



City of
Stoke-on-Trent

DPH ANNUAL REPORT

The Covid-19 Pandemic During 2021



INTRODUCTION

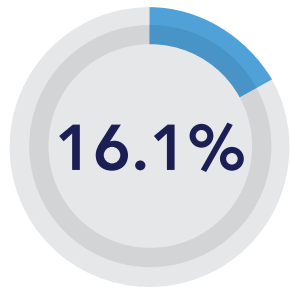
Directors of Public Health in England have a statutory duty to produce an annual report outlining the health of their local population. During 2021, Public Health remained top of everyone's agenda as we continued to respond to unprecedented challenges during the Covid-19 pandemic.

This 2021 DPH report is our opportunity to reflect on the impacts and experiences of Covid-19 across the course of the pandemic over 2020 and 2021, reaffirming our commitment to improving the health of our city and reducing inequalities. The pandemic has continued to highlight inequalities in our city, and as we move beyond its grip we are determined to continue our commitment to ensure we build back not only better, but a fairer society for all our residents.



THE PANDEMIC IN NUMBERS

Number of residents testing positive for Covid-19

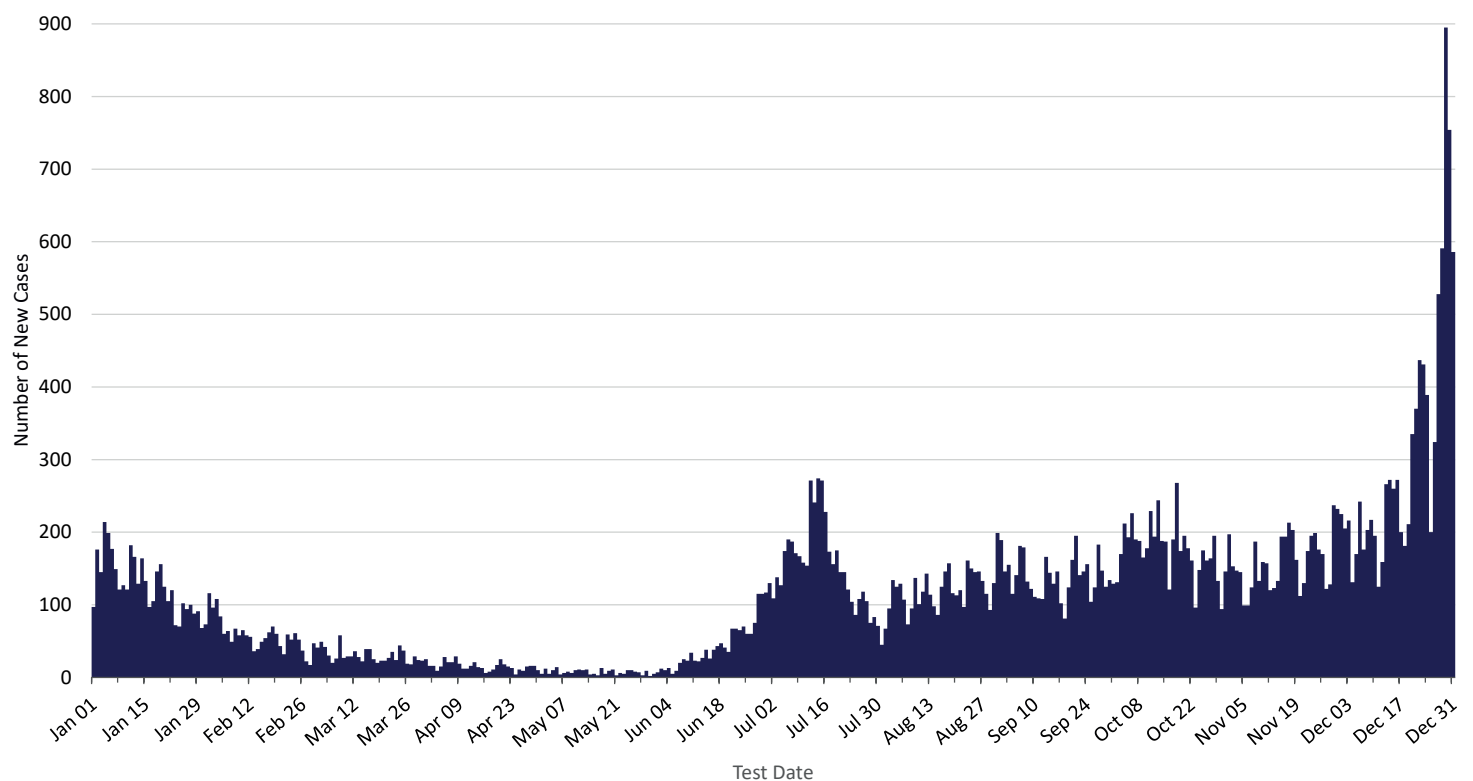


16.1% of the population, 41,201 Stoke-on-Trent residents tested positive for Covid-19 during 2021

this is slightly lower than the national average of 16,7%. Testing was freely available and widely used during 2021, with around 1.6 million tests reported in the city during the year, giving a good degree of confidence in this figure. The actual number of people catching Covid-19 will be higher due to factors including asymptomatic individuals unaware of infection or symptomatic individuals not coming forward for testing.

Comparatively data for 2020 suggests that 13,196 Stoke-on-Trent residents (5.2%) tested positive for the virus. However, the true number of people infected during the year was likely much higher than this, since testing was initially only available in hospitals and even as testing was made available for everyone around 208,000 tests were reported that year.

