North Tyneside

Director of Public Health Health Protection Assurance Report

March 2023

North Tyneside Council

1. Executive Summary

a) North Tyneside has robust systems in place for the management of existing and emerging health protection issues. These systems are shared across a range of organisations and services including health, social care, environmental health, and public protection and led the Director of Public Health, with governance through the North Tyneside Health Protection Board. The board is attended by key lead agencies such as UK Health Security Agency and NHS England to ensure the appropriate expert advice and response.

b) An analysis of the data regarding health protection outcomes for screening, immunisation, communicable diseases, and air quality has highlighted that there are areas that may require further consideration and action to support the delivery of Joint Health and Wellbeing Strategy.

c) All programmes should be considered in the context of the unprecedented impact of the two years of the coronavirus pandemic. The impact of the mitigation measures that included national lockdowns and improved infection control practices, continues to have an impact on screening programmes and other infectious diseases.

d) The Health Protection Board, chaired by the Director of Public Health, should continue to address the key priorities related to health protection in North Tyneside. Current areas for further action include.

i. Cancer screening inequalities - whilst uptake overall is generally very good, there is evidence of significant variation at a local level in uptake for all cancer screening programmes. This has

been exacerbated due to the impact and mitigation measures associated with coronavirus, especially with breast cancer screening which is well below previous years.

ii. Vaccination inequalities - the uptake of most of the vaccination programmes is above regional and national averages. However, analysis highlights inequalities in several programmes. This means there are unvaccinated cohorts of the population susceptible to infectious disease and outbreaks. Continued efforts to understand the systemic causes of these inequalities will also help to identify approaches to tackle them.

iii. Increased public and local stakeholder interest in infectious disease outbreaks following the COVID-19 pandemic. Emerging risks such as mpox as well as more established diseases such as Group A streptococcus (Strep A) highlight the increased awareness and public expectation around infectious disease. Local co-ordination and stakeholder engagement may help to ensure appropriate prevention, assurance, and outbreak control. Regional multi agency groups reporting into the Association of Directors of Public Health will ensure a co-ordinated regional approach.

2. Introduction

The Director of Public Health (DPH) has a statutory responsibility for the strategic leadership of health protection for North Tyneside. 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. Accordingly, the purpose of this report is to inform the Health and Wellbeing Board about arrangements and outcomes for health protection in North Tyneside.

The data presented in this report is based upon the most recent or reported data available. Due to different reporting cycles, current data is reported quarterly, annually, or periodically.

Programme	Time Period
Cancer and Non-Cancer Screening	2022
Routine Childhood Immunisation Programme	2021/2022
At Risk Immunisation Programme	2021/2022
School Based Immunisations Programme	2020/21 & 2021/22
Seasonal Flu Vaccination	2022/23
Environmental Health and Food Safety	2022
Port Health	2022
Statutory Notifiable Diseases	2020 (Q1-3)
Health Care Associated Infections	2018/19
Excess Winter Deaths	2022

3. Background

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.

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:

a) National programmes for screening and immunisation which may be routine or targeted.
b) Management of environmental hazards including those relating to air pollution and food.
c) Health Emergency Preparedness Resilience and Response (EPRR), the management of individual cases and incidents relating to communicable disease (e.g., meningococcal disease, influenza) and chemical, biological, radiological, and nuclear hazards.
d) Infection prevention and control in health and social care community settings.
e) Other measures for the prevention, treatment, and control of the management of communicable disease (e.g., blood-borne viruses, seasonal influenza).

The protection of the health of the population is one of the five mandated responsibilities given to local authorities as part of the Health and Social Care Act 2012. The Director of Public Health (DPH) for North Tyneside is responsible under legislation for the discharge of the local authority's public health functions.

The health protection element of these statutory responsibilities and the mandatory responsibilities of the DPH are as outlined below:

a) The Secretary of State's public health protection functions
b) Exercising the local authority's functions in planning for, and responding to, emergencies that present a risk to public health.
c) Such other public health functions as the Secretary of State specifies in regulations.
d) Responsibility for the local authority's public health response as a responsible authority under the Licensing Act 2003, such as making representations about licensing applications.

e) A duty to ensure plans are in place to protect their population including through screening and immunisation.

The DPH employed by North Tyneside Council, 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 North Tyneside. This report forms part of those arrangements.

4. Health protection is a multi-agency function.

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

a) North Tyneside 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 to ensure all parties discharge their roles effectively for the protection of the local population. This leadership role relates mainly to functions for which the responsibility for commissioning or coordinating lies elsewhere.

b) Screening and Immunisation Teams (SITs) are employed by 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.

c) The White Paper 'Integration and Innovation: working together to improve health and social care for all' was published on 11th February 2021. The White Paper included a proposal to create a power for the Secretary of State for Health and Social Care to require NHS England to discharge public health functions delegated by the Secretary of State alongside the existing section 7A provisions.

By these means, there is 'a greater range of delegation options for section 7A public health services, including the ability for onward delegation of the function into collaborative arrangements, such as a section 75 partnership arrangement'.

UKHSA 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 several other responsibilities relating to surveillance and planning.

Northeast and North Cumbria Integrated Care Board (NENC ICB) 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.

Emergency preparedness, resilience and response functions are provided by all category one responders; this includes the Local Authority, UKHSA, NENC ICB, NHSE, Emergency Services and NHS Foundation Trusts. All these agencies are represented on the Local Health Resilience Partnership (LHRP) and the Local Resilience Forum (LRF).

5. Screening

Screening is a way of identifying apparently healthy people who may have an increased risk of a particular condition. The purpose of screening is to identify and intervene early to reduce potential harm.

There are 11 NHS national screening programmes available in England, which cover the life course.

Each programme is underpinned by rigorous quality assurance 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).

The screening programmes, commissioned by NHSE are:

a) Cancer screening programmes (breast, bowel and cervical)
b) Diabetic Retinopathy
c) Abdominal Aortic Aneurysm (AAA)
d) Antenatal and newborn screening programme

The most recent data for these screening programmes are for 2022.

Generally, coverage of the cancer screening programmes in North Tyneside is around the national average. There is variation at a GP level which reflects, though is not totally determined by, the social gradient, with GP practices serving more deprived areas having lower coverage rates. However, inequalities are also evident in certain population groups such as those with a Learning Difficulty. As cancer screening programmes report data at a local level this provides the opportunity for further identification of health inequalities.

