above the minimum required 40% uptake level; however none of them have surpassed the upper suggested level of 65%.

40. The Gateshead Council Employee Winter Flu Vaccination programme for frontline staff 2017/18 used a voucher scheme which all eligible staff could use at local pharmacies. The uptake of the flu vaccine for frontline social care staff in Gateshead was very poor at just over 8%.

41. In contrast take up by staff at Eastwood PIC was 81%. At that site an outreach clinic offered vaccination to staff, this was based on the learning from the flu outbreak the previous year 2016/17.

42. The Council has reviewed its approach to staff vaccination for the 2018/19 flu season as a result of poor uptake.

Surveillance and communicable diseases

43. Effective surveillance systems ensure the early detection and notification of particular communicable diseases. PHE Health Protection Team obtains data from a wide variety of sources, including healthcare staff, hospitals, microbiology laboratories, 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.

Environmental health and food safety

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

45. Gateshead food safety team received 346 food hygiene and food standards complaints (2017/18). All complaints were investigated in a timely manner and action taken where appropriate. These investigations identified the following issues

    - An investigation into internet sales of DNP (Dinitrophenol), which included 3 Local Authorities, National Food Crime Unit, MHRA, 2 police forces and US enforcement agencies. (Action: Prosecution by other LA – ongoing)
    - Dog allowed in kitchen of café (Action: Advice)

- Poor hygiene conditions in a take away premise (Action: Prosecution)
- Rat in care home kitchen (Action: caution)
- Cockroaches in premise (Action: Advice)
- Sale of counterfeit alcohol (Action: Caution)

46. Gateshead food safety team conducts a food sampling programme. In 2017/18 167 samples were obtained. The food sampling programme identified issues relating to hand washing, cleaning, incorrectly labelled products, excessive levels of sulphur dioxide in mincemeat (used to give it a rich red colour). All establishments which were unsatisfactory were given advice and resamples taken to monitor improvement.

Control of specific diseases

47. Early diagnosis by clinicians, prompt treatment of cases and early reporting by microbiologists and clinicians to the PHE Health Protection Team are essential in enabling prompt public health action for diseases such as meningococcal infection. For other diseases such as gastrointestinal infections, initial reporting may be through local authority environmental health officers.

48. The tables below present data on the notifications received for specific communicable diseases.

Table 7: Measles, mumps, meningococcal disease and whooping cough notifications 2017[7]

Area	Disease									
	Measles*		Mumps*		Rubella*		Meningococcal disease*		Whooping cough*	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
England and Wales	1693**	2.9	7722**	13.2	362**	0.6	657**	1.1	3302**	5.7
North East	126	4.8	1181	44.8	20	0.8	56	2.1	360	13.7
Gateshead	13	6.4	108	53.6	2	1.0	3	1.5	41	20.3

*Data source: EpiNorth3, 2017 data, Diagnosis (confirmed, probable and possible cases)

**Data source NOIDS 2017 data used. Local and National data are not comparable, only cases which have been notified by a registered medical professional are included in the national data.

All rates are per 100,000 population calculated using the mid-year population estimates for 2016 from the ONS

49. In 2017 notifications were higher in Gateshead and the North East for both mumps and whooping cough when compared to the average for England and Wales; these higher rates of notifications are similar to the previous year (2016).

Table 8: Foodborne and waterborne infectious disease Incidence rate 2017[12]

Area	Disease									
	E. coli O157*		Non Typhoidal Salmonella*		Campylobacter *		Cryptosporidium*		Legionellosis *	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
England	666 **	1.2	9631 ***	16.5	57462 ***	98.4	4624 ***	7.9	316 ***	0.5
North East	32	1.2	384	14.6	3256	123.5	296	11.2	14	0.5
Gateshead	1	0.5	36	17.9	177	87.8	23	11.4	0	0.0

* Data source: EpiNorth3, 2017 data, Diagnosis (confirmed, probable and possible cases)

**Data source HPZone 2017 Data for England only

*** SGSS, 2017 data. Includes cases confirmed by NHS laboratories only.

All rates are per 100,000 population calculated using the mid-year population estimates for 2016 from the ONS

50. Gateshead has similar rates to the NE region in all main food and waterborne infectious.

Table 9: Hepatitis and Tuberculosis notifications 2017[10]

