Item No. 10

SUNDERLAND HEALTH AND WELLBEING BOARD 30 September 2022

SUNDERLAND HEALTH PROTECTION ASSURANCE REPORT 2021/22

Report of the Executive Director of Health, Housing and Communities

1. Purpose of the Report

1.1. This report provides an overview of health protection arrangements and some relevant activity across the city during 2021/22. The report supports the Executive Director of Health, Housing and Communities in their statutory remit to provide assurance to the Health and Wellbeing Board and Sunderland City Council in relation to health protection of the local population.

1.2. The report outlines the local position on health protection issues and priorities covering prevention, surveillance and control.

2. Executive summary

Sunderland generally performs well in most areas of health protection. There are robust systems in place to monitor performance in screening and immunisations and assurances that there is focus on areas where improvement may be required. Response to the pandemic has highlighted that Sunderland has a robust health protection system in place, which has been significantly strengthened since 2020. To respond to the pandemic all areas of the health system had to work together to protect the population of Sunderland, which has strengthened and developed relationships and ways of working. Sunderland is in a strong position to respond to any health protection emergency and will use lessons learnt from the pandemic to reinforce any response.

3. Key achievements

Sunderland historically performs very well in the uptake of most routine immunisations and continues to do so. Even during the pandemic uptake in childhood immunisations were not impacted and remained high. Sunderland also performs generally well in the uptake of most screening programmes.

4. Areas for improvement

Influenza immunisation uptake in some at risk groups such as pregnant women and the 2-3 year age group remains low in Sunderland. The uptake of the spring COVID-19 booster did not reach the level of previous boosters, which is of concern particularly for care home residents. There is also an inequity in uptake of all COVID-19 vaccinations across wards in Sunderland. Breast cancer screening in Sunderland is below the England average and does not meet national standard levels. The rate of some health care associated infections remains above the national average for those recorded.

5. Background

5.1. The protection of the health of the population is one of the legally mandated responsibilities given to local authorities as part of the Health and Social Care Act 2012. The Executive Director of Health, Housing and Communities for Sunderland is responsible for the discharge of the local authority's public health functions.

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

Prevention	screening and immunisation to prevent diseases
Surveillance	to monitor the burden and epidemiology of disease, monitor trends, and identify outbreaks
Control	management of cases and outbreaks of certain diseases to reduce the risk of transmission
Emergency Planning Resilience and Response (EPRR)	arrangements to plan for and respond to, a wide range of incidents and emergencies that could affect health or patient care including extreme weather, a large or complex outbreak of an infectious disease, a major transport accident or a terror attack

5.3. Timely, accurate and authoritative communication is an essential element of effective health protection. Through good communication accountability can be demonstrated and confidence can be provided, which is especially important when responding to an incident. It underpins all prevention, surveillance and control activities.

5.4. A key priority for health protection in Sunderland is to reduce inequalities in access to screening and immunisations and to protect the most vulnerable in our population in adult social care enabling more people to live healthier longer lives.

5.5. Responsibilities for aspects of health protection are distributed across the health system as follows:

- NHS England is responsible for the commissioning of screening and immunisation programmes.
- UK Health Security Agency's Health Protection Teams are responsible for the provision of expert functions to respond directly to incidents and outbreaks and to support the Council in understanding and responding to threats. Sunderland has an identified link Consultant in Health Protection.
- The Executive Director of Health, Housing and Communities is responsible for co-ordinating the Council's contribution to health protection issues and providing a local leadership role in providing assurance that robust arrangements are in place to protect the public's health.

5.6. Since early 2020 health protection activity has largely focused on the COVID-19 pandemic. Having a robust and responsive health protection system in Sunderland has been vital in coordinating the response to the pandemic.

5.7. To support the COVID-19 response capacity was diverted away from routine health protection work towards responding to the pandemic and some routine health protection programmes were paused or subject to delays to protect people from COVID-19 and allow NHS staff to support critical services.

5.8. Throughout the COVID-19 pandemic, the UKHSA's regional Health Protection Team (HPT) has been significantly overstretched and at times some of their functions were passed to the local authority public health team. There has been a return to business as usual and all functions have now returned to the HPT, although an enhanced offer of support continues to be available for care homes when needed across adult social care, public health and the infection, prevention and control team.

5.9. Since 24 February 2022 all legal COVID-19 restrictions have been removed. Access to free lateral flow device tests for the general public stopped on 1 April 2022 and has now been paused in health and social care settings. The Government has set out it's Living with COVID-19 plan, which includes no restrictions or public health measures for the general population. Some measures such as testing and the use of personal protective equipment (PPE) remain in high risk settings.

5.10. All health protection programmes that were paused have restarted and all programmes have either returned or are making progress to return to pre-pandemic levels.

6. Assurance Arrangements

6.1. A range of groups, information flows and reports are in place to support health protection arrangements in Sunderland. The purpose of these groups and reports ranges from formal assurance to providing a forum for discussion, information sharing and improvement. The system as a whole provides assurance to the Executive Director of Health, Housing and Communities that the health protection system is functioning as it should. These groups and sources of information include:

- a regional Programme Board for each screening and immunisation programme;
- a Healthcare Associated Infections (HCAI) Improvement Group which operates across Sunderland and South Tyneside;
- an Area Health Protection Group which provides a forum for discussion of strategy, policy and implementation across Northumberland, Newcastle, North Tyneside, Gateshead, South Tyneside and Sunderland;
- the Northumbria Local Resilience Forum (LRF) which co-ordinates responding bodies to help them provide the most effective and efficient response to civil emergencies when they occur;

- the North East Local Health Resilience Partnership (LHRP) which facilitates the production of sector-wide health plans to respond to emergencies and contribute to multi-agency emergency planning; and
- a range of surveillance reports which may be weekly, monthly, quarterly or annual reports (depending on the topic), supplemented by NHS England dashboards and by UKHSA's Fingertips resources.

6.2. Additional governance and assurance arrangements were put in place specifically for the pandemic and included:

- a Health Protection Board - an expert group drawn from partner agencies which worked to prevent, identify and contain outbreaks to protect the health of the public in Sunderland against COVID-19; and
- a Local Outbreak Control Board - a leadership group drawn from partner agencies which provided challenge, facilitated political ownership, supported public engagement and communications and supported delivery of the COVID-19 Control Plan through resource deployment and co-ordination.

6.3. The Local Outbreak Control Board last met in April 2022 and in line with the Government's living with COVID-19 plan the Board has been stood down.

6.4. From May 2022 the Sunderland Health Protection Board converted from a focus of COVID-19 to all general health protection issues including COVID-19. The Health Protection Board meets quarterly. The expert group is chaired by the Executive Director of Health Housing and Communities and is formed from partner agencies and works to assure the standard of health protection for the population of Sunderland. The Terms of Reference for the Health Protection Board can be found in Appendix 1.

7. Healthy City Plan

The Sunderland City Plan was developed to address the economic and social challenges in Sunderland. One of the aims is to develop a healthy smart city, where people will live healthier, independent lives for longer. The overall focus for health protection is to protect residents of Sunderland across the life course from biological, environmental and chemical hazards, which fits naturally with the City Plan by helping people live healthier and longer. The Healthy City Plan has key values and behaviours that are a focus for health protection in Sunderland:

- *Focusing on prevention* – supporting the population of Sunderland to make informed choices to protect their health by promoting immunisation, screening and healthy behaviours we can try and reduce the burden of disease in Sunderland.
- *Tackling health inequalities* – those who have poorer health and live in deprived areas are often more likely to be affected by infectious diseases as seen during the pandemic. By improving living environment and access to healthcare the effects of some infectious diseases can be reduced.
- *Equity* – we know that there is a disparity in access to some immunisation and screening programmes. Health protection work across Sunderland has a focus of trying

to improve access in populations with lower than average uptake to try and reduce this gap and improve health across the population.

8. Prevention

8.1. **Immunisation**

8.1.1. Immunisation programmes help to protect individuals and populations from specific diseases. There are programmes for children and adults as follows:

- The national universal childhood immunisation programme offers protection against thirteen different vaccine preventable diseases.
- The adult immunisation programme is offered to people in certain age groups and/or those who may be at particular risk due to underlying medical conditions or lifestyle risk factors.
- The selective immunisation programme targets children and adults needing protection against specific diseases such as TB, hepatitis B and pertussis in pregnancy.

8.1.2. The immunisation programme schedule can be found in Appendix 2.

8.1.3. The national COVID-19 vaccination programme was implemented in December 2020, with the first COVID-19 vaccination given on 8 December 2020. This marked the start of the biggest NHS vaccination campaign in history. The main objective of the COVID-19 vaccination programme is to protect those who are at highest risk from serious illness or death. The programme has proceeded in stages with those most at risk offered vaccination first. The programme is currently in the reinforcement stage with autumn boosters being offered to those most at risk COVID-19: the green book, chapter 14a - GOV.UK (www.gov.uk).