Figure 1: Confirmed Covid-19 Cases per Day, Stoke-on-Trent 2021



2021 started with a peak in cases following New Year, due to the lifting of national lockdown restrictions at the start of December 2020 and the more transmissible Alpha or “Kent” variant of the virus.

In 2021, the third national lockdown from January 2021 to March 2021 steadily reduced the rate of new cases to from over 200 per day to around 20 per day by April. The rollout of the vaccine program was an important contributor, with 51% of over-12s receiving a first dose by the start of April. The vaccine was also shown at this time to have greatly reduced the mortality rate of those catching Covid.

Cases increased again at the beginning of June 2021 with the advent of Delta variant. The new strain was first highlighted as a variant of concern in May 2021 and led to an exponential increase in cases in Stoke-on-Trent, peaking in the immediate aftermath of the Euro 2020 tournament with 280 cases on 14th July. The planned lifting of Covid restrictions on 21st June was delayed by four weeks to 19th July to allow all adults to be offered a first dose of the vaccine. Restrictions including legislation around face mask use and social distancing were replaced with guidance. As in 2020, the start of school holidays coincided with a fall in case numbers, although there were still an average of 125 daily cases in August 2021.

Following an increase in cases amid schools re-opening in September, the government approved a single vaccine dose for 12-15-year-olds. Third or “booster” doses were also rolled out for vulnerable groups. Cases continued to increase, with an average of around 200 per day by mid-October. High vaccine uptake among the most vulnerable groups limited the impact, with local Covid deaths remaining similar to the previous month and hospital occupancy increasing by around 10%. Case numbers were relatively stable in November, with small improvements in hospital admissions and mortality.

With the detection of the highly-transmissible Omicron variant in the UK, national restrictions were introduced on 28th November, including PCR testing for all international arrivals, mandatory face coverings in some settings and self-isolation for even fully-vaccinated contacts of variant cases. The city had its first suspected Omicron cases in the first week of December and by the end of the month over 90% of cases were Omicron cases. The variant spread rapidly, resulting in record numbers of cases, with an average of over 650 daily cases in Stoke-on-Trent and over 1.3 million total cases in the UK during the week following Christmas.

As of early March 2022, the number of cases has gradually reduced although it remains stubbornly high at around 90 cases per day despite reduced testing.

Throughout the pandemic, analysing data to monitor and address potential health inequalities between groups – including by location, age, ethnicity, gender and deprivation – has been a central part of the City Council’s response to the pandemic. This information has been discussed each week to respond to outbreaks and target resources such as testing, support to businesses, Covid Stewards and public messages.



Cases by Ward, 2021

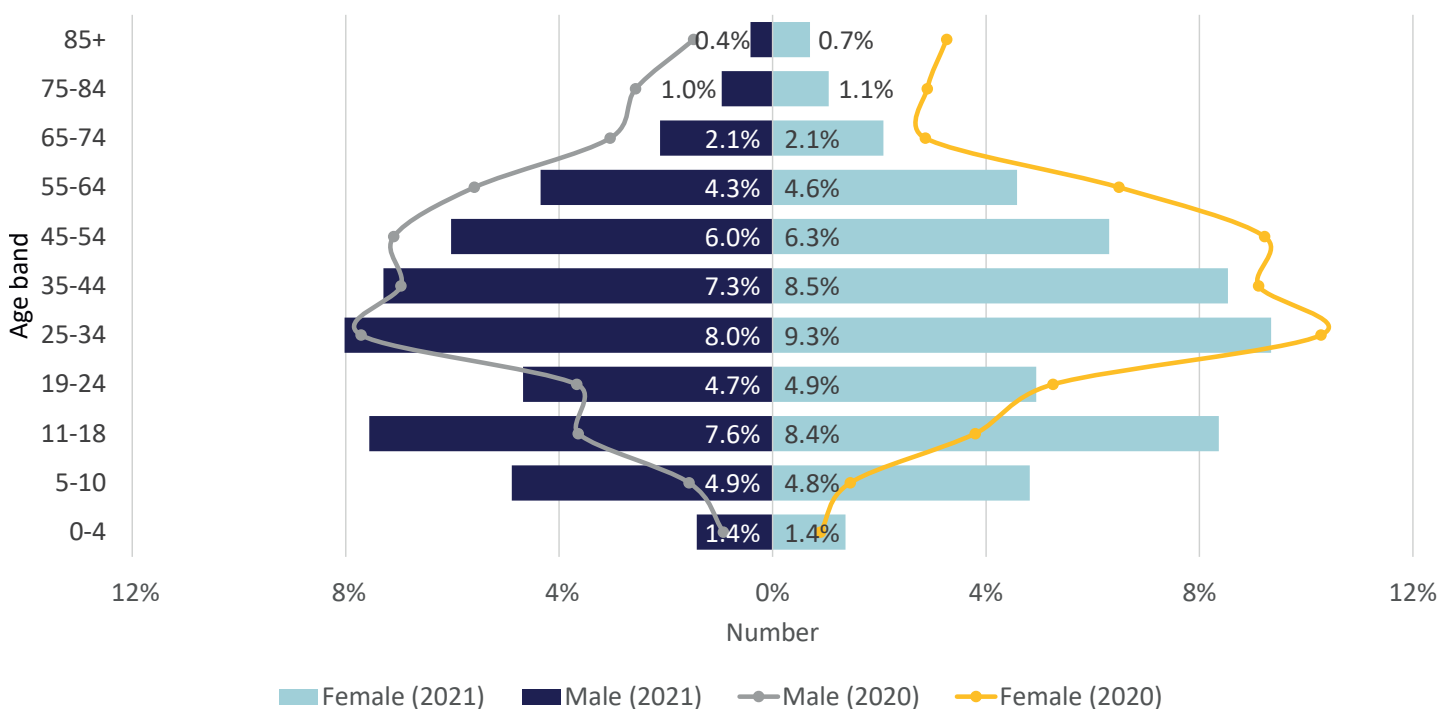
Most wards saw around one person in six testing positive during the year. There have been hotspots and outbreaks in different areas during the pandemic but part of the difference between ward rates can also be attributed to differing levels of testing by residents.