Area	Disease									
	Hepatitis A*		Hepatitis B*		Hepatitis C*		Hepatitis E*		TB****	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
England and Wales	1333 **	2.4	5083 **	9.2 **	6428 **	11.6	1181 **	2.1	5083 ***	9.2
North East	13	0.5	215	8.2	372	14.1	35	1.3	110	4.2
Gateshead	1	0.5	24	11.9	64	31.7	3	1.5	9	4.5

Data source: EpiNorth3, 2017 data, Diagnosis (confirmed, probable and possible cases)

**Data source HPZone 2017 Data for England only. Includes reported infections of hepatitis A, B, C & E

*** Data source Enhanced Tuberculosis Surveillance (ETS) 2017 data

**** Data source Enhanced Tuberculosis Surveillance (ETS) 2017 data for England only

All rates are per 100,000 pop culated usi ear popula ates for 2 the ONS

51. Rates for Hepatitis C are higher than the regional and national average. Changing Lives are partnering work with the Hep C Trust to deliver peer education with the aim of increasing knowledge and subsequently access to testing and treatment for Hepatitis C across Tyne and Wear. The Hepatitis C Operational Delivery Network (ODN) in the North East has been functional since June 2015.

Table 10: Sexually transmitted infections (STI) and new HIV diagnosis notifications (2017) [8-9]

	Rate per 100,000 population

	All new STI diagnosis	Chlamydia	Genital herpes	Genital warts	Gonorrhoea	Syphilis	HIV
England	743	361	57	104	79	13	10
North East	677	358	58	104	67	8	6
Gateshead	680	348	62	107	75	10	8

Rate per 100,000 population estimates 2016 (ONS)

52. The rates of STIs in Gateshead are slightly lower than the England average for all but Genital herpes and Genital Warts.

Healthcare associated infections (HCAIs)

53. On behalf of NHSE, PHE uses routine surveillance programmes to collect data on the numbers of certain infections that occur in healthcare settings. Prevention of HCAIs in healthcare settings is a key responsibility of healthcare providers, with most employing or commissioning dedicated specialist infection control teams[10]. Hospital Trusts each have a Director of Infection Prevention and Control providing assurance to the Trust Board on HCAI prevention. PHE provides infection control advice in non-healthcare community settings such as care homes and schools.

54. PHE also monitors the spread of antibiotic resistant infections and advises healthcare professionals about controlling antimicrobial resistance (AMR). Rates of HCAIs for Newcastle Gateshead CCG are given below:

Table 11: Rates of Healthcare Associated Infections 2016/17[11]

	Rates of Healthcare Associated Infections per 100,000 population 2017/18	
	England	Newcastle Gateshead CCG
MRSA	0.4	0.4*
MSSA	21.6	28.7*
E. coli	74.3	97.6*
C. difficile	24.0	28.9*

These are crude non-standardised rates and should not be used for comparative purposes with other CCGs.

Antimicrobial Resistance

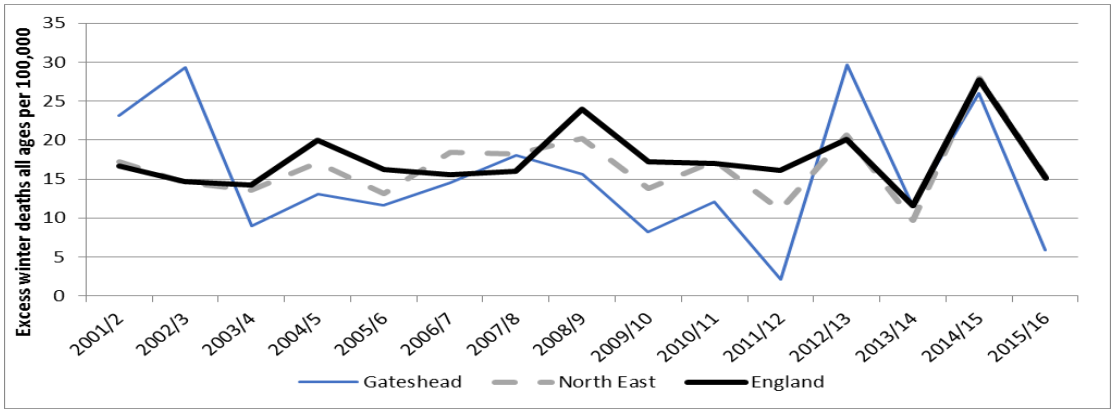
55. Preventing infections from occurring in the first place is one the best ways of reducing the need to prescribe antibiotics. There is an increasing global concern over the rise of AMR. It is well evidenced that the more we use antibiotics the less effective they become against their targeted organism (bacteria, virus, fungi and parasites), therefore every infection prevented reduces the need for and use of antimicrobials, which in turn lessens the potential for development of resistance.

