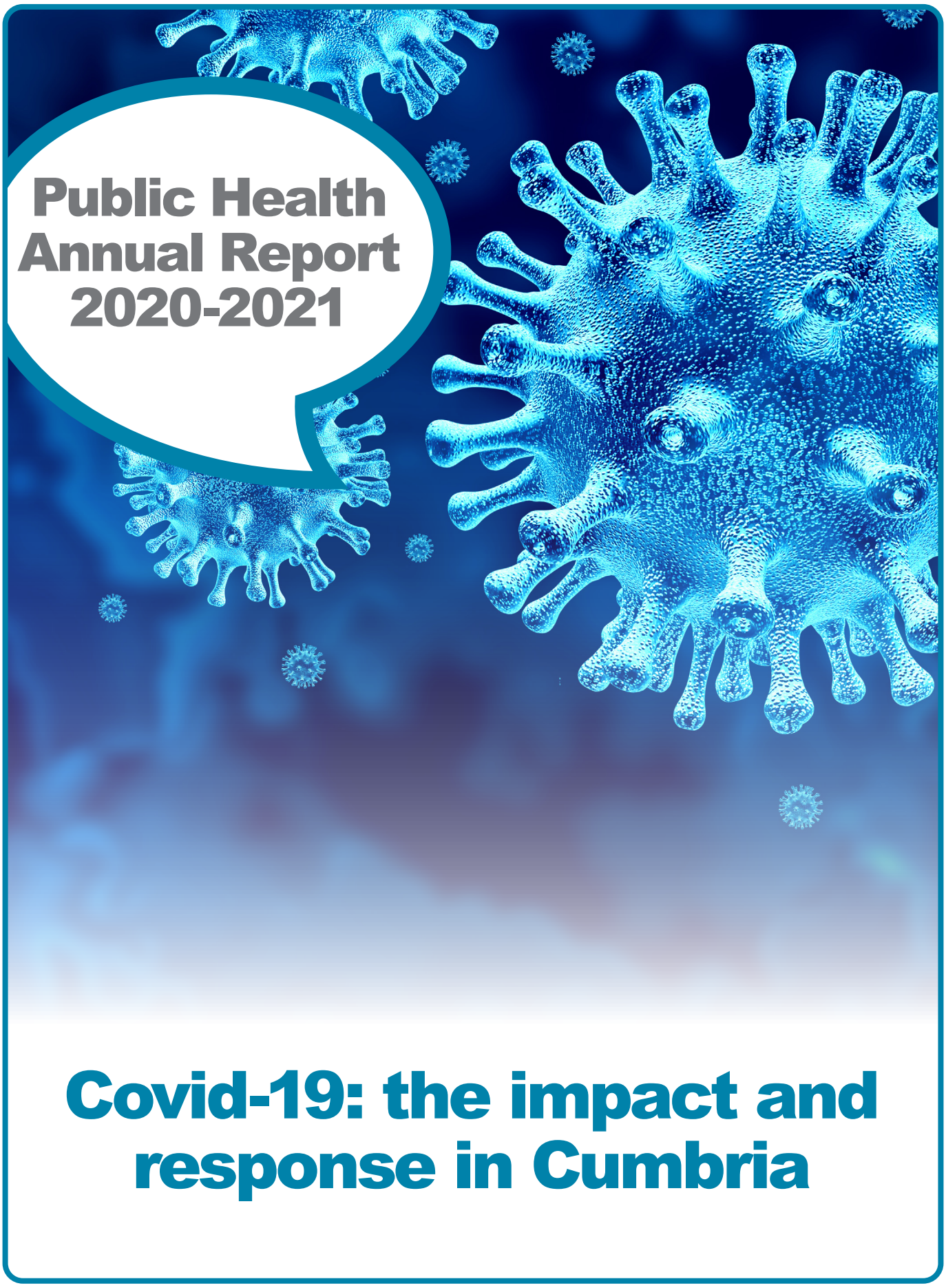
APPENDIX 1

Cumbria County Council



Public Health Annual Report 2020-2021

Covid-19: the impact and response in Cumbria

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Contents

Foreword

This year's annual report focuses, inevitably, on Covid-19. The pandemic has dominated the public health agenda for two years, and it continues to develop and change. This report covers the first 18 months of the pandemic, with data up to the end of October 2021; at that point, the second Delta wave was on its way down, and it all looked as if things were improving; as I write this, in early January 2022, we're not sure whether the Omicron wave has peaked yet, our case rates are the highest they've ever been, and our health and care system is facing the hardest January anyone has ever known. We may be moving towards Covid-19 becoming endemic, but what that means for the long term response to it is not yet clear. What is clear is that the impact of Covid-19 on Cumbria has been profound, with over 1,600 deaths, substantial economic damage, a legacy of very fragile health and social care services, and a backlog of cancelled or delayed healthcare appointments that will take years to resolve. Recovery from this will take a long time.

Throughout the whole pandemic, the response of local agencies and communities has been nothing short of magnificent. From the first days of lockdown in March 2020 a community support system was established in a week, and more than 200 community networks got established staffed by volunteers and redeployed public sector staff to provide support to those most vulnerable and self-isolating. Throughout, health and social care services have been tested like never before and have demonstrated their usual astonishing ability to adapt and respond to the most challenging of situations. The pressure on health and care staff has been relentless and still they have turned out day after day, often at personal risk, to provide care and support for the sick and the most vulnerable people in our community; and on top of that, they've run the biggest stand-alone vaccination programme the country has ever seen. Teachers and other school staff have had to become experts in testing, contact tracing and infection prevention and control measures as well as rapidly adapting to remote teaching and, like health and care staff, often putting themselves in harm's way to continue the critical role of educating and supporting Cumbria's children and young people. And these are just the groups I've been most closely involved with during the pandemic – many others have had faced significant challenges and have coped superbly. I thank and take my hat off to every one of you.

And of course, I couldn't let this foreword pass without some words of thanks and praise to my extended team – in which I'm proud to include colleagues from District Councils and the County Council's Transformation Team, among others, as well as those who're directly in my management structure. This has been the most challenging time in my career, and I couldn't have asked for a better team around me. Among many other things they have worked 7 days a week supporting care homes with infection prevention and outbreak control; established and run what I think was the first local contact tracing services in the country, set up in May 2020 before even the national Test and Trace service was operational; managed a wide range of complex outbreaks and supported local businesses with covid control measures; provided advice and support tirelessly to schools and other educational settings; and run a complex community testing system that has provided enormous support to local businesses, schools, and health and care settings. They've worked harder than I had any right to ask them to, and have often kept me right when tricky judgement calls were needed. To every one of you – I couldn't be more proud of you, or more grateful. Thank you.

Finally, while it may seem invidious to single out any one individual, I want to offer a personal thanks to (now retired) Assistant Chief Constable Andy Slattery, who chaired the Covid-19 Strategic Co-ordination Group for the majority of the period covered by this report. His tireless work took a big load off my shoulders, and his support was invaluable through some of the trickiest times. Andy – thank you.

The pandemic is not yet over – but I am optimistic that something much more like normality might be very close. I look forward to being able to talk about something other than a pandemic in next year's annual report.

Colin Cox
Director of Public Health

1. Introduction

Over the past 18 months, the global COVID-19 pandemic has had a major impact on the people of Cumbria. As well as illness and mortality caused by COVID-19, Cumbrian residents have experienced the indirect impacts of the pandemic on the NHS and social care, as well as significant disruption to normal life through lockdowns and social distancing measures, and the associated impacts on businesses, employment and education.

The virus responsible for coronavirus disease 2019 (COVID-19) was first identified on 9th January 2020, and named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)[1]. On the 30th January 2020, the World Health Organisation declared the novel coronavirus outbreak to be a Public Health Emergency of International Concern [2]. In the UK, the first identified patient with COVID-19 tested positive for the virus on 30 January 2021[3]. Over the following weeks, the numbers of reported cases continued to rise, and on the 23rd March 2020, the UK entered its first national "lockdown" in order to control the rapid spread of COVID-19 and manage the burden on healthcare resources.

By 31 October 2021, 7,756,085 positive cases had been recorded across England (13.7% of the population of England) [4]. By the same time point, Cumbria had experienced a total of 67,307 COVID-19 cases (13.5% of the population of Cumbria). Age adjusted mortality rates from COVID-19 in Cumbria were similar when compared to England, however significant inequalities existed within the county, with some areas, in particular Carlisle, disproportionately impacted.

The indirect impacts of both COVID-19 and the control measures put in place have been wide-reaching. As the health service came under pressure and prioritised emergency care, we have seen increasing waiting lists for hospital treatment, excess mortality for potentially preventable conditions such as ischaemic heart disease, and more people seeking help for mental health conditions. The longer term effects on areas such as delayed diagnosis, mental health impacts, and children and young people's wellbeing and education, has yet to be fully realised, and will be continue to be experienced in the years to come.

In response to COVID- 19, the County Council, District Councils, and NHS colleagues worked together to establish local contact tracing and surveillance teams. Expanded infection prevention and control teams provided additional support to educational settings and care homes in Cumbria. Testing centres were set up across each Cumbrian district and mobile testing units were utilised to reach more rural populations and respond to outbreaks. The roll out of the COVID-19 vaccination programme began in December 2020, and has greatly reduced the mortality associated with COVID-19. Community resilience has also played a key role in Cumbria's response to COVID-19. Over 200 mutual aid community groups were established in Cumbria, and have been a vital source of support for vulnerable individuals in the community facing self-isolation or shielding.

The pandemic has highlighted the stark health inequalities that exist within the UK, and within Cumbria. More deprived areas have suffered higher rates of COVID-19 infection as well as COVID-19 mortality, and have had lower uptake of the highly effective COVID-19 vaccines. As we move into recovery from COVID-19, a key challenge is addressing and closing health inequalities within Cumbria.

The 2020-2021 annual report looks back on the COVID-19 pandemic and the impact it has had directly and indirectly on the people of Cumbria, considers Cumbria's local response to the pandemic, and looks forward to the coming recovery.

[1] https://www.who.int/health-topics/coronavirus.
[2] https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov)
[3] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7127394/
[4] https://coronavirus.data.gov.uk/details/cases

2. COVID-19 in Cumbria

This section considers the health impacts of COVID-19 during 2020 and 2021, including the number of cases, hospital admissions and deaths associated with COVID-19 in Cumbria. This section will also discuss Cumbria's response, including the measures put in place to support testing, contact tracing and vaccination.

2.1 COVID-19 Cases

The first cases of COVID-19 in Cumbria were reported on 3rd March 2020. Case numbers gradually rose, leading to the first wave of the pandemic in April 2020. Case numbers reported during this period are, however, a significant underestimate of the true numbers of infected individuals, as testing during this time was limited to certain groups of people, including those hospitalised with COVID-19, care home residents, and key workers. Testing for anyone with symptoms of COVID-19 became available on 18th May 2020 (marked with a red line on Figure 1), thus providing a more accurate reflection of the true incidence of COVID-19 cases. As case rates fell in May and June, lockdown restrictions began to be eased, and throughout the summer, case rates remained relatively low. Rising numbers of cases in the Autumn led to reintroduction of restrictions, and a four week lockdown between 5 November and 2 December 2020.[5] Case rates began to rise again in December, in particular following the festive period, and by 31 December 2020, a total of 15,139 positive COVID-19 test results had been reported in Cumbria. This led to a third national lockdown beginning on 6 January 2021. Restrictions were eased gradually in a four-stage process, beginning in March 2021, with the final legal restrictions on mixing lifted on 19th July 2021. [6] This coincided with a large spike in COVID-19 cases, largely due to spread of the more transmissible delta variant of the virus. By 31 October 2021, 67,307 positive COVID-19 test results had been reported in Cumbria.

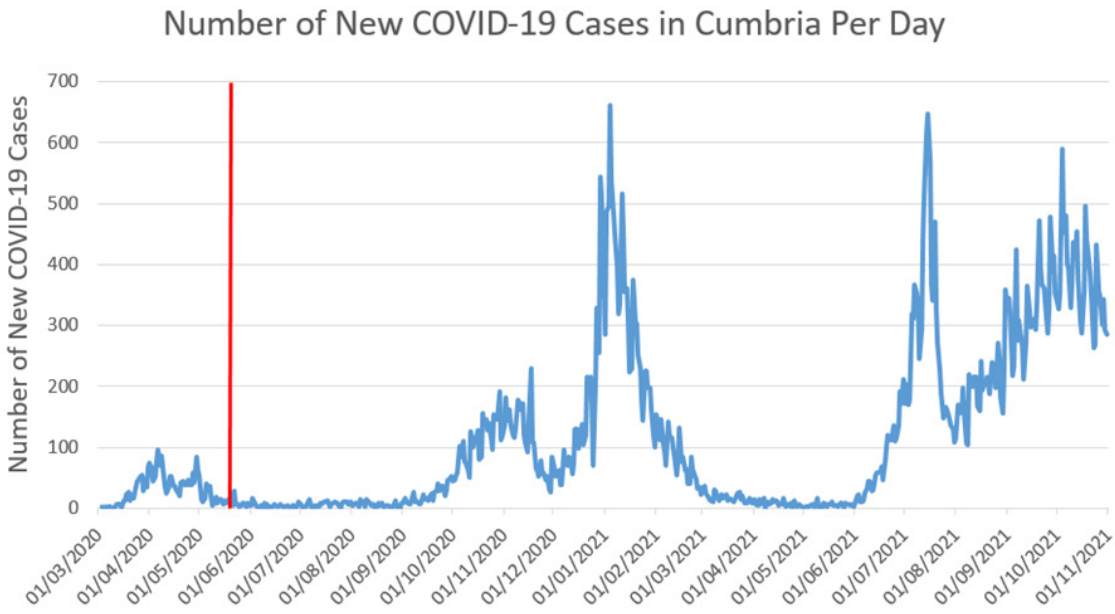

Figure 1: Number of new COVID-19 cases reported in Cumbria, March 2020 – October 2021. Red line indicates 18th May 2020, when PCR testing became available to anyone displaying COVID-19 symptoms. [7]

[5] https://www.instituteforgovernment.org.uk/sites/default/files/timeline-lockdown-web.pdf
[6] https://www.gov.uk/government/publications/covid-19-response-summer-2021-roadmap/moving-to-step-4-of-the-roadmap
[7] https://coronavirus.data.gov.uk/details/cases?areaType=overview&areaName=United%20Kingdom

Case rates in Cumbria generally followed the national trend. In March and April 2020, case rates in Cumbria were slightly higher than nationally, however, for much of the rest of 2020, rates in Cumbria remained slightly below the national level **(Figure 2)**. The older age demographic of Cumbria may have resulted in more residents being eligible for COVID-19 tests before widespread testing became available, possibly explaining the higher rates seen in March to May 2020. In contrast, 2021 saw higher case rates in Cumbria compared with the rest of England, in particular during July and September – October 2021.