Cases by Age and Gender

In 2021, the majority of cases were detected in the female population (52% of recorded cases) within the city however the disparity has reduced (2020: 56% female) and can be explained by greater testing among this cohort.

In 2020, cases were concentrated amongst people of working age, with 19-64 year olds making up 72% of cases. Data collected in 2021 showed a change in the reported age of recorded cases, with 19-64 year olds still the majority at 64% but fewer cases from people aged over 45 years (2020: 45%, 2021: 29%). The rollout of vaccines to older age groups first and the greater uptake among older people could have led to the reduced share of cases among older adults. There was a corresponding increase in the share of cases in those aged 18 and under (2020: 12%, 2021: 28%).

Figure 2: Percentage of cases in Stoke-on-Trent by age and gender 2020 and 2021



The marked increase in school-age cases may in part be due to increased testing for this age group during 2021. The City Council has worked closely with schools to identify clusters and outbreaks and provide support. The January lockdown in England meant that all schools closed to pupils until mid-February, with schools instructed to switch to remote learning. According to UNESCO research, potential impacts of school closures for children include interrupted learning, social isolation and poor nutrition. There are also impacts on parents and carers, including childcare obligations which can put strain on the healthcare system and businesses if employees are unable to work¹.

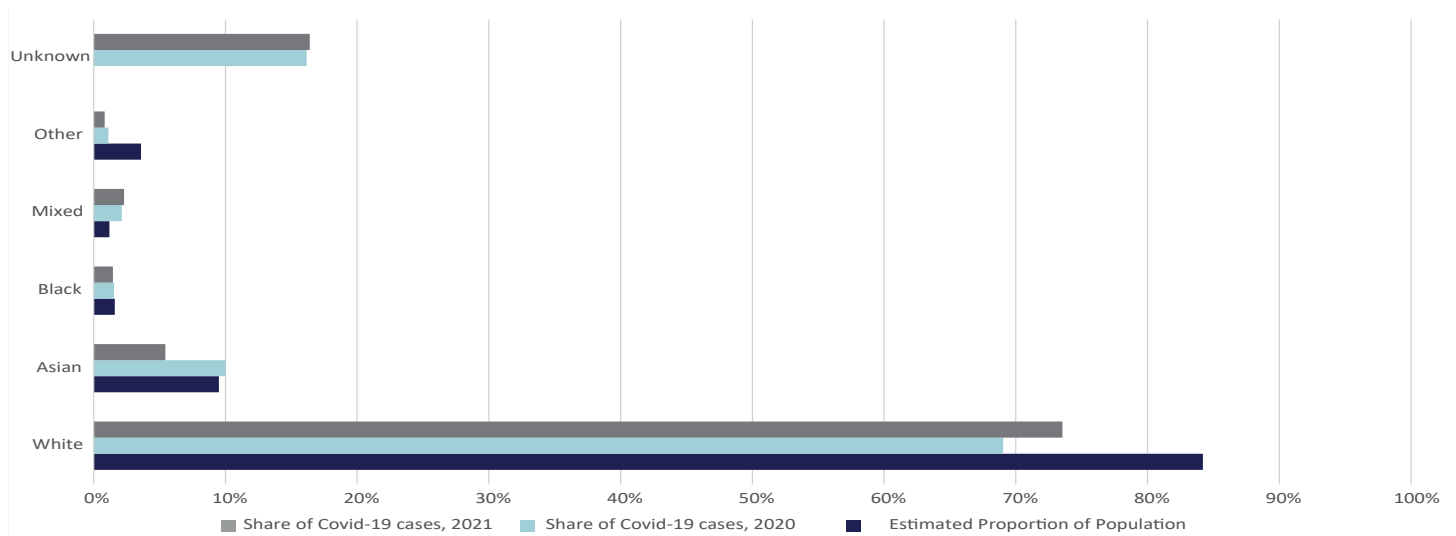
¹Adverse consequences of school closures (unesco.org) <https://en.unesco.org/covid19/educationresponse/consequences>



Cases by Ethnicity

Figure 3 (below) compares the proportion of Covid-19 cases during 2020 and 2021 with a known ethnicity with the latest available estimates of the proportion of each ethnic group in the city (ONS, 2016).

Figure 3: Proportion of Covid-19 cases (2020 & 2021) and estimated proportion of population (2016)



Cases in 2021 have been more evenly distributed by ethnicity than in 2020, with population change since 2016 and missing ethnicity case data likely to account for gaps between population size and case share.