56. Currently in the UK, the greatest and increasing threat from drug resistant organisms is from Gram-negative bacteria, there is a target to reduce gram-negative HCAIs by 50% by 2021.

Excess winter deaths

57. Data for the year 2016/17 is not yet available. In Gateshead there were 42 excess winter deaths in 2015/16, compared to 173 in 2014/15. The majority of excess winter deaths occur in the over 85s (55%). There is significant variation in the numbers of excess winter deaths between different years. It is not always apparent why this is the case but factors like seasonal flu outbreaks and temperature changes can have an impact. 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. The chart below presents the all age excess winter deaths rate per 100,000 population and highlights the year on year variation, both at a national and local level.

Chart 1: Excess winter deaths single year 2001 - 2016 all ages



Source: PHE Fingertips data

Emergency Preparedness Resilience and Response

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

- The Director of Public Health is a member of the North East Health Resilience Partnership (NELHRP) which is responsible for ensuring that the arrangements for local health protection responses are robust and resilient. Work is directed through the Health and Social Care Resilience Group (H&SCRG) which is responsible for co-ordinating the development of health and health related social care resilience arrangements, capability and capacity to respond to emergencies and major incidents as part of a multi-agency response

- PHE 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 that meets quarterly, the role of this group is to ensure that the council and partners are equipped to respond to an emergency. This includes reviewing and developing internal policies, engagement in and sharing the learning from exercises and reviewing and learning from local emergency situations e.g. flooding.

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

Air Quality

59. There are various contributory factors to air pollution, including road transport, domestic and industrial sources. There are two pollutants associated with road transport that cause problems with health in Gateshead. They are nitrogen dioxide (NO2) and particulate matter less than 2.5 microns in size (PM2.5) - both have short and long-term effects on human health. NO2 is a colourless gas released from motor vehicle exhaust systems when fuels are burned. PM2.5 is also linked to exhaust systems, but is also released from braking systems and tyre wear.

60. 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.

61. Due to measured levels of NO2 repeatedly exceeding the annual mean objective of 40 micrograms per cubic metre (µg/m3), Gateshead Council declared an AQMA in April 2005 within Gateshead Town Centre. This was extended to the south along Durham Road in April 2008.

62. The highest annual mean concentration of NO2 within the Town Centre AQMA during 2016 was 37.2µg/m3 measured at the junction of Durham and Dryden Road, using diffusion tubes. The highest annual mean concentration of NO2 using automatic monitoring equipment was 37.4µg/m3 measured at Bottle Bank. This is an increase of 4µg/m3 since 2015 at this location but this is in keeping with annual fluctuations at the site. This may have been influenced by higher traffic levels in this area during the A1 works in first part of the year. The monitoring data also indicates that there were no exceedances of the annual mean objective level outside of the AQMA.

63. Gateshead Council has been mandated by central government to develop a plan that will address how to reduce NO2 exceedances at locations indicated by DEFRA. Newcastle City and North Tyneside Councils are in the same position and officers from the three authorities have been working together on this activity. Governance structures have been

put in place with a steering group chaired by Gateshead Councils Chief Executive and a working group led by a Newcastle officer. All authorities have representation for transport, environmental health and public health. Officers have been working closely with DEFRA.

64. The authorities have prepared a Strategic Outline Case for the plan and an Outline Business Case. A Full Business Case is required on 31/12/18 or as soon after that date as consultation has been completed.

Conclusions

65. The Health Protection Arrangements across Gateshead are multi-agency. This report alongside an overview of the meeting and reporting structures (appendix 2), aims to provide the necessary assurance that the local health protection systems are robust and equipped to both prevent and suitably react to health protection situations.

66. An assessment of the current health protection arrangements for Gateshead has identified that these are working well to protect the population.

Recommendations

67. An analysis of the data regarding health protection outcomes for screening, immunisation, communicable diseases and air quality has highlighted that there are areas that require improvement and these form the priorities for next year 2018/19. These include:

- Uptake of cancer screening programmes is generally very good. However there is evidence of variation at a local level in uptake of all of the cancer screening programmes and a decline in uptake of the cervical screening programme.

- Uptake of the childhood immunisation programme in Gateshead has shown some variation in trend with vaccination rates for measles, mumps and rubella (MMR), Diphtheria, tetanus, pertussis, polio, haemophilus influenza type b (DTaP/IPV/Hib) and Meningitis C are all below the regional average in 2017/18, this is well below the WHO target of >95% population coverage.