The COVID-19 pandemic has had an impact on the cancer screening programmes, especially the breast screening programme, whereby mitigation measures greatly impacted service throughput. There has been a noted decline nationally in the cervical screening programme, particularly amongst younger women. Bowel cancer screening has shown a significant increase in uptake nationally and locally which is being attributed to the introduction of a more accessible test.

Uptake of the AAA in North Tyneside (not available at GP level) is below the national average. The national screening team are exploring this, and it appears to be an outlier considering screening rates across other programmes. The table below presents coverage for all the adult screening programmes and highlights the variation at a GP practice level of uptake.

Data for the Diabetic Eye Screening Programme is unavailable at a North Tyneside level. Though previous reports on this programme have highlighted the 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 2022

Screening Programme	% Coverage (2022)		North Tyneside GP practices	
	England	North Tyneside	Highest GP	Lowest GP
Cervical Cancer (25-49 years) 3.5-year coverage	67.6%	77.0%	83.2%	72.6%
Cervical Cancer (50-64 years) 3.5-year coverage	74.6%	75.9%	83.7%	69.4%
Breast Cancer (50-70 years) screened within 6 months of invitation	64.9%	56.8%	Not available mid screening round	

Bowel Cancer (60-74 years) screened within 6 months of invitation	70.3%	74.12%	80.8%	63.6%
AAA (men 65 years) (21/22)	70.3%	52.9%	NA	NA
Diabetic eye screening* (19/20)	81.5%	N/A	NA	NA

Below national average | Above national average

The Antenatal and Newborn screening programme covers six areas:

a) Fetal anomaly (data not available at a local level)
b) Sickle cell and thalassemia
c) Infectious diseases in pregnancy
d) Newborn infant physical examination
e) Newborn hearing screening
f) Newborn bloodspot screening

Newborn hearing screening coverage for North Tyneside is above the national standards.

Table 2: Antenatal and newborn screening coverage 2022 (quarter 1)

Screening programme	**% Coverage (2019)**	
	England	**Northeast**
Infectious Diseases in Pregnancy (HIV Coverage) (1 April - 30 June 2022)	99.8%	99.8%
Sickle Cell and Thalassaemia (1 April to 30 June 2022)	99.7%	99.7%
Newborn Blood Spot Screening (1 April to 30 June 2022)	97.3%	97.2%
Newborn Hearing Screening (1 April to 30 June 2022)	98.6%	99.4%
Newborn and Infant Physical Examination Screening (1 April to 30 June 2022)	96.3%	95.9%

6. Immunisation and vaccination

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.

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.

NHS England 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.

9.1 Routine childhood immunisation programme

Uptake in North Tyneside for the routine childhood programme remains among the highest in England. The Northeast also has the highest coverage in England. In 2021/22 coverage for routine childhood immunisation programme in North Tyneside 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 for children 0-5 years North Tyneside 2021/22

Vaccine and booster programme	Age cohorts					
	12 months		24 months		5 years	
	England	NT	England	NT	England	NT
Diphtheria, tetanus, pertussis, polio, haemophilus influenza type b (DTaP/IPV/Hib)	91.8%	97.0%	93.0%*	97.7%*	94.4%	97.2%
Men B	91.5%	97.3%				
Rotavirus	89.9%	95.9%				
PCV	93.8%	97.7%	89.3%*	96.5 %*		
MenC/Hib (booster)			89.0%*	96.9%*	91.7%	95.6
Measles, mumps, and rubella (MMR) One dose			89.2%	96.9%	93.4%**	97.0%**
Measles, mumps, and rubella (MMR) Two dose					85.7%	94.0%
DTaP/IPV*					94.2%	97.2%

*Boosters 21/22

** Two doses MMR

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

North Tyneside achieves a coverage rate of >95% for all the childhood immunisation programmes, except for two doses of MMR at 5 years of age.

Table 4: Coverage routine childhood immunisation HPV and Td/IPV and MenACWY Booster

Vaccine and booster programmes	Age Cohorts							
	Year 8 – HPV (1 & 2 doses) Year 9 - Td/IPV				HPV – Year 9 (1 & 2 doses) Td/IPV & MenACWY – 13-14 & 14-15 yrs.			
	England		North Tyneside		England		North Tyneside	
	1 Dose	2 Doses	1 Dose	2 Doses	1 Dose	2 Doses	1 Dose	2 Doses
HPV (females) 21/22	69.6%	10.7%	80.9%	N/A	82.2%	60.6%	78.5%	67.3%
HPV (males) (21/22)	62.4%		80%		78%	62.4%	73%	58.1%
Td/IPV (20/21)			86.4%		80.3%	76.4%	89.4%	86.4%
MenACWY (20/21)	N/A		N/A		80.9%	76.5%	87.4	90.0%

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 is usually given to girls in years 8 and 9 within schools in England with a second dose administered within 6 to 12 months (this can also occur in either year 8 or year 9). In North Tyneside the coverage for the one dose at year 8 and 9 respectively was 80.9% and 78.5% compared to 69.6% and 82.2% in England (2021/22).

In September 2019 the HPV vaccination programme was be extended to all pupils in year 8, including boys. The programme is in the early phases locally which explains the overall uptake.

Td/IPV (tetanus, diphtheria, and polio) teenage booster is the final dose of the routine childhood immunisation programme. Nationally many areas give the Td/IVP booster in school year 10. The national plan is to provide the Td/IPV booster in year 9 alongside the final MenC booster. At present data is presented for both year 9 and year 10 to reflect the current system.

Developments within the school age immunisation service (SAIS) will enable a more a detailed analysis of the school-based programmes in the coming years.

9.2 At risk immunisation programme

The at-risk immunisation comprises of the following:

a) Pneumococcal (PPV) vaccine single dose at 65 years. Clinical 'at risk' groups every 3 years

b) Shingles vaccine single dose at 70 years (catch up for 78- and 79-year-olds)

Table 5: Pneumococcal (PPV) and Shingles immunisation coverage

Vaccination	England	North Tyneside
PPV (20/21)	70.6%	72.1%
Shingles (70 years old) (18/19)	49.1%	46.9%

Below min standard	Acceptable range

The coverage rate for the PPV adult immunisation programme in North Tyneside is better than the England rate. National trends highlight that vaccine coverage increases each year of eligibility from the age of 65. Vaccine coverage in individuals at risk indicate that coverage varies by different at-risk group categories. This may suggest that awareness of eligibility for PPV among clinicians varies substantially according to clinical indication.