8.1.4. Routine childhood and adult vaccination and immunisation programmes have operated throughout the pandemic.

8.1.5. *Routine childhood immunisations*

The position for Sunderland can be summarised as follows:

- In general, Sunderland performs well in relation to the uptake of vaccination and immunisation programmes.
- By 12 months of age, 98.7% of children in Sunderland had been immunised against diphtheria, tetanus, pertussis (whooping cough), polio (inactivated polio vaccine), and Haemophilus influenza type b, compared to 91.9% across England (Quarter 4 2021/22 COVER data).

- By 24 months of age, 98.6% of children in Sunderland had received one dose of measles, mumps and rubella (MMR) vaccine, compared to 93.0% across England (Quarter 4 2021/22 COVER data).
- By 5 years old, population vaccination coverage for two doses of MMR was 95.0%, above the England average of 85.9% (Quarter 4 2021/22 COVER data).
- By 5 years old, population vaccination coverage for the DTaP/IPV booster was 96.3%, above the England average of 85.5%, (Quarter 4 2021/22 COVER data).

Table 1 Childhood routine immunisation coverage (%) in Sunderland and England from 2017/18 to 2021/22 for Q4

	2017/18	2018/19	2019/20	2020/21	2021/22
12 month DTaP/IPV/Hib					
Sunderland	85.3	94.8	98.7	98.2	98.7
England	92.6	91.9	92.7	91.6	91.9
24 month DTaP/IPV/Hib					
Sunderland	98.7	86.1	98.8	99.5	98.6
England	95.0	94.0	93.7	94.0	93.0
5 year MMR1					
Sunderland	97.3	97.6	98.7	98.4	96.7
England	95.1	94.7	94.6	94.3	93.5
5 year MMR2					
Sunderland	90.6	95.0	95.4	96.0	95.0
England	87.2	87.6	86.9	85.1	85.9

Source Local Authority Assurance Report: Section 7a Services, July 2022

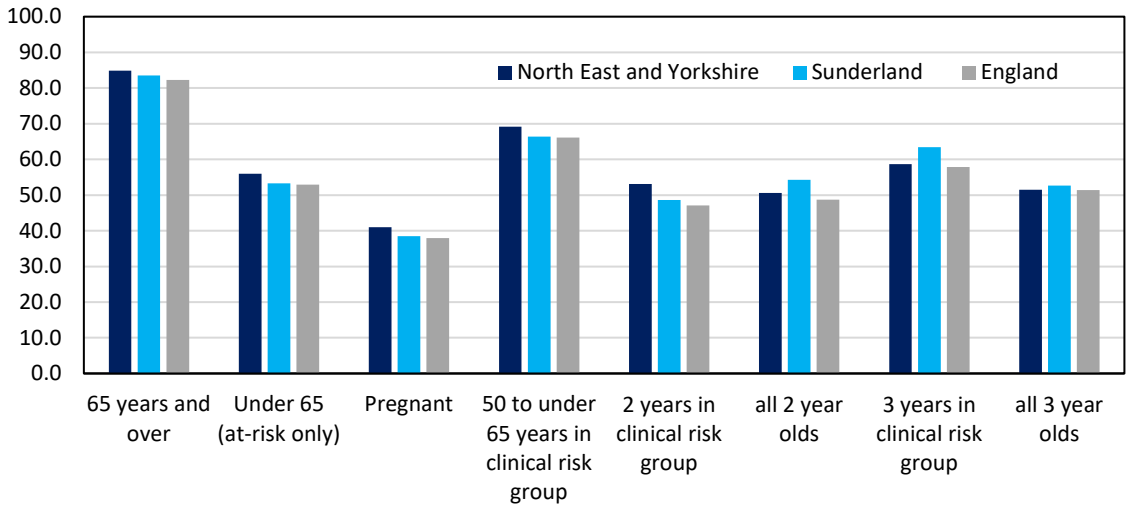
8.1.6. Influenza immunisation

High priority was given to the seasonal influenza immunisation programme for the 2021/22 winter season. It was anticipated that there would be a significant influenza season with co-circulation of COVID-19. What was observed however, was low transmission. For the 2022/23 winter season we are again anticipating significant transmission of influenza. This is underpinned by the current significant influenza season Australia have experienced, which usually sets a precedence for the UK. Sunderland achieved good influenza immunisation uptake in most groups, but some groups have low uptake:

- For all adults aged 65 year and over 83.5% were vaccinated in Sunderland compared to 84.8% in North East and Yorkshire.
- For those aged under 65 years in an at-risk group 53.3%. were vaccinated in Sunderland compared to 56.0% in North East and Yorkshire.
- For children aged 2 years 50.6% were immunised in Sunderland compared to 48.6% in North East and Yorkshire.
- For children aged 3 years 52.7% were immunised in Sunderland compared to 51.5% in North East and Yorkshire.

- For pregnant women 38.5% were vaccinated in Sunderland compared to 41.0% in North East and Yorkshire.

Figure 1 Influenza immunisation uptake (%) by at risk group for Sunderland, North East and Yorkshire and England for 2021/22



Source Seasonal influenza vaccine uptake amongst GP Patients in England 2021 to 2022 UKHSA, Seasonal flu vaccine uptake in GP patients: monthly data, 2021 to 2022 - GOV.UK (www.gov.uk)

8.1.7. Flu immunisation uptake is routinely low in pregnant women and young children in Sunderland as seen in the North East. The Sunderland Winter Vaccination Board are currently planning how the uptake in these groups can be improved for the 2022/23 winter season.

8.1.8. COVID-19 vaccination

A major focus of health protection work in 2021 and 2022 has been to achieve good COVID-19 vaccination uptake across the population of Sunderland, especially in those most at risk of serious illness from COVID-19. Assuring vaccine equity has also been a focus of health protection work. The position in Sunderland can be summarised as follows:

- For care home residents 97% have had their first dose, 96% second dose and 82% spring booster compared with 97% for their first dose, 96% for second and 81% for spring booster for North East and North Cumbria
- For those aged 70-74 and high risk individuals (JCVI group 4) 96% have had their first dose, 95% second dose and 58% spring booster compared with 96% for first dose, 95% for second and 68% for spring booster in North East and North Cumbria.
- For first, second and booster doses there was significant disparity in uptake across wards. For all booster doses the uptake ranged from 88% in Fulwell to 44% in Millfield.
- As of September 2022 there were 60,317 eligible Sunderland residents not vaccinated, predominantly in those aged less than 50 years.

Figure 2 COVID-19 vaccination uptake by JCVI group in Sunderland (data as of 14 August 2022, as a proportion of total who are eligible)

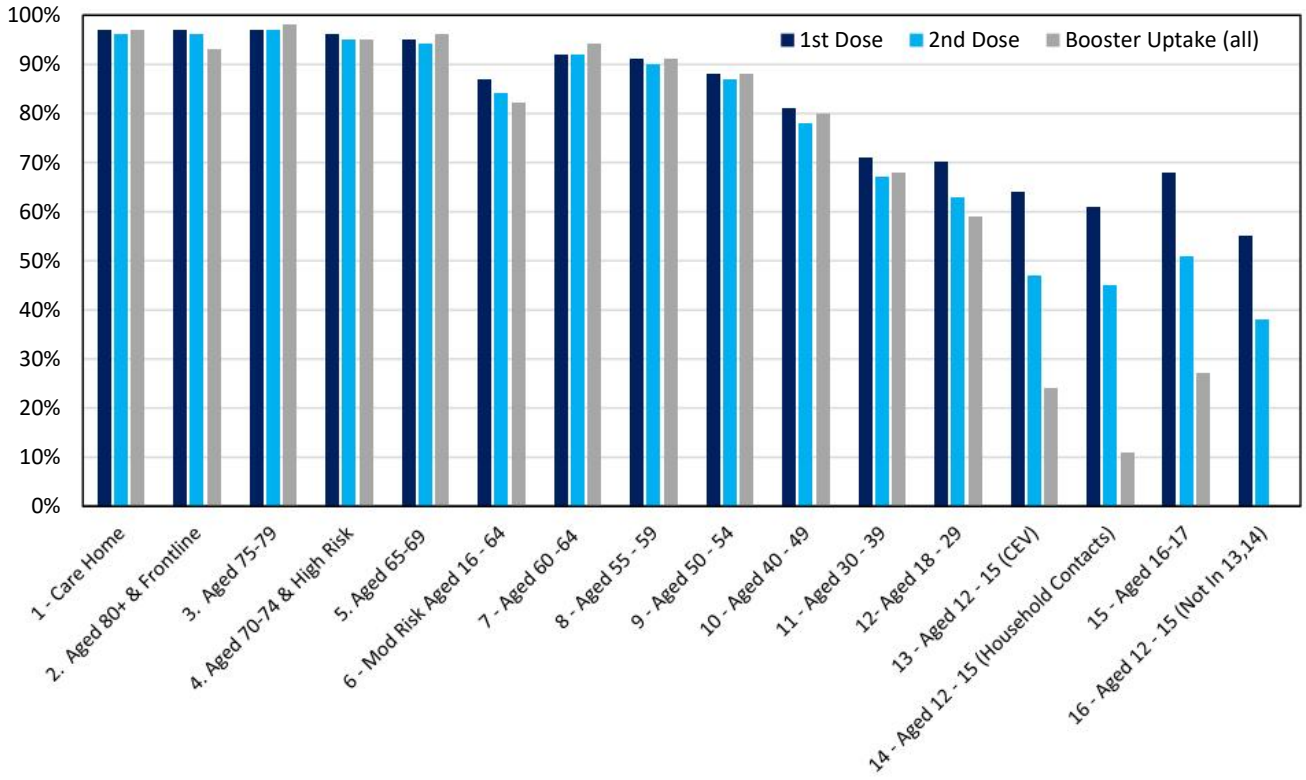


Figure 3 COVID-19 vaccination uptake for all boosters by Sunderland primary care network (data as of 14 August 2022)