- The uptake of the influenza vaccination for clinical risk groups, pregnant women and frontline staff, particularly in social care, requires improvement.

- As part of the antimicrobial resistance work Public Health in partnership with the CCG and the wider local health economy need to be assured that NICE Guidance 63 - Antimicrobial stewardship: changing risk-related behaviours in the general population is implemented in Gateshead.

- Improving and monitoring air quality in Gateshead, which will bring together public health, environmental health and transport.

References:

[1] Regulation 8 of the Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives). Regulations 2013, made under section 6C of the National Health Service Act 2006

[2] DH, PHE, LGA (2013). Protecting the health of the local population: the new health protection duty of local authorities under the Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives) Regulations 2013. DH, PHE, LGA. May 2013. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/199773/Health_Protection_in_Local_Authorities_Final.pdf.

[3] PHE Fingertips: Public Health Outcomes Framework; Gateshead available from: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/0/gid/1000049/pat/6/par/E12000001/ati/102/are/E08000037

[4] Td/IPV adolescent vaccine uptake: available from: https://www.gov.uk/government/collections/vaccine-uptake#td/ipv-adolescent-vaccine-uptake

[5] School based immunisation programme: Meningococcal ACWY immunisation programme: vaccine coverage estimates. Available at: https://www.gov.uk/government/publications/meningococcal-acwy-immunisation-programme-vaccine-coverage-estimates

[6] PHE (2017) CANE Seasonal influenza vaccination report 2016/17. PHE North East Centre.

[7] PHE (2018) Protecting the population of the North East from communicable disease and other hazards. Annual Report 2017/18

[8] PHE North East Centre (2017): Spotlight on sexually transmitted infections in the North East 2016 data. PHE

[9] PHE (2017) HIV and AIDS in the North East 2017 Surveillance Report: PHE

[10] Protecting the population of the North East from communicable disease and other hazards Annual Report 2017/18

[11] PHE Fingertips; AMR local indicators Gateshead available at: https://fingertips.phe.org.uk/profile/amr-local-indicators/data#page/3/gid/1938132910/pat/46/par/E39000039/ati/152/are/E38000212

[12] Protecting the population of the North East from communicable disease and other hazards Annual Report 2017/18

[13] PHE Cover of vaccination evaluated rapidly (COVER) programme 2017 to 2018 quarterly data

Appendix 1: Health Protection Assurance: External Structure

Means of assurance	Purpose	Frequency	Lead Organisation(s)
Public Health Oversight Group (PHOG)	Provide a forum for systematic assurance of NHS England's Public Health Section 7a Agreement (PHS7A) direct commissioning responsibilities* (see p.3) and for the sharing of stakeholder intelligence between public health partners in the local health and care economy and opportunities for the Directors of Public Health (DsPH) representatives to provide support and improve communication within their networks. This includes oversight of the quality, safety and patient experience of these commissioned services with a focus on improving health outcomes and reducing variation in quality across Cumbria and the North East. Assurance is a "positive declaration intended to give confidence". This group is not for direct commissioning performance management. This function is carried out through contract review processes as appropriate.	6 per year	NHS England
Screening and Immunisation Oversight Group (SIOG)	A joint SIOG for Newcastle and Gateshead is being established and would constitute membership from NHSE, PHE, CCG, LA.	TBC	NHS England
NHSE commissioned Cancer and Non-Cancer Screening Programmes			
Cumbria and NE (CANE) Regional Screening Programme Boards	Provide strategic leadership for updating, planning and implementing the delivery of the following screening programmes: Diabetic Eye Screening; Aortic Abdominal Aneurysm (AAA); cervical, breast and bowel cancer screening; Antenatal and Newborn screening programmes for CANE. Facilitate the sharing of good practice; ensure compliance with national guidance and effective performance management.	2 per year except AAA 4 per year	NHS England
North Screening Quality Assurance Team	The purpose of these regional teams is to: • assess the quality of population screening	Report directly into the	PHE SQAS