Although there is no national standard for shingles vaccine coverage, only 46.9% of 70-year-olds received this is in North Tyneside, worse than the England coverage (2018/19). It has also shown a downward trend in uptake in recent years.

9.3 COVID-19 Vaccination programme

Vaccine deployment started on 8 December 2021, in the order of priority set by the independent Joint Committee for Vaccination and Immunisation (JCVI).

The subsequent roll out of the programme has involved different cohorts and at-risk groups as the understanding of the virus and the vaccine has progressed. As such it is not possible to compare the uptake of each stage of the programme as the eligible population is different. Each dose is presented below.

Table 6: COVID-19 vaccination uptake (dose 1 and dose 2), ages 5+ 22 February

	Northeast (mean uptake)	North Tyneside
1st Dose	77.3%	81.3%
2nd Dose	73.5%	78.0%

Table 7: COVID-19 vaccination uptake (dose 3 and spring 2022 booster), age 12+, Northeast LAs, 22 February 2023

	Northeast (mean uptake)	North Tyneside
Dose 3 and Spring 2022 booster	64.7%	69.5%

Table 8: COVID-19 vaccination uptake (autumn 2022 booster), age 50+, Northeast LAs, 22 February 2023

	Northeast (mean uptake)	North Tyneside
Autumn booster (2022)	67.9%	70.6%

Above Northeast mean

OHID Northeast and Yorkshire COVID-19 weekly briefing

Overall uptake of the COVID-19 vaccine is excellent and compares well regionally and nationally. However, detailed analysis of the programme by the vaccine inequalities sub-group of the North Tyneside vaccination board, highlights a several inequalities in uptake. There is a year-round programme which looks to tackle these inequalities.

Inequalities are evident by:

a) Age – older persons uptake is incredibly highly and decreases through the age cohorts.
b) Deprivation – wards in more deprived boroughs have lower uptake than the less deprived boroughs. This is becoming more pronounced as the age cohorts lower.
c) Vulnerable groups – those on the LD register, SMI register and carers register have lower uptake.

9.4 Seasonal flu vaccine programme

Influenza (flu) is a viral infection affecting the lungs and airways. Complications include bacterial pneumonia and can be life threatening especially in older people and those with certain underlying health conditions. There are two types of influenza affecting people: influenza A and influenza B.

Flu occurs every winter in the UK and is a primary factor in NHS winter pressures. It impacts on those who become ill, the NHS services that provide direct care, and on the wider health and social care system that supports people in at-risk groups.

Nationally in the 2019 to 2020 season, low levels of influenza activity were observed in the community with circulation of influenza A dominating the

season. Influenza transmission resulted in medium impact through secondary care indicators (hospitalisations and ICU/HDU admissions).

For most healthy people, flu is an unpleasant but usually self-limiting disease with recovery generally within a week. However, there is a higher risk of severe illness from flu for some at-risk groups.

In 2021/22 seasonal flu vaccine offered annually to:

a) Those aged 65 years and over.
b) Those aged six months to under 65 in clinical risk groups.
c) All pregnant women
d) All two-, three-, and four-year-olds
e) All children in school years: reception to year 5
f) Those in long-stay residential care homes or other long stay care facilities
g) Carers
h) Frontline health and social care workers

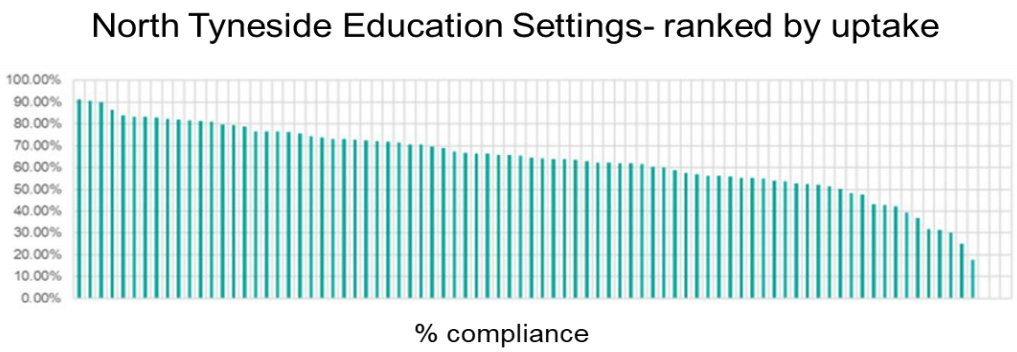
Table 9: Seasonal flu Vaccination Coverage North Tyneside[1]

Adult Seasonal flu Vaccination	**England**	**North Tyneside**
Aged 65+ (CCG) (1 Sep - 31 Dec 22)	78.4%	82.3%
Under 65 -at risk groups (CCG) (1 Sep - 31 Dec 22)	46.3%	51.0%
Pregnant women (CCG) (1 Sep - 31 Dec 22)	33.2%	39.4%
Frontline Health care workers at regional level (1 Sep – 31 Dec 22)	46.7%	51.4%*
Children Seasonal flu Vaccination – Not in a clinical risk group	**England**	**North Tyneside**
All 2yrs (combined) (1 Sep – 31 Dec 22)	64.1%	55.2%
3yrs (combined) (1 Sep – 31 Dec 22)	57.7%	66.6%
All primary school age children (age 4 to 11 years old)	55.5%	64.4%

[1] 2018-2019 available at: https://www.gov.uk/government/collections/vaccine-uptake

North Tyneside has higher coverage rate than England across all aspects of the seasonal flu vaccination programme, except for the Under 2 years programme.

Service improvements within the school aged immunisation service have allowed for further analysis at education setting level. Overall uptake has improved from previous years due to the productive collaboration between the service and education settings. However, inequalities in uptake across the borough are evident and will be addressed in future programmes.