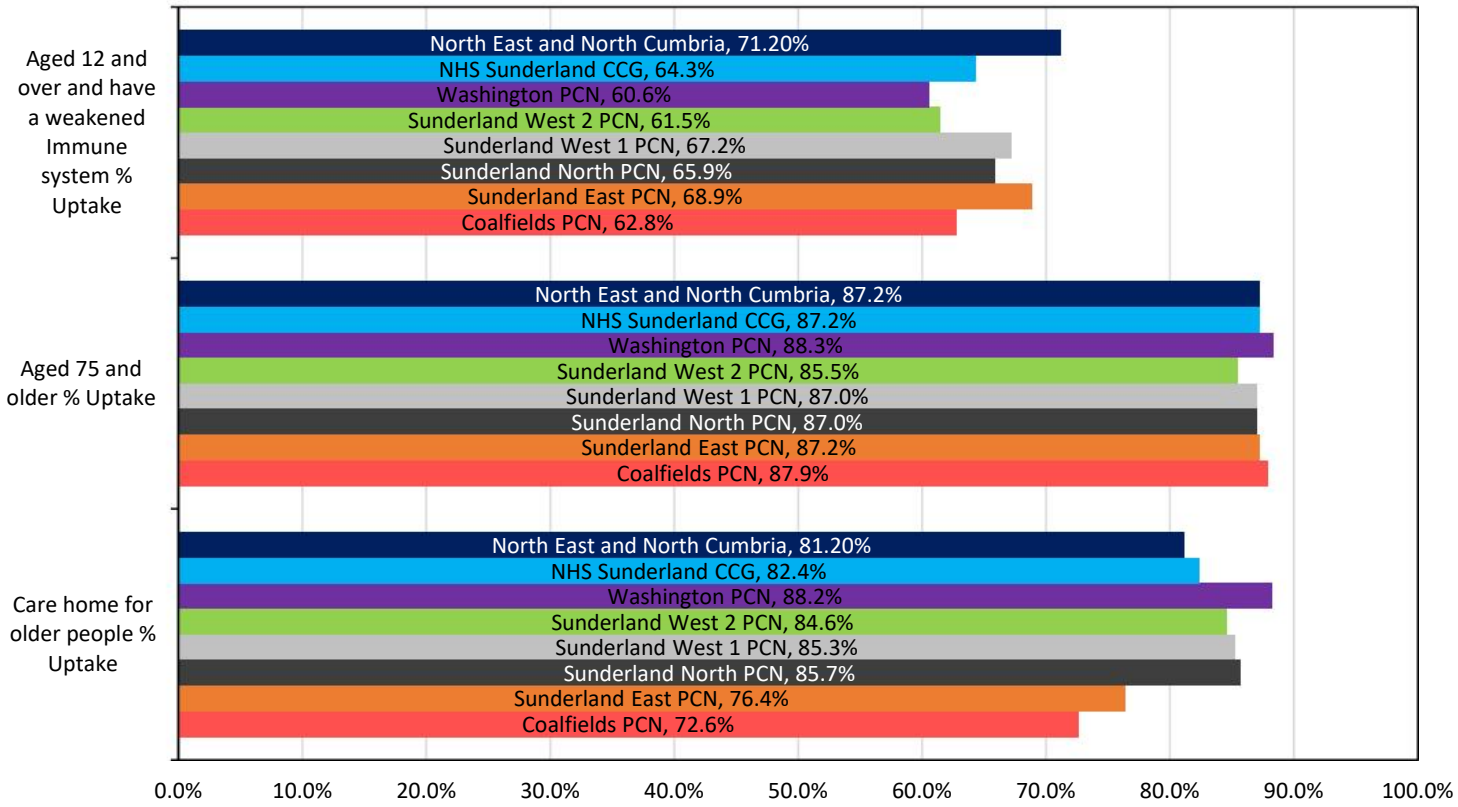


Figure 4 COVID-19 vaccination uptake for spring booster by Sunderland ward (data as of 14 August 2022)

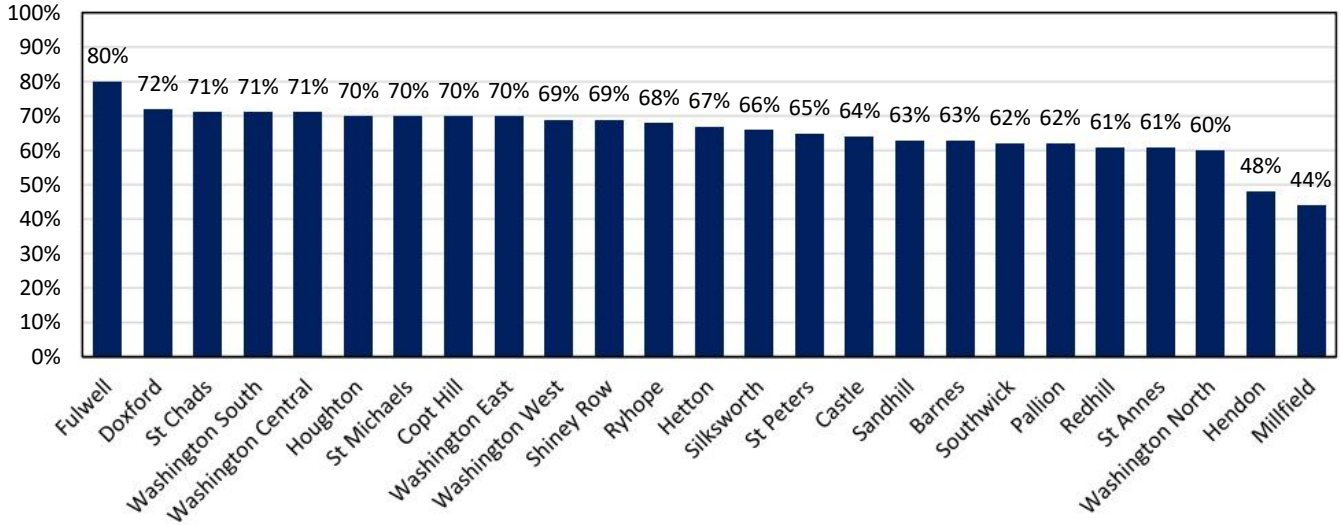
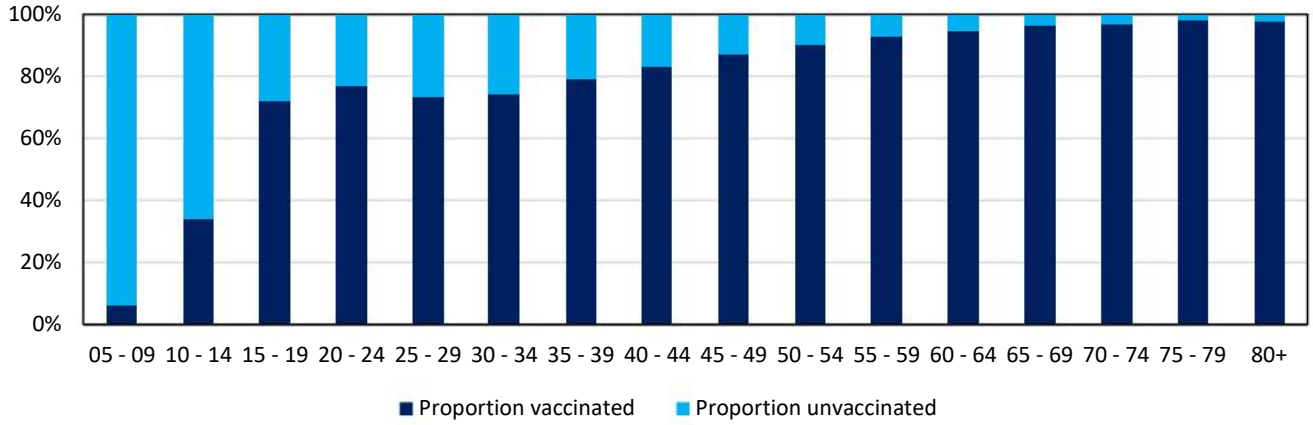


Figure 5 Proportion of Sunderland population that have received at least one COVID-19 vaccination by age group in years (data as of September 2022)



8.2. **Cancer screening programmes**

8.2.1. Screening is the process of identifying people who appear healthy but may be at increased risk of a disease or a condition. Screening programmes protect the health of the population by carrying out tests on individuals to determine whether they have or are likely to develop particular, often life threatening, conditions. Individuals are selected for screening programmes based on eligibility criteria including age, gender and pre-existing conditions.