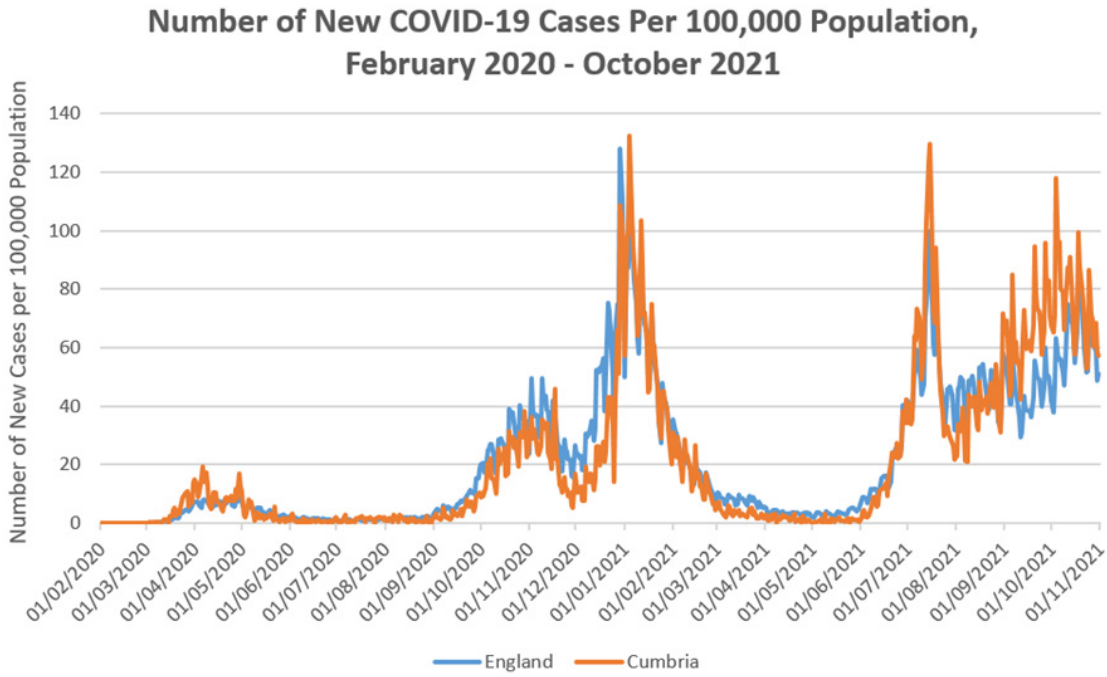

Figure 2: Number of new cases of COVID-19 per 100,000 population, comparing Cumbria and England.[8]

There was some variation in the COVID-19 case rates within the six districts of Cumbria **(Figure 3)**. Barrow-in-Furness in particular experienced higher rates than the rest of Cumbria in April 2020. However, during this period, University Hospitals of Morecambe Bay NHS Foundation Trust (UHMBT) pro-actively conducted additional staff testing, which will have artificially inflated the COVID-19 rate in the Barrow-in-Furness area due to identification of cases that would have gone undetected elsewhere.

Barrow-in-Furness experienced an earlier start to the second wave in October 2020. In contrast, Carlisle showed the highest rise in cases during December 2020 and January 2021. In the latter half of 2021, Copeland experienced high rates in both the July peak and October 2021.

[8] https://coronavirus.data.gov.uk/details/cases?areaType=overview&areaName=United%20Kingdom

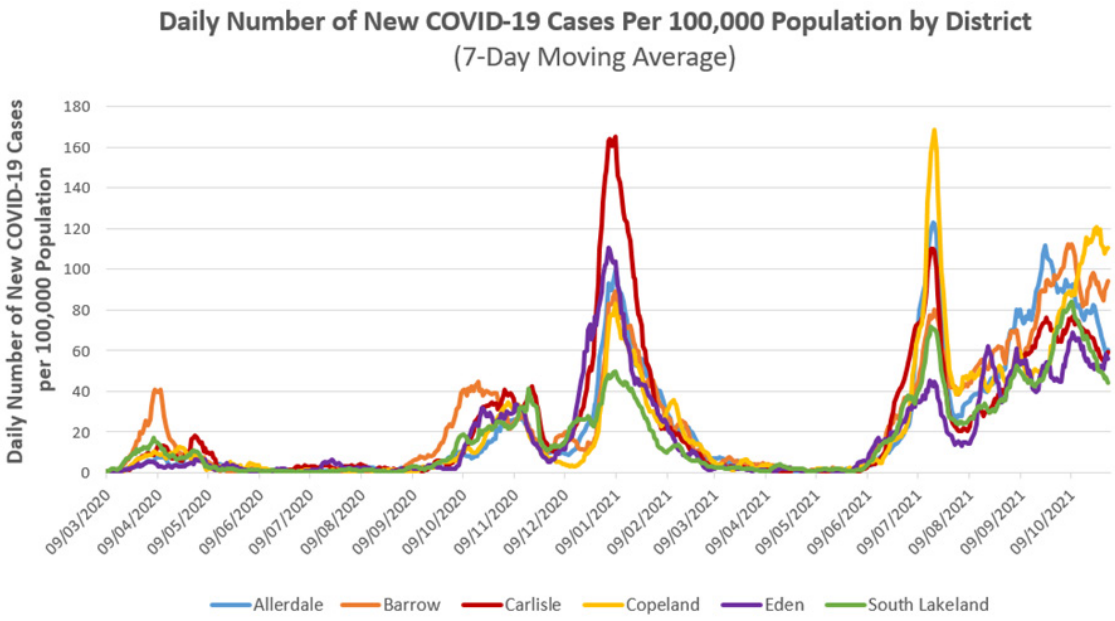

Figure 3: Daily number of new COVID-19 cases per 100,000 population in each of the six Cumbrian districts (displayed as a 7-day moving average).[9]

An association between deprivation and COVID-19 rates was observed in Cumbria **(Figure 4)**. The areas of Cumbria which fell into the four most deprived deciles of the Index of Multiple Deprivation experienced disproportionately high numbers of COVID-19 cases relative to their population. Whilst 7.7% of Cumbria's population live in IMD Decile 1 (the most deprived decile nationally), this group experienced 9.3% of COVID-19 cases in Cumbria. 5.8% of the Cumbrian population lives in the least deprived decile nationally, however this group experienced 5.3% of COVID-19 cases. Possible reasons for this association are employment related factors (with those in the least deprived areas more likely to work from home), and housing related factors, with residents in more deprived areas more likely to experience overcrowding.

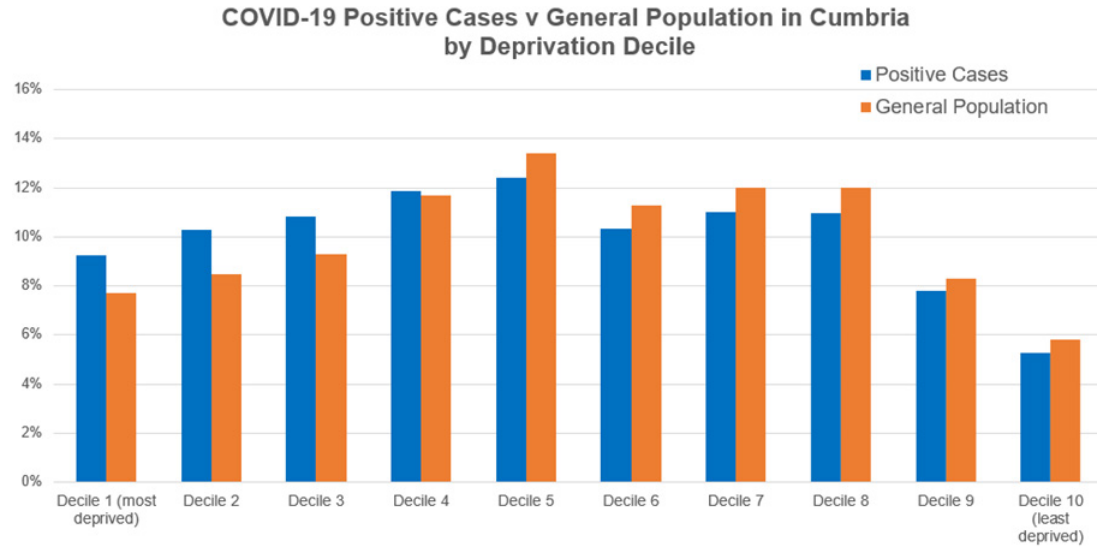

Figure 4: Association between Deprivation (IMD decile) and COVID-19 Positive Cases (March 2020-October 2021). The percentage of the Cumbrian Population within each IMD decile is shown in orange, whilst the percentage of total COVID-19 cases occurring in each IMD decile shown in blue.

[9] https://coronavirus.data.gov.uk/details/cases?areaType=overview&areaName=United%20Kingdom

2.2 Hospital Admissions

Cumbria is served by two acute NHS hospital trusts, University Hospitals of Morecambe Bay NHS Foundation Trust (UHMBT) in the south, and North Cumbria Integrated NHS Foundation Trust (NCIC) in the north. In this section, data on the number of hospital admissions and critical care admissions with COVID-19 are shown for both trusts. UHMBT serves parts of Lancashire as well as south Cumbria, therefore residents from outside Cumbria will also be included in the UHMBT figures.

2.2.1 University Hospitals of Morecambe Bay NHS Foundation Trust (UHMBT)

Hospital Admissions

A total of 2765 patients with COVID-19 had been admitted to hospital in UHMBT by 31 October 2021. This figure includes all patients admitted to hospital who tested positive for COVID-19 either whilst in hospital or in the 14 days prior to admission, whether or not COVID-19 was the main reason for admission. High numbers of patients were in hospital with COVID-19 during the first wave, in March to May 2020 **(Figure 5)**. Numbers of patients in hospital with COVID-19 subsequently fell in the summer of 2020, reflecting low levels of COVID-19 in the community. Hospital admissions began to rise again in September, remaining high for the rest of the year. Hospitalisations reflected the rise in COVID-19 cases in the community following the festive period, reaching a peak of 226 patients in hospital with COVID-19 on 27 January 2021. Despite rising numbers of COVID-19 cases in the community in the summer and autumn of 2021, relative to the winter 2020/21 peak, hospitalisations only showed a small increase, testament to the success of the COVID-19 vaccination roll out.

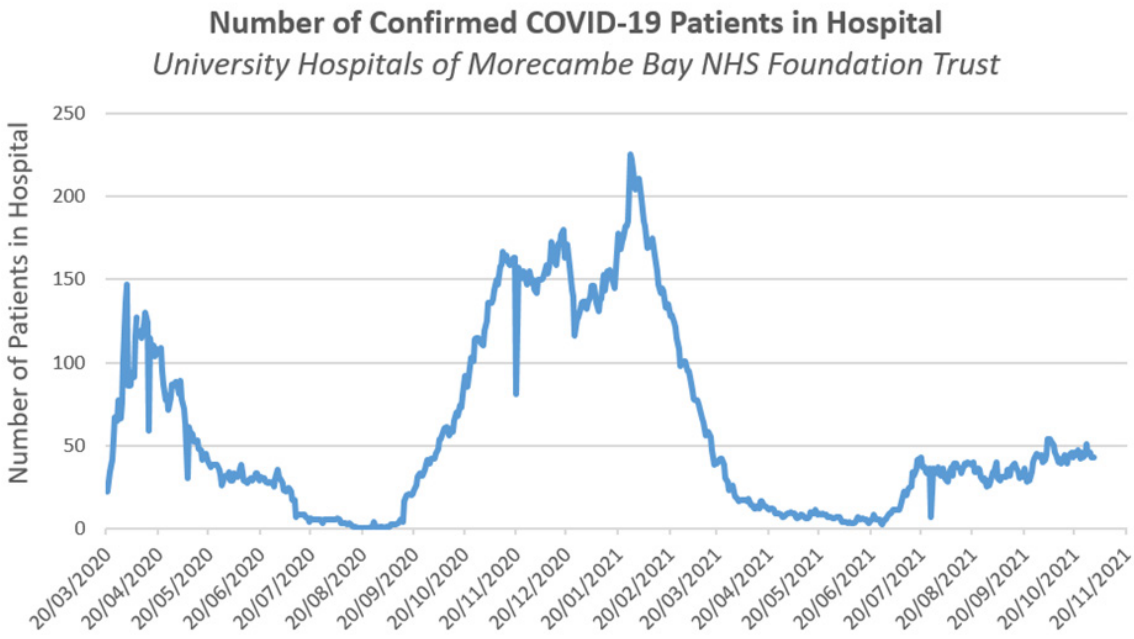

Figure 5: Daily Number of Patients in Hospital Confirmed Positive for COVID-19 in UHMBT from March 2020 to October 2021.[10]

[10] https://coronavirus.data.gov.uk/details/healthcare?areaType=nhstrust&areaName=University%20Hospitals%20of%20Morecambe%20Bay%20NHS%20Foundation%20Trust

Whilst the hospital admission statistics do not differentiate between COVID-19 positive patients admitted for management of COVID-19 or for other unrelated health problems, data on the number of patients with COVID-19 in mechanical ventilation beds may provide a better reflection of the healthcare demand caused by COVID-19, as they will most likely be requiring respiratory support due to COVID-19 infection. In April 2020, 13 patients with COVID-19 were in mechanical ventilation beds in UHMBT (**Figure 6**). In March 2020, Morecambe Bay had a normal capacity of 14 adult critical care beds[11], which had to be substantially increased to meet the additional demand from patients with COVID-19. Critical care demand was even higher in the winter of 2020/21. On 22nd January 2021, a peak of 22 patients with COVID-19 were in mechanical ventilation beds. High COVID-19 case rates in the community in the summer and autumn of 2021 did not translate into a surge in demand for critical care beds, again demonstrating the success of the COVID-19 vaccine in reducing severe illness.