7. Surveillance and communicable diseases

Effective surveillance systems ensure the early detection and notification of communicable diseases. UKHSA 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.

10.1 COVID-19 Infections

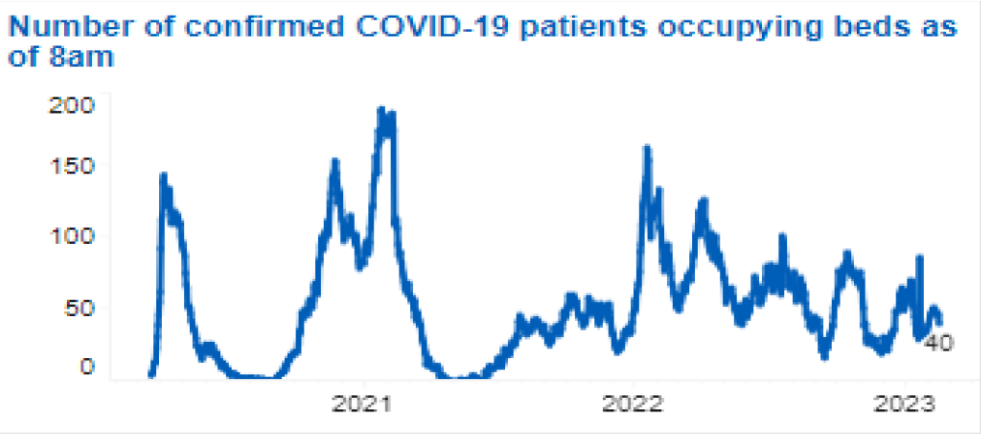
The success of the COVID-19 vaccine programme is evident in the reduction of hospital admissions and community transmission of COIVD-19. However,

COVID-19 continues to circulate highlighting the continued importance of the vaccine programme.

The Coronavirus (COVID-19) infection survey (10 February 2023), delivered by the Office of National Statistics (ONS) provides the percentage of people testing positive for Coronavirus (COVID-19), at 1.56% of the population or around 1 in 65 people.

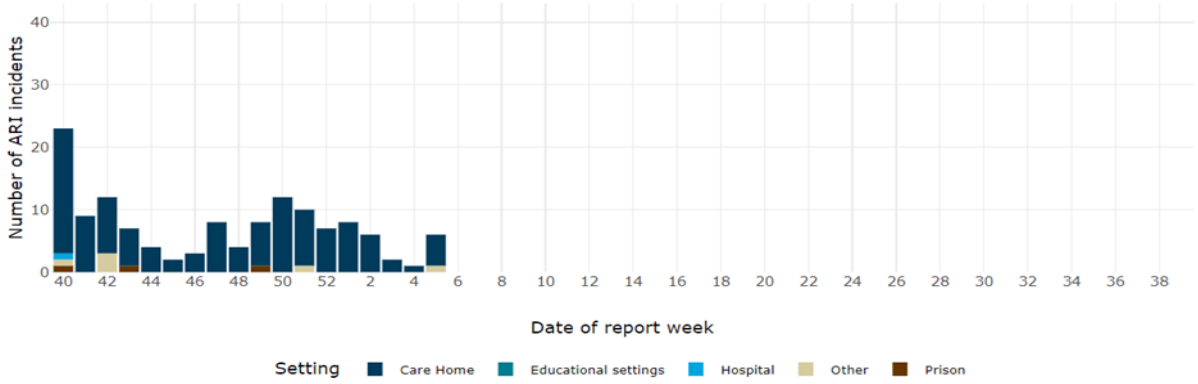
COVID-19 positive patients are monitored in hospitals to understand the pressures on the local NHS, and to provide an indication of the impact of the infection on the local population. The below diagram highlights how local hospital admissions fluctuate coinciding with infection levels in the community.

Local NHS foundation trust – unvalidated data, so the Trust is unnamed.



COVID-19 is a notifiable disease. Most notified incidents continue to be in care homes as shown below.

Chart 1: SARS – CoV-2 - Number of SARS -CoV-2 infection incidents reported to the local Health Protection team by setting – Northeast 2022-2023 – 9 February 2023



Nationally the wastewater testing coverage data for the Environmental Monitoring for Health Protection (EMHP) programme - led by the UK Health Security Agency (UKHSA) and run in partnership with Defra, the Environment Agency, CEFAS, academia and water companies – tests sewage in England for fragments of SARS-CoV-2 RNA.

The programme helps identify where the virus is circulating in England, detecting spikes in prevalence. It has the benefit of detecting the virus in asymptomatic individuals.

The programme now plays an important role in the detection of mutations of the virus, variants of concern (VOCs) and variants under investigation (VUIs). The wastewater surveillance programme routinely sequences samples from sewers across the country to provide a national and local view of the presence of mutations and variants. The programme now provides coverage to approximately 74% of the population of England.

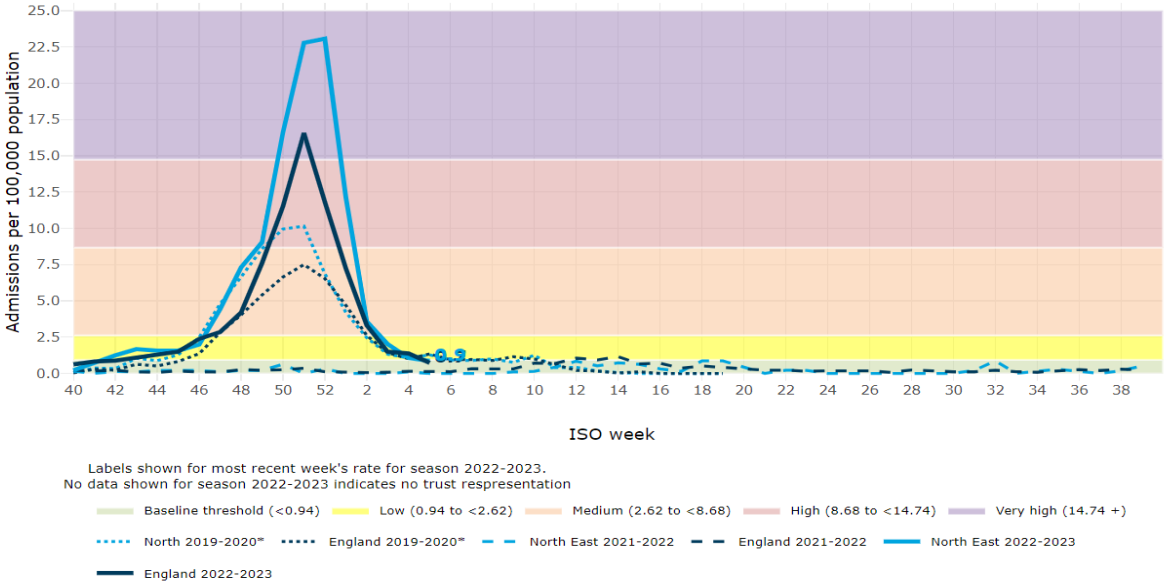
Following the findings of poliovirus in sewage samples collected from the London Beckton Sewage Treatment Works, which covers parts of North and East London, the UK Health Security Agency (UKHSA) expanded the surveillance to a range of areas outside of the capital including Newcastle