8.2.2. The cancer screening programmes which are commissioned by NHS England and for which the Executive Director of Health, Housing and Communities has an assurance role are:

- breast cancer screening programme;
- bowel cancer screening programme; and
- cervical cancer screening programmes.

8.2.3. In March 2020 cancer screening programmes were paused to allow a focus on responding to the COVID-19 pandemic. NHS England have worked with providers to restart all cancer screening programmes and to return uptake to pre-pandemic levels.

8.2.4. The position for Sunderland can be summarised as follows:

- Coverage in Sunderland for the breast cancer screening programme was 63.7% in 2021. This is similar to the England coverage of 64.1%. It is however substantially lower than the coverage pre-pandemic, which was 78.0% in 2019 and lower than the national target of 80%. Work is being carried out to try and restore coverage to the consistent level obtained pre-pandemic.
- Coverage in Sunderland for the bowel cancer screening programme was 67.2% in 2021. This is higher than the coverage for England of 65.2% and higher than the national target of 60%. There has been an increase in coverage since the pandemic from 58.6% in 2018 and 60.2% in 2019 as a result of implementation of faecal immunochemical test (FIT). The age eligibility for the screening programme is in the process of being extended to include those aged 50-59 years, in addition to those aged 60-74 years who are already eligible.
- Coverage in Sunderland for the cervical cancer screening programme was 74.7% of women aged 25-49 years in 2021 compared to 68% for England. This was similar to coverage in 2019 of 76.1%.
- Coverage in women aged 50-64 years was 77.0% in 2021 compared to 74.7% coverage in England. This was similar to coverage in 2019 of 77.3%.

Table 2 Coverage of cancer screening programmes in Sunderland and England 2015 to 2021

	Lower threshold*	Standard^	2015	2016	2017	2018	2019	2020	2021
Breast cancer screening (%)									
Sunderland	70	80	78.2	78.9	78.1	77.7	78.0	76.9	63.7
England			79.2	78.9	78.5	78.3	78.2	77.6	64.1
Cervical cancer screening age 25-49 (%)									
Sunderland	75	80	74.8	74.0	74.1	74.3	76.1	76.9	74.7
England			74.9	74.4	74.0	73.8	75.0	75.6	68.0
Cervical cancer screening age 50-64 (%)									
Sunderland	75	80	79.1	78.3	78.0	77.1	77.3	77.5	77.0
England			80.4	80.1	79.4	78.5	78.6	78.8	74.7
Bowel cancer screening (%)									
Sunderland	55	60	57.2	57.1	57.6	58.6	60.2	64.5	67.2
England			62.0	62.7	63.6	63.4	64.1	67.9	65.2

Below lower threshold, above lower threshold, but below standard, above standard. Source Local Authority Assurance Report: Section 7a Services, July 2022, *Lower threshold based on the 2018-19 Public Health Functions Agreement, ^Standard is the clinical standard required to control disease and ensure patient safety

8.3. **Non-cancer screening programmes**

8.3.1. The non-cancer screening programmes which are commissioned by NHS England and for which the Executive Director of Health, Housing and Communities has an assurance role are:

- Diabetic eye (retinopathy) screening;
- Abdominal Aortic Aneurysm (AAA) screening; and
- Antenatal and newborn screening (ANNB).

8.3.2. Antenatal and newborn screening programmes operated throughout the pandemic, however AAA and diabetic eye screening were paused in March 2020. The diabetic eye screening and ANNB screening have been restored in Sunderland and the AAA screening programme is anticipated to be restored July 2022.

8.3.3. The position for Sunderland can be summarised as follows:

- For AAA screening, coverage of the eligible population in 2020/21 was 46.4%, which is lower than the coverage for the North East at 50.0% and lower than England at 55.0%.
- For newborn and infant physical examination screening the coverage in Sunderland in 2020/21 was 97.2%, which is similar to the North East coverage at 97.2% and England coverage at 97.3%.
- For newborn hearing screening the coverage in Sunderland in 2020/21 was 95.5%, which is lower than both the North East coverage at 97.6% and England coverage at 97.5%.

8.4. **Infection, prevention and control in care homes**

8.4.1. Care home residents are amongst the most vulnerable in our population. The closed setting nature of care homes makes them susceptible to transmission of infectious diseases and the development of outbreaks. Outbreaks of infections such as COVID-19, influenza, norovirus and Salmonella can cause significant morbidity to care home residents.

8.4.2. Outbreaks can be prevented or their severity reduced by good IPC measures. The COVID-19 pandemic has highlighted the importance of maintaining a high standard of IPC in care homes.

8.4.3. In Sunderland care homes are supported by the IPC nursing team, based at South Tyneside and Sunderland Foundation Trust. Support and oversight of IPC in care homes is given by SCC Adult Social Care Commissioning Team and SCC Public Health Team.

8.4.4. Outbreaks of infectious disease are managed by UKHSA, in line with national guidance. An outbreak control team will be convened by the UKHSA if they decide that an outbreak or situation in a care home has potential to cause significant morbidity. A representative from the SCC public health team would join the OCT.

8.4.5. In 2021/22 a focus of health protection work has been to ensure providers maintain (or improve if required) good standards of IPC through regular communications, providing advice, support and training.

9. Surveillance

9.1. Effective surveillance systems are essential to identify trends in, and outbreaks of, communicable diseases and to monitor the outcome of control actions. The COVID-19 pandemic has highlighted the importance of good surveillance data to be able to quickly identify and rapidly respond to cases, clusters and outbreaks.

9.2. Working with the UKHSA's Health Protection Team, Sunderland City Council's Environmental Health team play a key role in identifying and investigating cases and outbreaks of infectious diseases (particularly food borne) notified by GPs, the public, businesses and other local authorities.

9.3. **Health Care Associated Infections**

9.3.1. The term health care associated infection (HCAI) covers a wide range of infections. The most well known include those caused by methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C. difficile).

9.3.2. The UKHSA monitors the numbers of HCAIs through routine surveillance programmes and also monitors the spread of antibiotic resistant infections and advises healthcare professionals about controlling antimicrobial resistance.

9.3.3. Arrangements within the Sunderland Clinical Commissioning Group (CCG) and South Tyneside CCG were that there was a joint HCAI improvement Group which ensured a consistent whole system approach to preventing and controlling HCAIs across the local health economy. This group is to continue under the new Integrated Care Board (ICB) arrangements. It is supported by a panel that undertakes root cause analysis:

- Monitoring antimicrobial prescribing in line with Quality Premium targets;
- Auditing antibiotic, proton pump inhibitor and laxative prescribing in C. difficile cases to identify outlying practices and to identify actions for improvement;
- Reducing gram negative blood stream infections using root cause analysis of device associated infections and monthly compliance audits for high impact interventions;
- Reviewing and coordinating policy and procedures between the two hospital sites; and
- Supporting capacity, capability and intelligence by aligning policies, procedures, guidelines and mandatory IPC training; reviewing resources from NHS improvement to identify opportunities to improve performance.

9.3.4. The position in Sunderland is as follows:

- The rate of MRSA infections was similar to that of the England average.
- The rate of MSSA infections is higher than that of the England average, 24.5 per 100,000 compared to 20.8 per 100,000 in 2020/21, which is similar to previous years other than 2019/20.
- The rate of C. difficile infections is consistently higher than the England average, 32.0 per 100,000 population in 2020/21 compared to 22.2 per 100, 000 population in England. There has been little change in rate over the past five years.
- There was a reduction in the rate of E. coli infections in 2020/21 compared to previous years, however the rate is still substantially higher than the England average, 85.7 per 100, 000 population compared to 65.3 per 100,000 population for England.
- The has been a reduction in Pseudomonas aeruginosa infections over time with the rate in 2020/21 below that of the England average 6.1 cases per 100, 000 population compared to 7.6 per 100,000 population for England.