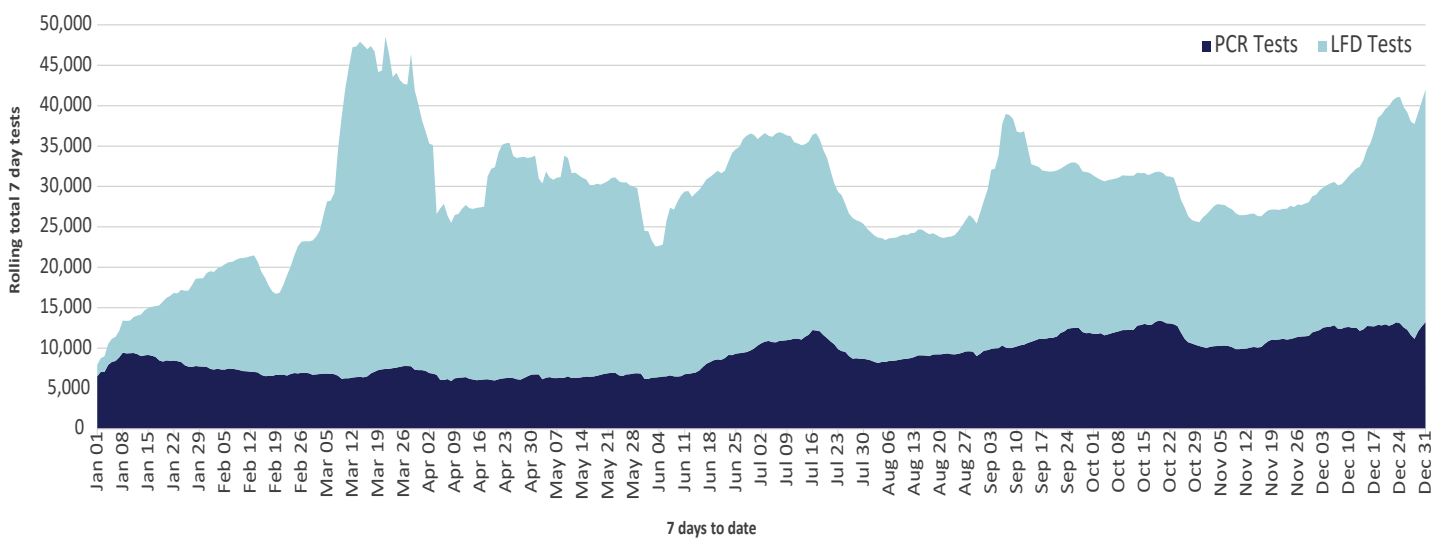
Cases by Deprivation

Deprivation was identified as a risk factor for Covid-19 transmission nationally. According to the Indices of Multiple Deprivation (2019), just over half of the city's residents (137,429) live in the most deprived "quintile", or fifth, of areas in the country. During 2021 in the city, deprivation was not associated with an increased risk of testing positive. The highest rates were reported by residents in the least deprived areas of the city, but once differing testing rates are accounted for there was no significant difference in cases by deprivation.

Figure 4: Covid-19 cases and reported percentage of population testing positive by Deprivation, 2021