Upon Tyne which included North Tyneside residents. There have been no reported incidents in North Tyneside and the polio vaccine uptake is high in infants.

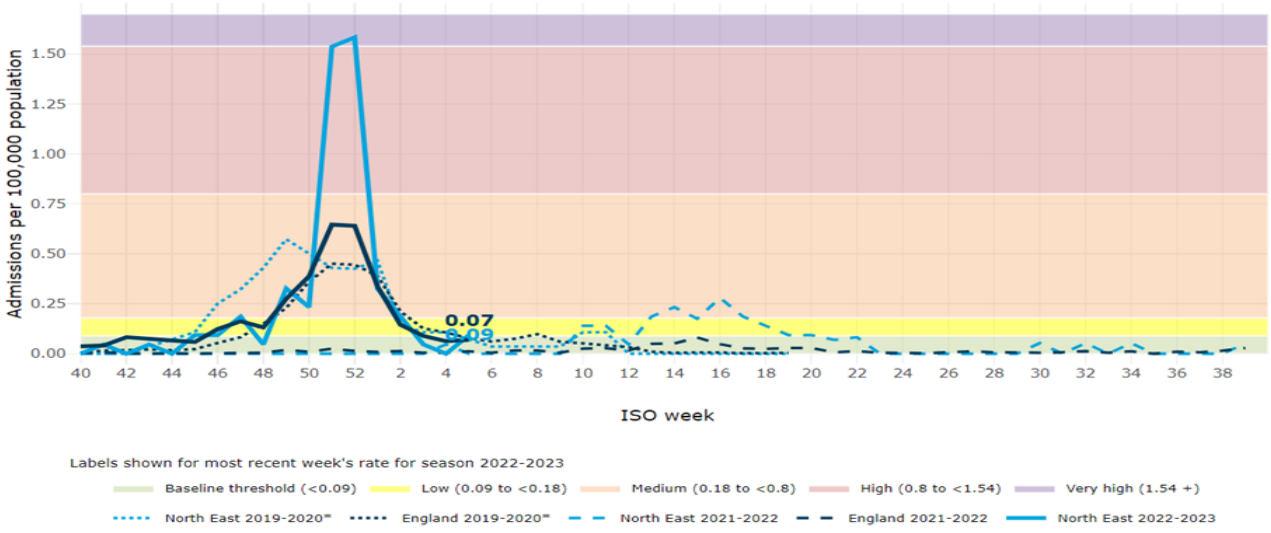
10.2 Influenza infections

Hospital admissions with confirmed influenza 9th February 2022 highlight the seasonal trends.

Graph 2: Hospital admissions with confirmed influenza 9th February 2022



Graph 3 ICU/HDU admissions with confirmed influenza with MEM thresholds SARI Watch (Mandatory Surveillance) 9th February



10.3 Influenza and other respiratory viruses

Nationally, COVID-19 case rates through Pillar 1 decreased slightly. Case rates decreased across most regions and age groups. Influenza positivity decreased nationally, and primary care surveillance and emergency department admissions remained stable.

Table 10: Reported cases on influenza and other respiratory viruses in the last four weeks by UTLA 9th February.

LA	Aden-ovirus	hMPV	Influenza A	Influenza B	Para - influenza	RSV	Rhinovirus	SARS-CoV2
North Tyneside	*	**5**	**21**	**9**	**0**	**44**	**5**	**282**

Nationally RSV positivity continues to decrease with the highest positivity seen in the under 5s. Adenovirus and Rhinovirus have a very small number of cases locally with the national trends showing higher positivity in the under 5s.

Other indicators such as NHS 111 calls, increased nationally across all age groups for cold, flu or coughs.

Infectious intestinal disease (IID)

Table 11: Counts of all IID outbreaks by setting and UTLA (all season (week 27 2022, to week 5)

	Care Home	Education	Hospital	Other	Total
North Tyneside	15	1	0	0	16
Northeast	170	13	1	7	191

(This table includes reports of laboratory confirmed rotavirus, norovirus, astrovirus and sapovirus.)

Care homes nationally, regionally, and locally have the highest number of incidents though they remain stable. Due to low numbers, rates are not available for comparison.

10.4 Environmental health and food safety

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

In 2022 there were 378 cases of foodborne and environmental infections which were notified to the Food Safety team during the year, these included cases of legionnaires disease, listeriosis and hepatitis, as well as more common food poisonings and parasitic infections.

North Tyneside food safety team received 243 food hygiene and food standards complaints in the period 2022. All complaints were investigated

in a timely manner and action taken where appropriate. Consumers concerns varied and related to discovery of extraneous material in food and hygiene issues reported after visits to food establishments. Complaints regarding food standards included labelling issues, false claims regarding the nature, substance or quality of food and the origin of ingredients as well as illegal health claims.

There were 503 food businesses inspected during the year as part of a programme of food hygiene and food standards interventions. Most businesses were found to be compliant with food safety legislation however 5% / 2% of the businesses were found to be non-compliant. The deficiencies found at the non-compliant businesses ranged from cleanliness, structural defects, and cross contamination risks. Enforcement action was taken against a proportion of the businesses to secure compliance, this included hygiene improvement notices to implement food safety management systems and emergency closures of businesses with water supply issues.