Table 3. Trend in number and rate per 100,000 population of HCAI infections for Sunderland CCG and England, 2016/17 to 2020/21

	2016/17	2017/18	2018/19	2019/20	2020/21
MRSA					
Sunderland number	4	5	2	6	2
Sunderland rate	1.4	1.8	0.7	2.2	0.7
England rate	1.5	1.5	1.4	1.4	1.2
MSSA					
Sunderland number	62	68	63	58	68
Sunderland rate	22.4	24.5	22.7	20.9	24.5
England rate	20.8	21.5	21.6	21.7	20.8
C. difficile					
Sunderland number	77	89	96	84	89
Sunderland rate	27.8	32.1	34.6	30.2	32.0
England rate	23.3	23.9	21.9	23.5	22.2
E. coli					
Sunderland number	276	285	289	311	238
Sunderland rate	99.7	102.8	104.1	112.0	85.7
England rate	73.6	73.8	77.2	77.0	65.3
Pseudomonas aeruginosa					
Sunderland number	-	34	29	22	17
Sunderland rate	-	12.3	10.5	7.9	6.1
England rate	-	7.7	7.5	7.7	7.6

Source: MRSA, MSSA and Gram-negative bacteraemia and CDI: annual report - GOV.UK (www.gov.uk)

9.4. Sexual transmitted infections

9.4.1. Sexually transmitted infections (STIs) are more common in people aged under 25 years. They can have long lasting effects on health, including cervical cancer, pelvic inflammatory disease and infertility.

9.4.2. The UKHSA collects and collates anonymised information from genito-urinary medicine and sexual health clinics on the number of sexually transmitted infections, sexual health screening tests and treatments; it also produces and publishes a national annual report on STIs. Accompanying local data is published in the Sexual and Reproductive Health Profiles.

9.4.3. In Sunderland, rates of diagnoses of STI amongst people accessing sexual health services are generally similar to or lower than the England average. Data for 2020 shows that:

- 1,501 new STIs were diagnosed in Sunderland residents giving a rate of 540 per 100,000 population. This is higher than the North East rate of 470 per 100,000, but lower than the England rate of 562 per 100,000.
- There were 155 diagnosed HIV cases amongst people aged 15-59 years in Sunderland giving a rate of 0.98 per 1,000 persons aged 15-59. This is lower than the North East rate of 1.10 per 1,000 persons aged 15-59 years and the England rate of 2.31 per 1,000 persons aged 15-59, and benchmarks relatively favourably with statistical neighbours.

9.5. **Air quality**

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

9.5.2. The Environment Act 1995 requires the Council to review and assess the air quality in Sunderland and to determine whether or not national the Air Quality Objectives (see below) are likely to be achieved.

- For Nitrogen Dioxide (NO2):
  - A 1 hour mean of 200 µg/m3 not to be exceeded more than 18 times a year;
  - An annual mean of 40 µg/m3 not to be exceeded.
- For Sulphur Dioxide (SO2):
  - A 15 minute mean of 266 µg/m3 not to be exceeded more than 35 times a year;
  - A 1 hour mean of 350 µg/m3 not to be exceeded more than 24 times a year;
  - A 24 hour mean of 125 µg/m3 not to be exceeded more than 3 times a year.
- For particulate matter (PM10):
  - A 24 hour mean of 50 µg/m3 not to be exceeded more than 35 times a year;
  - An annual mean of 40 µg/m3 not to be exceeded.

9.5.3. Sunderland City Council's Public Protection and Regulatory Services Team is responsible for overseeing air quality monitoring and reporting the data to DEFRA.

A full Air Quality report for Sunderland City Council is available Air quality reports - Sunderland City Council.

9.5.4. Air Quality in Sunderland is good. Health based objectives known as the Air Quality Objectives are being met across the City and we have seen a general decline in some of the pollutants measured. We have not declared any Air Quality Management Areas in our City.

9.5.5. Sunderland City Council is committed to trying to reduce levels further and to support initiatives that will improve air quality and wellbeing in Sunderland. We are continuing to monitor levels of air quality throughout the City.

10. Control for specific diseases

10.1. The UKHSA's HPT work to control specific infectious diseases to protect the health of the local population. The HPT operate an emergency on call system, which is active 24 hours a day and 7 days a week.

10.2. Control measures implemented to limit transmission of COVID-19 have been shown to have had a significant impact on the transmission of many other infectious diseases with some common diseases such as scarlet fever and some gastrointestinal diseases at low levels during restrictions.

10.3. It is challenging to interpret data given the impact the pandemic control measures has had on other infectious diseases.

10.4. **Gastrointestinal diseases**

10.4.1. A number of organisms can cause gastrointestinal (GI) infection including bacteria, viruses and parasites. Most cases are sporadic and isolated cases, but occasionally outbreaks can occur often linked to closed settings such as care homes and prisons. Occasional GI outbreaks can be associated with a food premise or a function.

10.4.2. The HPT works closely with the Council's Environmental Health Team to investigate certain GI disease cases with an aim to identify the cause and implement control measures to prevent onward transmission. Since the removal of COVID-19 restrictions most gastrointestinal pathogens are now circulating at a level seen before the pandemic.

10.4.3. During 2019, 2020 and 2021, Sunderland had the following numbers of confirmed gastrointestinal infections.

Table 4 Number of cases of gastrointestinal infections notified for 2019-2021 in Sunderland

	2019	2020	2021
Campylobacter			
Number	268	271	335
Salmonella			
Number	21	17	32
Giardia			
Number	42	12	12
Cryptosporidium			
Number	21	6	12
Escherichia coli 0157			
Number	3	4	1

Source: UKHSA gastrointestinal summary stakeholder reports

10.4.4. Outbreaks of infectious diseases are relatively common. The most common outbreaks are of vomiting/diarrhoea in closed settings such as care homes and schools caused by norovirus. During the current 2021/22 season there have been 38 GI outbreaks investigated and managed by the health protection system as follows:

- 24 GI outbreaks in care homes;
- 14 GI outbreaks in educational settings;

10.5. Tuberculosis

10.5.1. Tuberculosis (TB) is a bacterial infection that is transmitted via respiratory droplet spread, although prolonged exposure is usually required. TB is a disease most commonly associated with deprivation with the incidence among the most deprived quintile of North East residents (4.9 per 100,000) almost five times higher than least deprived quintile (1.1 per 100,000).

10.5.2. The North East, Yorkshire and Humber TB Control Board has been paused and the UKHSA along with partner organisations are in discussion nationally to deicide the approach moving forward. This has not affected the management of cases and incidents by the local HPT. For complex cases and situations an incident management team may be convened and the Executive Director of Health, Housing and Communities or their representative would attend.

10.5.3. Sunderland has relatively small number of cases of TB. Over time there has been a gradual decline in the rate of TB in Sunderland. There were 22 cases over the three year period from 2018-2020, an average annual incidence of 2.6 cases per 100,000 population. Rates of TB notifications are lower than the England average of 8.0 case per 100,000 population for the same period and benchmark reasonably well compared to statistical neighbours.

Table 5 Trend in average annual number and rate per 100,000 population of TB case notifications based on three year rolling data periods 2000-2002 to 2018-2020

Period	Number	Rate per 100,000 population (three year average)		
	Sunderland	Sunderland	North East	England
2000 - 02	56	6.6	5.5	12.7
2001 - 03	60	7.1	5.3	13.1
2002 - 04	54	6.4	5.0	13.5
2003 - 05	51	6.1	4.9	14.1
2004 - 06	60	7.2	4.9	14.7
2005 - 07	60	7.2	5.5	15.0
2006 - 08	66	7.9	5.9	15.0
2007 - 09	59	7.1	6.2	15.1
2008 - 10	58	7.0	5.6	15.1
2009 - 11	50	6.0	5.1	15.2
2010 - 12	55	6.6	5.2	15.1
2011 - 13	62	7.5	5.1	14.7
2012 - 14	64	7.7	5.5	13.5
2013 - 15	57	6.9	5.0	11.9
2014 - 16	40	4.8	4.8	10.8
2015 - 17	36	4.3	4.2	9.9
2016 - 18	32	3.8	4.1	9.2
2017 - 19	31	3.7	-	8.6
2018 - 20	22	2.6	-	8.0

Source [TB Strategy Monitoring Indicators - Data - OHID (phe.org.uk)]

Figure 6 TB notification rate per 100,000 population by upper tier local authority of residence, North East, 2020