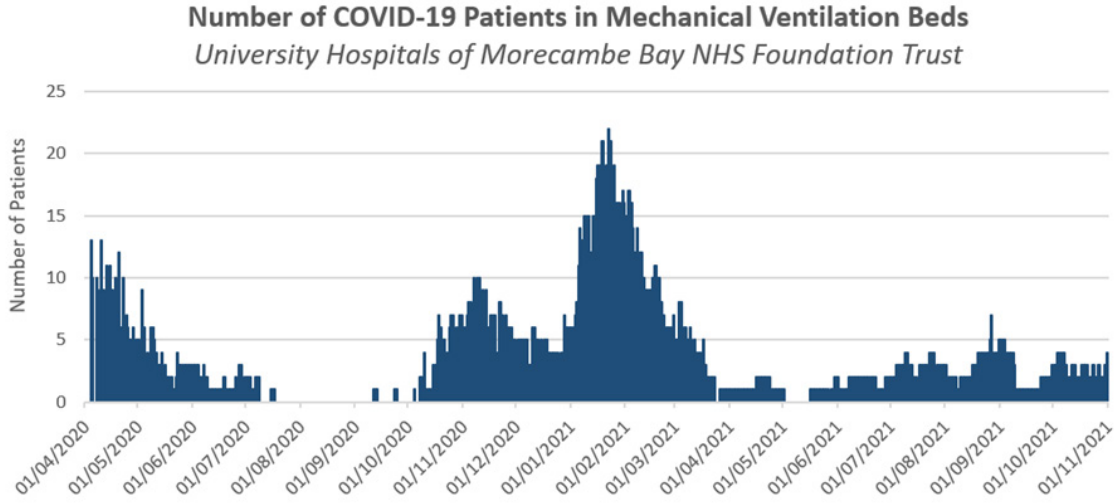

Figure 6: Daily Number of Patients in Mechanical Ventilation Beds Confirmed Positive for COVID-19 in UHMBT from March 2020 to October 2021.[12]

2.2.2 North Cumbria Integrated NHS Foundation Trust (NCIC)

A total of 2610 patients with COVID-19 had been admitted to hospital in North Cumbria by 31 October 2021. Again, this figure reflects all patients admitted to hospital who tested positive for COVID-19 either whilst in hospital or in the 14 days prior to admission, whether or not COVID-19 was the main reason for admission. The number of patients in hospital in NCIC showed a similar pattern to UHMBT, with a peak of 303 patients in hospital with COVID-19 on 20 January 2021 (**Figure 7**).

[11] https://www.england.nhs.uk/statistics/statistical-work-areas/uec-sitrep/urgent-and-emergency-care-daily-situation-reports-2020-21/

[12] https://coronavirus.data.gov.uk/details/healthcare?areaType=nhstrust&areaName=University%20Hospitals%20of%20Morecambe%20Bay%20NHS%20Foundation%20Trust

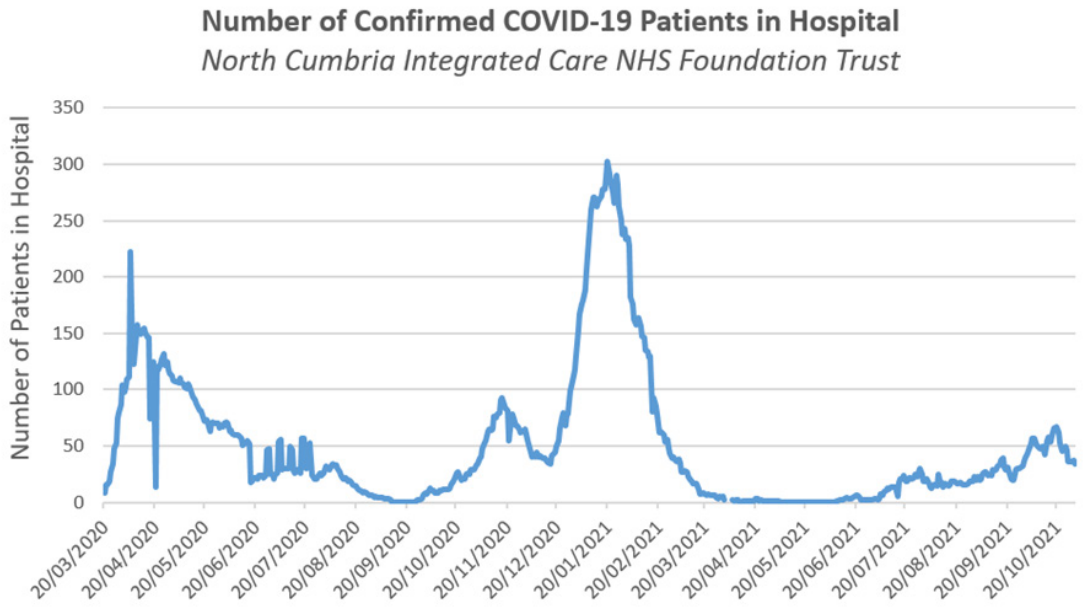

Figure 7: Daily Count of Confirmed COVID-19 Patients in Hospital in NCIC from March 2020 to October 2021.[13]

Across Cumberland Infirmary in Carlisle and West Cumberland Hospital in Whitehaven, NCIC had a normal capacity of 15 adult critical care beds,[14] which again was increased to meet the additional demands placed on critical care facilities by COVID-19. In January 2021, a peak of 19 patients with COVID-19 were in mechanical ventilation beds in NCIC, reflecting the high levels of demand placed upon critical care services relative to their usual capacity (**Figure 8**).

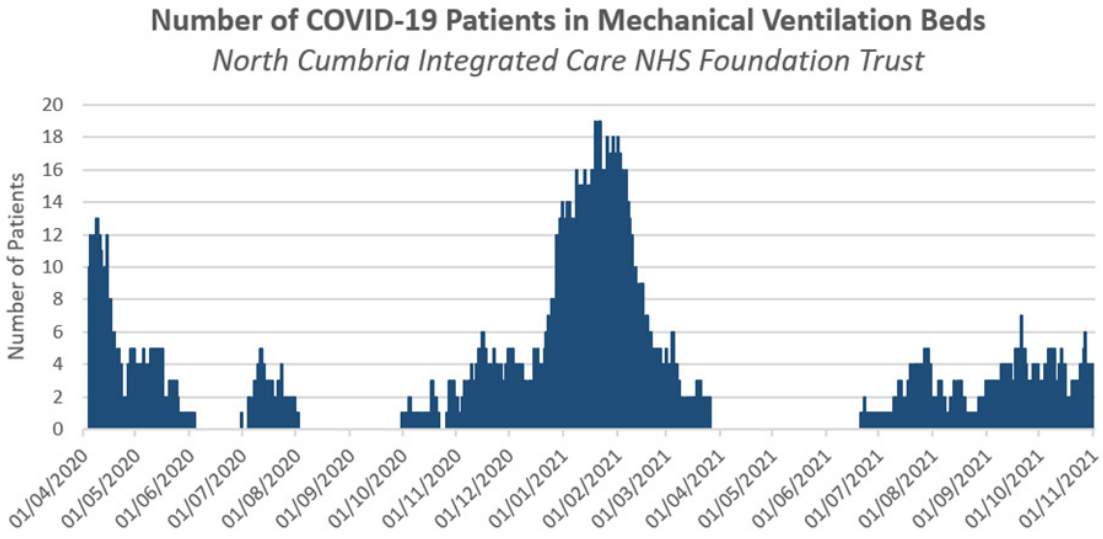

Figure 8: Daily Number of Patients in Mechanical Ventilation Beds Confirmed Positive for COVID-19 in North Cumbria NHS Foundation Trust from March 2020 to October 2021.[15]

[13] https://coronavirus.data.gov.uk/details/healthcare?areaType=nhstrust&areaName=North%20Cumbria%20Integrated%20Care%20NHS%20Foundation%20Trust

[14] https://www.england.nhs.uk/statistics/statistical-work-areas/uec-sitrep/urgent-and-emergency-care-daily-situation-reports-2020-21/

[15] https://coronavirus.data.gov.uk/details/healthcare?areaType=nhstrust&areaName=University%20Hospitals%20of%20Morecambe%20Bay%20NHS%20Foundation%20Trust

2.3 Mortality Data

By 29 October 2021, 1607 Cumbrian residents had died due to COVID-19. In the period from March 2020 to April 2021, the mortality rate from COVID-19 in Cumbria (when adjusted for Cumbria's age distribution) was 178.1 deaths per 100,000 people (95% confidence interval 168.5 to 187.8) (**Table 1**). This is similar to the national figure of 181.7 deaths per 100,000. However, there was substantial variation within the county, with Carlisle experiencing the highest rate of 220.1 deaths per 100,000, significantly higher than the national rate. Eden and South Lakeland, however, experienced significantly lower COVID-19 mortality rates than the rest of England. Across Cumbria as well as nationally, males suffered higher COVID-19 mortality rates than females (**Figure 9**). Overall, COVID-19 accounted for 16.3% of all deaths occurring in Cumbria between March 2020 and April 2021, compared with 17.1% of deaths in England.

Area	Deaths (Count)	Rate (per 100,000)	Confidence Interval of Rate	
			Lower	Upper
Allerdale	259	176.3	154.7	197.8
Barrow-in-Furness	166	199.6	168.9	230.2
Carlisle	319	220.1	195.9	244.4
Copeland	169	190.4	161.5	219.4
Eden	132	152.5	126.2	178.7
South Lakeland	263	141.0	123.9	158.1
Cumbria	1308	178.1	168.5	187.8
North West	**18,182**	**218.9**	**215.7**	**222.1**
England	**116,866**	**181.7**	**180.7**	**182.7**

Table 1: Number of deaths and Age Standardised Mortality Rates for COVID-19 by district, in the 14-month period from March 2020 to April 2021. This data only includes deaths where COVID-19 was the main cause of death, and does not include deaths where COVID-19 was a contributory cause of death. Standardised using the 2013 European Standard Population. Data Source: ONS[16]

[16] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsduetocovid19bylocalareaanddeprivation

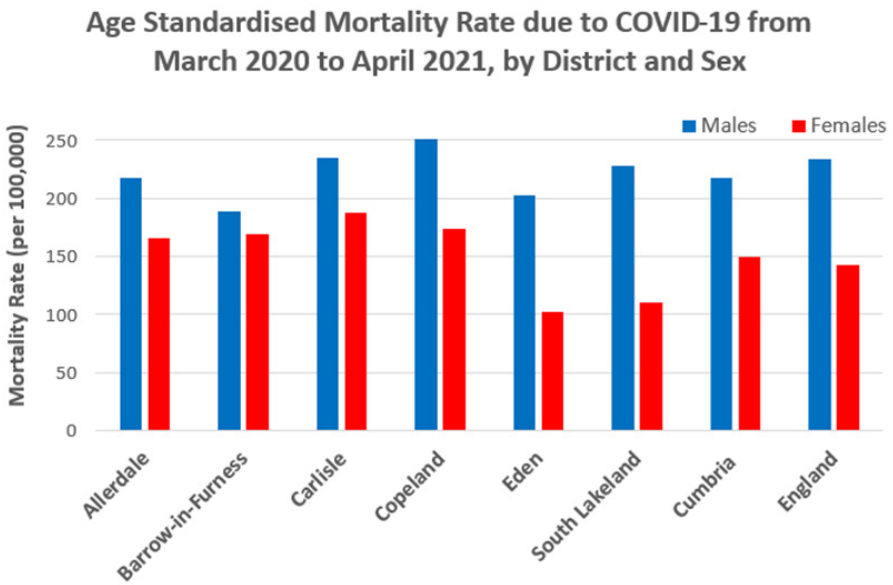

Figure 9: Age Standardised Mortality Rates for COVID-19 by district and sex. Data Source: ONS.[17]

Care home residents were particularly vulnerable to severe illness and mortality due to COVID-19. In the period 14 March 2020 to 2 April 2021, a total of 471 deaths involving COVID-19 occurred among care home residents in Cumbria, compared with 40,171 in England.[18] With approximately 3,044 older adult care home residents in Cumbria in April 2021, and 298,720 older adult care home residents in England,[19] care home residents in Cumbria were impacted by COVID-19 mortality somewhat higher than would be expected based on resident numbers.

Nationally, more deprived areas experienced disproportionately higher COVID-19 cases and deaths when compared to the least deprived areas. A clear gradient is seen between IMD decile and age-standardised COVID-19 mortality rates (**Figure 10**).

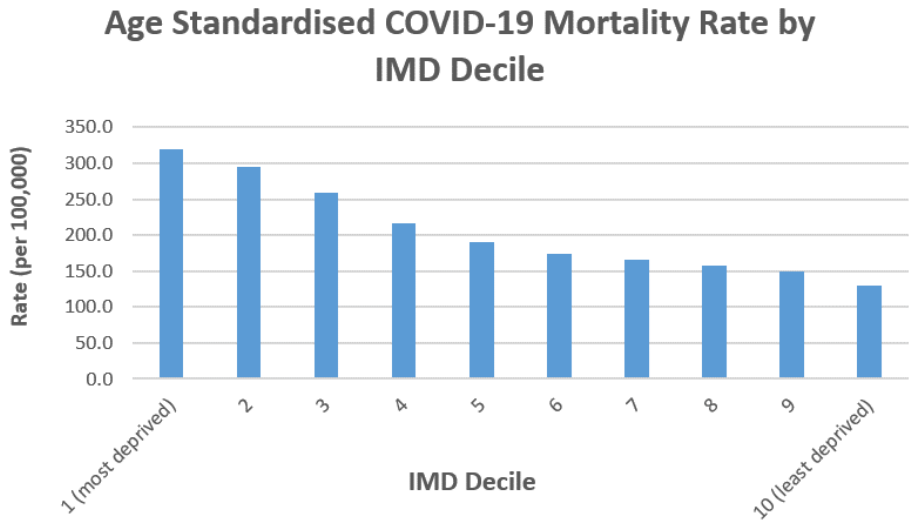

Figure 10: Age Standardised Mortality Rates for COVID-19 in England by IMD decile, in the 13-month period from March 2020 to March 2021. This data only includes deaths where COVID-19 was the main cause of death, and does not include deaths where COVID-19 was a contributory cause of death. Standardised using the 2013 European Standard Population. Data Source: ONS [20]

[17] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsduetocovid19bylocalareaanddeprivation

[18] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsinvolvingcovid19inthecaresectorenglandandwales

[19] COVID-19 weekly announced vaccinations 1 April 2021. Available from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/covid-19-vaccinations-archive

[20] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsduetocovid19bylocalareaanddeprivation

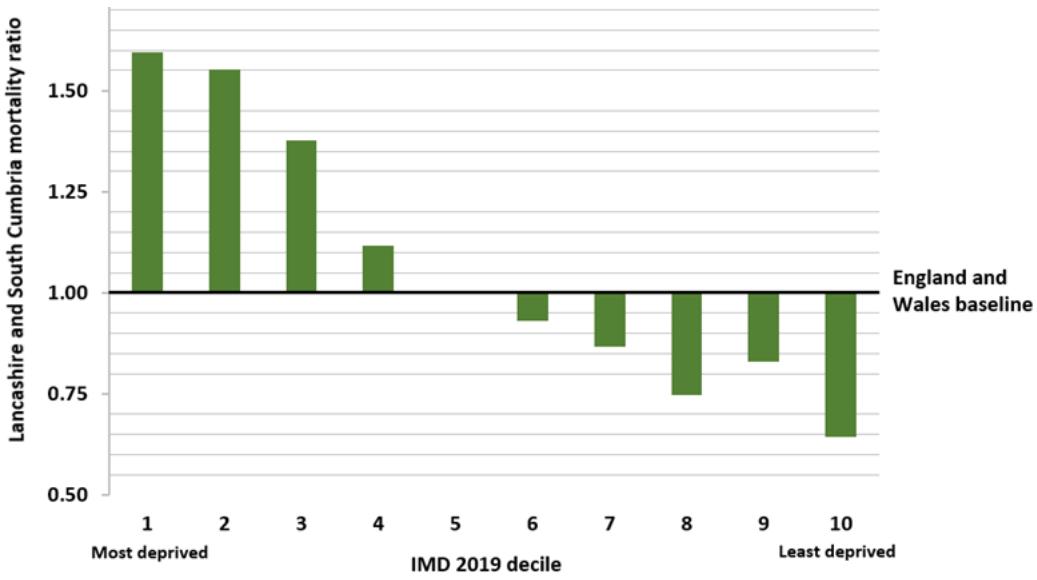

Figure 11: Age- and sex- standardised COVID-19 mortality ratios by IMD Decile of Middle Layer Super Output Areas (MSOAs) in South Cumbria and Lancashire (March 2020 to April 2021). Source: Institute of Health Equity

3. Cumbria's Response to COVID-19

3.1 Contact Tracing

In early Spring 2020, Cumbria's Public Health team identified the urgent need for a local test and trace solution that could keep pace with the rapidly evolving situation and rising COVID-19 case numbers. As a national contact tracing scheme had not yet been established, a multi-agency Cumbrian team comprising Public Health, district council and NHS staff came together in what has been an unprecedented team effort to establish a local contact tracing system.