	services, including through peer review • give expert advice during the management of screening incidents • provide daily support to commissioners and screening programme providers • work with providers and commissioners to improve equitable access to screening	regional screening programme board	
Information on screening incidents	DsPH are informed of serious incidents in their area and invited to be part of the SI Steering Group to ensure awareness in case of media interest and harm/potential harm to residents. A summary of incidents is presented to the PHOG (see above) and all serious incidents are discussed and formally closed at PHOG.	Ad hoc	NHS England
Updates at regional DsPH meetings	Raise awareness of developments and issues in any of the programmes by exception Also provide ad hoc workshop sessions in response to requests.	Bimonthly attendance	NHS England
Annual Regional Screening Report	Discussion ongoing as to if annual report should be published and, if so, in what format. Local authorities are regularly provided with all data which would appear in Annual Report in the form of a LA Assurance Dashboard.	NA	NHS England
NHSE commissioned immunisation programmes			
Updates at regional DsPH meetings	Provide systems leadership for updating, planning and implementing the delivery of seasonal influenza; shingles (herpes zoster) and pneumococcal (aged over 19) vaccination programmes.	Monthly	NHS England
Newcastle Gateshead Flu Board	Provide strategic leadership for updating, planning and implementing the delivery of the seasonal flu plan	Bi monthly	Newcastle Gateshead CCG
0-19 and Influenza Immunisation Boards	Provide strategic leadership for updating, planning and implementing the delivery of the national 0-19 for CANE. They facilitate the sharing of good practice; ensure compliance with national guidance and effective performance management. The Board is responsible for identifying areas of improvement and opportunities for joint working to improve uptake and reduce inequalities.	2 per year	NHS England
ImmForm	Local authorities have direct access to ImmForm to	NA	Local authorities

immunisation uptake data	enable detailed analysis of immunisation data in their localities		
Annual Seasonal Influenza Vaccination Report	Inform partners – CCGs/LAs/A&E Boards – of performance and developments in previous flu season and priorities for next season	Annual	NHS England
Health protection surveillance and case/incident management response			
DPH Quarterly Report on Infectious Disease	This report gives the Local Authority assurance regarding the burden of relevant infectious diseases of public health consequence in Northumberland. It gives an overview of the incidence in Northumberland of common causes of infectious gastrointestinal diseases, vaccine preventable diseases (including measles, mumps and rubella), and other selected organisms of public health consequence (eg. Legionella). It also includes a summary of Local Authority level vaccine coverage data.	Quarterly	PHE (North East Health Protection Team and Field Epidemiology Service)
PHE NE Monthly Healthcare Associated Infections (HCAIs) Summary Report	This report informs the Local Authority of the number of cases of the numbers of specific (HCAI) in local hospital Trusts. Specifically, it covers numbers of MRSA, MSSA, C difficile and E coli cases. This data is collected by PHE's Field Epidemiology Service in support of the NHS, and is shared with Directors of Public Health for information.	Monthly	PHE (Field Epidemiology Service)
Operational updates on local health protection issues	This is a weekly confidential email from the Consultant in Health Protection covering the South of Tyne area highlighting any local outbreaks managed by the Health Protection Team and any individual cases which the Consultant believes may be of interest to the local Director of Public Health or hospital microbiologists. It also highlights any regional or national issues which are likely to have local consequences.	Weekly	PHE (North East Health Protection Team)
HIV, Sexual and Reproductive Health Epidemiology Reports (LASER)	These are confidential reports for Directors of Public Health covering STIs, HIV and reproductive health at the Local Authority level, in order to inform joint strategic needs assessments.	Annual	PHE - Field Epidemiology Service (FES)
Access to HIV / STI web portal	This is a restricted access data portal which provides Directors of Public Health with sexually transmitted infection surveillance data at a local level.	When required	PHE - FES
North East Quarterly Sexual Health Bulletin	This report gives the DPH an overview of the number of cases of gonorrhoea, chlamydia, syphilis, and genital warts diagnosed per quarter at each of the North East's	Quarterly	PHE - FES