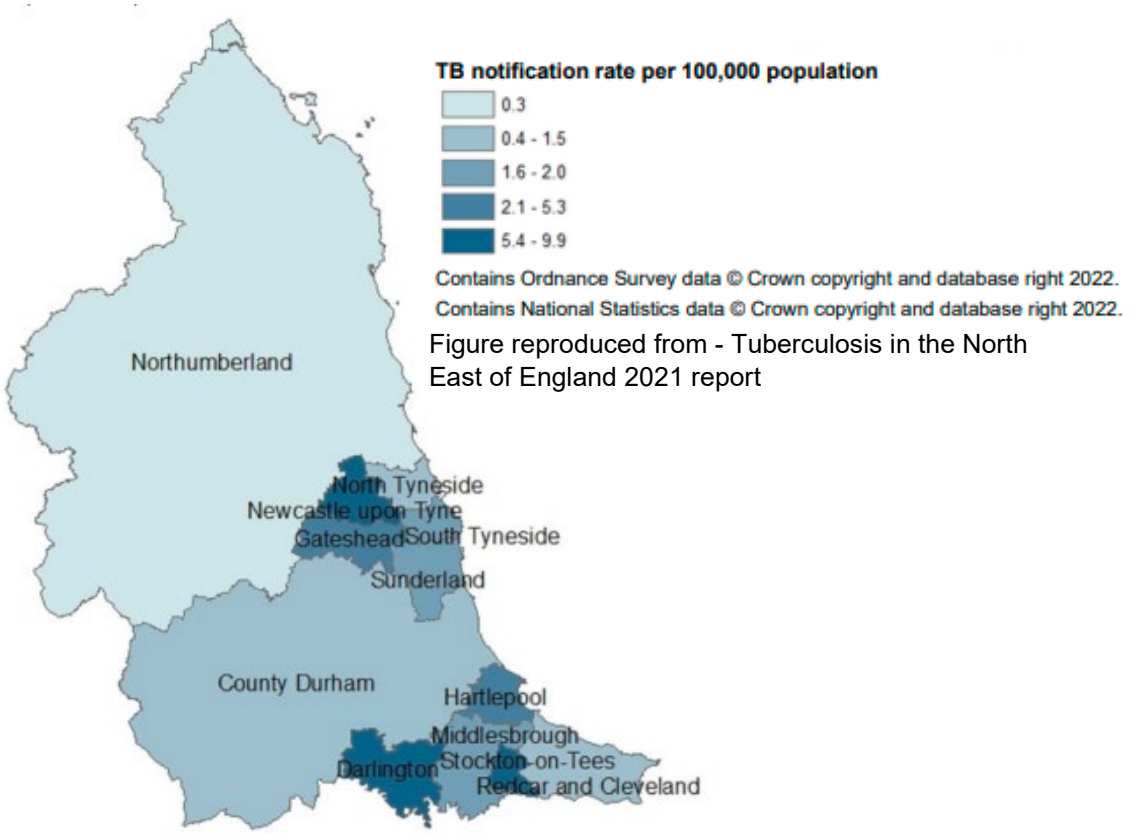


Figure reproduced from - Tuberculosis in the North East of England 2021 report

10.6. **Monkeypox**

10.6.1. Monkeypox (MPX) is a rare viral infectious disease, which is usually found in central and west Africa. MPX cases outside of endemic areas were predominantly associated with travel.

10.6.2. MPX is usually a self-limiting and mild illness with most people recovering within several weeks. However, severe illness can occur in some individuals. The incubation period can be prolonged and ranges from 5-21 days.

10.6.3. A multi-country outbreak of MPX has been ongoing since early May 2022. As of 12 September 2022, there were 3,552 confirmed cases in the UK. Most cases have no associated travel to endemic regions suggesting community transmission.

10.6.4. In Sunderland there have been <5 confirmed cases managed by the HPT and a total of 47 cases in the North East.

10.6.5. The UK response is being coordinated nationally by the UKHSA who are working closely with the NHS and other stakeholders.

10.6.6. Regionally, the North East HPT are coordinating local response and managing MPX cases in line with any other uncommon infectious disease and advise the Executive Director of Health, Housing and Communities of all cases. If a complex case were to arise an Incident Management Team may be established with local authority involvement if required.

10.6.7. NHS England are coordinating vaccination efforts with key staff cohorts, at risk population groups and certain high risk contacts currently the target population. There is at present a low supply of vaccine with a large batch anticipated to be distributed in September.

10.7. **COVID-19**

10.7.1. COVID-19 is an infectious disease caused by the SARS-CoV-2 virus. Most people will experience mild to moderate respiratory illness and recover without requiring treatment. However, some will become seriously ill and require medical attention.

10.7.2. Some populations are at greater risk of developing severe illness including older people and those with underlying medical conditions. The long term implications of infection with SARS-CoV-2 are still not fully understood, but a proportion of COVID-19 cases have been shown to develop an array of chronic symptoms which has been termed ‘long COVID’. Estimates from ONS indicate approximately 2.8% of the UK population had self-reported long-COVID in April 2022. The long term implications for population health and health services are still unknown.

10.7.3. The current position in Sunderland as of 15 September 2022 is:

- 105,139 cases of COVID-19 have been recorded
- 1, 114 deaths within 28 days of positive test result
- a total of 2,184,260 tests have been recorded (PCR and lateral flow device)
- 7,796 COVID-19 patients have been admitted to South Tyneside and Sunderland Foundation Trust
- COVID-19 prevalence, estimated by ONS, is 1 in 75 people in the North East and 1 in 70 for the sub-region (Sunderland, Gateshead and South Tyneside) and the current PCR positivity rate in Sunderland is 3.9% (as of 5 September).

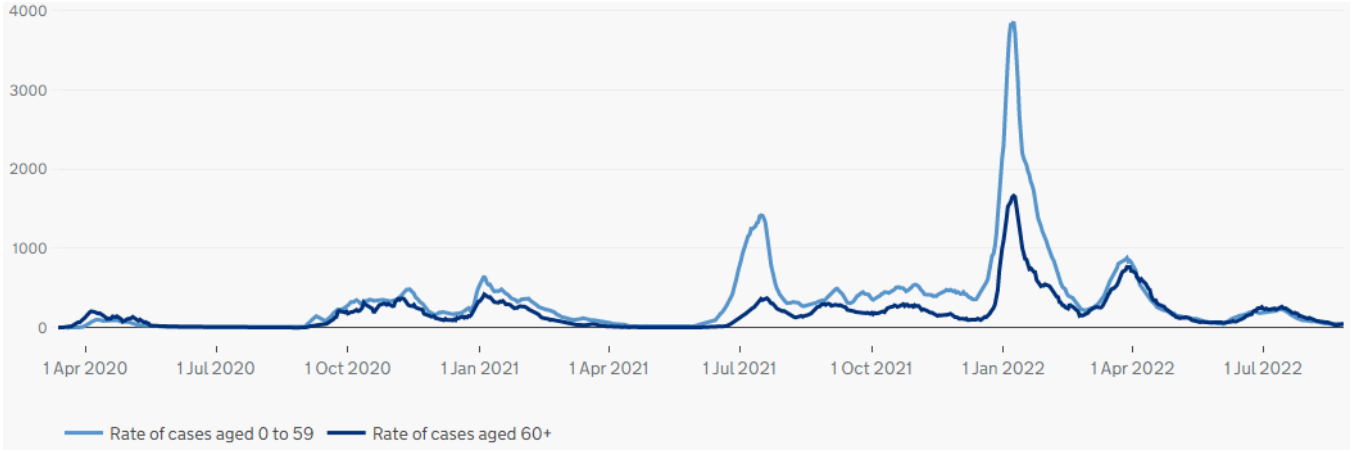
10.7.4. COVID-19 case numbers are anticipated to fluctuate over time. The current long term predictions indicate that there will be a peak in cases in November 2022 Long-term forecasting of the COVID-19 epidemic - Dynamic Causal Modelling, UCL, UK.

10.7.5. The national, region and local health protection system continues to respond to the COVID-19 pandemic. The future of the pandemic remains uncertain and SCC have a priority to protect the population of Sunderland from COVID-19 by improving access to vaccinations and promoting positive and protective behaviours. A continued effort is focused on helping care homes to protect their residents by preventing transmission and outbreaks. SCC, along with partner organisations, has contingency plans in place if there were to be a requirement to step up COVID-19 control measures and are in a good position to mount a rapid response.

10.7.6. The autumn COVID-19 booster campaign has begun and is targeting individuals at increased risk of severe infection or those who care for at risk individuals. Enhanced efforts are being made across Sunderland to obtain the highest possible uptake leading into the winter months with the likely possibility of co-circulating COVID-19 and influenza for the first time.