In order to facilitate contact tracing, the team required a flexible and secure digital method of compiling and sharing complex data across various organisations. Traditional sourcing routes would not have been able to deliver such a system in the timescale required. This led to the in-house digital team in Cumbria County Council building the UK's first digital local test and trace system. From initiation to building a working model took just 10 days using the low code platform Liberty Create. The system is intuitive and easy to use, therefore requiring minimal training, and can be accessed and updated by public health and contact tracing teams in the county and district councils, as well as NHS stakeholders. The system went live before the national test and trace system rollout, and has been transformative for limiting the spread of Covid-19 in the county. As well as recording COVID-19 tests and interactions with the contact tracing team, the system is used to link cases to workplaces and organisations, generate heat maps and build reports so users can capture the big picture of what is happening across the county. Ongoing development led to further refinements of the system, for example automatic importing of COVID-19 case details from the national Test and Trace database.

Cumbria has responsibility for following up cases the national test and trace system has been unable to contact. However, the authority is committed to a 'local by default' approach that sees local teams following up all cases and contacts. A key factor in Cumbria's successful approach is that the County Council, the six District Councils (Allerdale, Barrow, Carlisle, Copeland, Eden and South Lakes), the UK Health Security Agency and NHS take a shared responsibility in partnership working.

One of the early successes in Cumbria was using the NHS sexual health team to work as contact tracers, an area in which they have vast experience and skill. Staff from the Environmental Health Departments at the District Councils are well suited to managing outbreaks and contacting and advising businesses, as this is something they do on a regular basis. The County Council and District Councils also redeployed many staff in order to support the COVID-19 response.

Those contacted by the team commonly fed back that they were grateful to be dealing with people based locally, who know the local area and can answer questions about the situation in their locality. They can also be signposted to further help with their period of isolation, such as local community groups supporting those unable to leave their homes.

Complex cases involving outbreaks in hospitals, care homes and schools are automatically passed to specialist Outbreak Control Teams (OCT).

3.2 Schools and other education settings

There are over 500 education settings in Cumbria including early years settings, schools, colleges, universities and children's residential homes. Although most children are at low risk of serious complications from COVID-19 infection, the close mixing of groups of children can allow the virus to spread, and transmission within schools can contribute significantly to community transmission of COVID-19. This can result in more serious health consequences for older members of families with school aged children as well as members of staff. Control of outbreaks in education settings therefore plays a vital role in the response to COVID-19, however a delicate balance must be sought in order to minimise disruption to children's education and maintaining children's wellbeing.

By October 2021, the Education IPC team have given advice and support in relation to more than 500 outbreaks in education settings. However, the Education IPC team has gone over and above national requirements by providing enhanced support for educational settings. Instead of only offering support once an educational setting has a COVID-19 outbreak, the Education IPC team has always had an 'open door policy' meaning that settings can contact them with any query, regardless of their COVID-19 situation. This is because the team recognises that for some settings, dealing with those first positive cases was often be the most stressful time and that proactive advice could help prevent situations from worsening. The Education IPC team has a dedicated email inbox, which is used by educational settings to report positive cases or seek advice. The team is committed to taking a setting-centred approach, ensuring that the advice and support given is empathetic and in direct response to the challenges being faced by individual schools and other educational settings. Support and advice is therefore generally given over telephone calls, and this requires intensive listening skills, carrying out dynamic risk assessments multiple times a day and rapid decision-making.

The team has acted as a constant champion for educational settings, ensuring that the challenges being faced around COVID-19 are voiced and solutions considered. This has led to enhanced measures being introduced locally, for example, recommendations for daily lateral flow testing of children attending school who have a COVID-19 positive sibling at home.

The large number of incidents associated with education settings meant that a dedicated OCT was established to oversee the response in these settings. This comprises staff from the Public Health Team, Environmental Health Teams, the Infection Prevention and Control Team (IPC), and Education Services, working closely to provide oversight of and manage incidents and outbreaks in educational settings. By October 2021, over 200 outbreak control meetings had been held.

3.3 Regulated Care Settings

Regulated care settings have been particularly vulnerable to COVID-19 outbreaks, both due to the shared living facilities increasing the risk of COVID-19 transmission as well as the clinical vulnerability of many of the residents. Support to reduce the risk of COVID-19 entering care facilities and management of outbreaks has therefore been a vital component of the COVID-19 response. There are 148 care homes, 18 Extra Care Housing settings and 161 Supported living settings across Cumbria. The support provided to these regulated care settings over the past year has been wide-ranging.

The IPC and Health Protection Teams have developed strong relationships with a wide range of social care providers and have provided extensive advice, support and information to care homes and care facilities on outbreak management, IPC measures, COVID-19 testing and vaccination. At peak times throughout the pandemic, this service was provided 7 days a week. Where care homes and care facilities have experienced a COVID-19 outbreak, they have been supported throughout the duration of the outbreak, from identification of the first positive cases to the closure of the COVID-19 outbreak and re-opening of the setting. The Infection Prevention and Control practitioners have visited care homes during outbreaks to provide on-site support and guidance, as well as on-site training for staff. The care home IPC team also has a dedicated email inbox, providing a convenient method for care homes to seek advice. In the 12-month period between November 2020 and October 2021, the IPC team received 12,185 emails from care providers, and provided advice and support in 14,146 emails **(Figure 12).** These figures do not include the extensive number of telephone calls made by the IPC advisors, IPC practitioners or Health Protection Specialists to care providers, indeed telephone calls were typically the primary mode of communication, as they allowed for better rapport between advisors and care providers.

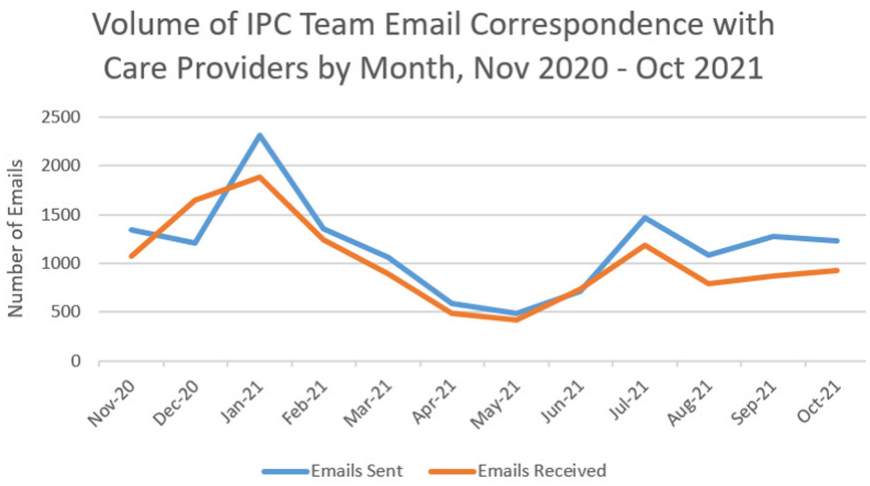

Figure 12: Volume of IPC Team Email Correspondence with Care Providers by Month, between November 2020 to October 2021.

From October 2020 to October 2021, IPC practitioners undertook a total of 77 visits and 71 revisits to care homes experiencing COVID-19 outbreaks, and a further 10 visits to schools. During these visits, IPC practitioners were able to identify any areas for IPC improvement and provide ongoing advice and support.

The IPC team has been heavily involved in providing training and continuing professional development for care providers. Between October 2020 and October 2021, IPC practitioners delivered 57 online IPC and domestic training sessions to social care providers, which have been very well attended and positive feedback received. Furthermore, a series of IPC webinars have been developed and delivered to care home and care facility managers, clinical leads and care staff. Monthly IPC care home newsletters have been developed and provided via email to care home and care facility staff since April 2021, which have covered topics including COVID-19 policy and procedure updates, heatwave preparedness for care homes, management of respiratory infections, management of multi-drug resistant organisms and Influenza and COVID-19 vaccinations.

Given the number of incidents and outbreaks affecting regulated care settings a dedicated OCT was established to oversee the response in such settings. This team comprises staff from the Public Health Team, NHS Infection Prevention and Control Teams, the County Council Strategic Commissioning Team and Cumbria Care. The Care Home OCT works to support care providers effectively manage an outbreak in their establishment, conducts ongoing monitoring of active outbreaks and implement appropriate and timely measures, and provides intelligence including to inform safe admissions to care homes. In addition, care homes post outbreak review meetings have been held in order to help care providers and commissioners identify factors that may have contributed to transmission of COVID-19 within a setting and identify any lessons that can be learned from the outbreak.

In the 12 months from November 2020 to October 2021, the IPC team was involved in supporting and managing 309 incidents (defined as involving a single member of staff) and 239 outbreaks (defined as involving either two or more staff, or one or more resident) in regulated care settings (Figure 13). Approximately 83% of these incidents and outbreaks occurred in care homes, the remainder in supported living and extra care housing. Numbers of outbreaks peaked in January 2021, however a combination of lower levels of community transmission and the highly successful COVID-19 vaccination programme contributed to very few outbreaks during the spring of 2021. Although the number of incidents began to rise from June 2021, the number of outbreaks in care settings remained below the levels seen in the winter, suggesting that incidents were better contained and did not spread into large outbreaks.

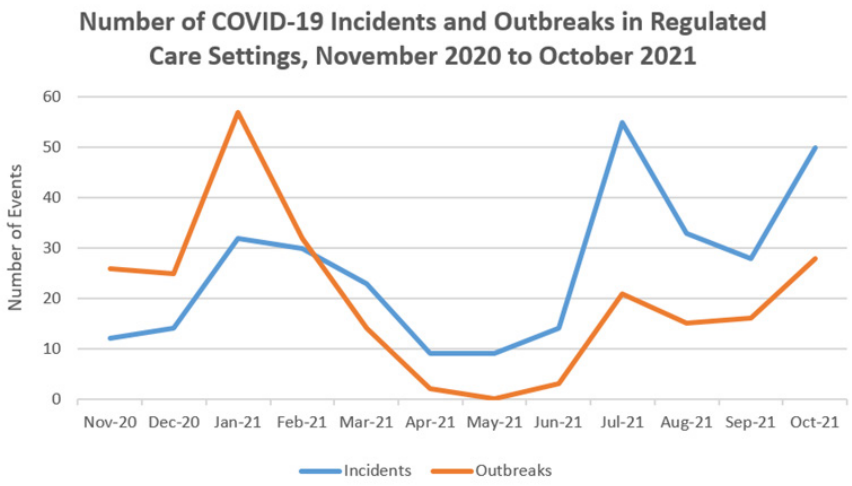

Figure 13: Number of COVID-19 Incidents and Outbreaks in Regulated Care Settings Supported and Managed by the IPC team between November 2020 and October 2021.

3.4 Testing

Rapid diagnosis of COVID-19 is crucial to allow contact tracing and self-isolation of COVID-19 positive individuals to take place. Cumbria's large geographical size and rural population presented additional challenges for providing easily accessible testing sites for the population.

Testing in Cumbria initially began with one drive through testing site and a mobile testing unit, which expanded to a combination of drive-through testing sites, walk-through testing sites, and mobile testing units across the county. A walk-through testing site was set up in each district, and mobile testing units were vital in supporting rural communities and responding quickly to localised outbreaks. In addition, the NHS provided testing services in-house for staff and patients. NHS swabbing teams were also deployed to conduct whole-home testing in care homes, which played a vital role in containing outbreaks.

The start of 2021 saw a Community Lateral Flow Testing programme established across the county. This allowed the public to access rapid LFT tests for asymptomatic testing, thereby reducing asymptomatic transmission and helping to ensure that vital public and economic services could continue. The community testing programme in Cumbria was developed based on a hybrid model, compromising a mix of private test sites in employer settings, as well as publicly accessible testing sites in the community. The workplace testing offer provided employers with free training, support to set up a testing site for staff, volunteers and service users, and free test kits, and was utilised by public, private and third sector organisations, including Cumbria Constabulary, Cumbria Fire and Rescue Service, Early Years providers, and organisations supporting vulnerable service users. Publicly accessible community test sites were established across eleven sites using schools as delivery hubs, and provided LFT testing supervised by a trained person, and could be attend free of charge and without an appointment. By week commencing 13 December 2021, the community testing programme has delivered 88,551 supervised tests to over 300 organisations. Furthermore, over 106,792 self-test kits have been distributed across the county. From June 2021, the focus of the programme became Targeted Community Testing, moving away from general public use to targeted testing for Disadvantaged and Under-represented groups, using the same delivery routes working with local partners.