	GUM clinics. It includes a breakdown of cases by key demographics such as gender and age. It also gives an overview of the number of sexual health screens undertaken at each GUM clinic, and their positivity rate.		
North East Annual Sexually Transmitted Infectious Report	This report covers the same topics as the Quarterly Bulletin, but for the full calendar year. The data is set in the context of previous years, allowing comparisons to be drawn and trends to be identified. This also includes commentary on national trends and outbreaks.	Annual	PHE - FES
Access to PHE Fingertips data portal	This online data portal provides the DPH with an overview of a wide range of data relating to the health of the population, often available at Local Authority or CCG level. Several sets of data are of particular relevance to health protection: for example, 'Health Protection Profiles', 'Sexual and Reproductive Health Profiles' and 'TB Monitoring Indicators'.	When required	PHE
Annual Regional Health Protection Report	This is an annual report for the North East region, prepared by the PHE North East Deputy Director for Health Protection. It gives a summary overview of the action taken by the Health Protection Team in the preceding year to protect the health of the North East population. It includes a summary of prevention, surveillance, and disease control activity, as well as a summary of emergency preparedness, microbiology, communications, and environmental work. It also describes work to improve the quality of health protection services year-on-year, and sets out the Team's priorities for the coming year.	Annual	PHE - North East Health Protection Team (NE HPT)
Regional annual TB report	This report presents data on the burden of tuberculosis in the North East, and an overview of treatment outcomes in the preceding year. The data is broken down at Local Authority level. Incidence of cases is broken down by key demographics, including age and ethnic group, and is set in the context of incidence in other years so that comparisons can be drawn and trends identified. The report also includes recommendations for tackling TB in the North East over the coming year.	Annual	PHE - FES
Area Health Protection Committee meetings	This meeting covers the Northumberland, North Tyneside, Newcastle upon Tyne, Gateshead, South Tyneside and Sunderland Local Authority areas. It is attended by the Directors of Public Health, members of their teams, members of three Local Authority Environmental Health teams, and representatives from	Quarterly	PHE NE HPT

	the local hospital Trust microbiology teams. The meeting discusses recent outbreaks or incidents of wider interest, including sharing recommendations from incidents across the area. The meetings also provide DsPH with the opportunity to discuss and challenge the routine health protection response across the area.		
NE Quarterly TB Summary Report	This report provides data on the incidence of TB at local authority level, broken down by key demographics. Case numbers at local authority level are typically too small on a quarterly basis to reliably consider trends, but these reports provide the DPH with assurance that the number of TB cases within their area is within typical limits.	Quarterly	PHE - FES
NE PHE Centre Weekly Influenza and Intestinal Infectious Disease Reporting	These reports give an overview on influenza activity at an international, national and regional (North East) level. This includes the latest data on the circulating strains of influenza. This report also summaries the most relevant points from the PHE weekly national influenza report.	Weekly (October to March)	PHE - FES
Participation in/Minutes of Outbreak Control Team (OCT) meetings	When community outbreaks of infectious disease occur which require multiagency management, the DPH is routinely invited to take part in Outbreak Control Team meetings chaired by the Consultant in Health Protection. This allows the DPH (or deputy) to represent the interests of the local population and the Local Authority in decisions taken to control the outbreak. Formal minutes of these meetings are produced, and typically circulated within 24 hours.	N/A	PHE NE HPT
Outbreak/Incident reports	Following the conclusion of any community outbreak of infectious disease for which an Outbreak Control Team has been convened, a formal report is always prepared by the Consultant in Health Protection who chaired the Outbreak Control Team (or a deputy). This includes a summary of the outbreak and actions taken to control it, as well as any recommendations for future practice or outbreak investigations. These are typically circulated within 8 weeks of the closure of an outbreak.	N/A	PHE NE HPT
National Health Protection Report	This is a national online publication. It highlights new publications of a large range of different routine national data reports on infectious diseases (e.g. national data on laboratory reports of respiratory infections; sentinel surveillance of blood borne virus testing in England; and laboratory surveillance of Pseudomonas bacteraemia). It also highlights	Weekly	PHE

	publication of new non-routine Health Protection publications by PHE, such as updated guidance.		
Emergency Planning Resilience and Response (EPRR)			
Local Resilience Forum (LRF)	Local resilience forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. These agencies are known as Category 1 Responders, as defined by the Civil Contingencies Act.	quarterly	
Regional Local Health Resilience Partnership (LHRP)	PHE NE is active member of the NE LHRP where it is represented by the Deputy Director for Health Protection and the two Health and Social Care Sub Group where it is represented by the Emergency Preparedness Manager. Gateshead Council is represented by the DPH & Resilience, Resilience & Emergency Planning Manager.	quarterly	NHS England / DPH Co-chair
EPRR Exercises	PHE NE, Gateshead Council alongside other category 1 responders are active members of the Training and Exercising sub groups of the Local Resilience Fora in the NE (represented by the Emergency Preparedness Manager) as well as chairing the NE Training and Exercising Group. PHE participates regularly multi-agency exercises as relevant as well as in internal PHE wide exercises. Any lessons identified for local authorities are fed back through either the LRF or LHRP as appropriate to the lesson and exercise topic.	N/A	