North Tyneside food safety team conducts a food sampling programme. In 2022 741 samples were obtained from 124 food establishments. Most of the samples were taken for microbiological examination and results are used to monitor the hygiene and food safety standards at food premises often in conjunction with programmed inspections. A significant number of microbiological samples are part of national and local coordinated studies.

10.5 Control of specific diseases

Early diagnosis by clinicians, prompt treatment of cases and early reporting by microbiologists and clinicians to the UKHSA 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.

The tables below present data on the notifications received for specific communicable diseases. It is important to note that at a local authority level and at a regional level often the numbers of reported diseases are very low, and this can mean that there is significant variation from year to year as the rate is affected by a slight increase or decrease.

Table 12: Measles, mumps, meningococcal disease, and whooping cough notifications 2022

			Measles	Meningococcal	Mumps	Whooping cough
Northeast	Q1-Q3	Count	51	17	338	33
		Rate	2.4	0.7	16.7	1.45
North Tyneside	Q1-Q3	Count	*	*	30	*
		Rate	0.5	1	17.7	1

In 2022 notifications for measles and whooping cough in North Tyneside were lower than Northeast rate. There were higher rates of notifications for mumps in Northeast.

There were no confirmed cases on tetanus, diphtheria, Haemophilus influenzae type b (Hib) or rubella in North Tyneside in 2022. There were 36 cases in the Northeast of invasive pneumococcal disease (IPD) in 2022.

10.6 Group A streptococcal infections

Scarlet fever is a common childhood infection caused by Streptococcus pyogenes (also known as group A Streptococcus [GAS]). These bacteria may be found on the skin, throat, and other sites where they can live without causing problems. Under some circumstances GAS can cause non-invasive

infections such as tonsillitis and scarlet fever. Invasive GAS (iGAS) is another infection caused by GAS, that is much rarer than scarlet fever.

Notifications (it is a notifiable disease) and GP consultations of scarlet fever in England have identified exceptional levels of activity during this early phase of the season. Notifications of invasive group A streptococcus (iGAS) disease remain at the top end of the range expected for this time of year.

Following higher than expected scarlet fever activity during the early part of this summer in England, notifications during the early part of the current 2022 to 2023 season – seasons extend from week 37 (mid-September) of one year to week 36 (mid-September) of the following year – increased to exceptional levels.

Updated UK public health guidance on the management of close contacts of iGAS cases in community settings was published on 15 December 2022, with additional close contact groups now recommended for antibiotic prophylaxis.

Interim clinical guidance on management of GAS infection was issued in December 2022 to optimise diagnosis and treatment during this current increase in infection. Following recent decreases in GAS activity, this guidance was rescinded in January.

Table 13. Number and rate per 100,000 population of scarlet fever and iGAS notifications in England: week 37 to week 4 of the 2022 to 2023 season

Week 37 to week 4 covers the period 12 September 2022 to 29 January 2023.

Region	No of cases of scarlet fever	Rate of scarlet fever	Number of cases of iGAS	Rate of iGAS
England	41,007	72.5	1,898	3.4
Northeast	1,697	64.1	109	4.1

Laboratory notifications of iGAS infection so far this season (weeks 37 to 4, 2022 to 2023) showed levels considerably higher than expected. A total of 1,898 notifications of iGAS disease were reported through laboratory surveillance in England, with a weekly high of 226 notifications in week 52 (26 December 2022 to 1 January 2023). This is considerably higher than the last high season (2017 to 2018) where activity peaked at 113 cases in week 14 (2 April 2018 to 8 April 2018. Laboratory notifications of iGAS infection this season are substantially higher than recorded over the last 5 seasons for the same weeks.

Table 14: Other selected organisms

			Hepatitis A	Hepatitis B	Hepatitis C	Legionella	Listeria	TB
Northeast	Q1	Count	0	42	200	0	*	12
		Rate	0	6.3	29.8	0	0.3	1.8
	Q2	Count	0	46	227	0	0	19
		Rate	0	6.9	33.9	0	0	2.8
	Q3	Count	*	46	234	5	*	13
		Rate	0.4	6.9	34.9	0.7	0.6	1.9
North Tyneside	Q1	Count	0	*	14	0	0	0
		Rate	0	5.7	26.8	0	0	0
	Q2	Count	0	*	9	0	0	0
		Rate	0	3.8	17.2	0	0	0
	Q3	Count	0	0	10	0	*	*
		Rate	0	0	19.2	0	3.8	1.9

There were 234 reports of Hepatitis C in the Northeast in Q3 2022, giving a rate non- significantly higher than in Q3 2021 (34.9 vs. 29.7 per 100,000; 199 cases) but significantly lower than in Q3 2019 (53.6 per 100,000; 359 cases).

Table 15: Foodborne and waterborne infectious disease notifications 2022 (per quarter)

			Salmonella	E coli	Campy-lobacter	Cryptos-poridium	Giardia	Shigella
Northeast	Q1	Count	47	*	704	23	16	*
		Rate	7.0	0.4	105.0	3.4	2.4	0.7
	Q2	Count	81	11	910	43	19	6
		Rate	12.1	1.6	135.8	6.4	2.8	0.9
	Q3	Count	151	47	1068	77	20	6
		Rate	22.5	7.0	159.4	11.5	3.0	0.9
North Tyneside	Q1	Count	*	0	48	0	0	0
		Rate	1.9	0	91.9	0	0	0
	Q2	Count	5	0	80	*	*	0
		Rate	9.6	0	153.2	5.7	3.8	0
	Q3	Count	10	5	80	7	*	0
		Rate	19.2	6.2	153.2	13.4	3.8	0

Rate per 100,000 population estimates (ONS) *data suppressed due to small numbers.

a) North Tyneside has higher rates for E. coli O157, campylobacter and cryptosporidium when compared to England, however these rates are similar to the Northeast.
b) 1,068 cases of Campylobacter (159.4 per 100,000) were reported in the Northeast in Q3 2022. This rate was significantly higher than the rate reported in Q3 2021 (144.1 per 100,000; 966 cases) but was similar to the rate reported in Q3 2019 (160.6 per 100,000; 1076 cases).
c) Rates from North Tyneside (153.2 per 100,000; 80 cases) did not differ significantly from Q3 2021 rates or the regional rate this quarter.