3.5 Surveillance

Surveillance of COVID-19 epidemiology within the county has evolved as the local and national contact tracing systems have been established and developed. At the beginning of the pandemic, it was challenging to gain an accurate impression of the number of COVID-19 cases, as only a subset of those with COVID-19 symptoms were eligible for testing. However, as testing became available to anyone displaying symptoms of COVID-19, and the local electronic contact tracing system was established, the surveillance team within the county council was able to bring together data from a variety of sources to build a local picture. As well as the numbers, demographics and geography of local cases, the surveillance team also tracked the numbers of outbreaks in education and care settings and the number of contacts to the county council COVID-19 helpline. The team created a weekly COVID-19 epidemiology report, detailing both local and national epidemiology updates. This was presented at the Health Protection Tactical Oversight Group, as well as a publicly available version shared online. The team was also involved in responding to ad-hoc data requests, for example to support the testing programme, and to support an equality impact assessment. The team also compiles monthly summaries on the wider impacts of COVID-19, including unemployment, earnings, and homelessness for each district. A Multi agency information cell (MAIC) was established in response to COVID-19. This brought together stakeholders from the council, public services and major employers across the county, and provided specialist support services, intelligence collating, technical guidance and analytical services. The MAIC was responsible for supporting case finding and approaches to outbreak control and for facilitating effective public communications by collating and communicating intelligence drawn from national and local data systems and other local networks. [21]

3.6 Community Resilience

Promoting and facilitating community resilience played a key role in Cumbria's response to COVID-19. In the years prior to COVID-19, community development officers have laid the groundwork by working with local communities using an asset-based approach, supporting cohesive working between community groups, voluntary organisations and local businesses. Communities in Cumbria have come together in the past to prepare for and recover from emergencies, for example the Storm Desmond floods of 2015.

The County Council identified early in the pandemic that Cumbria's ageing population was at an elevated risk of serious harm from COVID-19 infection. It was also recognised that within certain parts of Cumbria, there are a relatively high number of older people who had recently retired to the area, and who may therefore lack local family connections and support to help during periods of self-isolation or shielding. This could potentially place vulnerable individuals at risk and in turn create additional demand for statutory services.

South Lakeland had the highest proportion of over 80s, with 8.1% of the South Lakeland population falling into this age group, compared to 5.4% in Barrow-in-Furness. However, Barrow-in-Furness had the highest percentage of clinically extremely vulnerable (CEV) residents, at 7.6% of the population, compared with only 3.9% in Carlisle (**Figure 14**).

[21] https://cumbria.gov.uk/elibrary/Content/Internet/535/17941/17942/44012124112.pdf

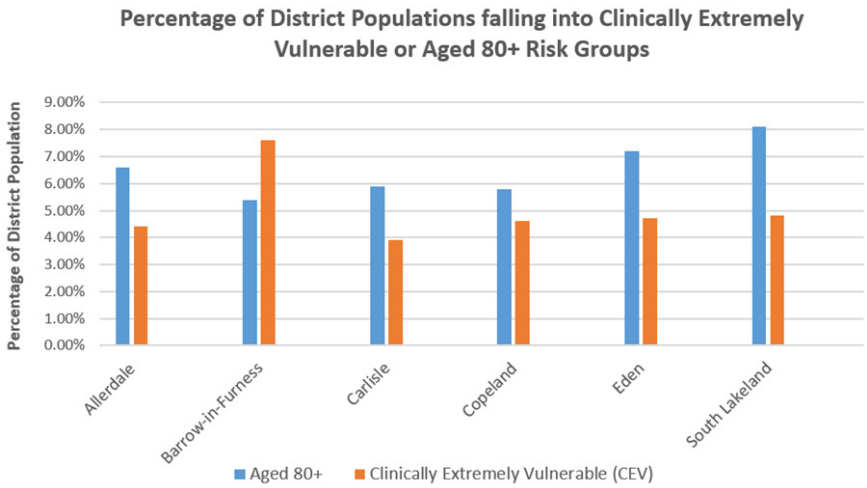

Figure 14: Percentage of the population of each district in Cumbria who fell into the clinically extremely vulnerable (CEV) risk group, or were aged 80 and over. Source: County Council Local Committee for South Lakeland

In response to the pandemic, over 200 new mutual aid community groups were established across the county (**Figure 15**). In order to promote safe working practices, the public health team in the county contributed to the development of COVID-19 resource packs for new and existing mutual aid groups and voluntary organisations. A community resilience group was established in each district, co-chaired by the County Council area manager and a District Council colleague, and consisted of public services, the voluntary sector, community groups and local businesses. The ethos of these groups was to actively encourage and support the formation of mutual aid groups in the community, and to facilitate communication and co-ordination between statutory responders and community groups. Mutual aid groups, voluntary organisations and local businesses were also able to feed information obtained "on the ground" to local area managers via the community resilience groups. Early intelligence on challenges faced by specific groups meant they could be addressed locally, and escalated nationally.

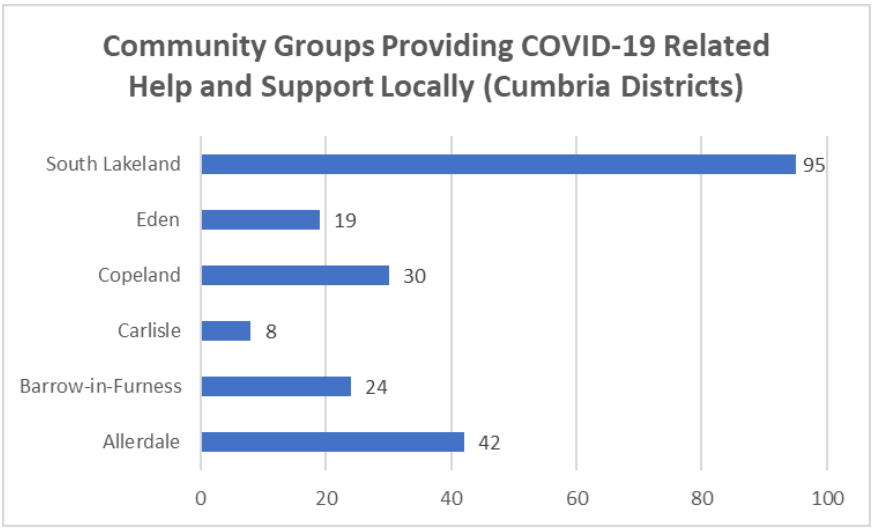

Figure 15: Number of Community Groups set up to provide COVID-19 related help and support in each Cumbrian district. Source: County Council Local Committee for South Lakeland.

A local authority COVID-19 helpline was set up to support vulnerable shielding and self-isolating individuals. Welfare hubs in each of the six districts were able to link requests for help to local mutual aid groups (for example for prescription collections or grocery shopping), or local businesses providing home delivery services. Many requests for assistance could therefore be met without placing any demand on the already stretched health and social care sector. The pyramid shown in Figure 16 shows the different sources of support available to individuals and communities, and highlights how a robust system of community support is key in ensuring only those with the most complex needs require health and social care input.

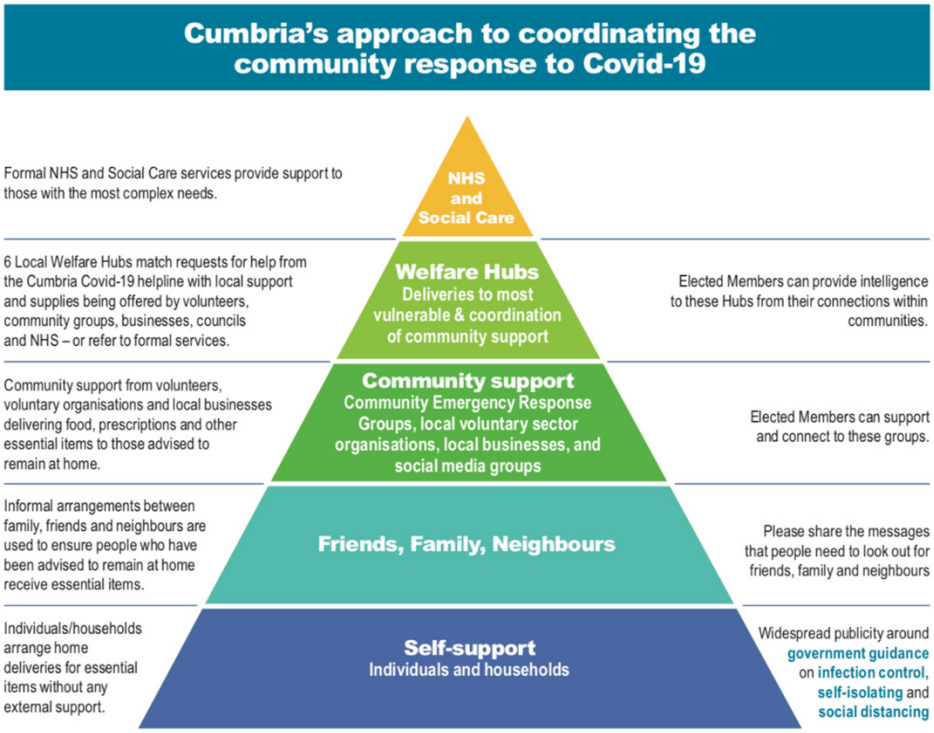

Figure 16: Pyramid showing the levels of support available and Cumbria's approach to coordinating the community response to COVID-19.

Many longstanding volunteers in community organisations, for example foodbanks, were in older age groups and those advised to shield at the beginning of the pandemic. Therefore one of the many indirect consequences of COVID-19 was staffing shortages, leading to challenges in maintaining these vital services. The Support Cumbria scheme recruited approximately 2000 new volunteers through the pandemic. Support Cumbria volunteers, who included many furloughed employees, were rapidly matched with local need, and able to fill some of these vital voluntary roles. By Summer 2020, 57% of Support Cumbria volunteers had been matched to an opportunity, compared to 10% of volunteers to the NHS Volunteer scheme.

3.7 Vaccination

The first vaccine against COVID-19, developed by Pfizer/BioNTech, was granted approval for use in the UK by the Medicines and Healthcare Products Regulatory Agency (MHRA) on 2nd December 2020,[22] followed by a second vaccine developed by Oxford University and AstraZeneca on 30 December 2020.[23] The national vaccination rollout began on 8 December 2020[24] and progressed rapidly, with over 13 million doses being given over the following two months.

Vaccination of the most at risk groups was prioritised, with the first groups eligible for the vaccine including residents in care homes for older adults and the staff working in these homes, those aged over 80, and frontline health and social care workers.[25]

[22] https://www.gov.uk/government/news/uk-medicines-regulator-gives-approval-for-first-uk-covid-19-vaccine

[23] https://www.gov.uk/drug-safety-update/covid-19-vaccines-pfizer-slash-biontech-and-covid-19-vaccine-astrazeneca-current-advice?UNLID=106527154202111141242 5

[24] https://www.bmj.com/content/372/bmj.n421

[25] https://www.gov.uk/government/publications/covid-19-vaccination-care-home-and-healthcare-settings-posters/covid-19-vaccination-first-phase-priority-groups

Across Cumbria, the COVID-19 vaccine was primarily delivered through Primary Care Networks (PCNs), groups of primary care providers covering a local geographical area and working together to provide services. PCNs delivered the COVID-19 vaccine through a chosen vaccination site within each PCN, as well as visiting residents in care homes to deliver the vaccine. Local Integrated Care Systems and Hospital Trusts worked together to provide additional vaccination sites in key locations, including the GlaxoSmithKline Health & Fitness Centre in Ulverston and the Westmorland Shopping Centre in Kendal.

The 19th July 2021 saw the lifting of almost all remaining legal COVID-19 restrictions limiting social contact. By this date, every adult in the UK had been offered a first dose of the COVID-19 vaccine.[26] By 18th July 2021, 91% of those aged over 18 in Cumbria had had the first dose of the COVID-19 vaccine, compared with 86% nationally. Meanwhile 74% in Cumbria had had both doses, compared with 66% nationally. The difference seen between Cumbria and the national average was largely due to the success of the vaccine roll out and higher uptake in younger age groups in Cumbria, compared with the England average (**Figure 17**). This trend continued over the following months, with Cumbria continuing to demonstrate higher uptake of the COVID-19 vaccine by October 2021, with uptake in the youngest age groups significantly higher than the national average (**Figure 18**).

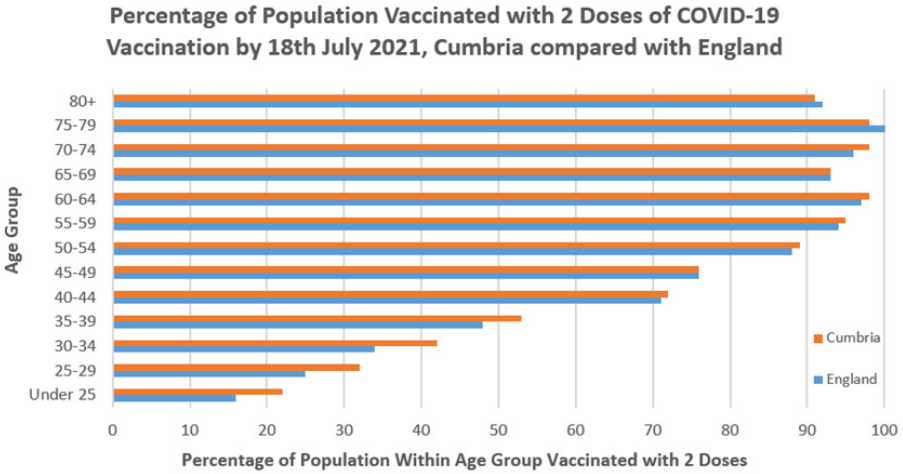

Figure 17: Percentage of the Population Vaccinated with 2 Doses of a COVID-19 Vaccine by 18th July 2021, comparing Cumbria with the England average. Source: Cumbria Health Protection Tactical Oversight Group Weekly COVID-19 Summary Week 29 2021[27]

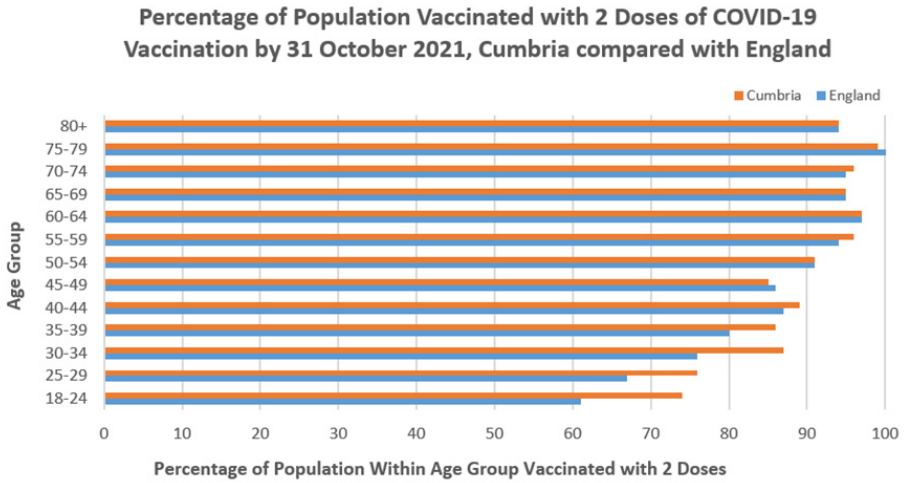

Figure 18: Percentage of the Population Vaccinated with 2 Doses of a COVID-19 Vaccine by 31st October 2021, comparing Cumbria with the England average. Source: Cumbria Health Protection Tactical Oversight Group Weekly COVID-19 Summary Week 44 2021[28]

[26] https://www.gov.uk/government/news/every-adult-in-uk-offered-covid-19-vaccine

[27] https://www.cumbria.gov.uk/elibrary/Content/Internet/535/17941/17942/17945/44406101813.pdf?timestamp=44516104031

[28] https://www.cumbria.gov.uk/elibrary/Content/Internet/535/17941/17942/17945/4451194951.pdf?timestamp=4451713717

Within Cumbria, there was some variation in vaccination uptake by district, which was most apparent in the younger age groups. 84% of the 18-24 year old age group in Eden had received 2 doses of the COVID-19 vaccine by 31 October 2021, compared with 68% in Barrow-in-Furness. However, even in the districts with the lowest uptake, vaccination uptake was still higher than the England average (**Figure 19**).