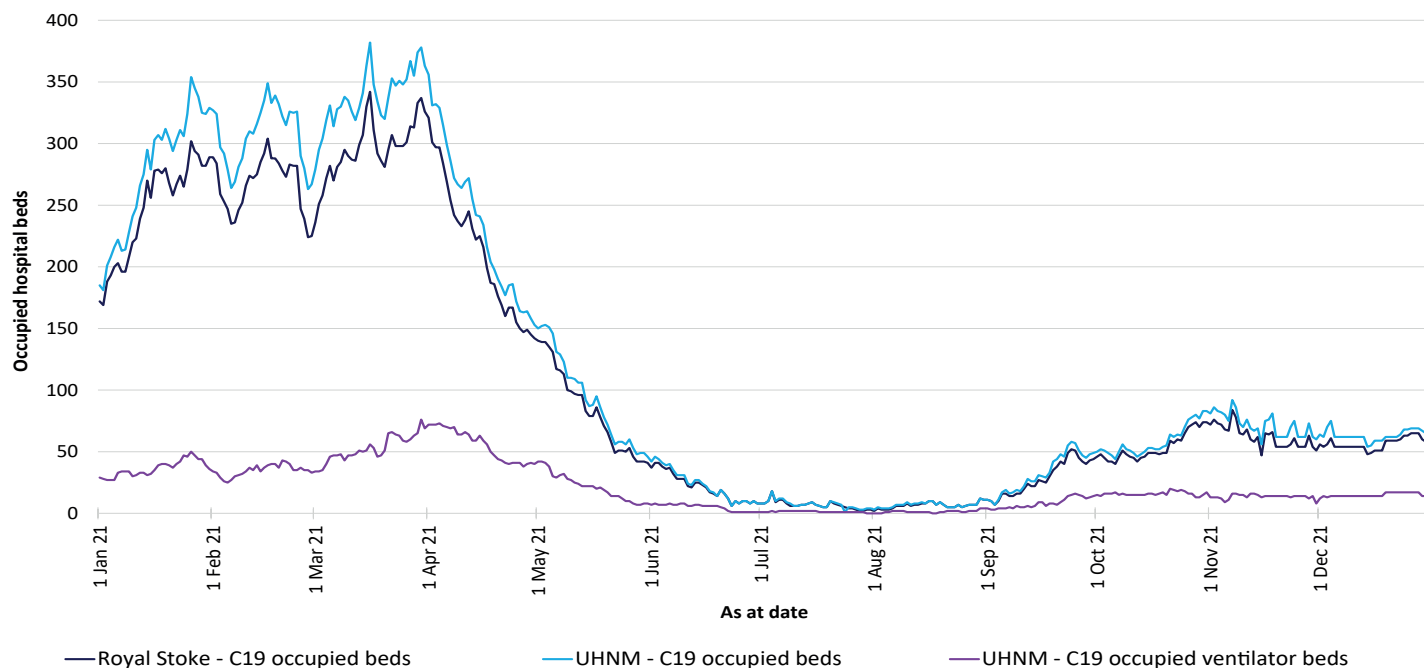


Figure 5: Rolling 7 Day Number of Covid-19 Tests Completed



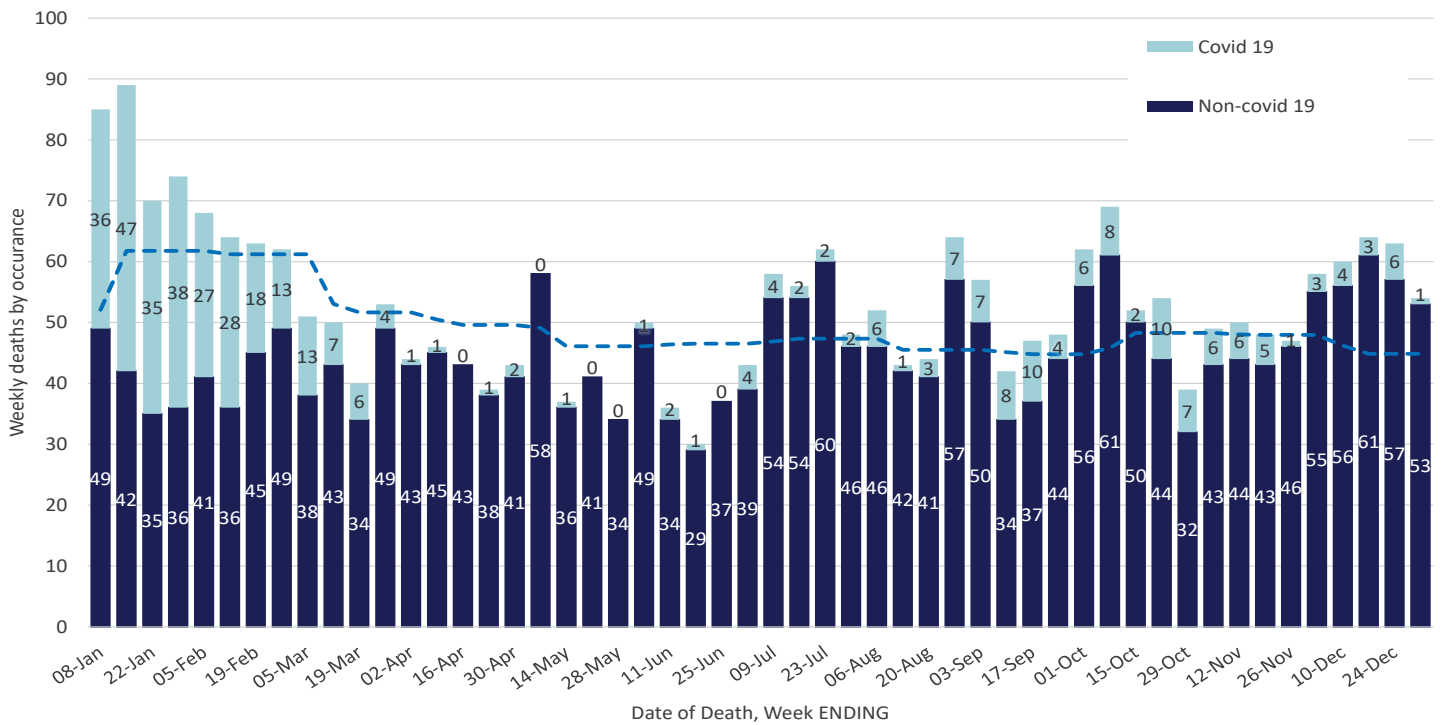
2021 saw much greater availability and use of LFD (Lateral Flow Device) Tests. The testing rate was influenced by peaks in transmission and by seasonal effects such as school holidays but the overall trend was upwards, with over 30,000 tests per week for much of the year. The City Council worked through the year to rollout an increasing number of test sites across the city and increase access to testing, using data to target groups and areas with lower testing rates or higher case rates.

Figure 6: Hospital bed occupancy for Covid 19, January 2021 – December 2021



2021 saw much greater availability and use of LFD (Lateral Flow Device) Tests. The testing rate was The start of 2021 saw the highest numbers of Covid-19 patients hospitalised locally of any time during the pandemic, with the peak of 382 at University Hospitals of North Midlands, mostly at Royal Stoke, more than double the peak during the first (2020) wave. The number of occupied ventilator beds rose far above the usual maximum capacity as the hospital dealt with local cases and supported other areas. Patients of all ages have been hospitalized with Covid-19 but it is especially older and more vulnerable people who have been most at risk. The proportion of these patients who were in ventilator beds has been closely monitored through the year and national lockdowns have been driven by the need to prevent the NHS becoming overwhelmed. One of the great successes of the vaccine programme has been to reduce the severity of illness caused by Covid. This is evident in the lower number of hospital beds and especially ventilator beds occupied in the second half of the year. In early March 2022 there were fewer than five local Covid patients on ventilators.

Figure 7: Total number of deaths by week 2021



The dotted line on the chart shows the average weekly deaths for the time of year, with a usual winter peak and fewer deaths in summer. During the January wave of Covid-19 in the city, death rates rose above their usual level. Deaths shown as Covid-19 are those which mention the virus on the death certificate as a suspected main or contributory cause. For 2021 as a whole there were 410 Covid deaths of residents, down from 520 in 2020. Vaccines and improved treatment both played a role in reducing deaths, especially in from March onwards.

In 2020, there were 340 deaths above the five-year average (so called "excess deaths"). For 2021 as a whole, there were just two, as non-Covid deaths were lower than usual.