10.7 Sexually transmitted infections (STI)

The rates of STIs in North Tyneside are comparable with the Northeast and are better than the England average, particularly for gonorrhoea, syphilis, and HIV.

Table 16: Sexually transmitted infections (STI) and new HIV diagnosis notifications 2021

	Rate per 100,000 population						
	All new STIs diagnosis (2021)	Chlamydia detection rate (2021)	Genital herpes diagnostic rate (2021)	Genital warts diagnostic rate (2021)	Gonorrhoea diagnostic rate (2021)	Syphilis (2021)	HIV (2021)
England	394	1334	38.3	50.0	90	13.3	4.8
Northeast	269	1413	39.6	40.8	46	9.4	3.2
North Tyneside	237	283	43.6	50.0	23	3.8	2.4

Sexual and reproductive health profiles.

10.8 Mpox (monkeypox)

Mpox is a rare disease that is caused by infection with mpox virus. Since May 2022, cases of mpox have been reported in multiple countries that do not usually have mpox virus in animal or human populations, including the UK. As of 30th November 3, 725 confirmed and highly probably mpox cases have been identified in the UK.

Table 17: Number of confirmed and highly probable monkeypox cases by region of residence, England, 6 May 2022 to 16 September 2022

	Total confirmed and highly probable cases	Regional distribution of cases
England	3412	
London	2359	69.4
Northeast	47	1.4

There is currently no vaccine licensed in the UK or Europe for immunisation against mpox. As mpox is related to the virus which causes smallpox, vaccines developed for smallpox are considered to provide cross-protection against mpox. Based on the currently available vaccine supply and advice from JCVI, UKHSA recommends that the available doses of MVA-BN vaccine should be used as a selective vaccine strategy with the aim of interrupting transmission in the subset of individuals at increased risk.

The committee agreed that GBMSM at highest risk could be identified amongst those who attend sexual health services, using markers of high-risk behaviour like those used to assess eligibility for HIV pre-exposure prophylaxis (PrEP), but applied regardless of HIV status. In view of the current epidemiology and vaccine supply available, wider vaccination in low-risk Gay, Bisexual, Men who have sex with men (GBMSM) individuals or the general population is not advised at this time.

Table 18: Vaccination doses given by cohort and region as of 20 September 2022

Region	GBMSM	Staff	Community contacts	Total
Northeast, Yorkshire, and the Humber (NEY)	1419	192	201	1812

Investigation into monkeypox outbreak in England: technical briefing 23 September 2022

10.9 Avian flu

In the United Kingdom, there have been 170 confirmed cases of highly pathogenic avian influenza (HPAI) H5N1 since 1 October 2022. There have been 280 cases of (HPAI) H5N1 in England since the H5N1 outbreak started in October 2021.

Great Britain (England, Scotland, and Wales) is in an avian influenza prevention zone (AIPZ). By law people must follow the hygiene and disease prevention rules. This is to prevent bird flu and stop it spreading.

Bird flu mainly affects birds. It can affect humans and other mammals. The UK Health Security Agency advise that the risk from this bird flu strain is very low.

Available surveillance data reported by APHA do not suggest widespread mammalian adaptation of this virus (low to moderate confidence).

APHA report that there is evidence of direct spill over from birds into some 'scavenger' wild mammalian species within the UK (and others noted outside the UK). As a result, the current risk assessment is at level 3.

The species affected (foxes and otters) are presumed to have direct high-level exposure to infected birds based on feeding behaviour and food preferences.
In 2022, 56 mammals were tested, of which 8 were positive. Enhanced mammalian surveillance was initiated in January 2023, targeting mammals found dead near known areas of avian influenza transmission. In 2023 to date 2 animals have been tested, of which one fox was positive.

10.10 Healthcare Associated Infections (HCAIs)

On behalf of NHSE, UKHSA 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[2]. Hospital Trusts each have a Director of

[2] PHE Northeast Centre (2017) Antimicrobial Resistance (ARM) in the North East. PHE

Infection Prevention and Control providing assurance to the Trust Board on HCAI prevention. UKHSA provides infection control advice in non-healthcare community settings such as care homes and schools.

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

Table 19: Rates of Healthcare Associated Infections 2018/19[3]

Rates of Healthcare Associated Infections per 100,000 population			
	England	**Northeast and Cumbria**	**North Tyneside CCG**
MRSA (all rates)	1.4	1.0	0
MSSA (all rates)	21.8	27.7	29.3
E. coli (all rates)	77.7	104.7	101.2
C. difficile (all rates)	22.0	28.8	21.5

10.11 Antimicrobial Resistance

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.

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. The initial focus is on E. coli. In North Tyneside the rates of E. coli have been significantly higher than the England average for the last 7 years.

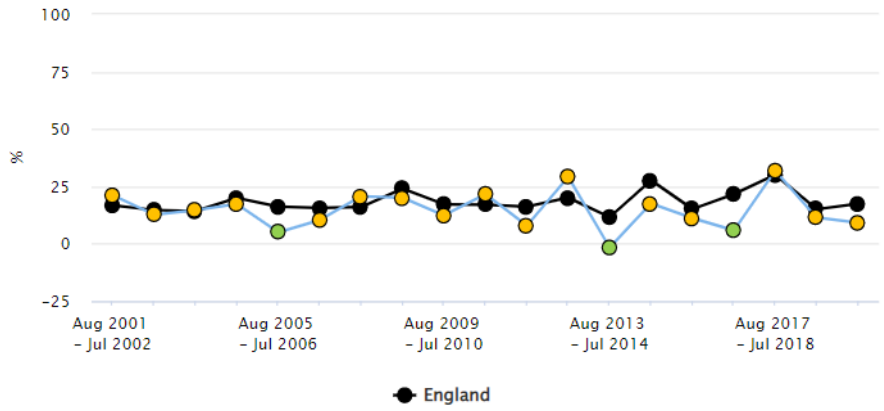
[3] PHE Fingertips; AMR local indicators North Tyneside available at: https://fingertips.phe.org.uk/profile/amr-local-indicators/data#page/0/gid/1938132910/pat/46/par/E39000039/ati/152/are/E38000127

11. Excess winter deaths

Seasonal mortality is seen each year in England and Wales, with a higher number of deaths in winter months compared to the summer. Additionally, peaks of mortality above this expected higher level typically occur in winter, most commonly the result of factors such as cold snaps and increased circulation of respiratory viruses, in particular influenza.