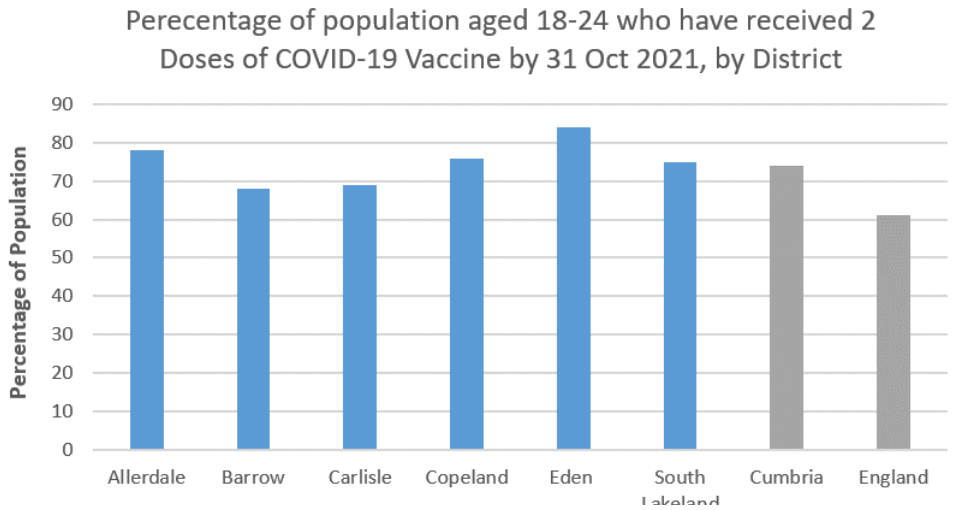

Figure 19: Percentage of the Population aged 18-24 who have received 2 doses of the COVID-19 Vaccine by 31 October 2021, by District in Cumbria. Source: Cumbria Health Protection Tactical Oversight Group Weekly COVID-19 Summary Week 44 2021[29]

Vaccination uptake by vulnerable groups and health and social care staff was excellent in Cumbria. By 1st April 2021, 95.7% of residents in care homes for older adults in Cumbria had received at least one COVID-19 vaccine, compared to 93.8% nationally. 85.9% of staff in these homes in Cumbria had received at least one vaccine, compared with 77.8% nationally.[30]

Nationally, significant inequalities in vaccination uptake according to sociodemographic factors have been identified.[31] When compared to those in the least deprived IMD quintile 5, and after adjusting for potential confounders, those living in the most deprived areas (quintile 1) had a 2.14 times greater odds of being unvaccinated (95% confidence interval 2.12 to 2.15) (**Figure 20**). When compared to the White British ethnic group and adjusting for potential confounders[32], the odds of being unvaccinated were highest in the Black Caribbean ethnic group (odds ratio 6.35, 95% confidence interval 6.29 to 6.40), Pakistani ethnic group (odds ratio 3.23, 95% confidence interval 3.20 to 3.25), and Black African ethnic group (odds ratio 3.03, 95% confidence interval 3.00 to 3.06) (**Figure 21**).

[29] https://www.cumbria.gov.uk/elibrary/Content/Internet/535/17941/17942/17945/4451194951.pdf?timestamp=4451713717

[30] COVID-19 weekly announced vaccinations 1 April 2021. Available from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/covid-19-vaccinations-archive

[31] https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthinequalities/datasets/covid19vaccinationratesandoddsratiosbysociodemographicgroup

[32] The fully adjusted logistic regression model includes age, sex, region, care home residency, urban or rural area, Index of Multiple Deprivation quintiles (area deprivation), educational attainment, household tenure, BMI categories and a range of underlying health conditions.

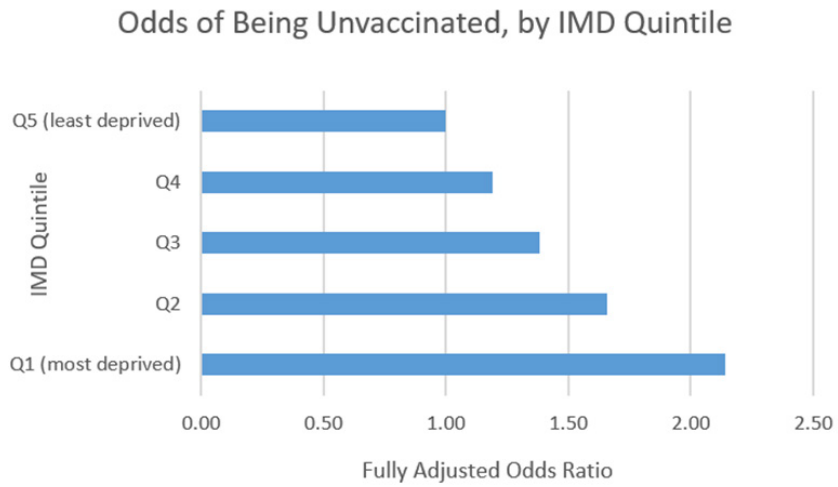

Figure 20: Odds of being Unvaccinated by IMD Quintile, in population aged 40+

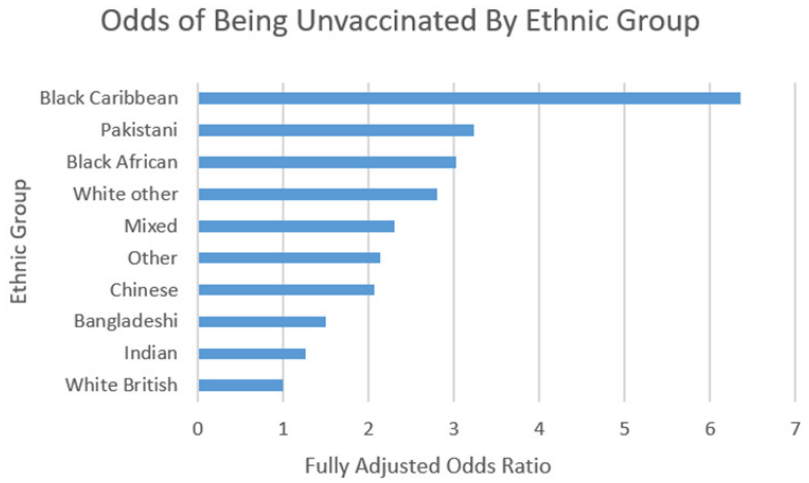

Figure 21: Odds of Being Unvaccinated by Ethnic Group, in population aged 40+

The COVID-19 vaccine has proved to be highly successful in reducing severe illness and death due to COVID-19. ONS data has shown that between 2 January and 24 September 2021, once accounting for age, those who were unvaccinated were at a 32 times higher risk of death due to COVID-19 compared to those who had been fully vaccinated.[33]

Local Work to Increase Vaccination Uptake

It was recognised locally that vaccination uptake was lower in some of the most disadvantaged communities, where the risk of harm from COVID-19 was also greatest. Those who are the most disadvantaged are at a higher risk of acquiring COVID-19, for example due to public-facing employment or overcrowded housing, and are also at a higher risk of experiencing adverse outcomes, such as loss of wages and severe COVID-19 infection due to comorbidities.

Local initiatives to reduce inequalities in vaccine uptake have contributed to the success of the vaccination programme in Cumbria. This includes the training of vaccine champions, and the pro-active use of telephone conversations to support those who had not yet been vaccinated.

[33] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19byvaccinationstatusengland/deathsoccurringbetween2januaryand24september2021

4. Wider Impact of COVID-19 on Health and Wellbeing

COVID-19 and the national response have had wide-reaching consequences on the health and wellbeing of the population. This section will explore some of the wider impacts experienced both nationally and locally.

Changes in health seeking behaviour have been reported during the pandemic, with many patients avoiding healthcare services even when displaying potentially concerning symptoms.[34] This may have contributed to the lower than expected numbers of new referrals across many specialties, including referrals for suspected cancer symptoms and routine mental health care. The additional COVID-19 related demand anticipated and experienced by the NHS and resultant prioritisation of emergency services has led to further delays to routine treatment, as demonstrated in cancer treatment wait times. We have observed excess mortality due to causes other than COVID-19, higher numbers of emergency mental health care referrals, and a substantial rise in the number of drug related deaths compared to previous years.

COVID-19 and school closures have had a profound impact on children and young people, with significant disruption to education and a concerning rise in children reporting anxiety when returning to school. School closures will have disproportionately impacted children from more disadvantaged families, who may have less access to educational resources, as well as children with special educational needs and disabilities (SEND), thus potentially widening inequalities.

Figure 22 summarises how home isolation, restriction on non-essential sectors, transport restrictions and closure of educational facilities can indirectly lead to excess morbidity and mortality.

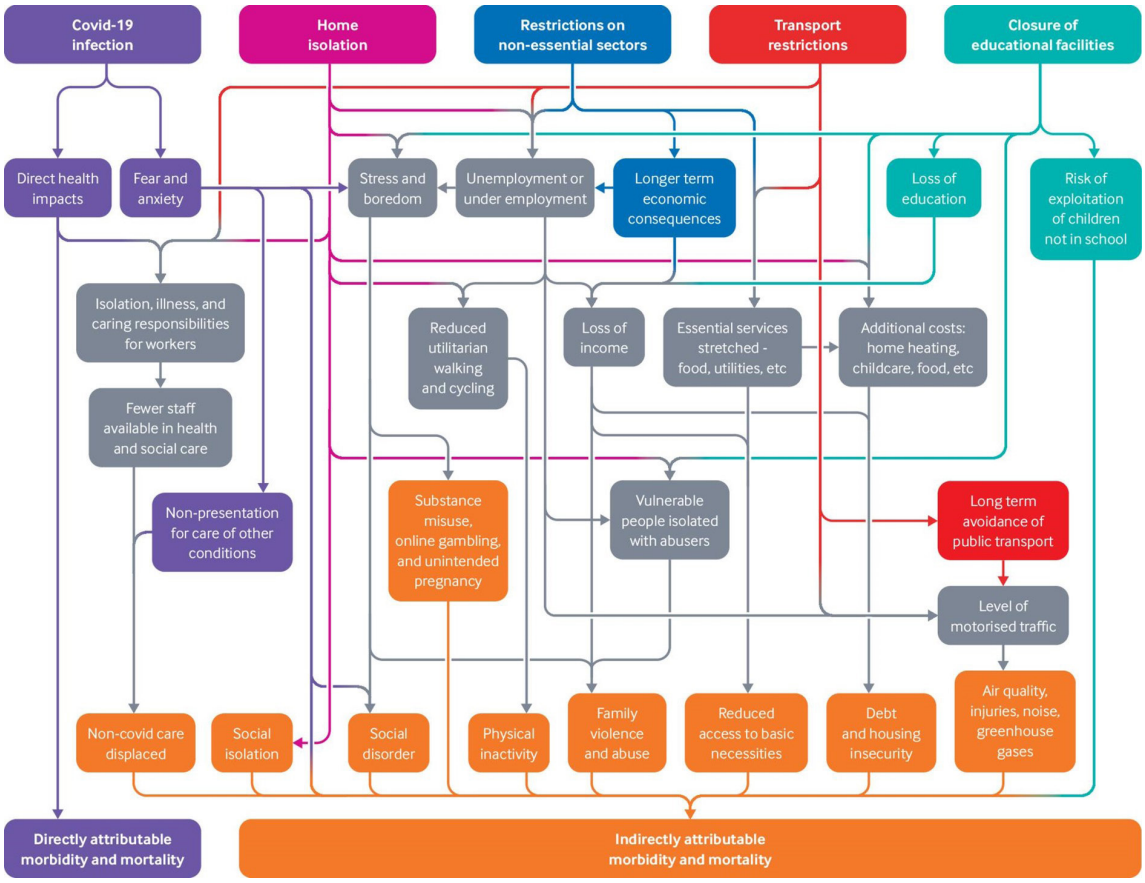

Figure 22: The indirect effect of COVID-19 control measures on health and wellbeing[35]

[34] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8449845/

[35] https://www.bmj.com/content/369/bmj.m1557

4.1 Excess Mortality

Cumbria experienced 1,412 more deaths in March 2020 to April 2021 than the 2015-2019 average for the same time period. COVID-19 was the cause of 1309 of these deaths. The majority of excess deaths due to causes other than COVID-19 occurred in April 2020 (**Figure 23**). However, during this period, testing for COVID-19 was limited, and some of the deaths occurring during this period may have been due to COVID-19, but could not be recorded as such on the death certificate due to absence of a positive COVID-19 test. In November 2020 to March 2021, non-COVID deaths were actually below the previous 5-year average. Deaths that would have been expected over the winter months in those approaching the end of their life may have been "brought forward" by COVID-19 earlier in 2020.[36]