STRATEGIC LEADERSHIP AND OUTBREAK MANAGEMENT

Stoke-on-Trent City Council has led on a range of outbreak management and prevention activities during the pandemic, working closely with partners to help contain the spread of Covid-19. From a strategic perspective this included establishing and leading the Stoke-on-Trent Covid-19 Local Health Protection Board (LHPB) and a countywide partnership Tactical Group. Relationships with partners were established at an early stage of the pandemic to ensure a joined-up approach and these relationships have strengthened through regular contact with partner agencies including the West Midlands Association of Directors of Public Health, WM Public Health England, Staffordshire County Council, the Staffordshire Borough Councils, Staffordshire Police, Civil Contingencies Unit, the voluntary sector, Staffordshire & Stoke-on-Trent Clinical Commissioning Groups (CCGs) and NHS partners such as the Midlands Foundation Partnership Trust.

During the COVID-19 pandemic, the LHPB has met weekly (or twice weekly). Chaired by the Director of Public Health or Consultant in Public Health, its remit has included discussion of local intelligence and insights; the development and continual review of the Local COVID-19 Outbreak Management Plan (LCOMP); overseeing the management of outbreaks; providing assurance about the management of outbreaks; and identifying improvements for the future.

Our Local COVID-19 Outbreak Management Plan (LCOMP) has ensured a coordinated approach to reducing the impact of COVID-19 on all those who live and work within Stoke-on-Trent. Our aim is to reduce the number of cases of COVID-19 to manageable levels as soon as is possible, whilst supporting the local economy, communities and organisations in such difficult times.

The LCOMP focusses on ten key priorities and core aspects of the end-to-end COVID-19 response, including Communication and Engagement, Testing, Contact Tracing, Enforcement and Compliance and Vaccination Support, and highlights the approaches that need to be taken. It is a core component of our Outbreak Management Response and content has been regularly reviewed and updated by members of the Local Health Protection Board (LHPB) to incorporate the learnings to date; plan for subsequent phases of the response; account for the associated funding; and reflect changes in local roles, responsibilities and resources.

From an operational perspective, a Covid-19 Cell was created to coordinate City Council activity including policy development, responding to enquiries in line with national guidance and coordinating meeting attendance and actions. A single point of contact was established to report outbreaks to the Covid-19 Cell, enabling liaison between partner agencies on specific outbreak intelligence and management. In addition to external partners, the Covid-19 Cell was supported by additional public health colleagues (Environmental Health and Trading Standards) and worked in partnership with wider City Council teams such as Adult Social Care, Children & Young People's Social Care, Education and Early Years, Housing Standards & Housing Solutions, Communications, Licensing, Corporate Health and Safety and our Covid Stewards. The Covid-19 Cell also provides administrative support to a range of meetings including a weekly Intelligence Group, Daily Task Meetings and Incident Management Teams (IMTs) and coordinates testing and contact tracing referrals.



CARE HOMES

The City Council has provided support to various sectors of the local economy, including education, adult care settings and workplaces. To illustrate this work, this section shows how Care Homes have been supported. Mitigating the impact of Covid-19 in Care Homes across the city continues to be a key priority for the health and care system. The City Council works closely with the Stoke-on-Trent Clinical Commissioning Group (CCG) in our joint effort to prevent and reduce cases and deaths from Covid-19 in care homes.

Daily system calls with key partners were held to track support offered and identify any further measures to contain and reduce outbreaks. A comprehensive database of all aspects of every Care Home proved invaluable in providing dedicated support to each setting. Actions and support to protect care home residents and staff included help with training, staffing, additional payments to contribute to their Covid-19 response, a Sustainability Fund specifically for the Care Sector, and bespoke support to implement national guidance on safe practice and infection control.

Daily contact with all care providers - Care Homes, Home Care Agencies, Supported Living and Extra Care Schemes - ensured providers were up to date with the latest local and national guidance and information. This process allowed the City Council's Quality Assurance Team to act on any issues or concerns identified by providers quickly and step up the response if needed to the Care Home Support Team.

Dedicated Care Home Support Team

Our Care Home Support Team provided support, advice, guidance and training to Care Homes in Stoke-on-Trent. Aligned to Primary Care Networks, the team has supported each home to complete a comprehensive checklist and where necessary has commissioned additional assurance through support from University Hospital North Midlands and a follow up visit using the Care Excellence Framework.

Homes were rated according to PHE guidance. Initially we prioritised support to those homes that were rated 'red', before our focus shifted to a more preventative approach and the homes that were Covid-19 free. Any issues identified through visits were followed up or escalated ensuring areas including PPE, Infection Control and Prevention, Staffing and Testing are addressed.

The dedicated Care Home Support Team has been able to offer training to all homes visited including practical support on hand hygiene, waste management and PPE.

Workforce Support

The System Workforce Cell was initiated to support workforce deployment across the health and social care sector to those services facing staffing challenges due to the Covid-19 pandemic. Sickness absence and staffing levels in care homes are monitored daily and if staffing is seriously affected by the need for self-isolation the City Council and its partners can access short-term emergency support.

The Workforce Cell has been the conduit for additional staffing from the national "Bring Back to the NHS Campaign" and from across the area where people have offered to support health and social care services while furloughed or in addition to their day jobs. This enabled a reserve to be established with workforce who can be deployed across social care organisations.