In North Tyneside there were 60 excess winter deaths in 2019/20, compared to 220 in 2017/18. Most excess winter deaths occur in the over 85s, 60 in 2019/20 and 110 in 2017/18. There is significant variation in the numbers of excess winter deaths between different years. It is not always apparent why this is the case. The chart below presents all age excess winter deaths and highlights the year-on-year variation, both at a national and local level.

Graph 4: Excess winter deaths single year 2001 - 2019 all ages



12. Emergency Preparedness Resilience and Response

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.

UKHSA 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.

In North Tyneside there is the Emergency Planning Leadership Group (EPLG) that meets monthly, the role of this group is to ensure that the council is equipped to respond to an emergency. This includes reviewing and developing internal policies and plans, engagement in and sharing the learning from exercises and reviewing and learning from local emergency situations e.g., flooding. This group feeds into the LHRP and the LRF.

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

13. Port of Tyne Health

Port Health Services at the Port of Tyne are delivered by the Tyne Port Health Authority, a joint board constituted by the Tyne Port Health Authority Order 2010. The Authority is assigned a range of Public Health statutory duties that are largely regulatory and cover controls over infectious disease, imported food and pollution controls and crew welfare and wellbeing.

North Tyneside Council has representation on an operational board from each of the four riparian authorities: North Tyneside, Newcastle, Gateshead,

and South Tyneside. Each authority contributes in part to the funding of the port health services.

Regional centres are now making quarterly submissions of port health action plans to the UKHSA national team. This includes proposed actions around:

a) Clarifying the role of the port medical officer
b) Ensuring there are regular meetings of all key port health stakeholders.
c) Ensuring port health plans are regularly updated and appropriately exercised.
d) Exploring the roll out of RING cards to assist port border staff with passenger assessment.
e) Undertaking local planning for implementation of new high consequence infectious disease (HCID) guidance

The operational activities routinely carried out by Port Health Officers include:

a) Routine boarding of vessels: 71 vessels were boarded in 2022 with 22 ship sanitation certificates issued. Routine checks on the vessels' previous ports of call and ships' sanitation certification status. In addition to spot checks on galley hygiene, port health officers will verify that there are sufficient food supplies provided for planned voyages. Declaration of Health were required of all vessels entering the port and were reviewed prior to boarding.

b) Ships Inspections: All vessels require ship sanitation inspections every six months. These certificates ensure ship

masters maintain good system to protect crew and visitors' health and wellbeing. Ship Sanitation Control Exemption Certificates are issued when no evidence of a public health risk is found on board and ship is free of infection and contamination. A Ship Sanitation Control Certificate is issued when evidence of a public health risk, including sources of infection and contamination, is detected on board. 22 Exemption Certificates were issued during 2022. There were no conditions found on inspections warranting the issue of control certificates.

c) Food and Water Sampling: Ships inspections are supplemented by routine microbiological sampling of food and drinking water. 230 water samples were made of 50 vessels and 32 water hydrants. Of the 230 samples of drinking water taken from ships water distribution systems or hydrants supplying ships there were 13 failures where remedial action was taken.

d) Imported Food Controls: Over 1620 consignments of food from third countries requiring port health checks arrived in the port in 2022. The port is designated to carry out official control on food not of animal origin. In 2020 59 documentary checks were made. Additional imported food checks will now be required of European foods based on risk.

14. Air Quality

North Tyneside Council has responsibility to regularly review and assess air quality. This is set out in Part IV of the Environment Act (1995) and requires a Local Air Quality Management (LAQM) process.

Poor air quality is a significant public health issue. There is a mortality burden associated with long-term exposure to anthropogenic particulate air pollution at current levels, expressed as the percentage of annual deaths from all causes in those aged 30+.

Table 20: Fraction of mortality attributable to particulate air pollution (2021)

	North Tyneside	England
Fraction of mortality attributable to particulate air pollution (2021)	5.3%	5.5%

North Tyneside Council produces an annual report which provides an overview of air quality.

North Tyneside Council monitors the levels of two pollutants (nitrogen dioxide NO^2 and particulate matter PM10) at several locations across North Tyneside. The air quality monitoring carried out in North Tyneside in conjunction with our joint work with Newcastle and Gateshead in response to Governments UK Air Quality Plan 2017 has indicated no locations where NO^2 levels are predicted to exceed recommend levels (40µg). A review of the latest annual monitoring data for nitrogen dioxide and particulates shows that the levels have remained steady with localised improvements/reductions where major highway schemes have been delivered. To ensure our monitoring remains robust and accurate we have invested in real time continuous air quality monitors at several key locations across the Borough.

There have been several concerns from the public regarding the potential impact the planned road improvement schemes will have on congestion and subsequently air quality. In response passive nitrogen dioxide diffusion tubes have been installed at relevant sensitive receptors. These diffusion tubes have been installed at the 20 most congested locations across the borough for a period of almost 2 years, and those at junctions that have

been subject to road improvements schemes have shown positive changes in recorded levels of NO^2.

Environmental Health is working to develop and implement an Air Quality Strategy, and this will include an action plan to incorporate measures that will help minimise the two primary pollutants of concern, nitrogen dioxide and particulates. This strategy will be initiated and progressed by a Steering Group, whose membership consists of all relevant partners including transport, public health, planning, and environmental health. Areas for action include:

a) Traffic management measures
b) Reduce emissions from new and existing developments.
c) Reduce emissions from road transport.
d) Promotion of alternative modes of travel
e) Setting more stringent local targets for levels of NO^2 around Schools
f) Facilitate transition to Electric Vehicles

15. Conclusions and recommendations

The Health Protection Arrangements across North Tyneside are multi-agency. This report alongside an overview of the meeting and reporting structures, aims to provide the necessary assurance that the local health protection system is robust and equipped to both prevent and suitably react to future challenges.

An assessment of the current health protection arrangements for North Tyneside has identified that these are working well to protect the population. However, this report has identified several areas where more could be done particularly around uptake of particular screening and immunisation programmes especially given the current health inequalities present.