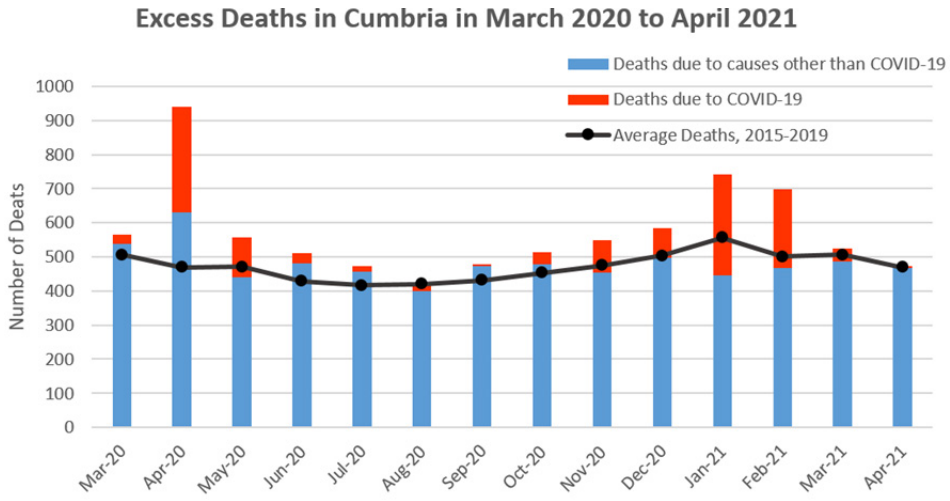

Figure 23: Deaths in Cumbria in 2020-2021, split by COVID-19 Deaths and non COVID-19 Deaths, compared to the previous 5 Year Average (2015-2019).[37]

Nationally, non-COVID deaths exceeded the previous five-year average for six consecutive weeks between Week 13 (ending 27 March 2020) and Week 18 (ending 1 May 2020).[38] Those aged over 80 experienced the highest increase in excess non-COVID deaths between weeks 13 and 18, however once again, many of the excess deaths may have been due to COVID-19 but not recorded as such due to limited testing capacity at the time. In subsequent weeks and months, the over 80 age group experienced lower than expected non-COVID mortality, again suggesting that deaths that would have been anticipated to occur later in the year may have been brought forward by COVID-19.[39]

[36] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/analysisofdeathregistrationsnotinvolvingcoronaviruscovid1 9englandandwales28december2019to1may2020/28december2019to10july2020

[37] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/excessdeathsinyourneighbourhoodduringthecoronaviruscovid19pandemic/2021-08-03

[38] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/analysisofdeathregistrationsnotinvolvingcoronaviruscovid19englandandwales28december2019to1may2020/28december2019to10july2020

[39] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/analysisofdeathregistrationsnotinvolvingcoronaviruscovid19englandandwales28december2019to1may2020/28december2019to10july2020

National statistics show that the under-65 age group was disproportionately affected by excess deaths due to a number of conditions, for example ischaemic heart disease. As the UK entered lockdown in March 2020, deaths due to ischaemic heart disease in under 65s rose significantly higher than the previous 5-year average, and remained so until June (Figure 24). In contrast, deaths due to ischaemic heart disease in the over 65s remained below the previous 5-year average for much of the year. As health seeking behaviours changed during the pandemic patients may have presented with more severe illness later than usual. Furthermore, disruption to outpatient appointments and reduction in the number of certain procedures carried out, such as coronary artery bypass grafts, may have all contributed to excess mortality.

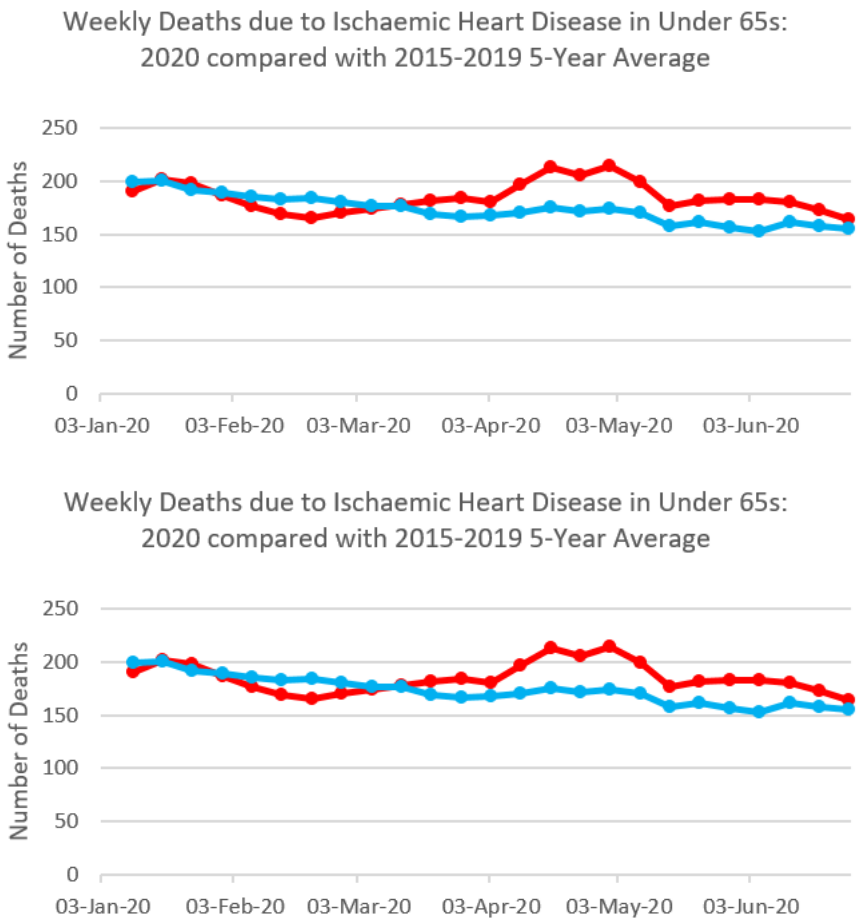

Figure 24: Weekly Deaths due to Ischaemic Heart Disease in 2020 compared with 2015-2019 5-year average, split by age group (under 65s and over 65s). Weekly deaths displayed as a moving 4-week average.

[40] https://ifs.org.uk/uploads/BN328-What-happened-to-English-NHS-hospital-activity-during-the-COVID-19-pandemic.pdf

[41] https://heart.bmj.com/content/106/24/1890

4.2 Premature Mortality

Premature mortality is defined as deaths in people aged under 75, many of which are potentially preventable. There is a significant gap in the rate of premature mortality by deprivation, and this inequality has widened during the COVID-19 pandemic, demonstrating how the pandemic has had an unequal impact on the most vulnerable.

For example, the average rate of premature mortality in Morecambe Bay has increased since COVID-19, from 3.7 per 1,000 in 2019-2020, to 4.6 per 1,000 in 2020-2021. The Slope Index of Inequality (SII), which shows the difference in premature mortality between the least and most deprived communities in Morecambe Bay, has increased from 2.7 per 1,000 in 2019-2020 to 4.0 per 1,000 in 2020-2021, meaning that there are now 4 additional premature deaths per 1000 population per year in Morecambe Bay's most deprived communities compared to the least deprived[42]. The conditions responsible for this difference in premature mortality include respiratory conditions, circulatory disease, cancer, and external causes of morbidity and mortality (which includes intentional self-harm and drug use).

4.3 Deaths Related to Drug Misuse

The past decade has seen a gradual increase in the number of deaths due related to drug misuse in Cumbria. A further sharp increase occurred in 2020, with 63 lives lost due to drug misuse compared with 36 in 2019 (**Figure 25**). An increase in number of deaths was seen across all districts except Eden. Carlisle (23 deaths) and Barrow-in-Furness (13 deaths) were the worst affected districts. Nationally, there was a small rise in the rate of deaths related to drug misuse, from 50.4 per million people in 2019 to 52.3 per million people in 2020[43]. Perceived and actual barriers to accessing treatment and support, as well as unemployment and financial hardship suffered during the pandemic, may have contributed to drug related deaths.

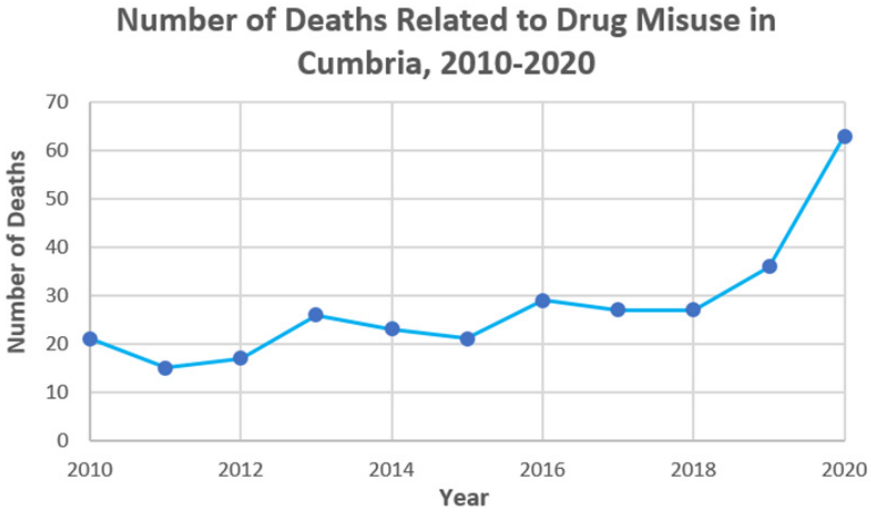

Figure 25: Annual Number of Deaths Related to Drug Misuse in Cumbria, 2010-2020.

[42] Cumbria County Council. Morecambe Bay Health Inequalities Report 2021.
[43] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2020#drug-misuse-in-england-and-wales
[44] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/drugmisusedeathsbylocalauthority

4.4 Cancer Screening and Referrals

The response to COVID-19 contributed to significant disruption to cancer screening and detection in 2020. In response to the additional demand anticipated and experienced by the NHS, resources focused on maintaining emergency care. Changes in health seeking behaviour meant that fewer patients sought their GP's advice for potentially concerning cancer symptoms, contributing to a reduced number of specialist referrals, and the detection of fewer cancers in 2020.

Suspected Cancer Referrals and Diagnosis

In April to June 2019, 3337 patients in North Cumbria and 3480 patients in Morecambe Bay were referred to a specialist under through an urgent, suspected cancer referral pathway. In April to June 2020 these number fell substantially to 2074 and 2248 respectively (**Figure 26**). In the second half of 2020, numbers of referrals began to return to normal levels. 2021 saw a rise in referrals above normal levels in Morecambe Bay, reflecting how the health service is now challenged with catching up with health care need that was not expressed during the first months of the pandemic.

In the latter half of 2020, patients experienced a longer wait to see a specialist. This was particularly evident in Morecambe Bay, where only 62.19% patients referred through a suspected cancer pathway in October to December 2020 were seen by a specialist within 14 days, compared to 87.67% in October to December 2019 (**Figure 27**). Patients in Cumbria also waited longer to begin cancer treatment. North Cumbria in particular saw fewer patients meeting the 31-day target for diagnosis to treatment time, with 86% patients meeting this target in July to September 2021, compared with 93.67% of patients across England (**Figure 28**)[45]. In the following months and years, we can expect to see increased demand on healthcare services as a result of delayed cancer detection and treatment during the pandemic.

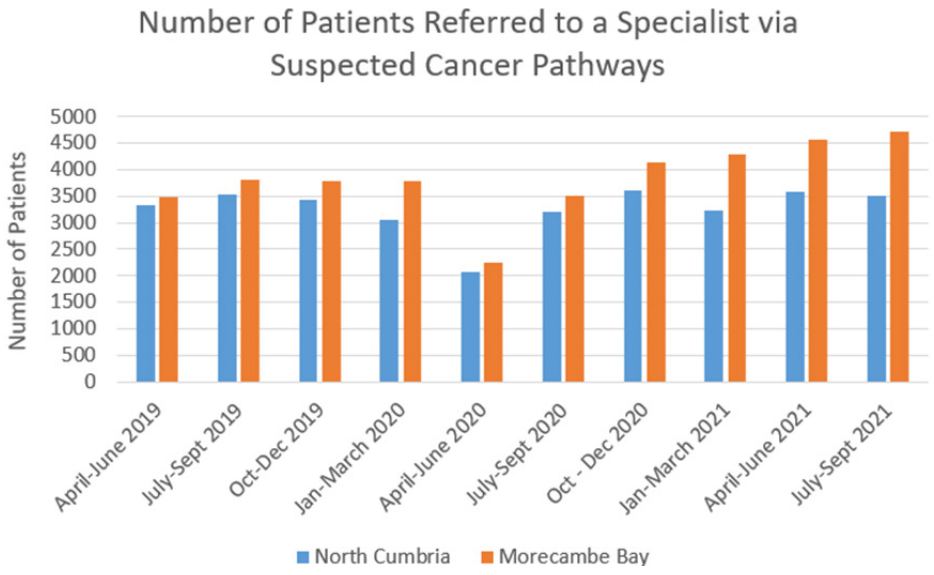

Figure 26: Number of Patients in North Cumbria and Morecambe Bay Referred to a Specialist via Urgent Suspected Cancer Referral Pathways, April 2019 to December 2020. (Provisional figures for Quarter 1 and Quarter 2 2021/22).

[45] https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/quarterly-prov-cwt/

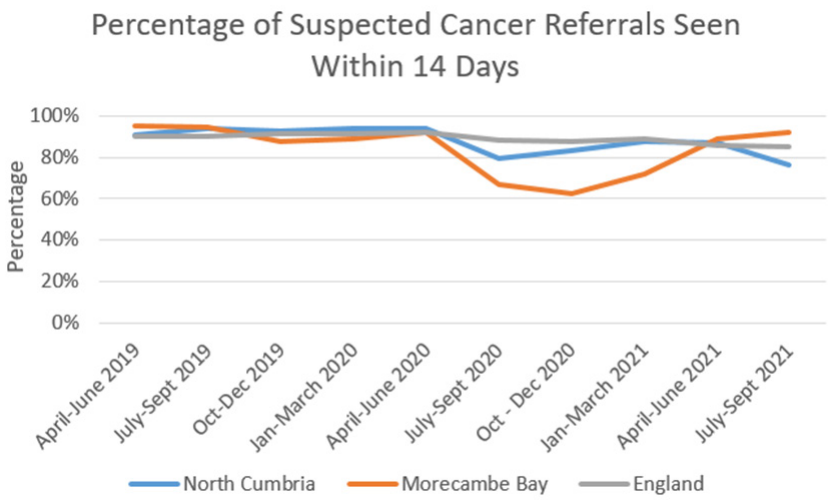

Figure 27: Percentage of Patients in North Cumbria and Morecambe Bay who were seen within 14 days after referral to a Specialist via Urgent Suspected Cancer Referral Pathways, April 2019 to September 2021. (Provisional figures for Quarter 1 and Quarter 2 2021/22).