TESTING

During the pandemic local delivery of the Test and Trace programme in Stoke-on-Trent has been essential for the quick identification of infected individuals in the population and outbreaks to reduce transmission. Polymerase Chain Reaction (PCR) Tests have been deployed effectively within the city to manage outbreaks in key settings, including adult social care and businesses, to prevent further cases. Regional and Local Test Sites have offered PCR testing to members of the public experiencing the main symptoms of Covid-19 or who are advised to seek testing by the City Council as part of outbreak management.

The City Council has been a national leader in Covid-19 testing delivery, being the second Local Authority in England to offer rapid Lateral Flow Device (LFD) Testing to residents. The City Council has successfully built a Community Testing Programme, focused on a number of fixed settings across the city to support all of our communities. Using an intelligence-led approach we have placed community test sites and proactively targeted settings where we know Covid-19 transmission is higher or there is greater representation of population groups at greater risk of infection, health complications or death as a result of infection.

This presented huge challenges strategically and logistically. Staff from various parts of the Council were redeployed to deliver the programme, in particular resource was redirected from our Sport and Leisure team throughout the City. These staff were re-skilled and it is such a huge credit to all involved that Stoke-on-Trent City Council's community testing programme was successful in delivering LFD supervised and collect tests at such high rates during the initial phases of the pandemic and still outperforming many other LA's until these final weeks of free mass testing (ending 31 March 2022). In relation to this we have continually delivered with and under the price cap, and invested in local community assets rather than national private companies, strengthening our local economy.





With the development of vaccines, antivirals, changes in the dominant variant and severity of the disease, we were directed to deliver a more targeted and agile service as the demand on fixed setting reduced. The 'targeted community testing' programme was established focusing on disproportionately impacted and under-represented groups in our communities. This approach used epidemiology and social marketing datasets to identify areas of the city to participate in enhanced LFD testing. The social media campaign raised awareness of the importance of twice weekly LFD testing focusing on key age and "Mosaic" demographic groups of our community. Our teams also used intelligence to reach higher case rate and lower vaccinated areas, subsequently supporting the most vulnerable residents to address health inequalities in Stoke-on-Trent. This targeted testing approach was achieved through a number of models including a door to door service alongside a mobile testing unit.

In summary, Stoke-on-Trent City Council's community testing programme has been a significant challenge but has provided an opportunity for all staff to develop new skills and work effectively across directorates. It has been a huge achievement from not just our local authority but all of our partners including community groups and local volunteers who have worked tirelessly to slow the transmission of Covid-19.

CONTACT TRACING

In the early part of the pandemic, colleagues from across Stoke-on-Trent City Council trained as contact tracers to contact residents testing positive for Covid-19 for welfare checks, to share information on available support, to ensure self-isolation and to understand likely sources of transmission. Our contract tracing service evolved through 2021, bringing together staff from various services and NHS partners to reach more local cases than the national service could alone, with a particular focus on harder to reach cases.

Investigating possible transmission routes helped build up a picture of hotspots and potential outbreaks for further action, including directing Public Protection support to employers. The City Council was able to offer referrals to appropriate local support such as food banks, support payments and mental health support, while improving compliance with self-isolation guidance.

Contact Tracers organised interpreters, alerted social care when elderly residents were not responding and even called an ambulance for a lady going into labour.

As Contact Tracing winds down, feedback from the team has included:

"A very testing time but great to see how communities can pull together"

"It's been hard but something I'll never forget"

“

"People can tell and know if someone really cares"

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"The sense of doing something valuable and important for public health and safety in such an unprecedented time is something I'm very proud of"

“

"A gentleman with Type 2 Diabetes asked where he could go to learn more about diet so we spent some time talking about asking for a Diabetes Diet referral, joining support groups etc. He said 'nobody has ever cared to listen to me before'."

”

COVID STEWARDS

The Covid-19 Cell worked closely with a team of Covid Stewards to identify residents that may benefit from welfare visits and to confirm self-isolation when contact tracing calls had been unsuccessful. The Covid Stewards supported the contact tracing effort, making over 2,600 welfare and compliance visits, as well as providing advice in public places and assistance to businesses in hotspots. The Stewards have also supported vulnerable people and religious communities, distributed test kits and supported pop up testing centres.



ENVIRONMENTAL HEALTH

The Environmental Health team worked closely with local employers to aid in outbreak management, helping these businesses to stay open. Successes included support for testing and vaccination programmes, advice on altering layouts and sick pay policies, and supporting the University. The team also dealt with non-compliance complaints, visited hospitality and food outlets to ensure food health and safety following long lockdowns and advised on public events. Environmental Health Officers had the training to hit the ground running, putting themselves in harms way to visit settings with active outbreaks to provide help and advice, share infection prevention and control good practice and answer queries.

Major successes included early contact to establish a relationship with a local pottery manufacturer (ordinarily Health & Safety Executive-enforced). When there was an outbreak, the manufacturer had the trust to fully engage with the team to effectively manage the outbreak. Later they joined us fully with workplace testing and vaccination support. The DHSC continuous improvement unit has asked to do a case study on the team's work with this company.

Another success was a local food production business, with an existing relationship previously built by the Environmental Health. They were very early adopters of discussing cases with the team on a daily basis; we were able to advise on physical barriers and passive systems and communication to manage the setting to ensure it remained open. They were also one of the companies to change the sick pay policy to encourage staff to be off if symptomatic and/or positive.

The team worked to support a large office-based business, who fully engaged with case reporting and internal track and trace, even including identifying staff desk location to enable analysis of in-work transmission. They welcomed officer visits to improve the safety of the setting and quickly arranged mass working from home.

Environmental Health Officers established an excellent relationship with a major local education establishment, supporting testing, tracing of cases, remote learning and providing mutual aid with use of facilities.