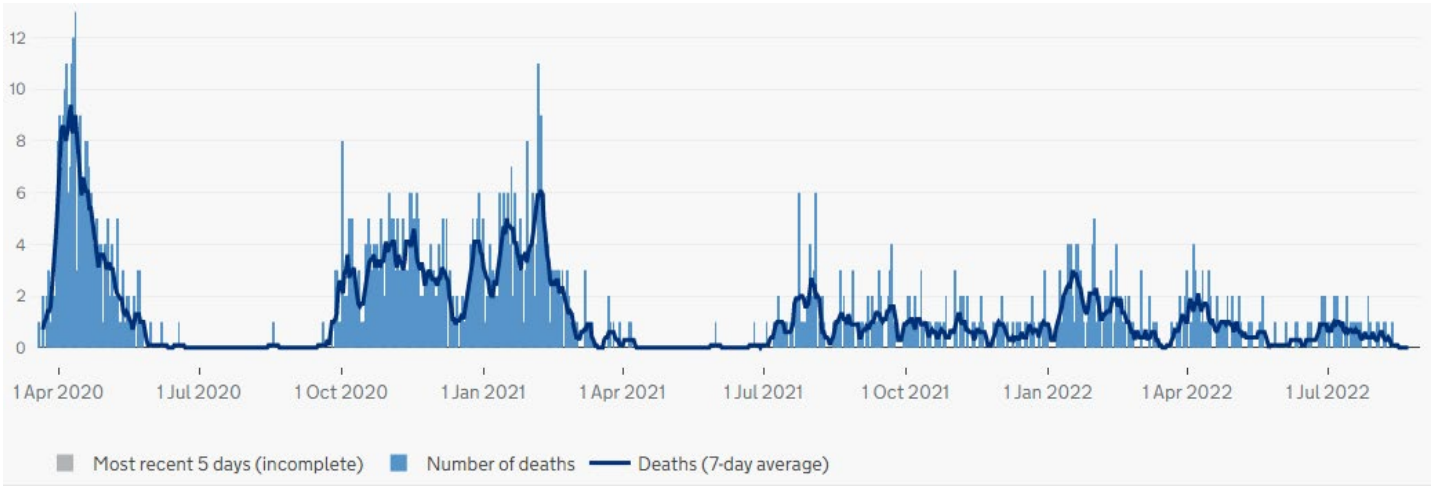
10.7.7. SCC will continue to support the vaccination campaign and provide the population of Sunderland with information and advice to allow people to make informed decisions to protect their own health through media communications.

Figure 7 COVID-19 cases in Sunderland by age (0-59 and ≥60 years) 7 day rolling rate per 100,000



Source [Cases in Sunderland | Coronavirus in the UK (data.gov.uk)]

Figure 8 Deaths within 28 days of a positive test by date of death



Source [Deaths in Sunderland | Coronavirus in the UK (data.gov.uk)]

10.8. **Polio**

10.8.1. The UKHSA, working with the Medicines and Healthcare products Regulatory Agency (MHRA), conducts routine environmental surveillance for polio as part of the UK's commitment to the global polio eradication programme.

10.8.2. In June, UKHSA announced that through this surveillance poliovirus had persistently been detected in sewage samples collected from the London Beckton Sewage Treatment works since February 2022.

10.8.3. A UKHSA national enhanced incident response was established and environmental surveillance was expanded. Following the discovery of type 2 vaccine-derived poliovirus in sewage in north and east London, the JCVI advised that a targeted inactivated polio vaccine (IPV) booster dose should be offered to all children between the ages of 1 and 9 year in all London boroughs.

10.8.4. More recently wastewater surveillance has been expanded to assess the extent of transmission outside of London and identify local areas for targeted action. The areas to be included is based on low vaccination coverage in the childhood programme, pockets of under vaccinated communities and risk of importation.

10.8.5. Sunderland has a very high uptake of polio containing vaccination for the routine childhood immunisation programme and no known pockets of under vaccinated communities and is therefore not included in the enhanced surveillance.

10.8.6. Almost all GP practices in Sunderland have an uptake higher than the 95% national target. NHS colleagues are working directly with the small number of GP practices that have an uptake below 95%. SCC are also using regular communications messages to remind parents and guardians of the importance that children are up to date with their vaccinations and that they are immunised as soon as they become eligible.

11. Winter preparedness

11.1. This winter there is likely to be co-circulation of COVID-19 and influenza and it is therefore very important that high levels of uptake of both the COVID-19 booster and influenza immunisation are achieved.

11.2. The responsibility for oversight of the Winter Vaccination Programme 2022/23 sits with the Winter Vaccination Board. This is a multi-agency Board, which reports to the Health Protection Board and has oversight for implementation of the Winter Vaccination Programme and monitoring progress.

11.3. Local planning of the Winter Vaccination Programme has focused on how best to target populations who historically have lower uptake. The Board meets regularly and assesses data to be able to adapt delivery to target areas as needed.

12. Health protection in relation to asylum seekers and refugees

12.1. Refugees and asylum seekers may have complex health needs that are influenced by experiences prior to arrival in the UK. These include:

- untreated communicable diseases
- poorly controlled chronic conditions
- maternity care
- mental health and specialist support needs

12.2. Health protection in relation to asylum seekers and refugees includes support with immunisation and screening eg TB, HIV.

12.3. To properly support asylum seekers and refuges the council must work closely with health services and external organisations in line with current guidance from

the UKHSA and other relevant guidance Migrant health guide - GOV.UK (www.gov.uk).

12.4. An important part of health protection support is to ensure that all health needs are met and also that any potential health inequalities are considered and addressed.

13. Emergency Preparedness, Resilience and Response (EPRR)

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

13.2. Planning takes place at regional and local levels as follows:

- The Local Resilience Forum (LRF)
- 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-ordinates 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 Sunderland Resilience Group brings together partners across Sunderland to prepare for both planned and unexpected events. The group ensures that Sunderland is adequately prepared to respond to disruptive challenges and that there is an appropriate level of engagement from all organisations

13.3. The Executive Director of Health, Housing and Communities is trained to chair the Scientific and Technical Advice Cell (STAC) which could be convened by the UKHSA to co-ordinate such advice in the event of an emergency incident.

13.4. There is a continued effort to ensure that all Sunderland partners are ready to respond to potential threats. To support these efforts a multi agency flood exercise is planned for September 2022 and a water contamination incident exercise is planned for November 2022.

14. Summary

14.1. This report has set out an overview of health protection arrangements and relevant activity across the City of Sunderland during 2021/22 including:

- Setting out the broad scope of health protection arrangements covering prevention, surveillance and control;

- Setting out the many and varied mechanisms for seeking and gaining assurance about health protection issues in Sunderland;
- Providing a description of services and activities available to protect the health of Sunderland's population; and
- Providing a summary of key supporting data.

14.2. The unprecedented COVID-19 pandemic has brought many health protection challenges. It has highlighted that Sunderland has a robust health protection system where partner organisations work together to protect the health of the population of Sunderland.

14.3. Overall, the Executive Director of Health, Housing and Communities is satisfied that the Health Protection Assurance arrangements in Sunderland are appropriate and effective in dealing with the various aspects of health protection.

14.4. SCC public health team will keep the arrangements under review and will seek to make improvements as and when necessary.

15. Forward planning for 2022/23

To continue to strengthen and improve health protection services across Sunderland the following key areas will be a focus for 2022/23:

- Continue to ensure that the population of Sunderland are informed about current and emerging threats to health and to provide information and advice to enable people to make informed decisions to protect their own health.
- To work with partners to improve COVID-19 and influenza immunisation uptake with focus on at risk groups and groups with historically low uptake such as pregnant women and adult social care staff.
- To continue to actively participate in the management of outbreaks and incidents and to support partners to protects residents from infectious diseases and environmental hazards.
- To continue to drive improvements in infection, prevention and control standards in care homes through training, providing advice and supporting partners.
- To continue to work with partners to improve immunisation and screening uptake in Sunderland, with focus on areas that have not yet returned to pre-pandemic levels.
- To reduce health inequalities in health protection with focus on immunisation and screening programmes.
- To ensure that there is adequate and appropriate support available for refuges and asylum seekers.

16. Recommendations

16.1. The Health and Wellbeing Board is recommended to:

- note and comment on the report;
- be assured that Sunderland has a robust health protection system where partner organisations work together to protect the health of the population of Sunderland;
- be assured that the Council's public health team will keep health protection arrangements under review and will seek to make improvements as and when necessary; and
- endorse the health protection forward plan priorities for 2022/23 as set out in section 15 of the report.

17. Abbreviations

AAA	Abdominal Aortic Aneurysm
ANNB	Antenatal and newborn screening
CCG	Clinical Commissioning Group
DEFRA	Department for environment and rural affairs
DTaP/IPV/Hib	Diphtheria, tetanus, pertussis, inactivated polio vaccine, Haemophilus influenzae type B,
E. coli	Escherichia coli
EPERR	Emergency Planning Resilience and Response
HCAI	Health care associated infection
HPT	Health Protection Team
ICB	Integrated Care Board
IPC	Infection Prevention and Control
JCVI	Joint committee on vaccination and immunisation
LHRP	The Local Health Resilience Partnership
LRF	Local Resilience Forum
MMR	Measles, Mumps and Rubella
MPX	Monkeypox
MRSA	Methicillin resistant Staphylococcus aureus
MSSA	Methicillin sensitive Staphylococcus aureus
ONS	Office for National Statistics
PCR	Polymerase chain reaction
PPE	Personal protective equipment
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SCC	Sunderland City Council
STAC	Scientific and Technical Advice Cell
STI	Sexually transmitted infection
TB	Tuberculosis
UKHSA	UK Health Security Agency

18. Appendices

18.1. Appendix 1 Sunderland Health Protection Board terms of reference

Sunderland City Council Health Protection Board Terms of Reference

Sunderland City Council

Health Protection Board

Terms of Reference

1. Purpose

1.1. Sunderland Health Protection Board (HPB) aims to enable the Director of Public Health to fulfil the statutory role in assuring the Council and Health and Wellbeing Board that satisfactory arrangements are in place to protect the health of the local population.