The team also engaged with many small businesses, for example takeaways, hospitality, barbers, taxi companies and so on.

A formal EIA will be conducted in due course.



VACCINATIONS

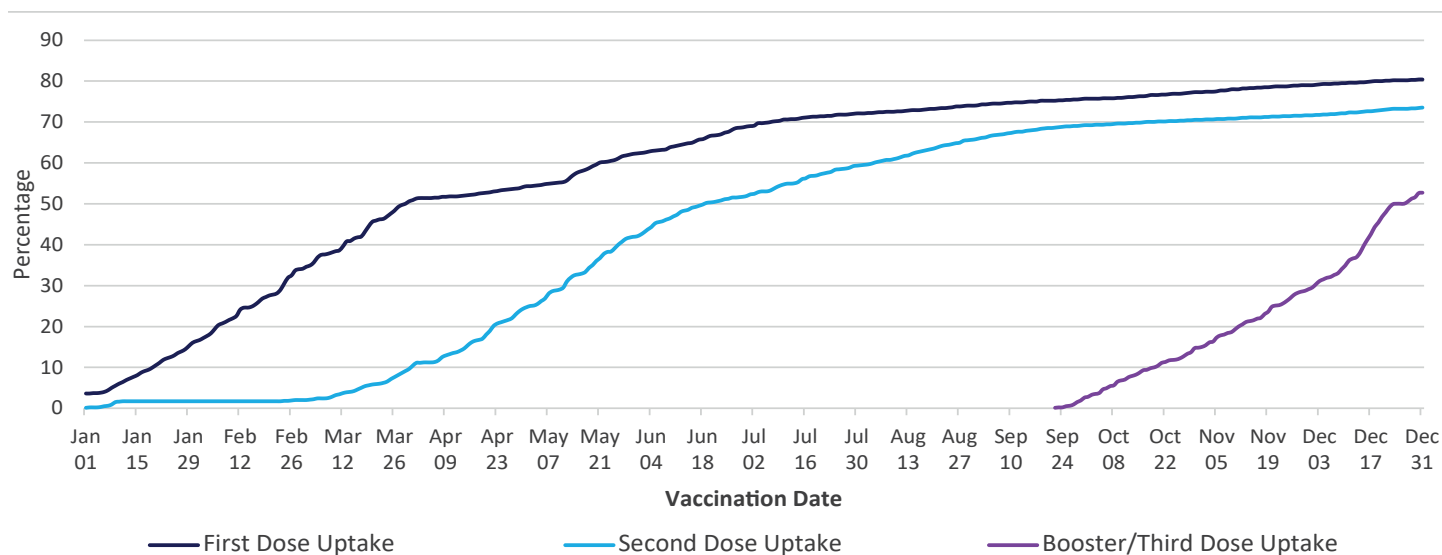
The national Covid-19 vaccination programme launched in December 2020 and was accelerated by a decision made by the national Joint Committee on Vaccination and Immunisation (JCVI) to increase the recommended period between first and second doses from 3 to 12 weeks, ensuring that a greater proportion of the population benefited from the protection offered by the first dose.

The NHS has now offered at least two doses of the Covid-19 vaccine to all eligible people in the UK (aged 12+ and some 5-11-year olds) and a booster (third dose) for those aged 16+. The vaccine is the best way to reduce the risk of catching Covid-19 and has been crucial in reducing the rates of severe illness, hospitalisation and death. There has been extensive publicity both nationally and locally encouraging everyone who is eligible to get vaccinated. Across Stoke-on-Trent the vaccine is being offered in a range of vaccination sites, including GP-led sites, a large vaccination site at Tunstall, as well as the Royal Stoke Hospital and several pharmacies.

The order in which people have been offered the vaccine has been based on advice from the JCVI, starting with the elderly, vulnerable and care workers and rolling out to progressively younger groups.



Figure 8: City Covid-19 Vaccine Uptake, 2021



The vaccination programme was a major achievement in 2021. Working at an unprecedented scale, over 120,000 residents received a first dose in the first three months of the year, with over 188,000 vaccinated by the end of the year. A further 172,000 second doses and 124,000 booster doses were given to city residents during the year. The City Council has engaged with community leaders and shared myth-busting messages to address vaccine hesitancy in order to reduce health inequalities that may result from at-risk groups declining to receive a vaccine. Local intelligence has been used to ensure that groups with lower uptake were supported to access vaccines and help target NHS activity.

Whilst largely successful, there have been particular challenges involving underserved communities, including certain ethnic groups, homeless people and people with learning difficulties. Through inter-agency working, including work with communities and leaders, Stoke-on-Trent has seen a marked improvement of uptake. The City Council will continue to promote the uptake of vaccinations across the whole population and is involved in a city- and county-wide interagency group to ensure high levels of take up amongst all communities.

FINANCIAL IMPLICATIONS

Like the majority of local health protection teams, we have a small financial reserve for 2022-23 in line with national guidance to enable us to respond to emerging issues during the remainder of the financial year

SUMMARY

The Covid-19 pandemic presented a unique challenge to our city. The City Council and partners have adapted to the evolving situation, responding to the challenging and changing demands throughout. A wide range of Council services have supported the city to minimise the impacts and protect public health and the most vulnerable. Our residents have played an essential role by getting tested, observing social distancing and getting vaccinated.

Looking to the rest of 2022 and beyond, the economic and health impact of the pandemic will continue to be felt and our focus will increasingly be on supporting recovery while being ready to deal with outbreaks and new variants that may appear.



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Stoke-on-Trent