1.2. The HPB will focus on facilitating the Director of Public Health's statutory oversight and assurance role for health protection.

1.3. The HPB will provide a link between the Health and Wellbeing Board and partner organisations with roles in the delivery of health protection plans.

1.4. The HPB will provide a setting for the exchange of information, scrutiny of plans and analysis of data with all partners with a role in the delivery of health protection in Sunderland, ensuring they are acting jointly and effectively to protect the population's health.

2. Objectives

The objectives of the Board are to:

2.1. Provide assurance to the Director of Public Health that plans are in place to protect the population's health (mandated function, Health and Social Care Act 2012);

2.2. Co-ordinate public health input to Council plans and policies relevant to health protection, for example flu pandemic planning and air quality;

2.3. Ensure a system is in place to alert the Director of Public Health to any issues and provide an appropriate response;

2.4. Provide regular updates to the Sunderland Health and Wellbeing Board;

2.5. To strengthen the health protection aspects of emergency preparedness with consideration for lessons learned from the COVID-19 pandemic, including, preparing for future COVID-19 waves or response to a new threat and ensuring consideration is given to vulnerable and complex populations and settings;

2.6. Seek to improve population health and wellbeing in the context of health protection, advising the local system on areas for improvement and where health inequalities should be addressed;

2.7. Reflect on local incidents and outbreaks, securing assurance that lessons are learned and actions arising from them are implemented;

2.8. Oversee preparation of the annual health protection assurance report;

2.9. To support the Director of Public Health in providing information for the purposes of Scrutiny on any health protection related matter; and

2.10. To receive reports on any other issue that would enable the Director of Public Health to undertake their assurance role in relation to health protection.

3. Membership

The membership of the group will be (some names/roles still to be confirmed due to new Integrated Care Board (ICB) arrangements):

- Director of Public Health (Executive Director of Health, Housing and Communities), SCC **(chair)**
- Public Health Consultant, SCC
- Senior Communications Officer, SCC
- Assistant Director of Adult Services, SCC
- Principal Environmental Health Officer, SCC
- Public Health Lead (Health Protection), SCC
- Assistant Director of Business and Property Services, SCC
- Medical Director, ICB (Sunderland)
- Executive Director of Nursing, Quality and Safety, ICB (Sunderland)
- Head of Primary Care, ICB (Sunderland)
- Executive GP and Clinical Chair, ICB (Sunderland)
- Clinical Director of ATB (also Sunderland West locality Executive GP lead and Clinical Vice-Chair, ICB (Sunderland))
- Consultant in Health Protection, UKHSA
- Executive Medical Director, South Tyneside and Sunderland NHS Foundation Trust
- Consultant Microbiologist, South Tyneside and Sunderland NHS Foundation Trust
- Director of Education, Together for Children
- General Manager / Locality Manager, 0-19 Public Health Service, Harrogate and District NHS Foundation Trust

4. Frequency of Meetings

4.1. The group will meet quarterly and at other times as required by the Director of Public Health.

5. Chair

5.1. Meetings will be chaired by the Director of Public Health, or their appointed deputy.

5.2. Minutes will be produced by the administrative team of the Director of Public Health. Meeting papers will be circulated ahead of meetings, with minutes also circulated in a timely fashion to Board members following each meeting.

6. Reporting arrangements

6.1. The group, through the Director of Public Health, will produce an annual assurance report to the Health and Wellbeing Board.

7. Review

7.1. Terms of Reference will be fully reviewed at least once a year.
Next review by March 2023.

8. Standing Agenda Items

Model agenda for Health Protection Board:

i. Apologies for absence
ii. Minutes and matters arising
iii. Action log
iv. Health protection dashboard
v. Feedback from meetings
vi. Emergency planning issues
vii. Partner updates
viii. Any other business

9. Example of types of issues to be discussed at the Board will include:

9.1. Communicable diseases
9.2. Infection prevention and control in care settings
9.3. Health care associated infections
9.4. Screening and immunisation
9.5. Environmental hazards (air quality, adverse weather)
9.6. Outbreaks and incidents
9.7. Emergency planning and preparedness

18.2. Appendix 2 The routine immunisation schedule, from February 2022

The routine immunisation schedule from February 2022

Age due	Diseases protected against	Vaccine given and trade name		Usual site[1]
Eight weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, *Haemophilus influenzae* type b (Hib) and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Meningococcal group B (MenB)	MenB	Bexsero	Left thigh
	Rotavirus gastroenteritis	Rotavirus[2]	Rotarix[2]	By mouth
Twelve weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Pneumococcal (13 serotypes)	Pneumococcal conjugate vaccine (PCV)	Prevenar 13	Thigh
	Rotavirus	Rotavirus[2]	Rotarix[2]	By mouth
Sixteen weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	MenB	MenB	Bexsero	Left thigh
One year old (on or after the child's first birthday)	Hib and MenC	Hib/MenC	Menitorix	Upper arm/thigh
	Pneumococcal	PCV booster	Prevenar 13	Upper arm/thigh
	Measles, mumps and rubella (German measles)	MMR	MMRvaxPro[3] or Priorix	Upper arm/thigh
	MenB	MenB booster	Bexsero	Left thigh
Eligible paediatric age groups[4]	Influenza (each year from September)	Live attenuated influenza vaccine LAIV[3,5]	Fluenz Tetra[3,5]	Both nostrils
Three years four months old or soon after	Diphtheria, tetanus, pertussis and polio	dTaP/IPV	Boostrix-IPV	Upper arm
	Measles, mumps and rubella	MMR (check first dose given)	MMRvaxPro[3] or Priorix	Upper arm
Boys and girls aged twelve to thirteen years	Cancers and genital warts caused by specific human papillomavirus (HPV) types	HPV (two doses 6-24 months apart)	Gardasil	Upper arm
Fourteen years old (school Year 9)	Tetanus, diphtheria and polio	Td/IPV (check MMR status)	Revaxis	Upper arm
	Meningococcal groups A, C, W and Y	MenACWY	Nimenrix	Upper arm
65 years old	Pneumococcal (23 serotypes)	Pneumococcal Polysaccharide Vaccine (PPV)	Pneumovax 23	Upper arm
65 years of age and older	Influenza (each year from September)	Inactivated influenza vaccine	Multiple	Upper arm
70 to 79 years of age	Shingles	Shingles	Zostavax[3] (or Shingrix if Zostavax contraindicated)	Upper arm

1. Intramuscular injection into deltoid muscle in upper arm or anterolateral aspect of the thigh.
2. Rotavirus vaccine should only be given after checking for SCID screening result.
3. Contains porcine gelatine.
4. See annual flu letter at: www.gov.uk/government/collections/annual-flu-programme
5. If LAIV (live attenuated influenza vaccine) is contraindicated or otherwise unsuitable use inactivated flu vaccine (check Green Book Chapter 19 for details).

For vaccine supply information for the routine immunisation schedule please visit portal.immform.phe.gov.uk and check Vaccine Update for all other vaccine supply information: www.gov.uk/government/collections/vaccine-update

immunisation | The safest way to protect children and adults

NHS

Selective immunisation programmes

Target group	Age and schedule	Disease	Vaccines required
Babies born to hepatitis B infected mothers	At birth, four weeks and 12 months old[1,2]	Hepatitis B	Hepatitis B (Engerix B/HBvaxPRO)
Infants in areas of the country with TB incidence >= 40/100,000	Around 28 days old[4]	Tuberculosis	BCG
Infants with a parent or grandparent born in a high incidence country[3]	Around 28 days old[4]	Tuberculosis	BCG
Children in a clinical risk group	From 6 months to 17 years of age	Influenza	LAIV or inactivated flu vaccine if contraindicated to LAIV or under 2 years of age
Pregnant women	At any stage of pregnancy during flu season	Influenza	Inactivated flu vaccine
	From 16 weeks gestation	Pertussis	dTaP/IPV (Boostrix-IPV)

1. Take blood for HBsAg at 12 months to exclude infection.
2. In addition hexavalent vaccine (Infanrix hexa or Vaxelis) is given at 8, 12 and 16 weeks.
3. Where the annual incidence of TB is >= 40/100,000 – see www.gov.uk/government/publications/tuberculosis-tb-by-country-rates-per-100000-people
4. Check SCID screening outcome before giving BCG.

Additional vaccines for individuals with underlying medical conditions

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

1. Check relevant chapter of the Green Book for specific schedule: www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book
2. If aged two years to under ten years of age and unimmunised or partially immunised against pneumococcal infection, give one PCV13 dose.
3. To any age in severely immunocompromised.
4. Consider annual influenza vaccination for household members and those who care for people with these conditions.