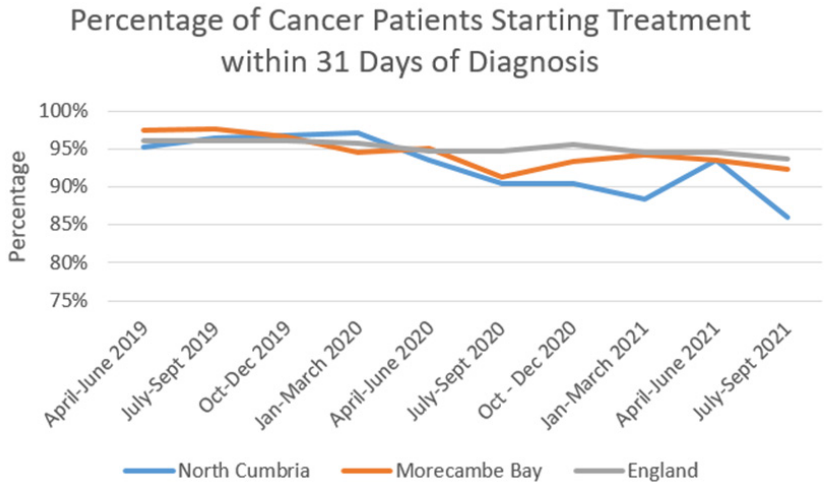

Figure 28: Percentage of patients in North Cumbria and Morecambe Bay who started treatment within 31 days of cancer diagnosis, April 2019 to September 2021 (Provisional figures for Quarter 1 and Quarter 2 2021/22).

Cancer Screening

Local data suggests that breast cancer screening coverage (the proportion of eligible women who have had a test in the last 36 months) in Cumbria reduced from 80.1% in 2019 to 78.8% in 2020, however still remains significantly above the national level of 74.1%. Cervical cancer screening coverage has risen from 77.7% in 2019 to 78.9% in 2020 for 25 to 49 year olds and from 78.4% in 2019 to 78.9% in 2020 for 50 to 64 year olds[46]. Bowel cancer screening coverage has increased substantially year on year both in Cumbria and nationally, and this trend continued during 2020. The fact that Cumbria's screening services have managed to continue their essential work in the midst of the pandemic is very reassuring and a testament to the dedication and hard work of all the teams involved.

[46] Public Health Outcomes Framework

4.5 Seasonal Influenza Vaccine

Seasonal influenza kills on average 11,000 people a year, and leads to many more requiring hospital treatment[47]. In anticipation of a winter where COVID-19 would continue to place increased demand on hospital resources, winter preparedness preparations in 2020/21 were more important than ever. The importance of the seasonal flu vaccine for high-risk groups was emphasised, and flu vaccine uptake among those 65 and over was at a record high in 2020/21. Nationally, 80.9% received a flu vaccine in the winter 2020/21, compared with 72.4% the previous year. Cumbria performed exceptionally well, with NHS North Cumbria CCG vaccinating 84.6% of those 65 and over, and Morecambe Bay CCG achieving vaccination of 82.6%[48]. Fortunately, a combination of social distancing measures, national lockdown, an emphasis on respiratory hygiene and excellent vaccination uptake contributed to significantly lower rates of flu in the 2020/21 season compared with previous years. National surveillance systems reported only 40 hospitalisations with influenza across 56 participating NHS acute trusts during flu season 2020/21, compared with 4,918 hospitalisations across 22 participating trusts in the previous year[49]. The seasonal flu vaccine programme will continue to play a key role in reducing morbidity, mortality and demand on the NHS in winter 2021/22.

4.6 Mental Health Care

A survey in the UK with over 17,000 respondents revealed a stark increase in mental distress from 18.9% pre-pandemic to 27.3% in April 2020[50] as measured on the 12-item General Health Questionnaire, which considered symptoms such as difficulties with concentration, sleep, confidence, lack of enjoyment, and feeling under strain.

As the UK entered lockdown, routine referrals to mental health services fell. Nationally, 57,814 referrals were made to the Improving Access to Psychological Therapies (IAPT) service in April 2020, compared with 133,191 referrals in April 2019[51]. This is unlikely to represent a true reduction in routine mental health care need during the pandemic, rather a reflection on health care seeking behaviours, and suggests that there is a high level of unmet need in the community.

In South Cumbria, the First Step programme aims to improve access to psychological therapies and helps people with common mental health disorders, such as depression and anxiety. The service experienced a 29.8% reduction in referrals in 2020, despite year-on-year increases in demand in the previous 3 years. A particularly stark reduction in referrals was seen in April 2020, during the first national lockdown (**Figure 29**)[52].

[47] https://www.nhsx.nhs.uk/information-governance/guidance/flu-vaccines-and-covid-19-response/
[48] https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-monthly-data-2020-to-2021
[49] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/995284/Surveillance_of_influenza_and_other_seasonal_respiratory_viruses_in_the_UK_2020_to_2021-1.pdf
[50] Pierce M, Hope H, Ford T, Hatch S, Hotopf M, John A, et al. Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. The Lancet Psychiatry. 2020 Oct 1;7(10):883–92.
[51] https://www.england.nhs.uk/2020/11/nhs-urges-people-with-mental-health-worries-to-seek-help/
[52] https://councilportal.cumbria.gov.uk/documents/s112830/Item%2010a%20Mental%20Health%20Impact%20-%20South%20Cumbria.pdf

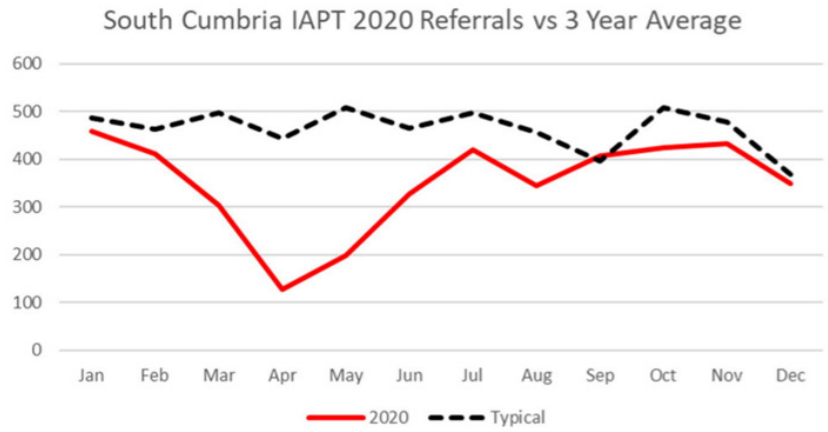

Figure 29: Number of Referrals to South Cumbria's First Step Improving Access to Psychological Therapies (IAPT) Service in 2020 compared with 3 year average.

Meanwhile, referrals for urgent access mental health care have risen, raising concerns that when patients do present for mental health care, more are already at a crisis point. The Access and Liaison Integrated Service (ALIS) and Crisis Resolution and Home Treatment Teams (CRHT) were met with a 27.2% increase in demand in 2020 compared to the previous three-year average (**Figure 30**). The Home Treatment Team works with adults with severe mental illness experiencing an acute crisis, who without the support of the team would require hospitalisation.[53]

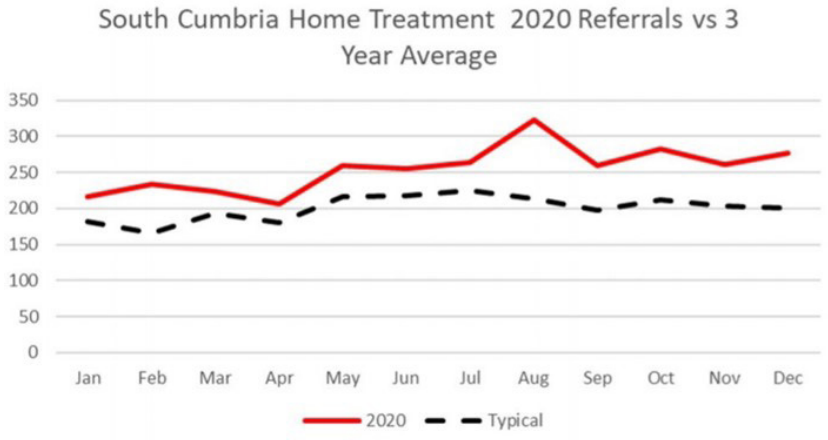

Figure 30: Number of Referrals to South Cumbria's Home Treatment Team Service in 2020 compared with 3 year average.

These figures demonstrate that despite an increase in need for mental health services, routine referrals have dropped and people are not receiving the support they need before reaching a crisis situation.

The mental health care team has responded to the change in demand through Mental Health Urgent Access Centres, seven day working, and implementation of the Attend Anywhere digital system to support remote access.

4.6.1 Suicide

National data suggests that fewer suicides occurred between April and July 2020 than the same time period in the previous 3 years. The age standardised mortality rate in April-July 2020 was 9.2 per 100,000, compared with 11.3 per 100,000 in April-July 2019[54]. This was largely due to a reduction in the number of male suicides, whilst the rate of female suicides did not change significantly from previous years. Due to the coroner investigation of deaths caused by suicide, death registration can be substantially delayed, therefore at the time of writing, July 2020 was the most recent complete data available.

[53] https://www.lscft.nhs.uk/home-treatment-teams
[54] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsfromsuicidethatoccurredinenglandandwales/aprilandjuly2020

4.7 Children and Young People

Although children and young people are at a very low risk of serious illness from COVID-19 infection, the pandemic and control measures have had a profound impact on their education and the mental health of some children.

During the COVID-19 pandemic, children's education has seen severe disruption. National lockdowns meant that children experienced several months of remote learning. Following return to school, in academic year 2020 to 2021, a system of class "bubbles" limited mixing between groups of children, and when a child tested positive for COVID-19, the remainder of the "bubble" was typically also required to self-isolate. Relaxation of social distancing measures in May 2021 and increasing community transmission was reflected in lower school attendance figures in June and July 2021, as many groups of children missed significant amounts of schooling due to self-isolation.

In Cumbria, in the period from 8th March 2021 (return to school following national lockdown) to 16th July (end of school summer term), average school attendance was 87.6%, similar to the national level of 87.2%. However, school attendance by particularly vulnerable groups of children, including children with a social worker, and children with an Education, Health and Care Plan (EHCP), was slightly higher in Cumbria compared to the national average. For children with a social worker, attendance in Cumbria was 82.4%, compared with 80% nationally, and for children with an EHCP, attendance was 83.7% in Cumbria, compared with 82.6% nationally.

At the start of the academic year 2021-2022, a relaxation of measures meant that children who were a close contact of a positive case were no longer required to self-isolate. This change led to slightly higher school attendance figures, however more pupils were absent with COVID-19 infection. In the seven week period between 6 September to 22 October 2021, average attendance in Cumbria was 88.6%, slightly below national school attendance of 89.3%. However, school attendance by vulnerable children remained similar to or higher than the national average. For children with a social worker, attendance in Cumbria was 86%, compared with 84% nationally, and for children with an EHCP, attendance was 85.0% in Cumbria, compared with 85.1% nationally.

During COVID-19, the percentage of pupils receiving free school meals (FSM) has increased both in Cumbria and nationally (**Figure 31**). However, the percentage of pupils receiving FSM had also demonstrated a year-on-year increase prior to COVID-19 due to FSM protection[55], therefore making it difficult to establish how many pupils newly became eligible for FSM due to financial hardship as a result of COVID-19. The percentage of pupils receiving FSM has been consistently lower in Cumbria compared to the national average, and in January 2021, 16.8% of pupils in Cumbria received FSM, compared with 20.8% of pupils nationally. There is however significant variation within the county, with the percentage of pupils receiving FSM in Copeland (22.2%) and Barrow-in-Furness (20.9%) slightly higher than the national average.

[55] A transitional protection system established during the roll-out of universal credit means pupils who would no longer be eligible for free school meals continue to receive FSM until the end of their phase of primary or secondary education. As a result, pupils do not leave the free school meals programme when they would normally lose eligibility, which has led to a year-on-year increase in the percentage of pupils receiving FSM since 2017

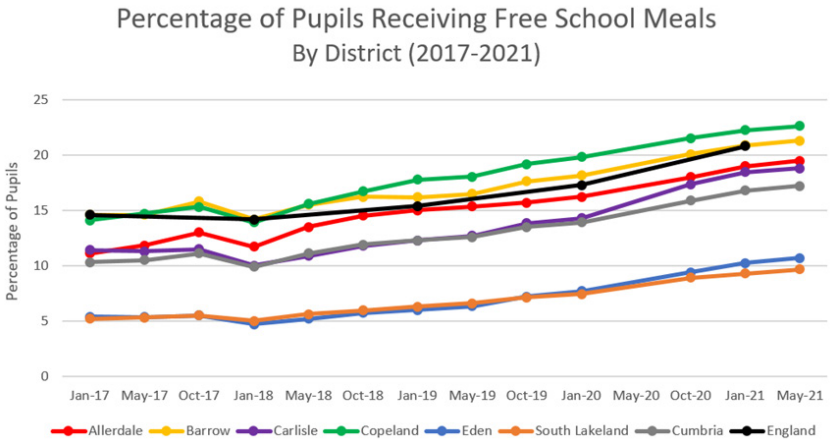

Figure 31: Percentage of Pupils Receiving Free School Meals over time (2017 to 2021), by District. (Data includes pupils in reception to year 11 in local authority mainstream and academy schools).

COVID-19 and lockdown and social distancing measures have had a significant impact on children's usual activities and social interaction with peers. The Mental Health of Children and Young People (MHCYP) survey commissioned by NHS Digital is one of the largest sources of data on trends in children and young people's wellbeing. Using the Strengths and Difficulties Questionnaire (SDQ) to identify children who had a possible or probable mental disorder, it found that 16% of children and surveyed in July 2020 had a probable mental disorder, compared with 10.8% in 2017. However, it is not known whether this is due to a decline in mental wellbeing that pre-dated COVID-19, or whether this change was in response to the COVID-19 pandemic and control measures.

Whilst a number of other surveys have shown that mental wellbeing of pupils remained relatively constant following the closure of schools and move to home learning, some surveys have found that many young people feel they are experiencing more anxiety, feelings of overwhelm, and concern about future employment prospects as a result of the pandemic and lockdowns. The negative impacts of lockdown and school closures is likely to have had a disproportionate impact on certain groups, with young people with special educational needs and disabilities (SEND), pre-existing mental health conditions, and lower household incomes reporting worse mental wellbeing.

Cumbria saw a drop in the number of referrals to children's and young people mental health services during 2020 lockdowns, followed by an increase as lockdown measures were eased and children returned to school. Anxiety was the most common reason for referrals, followed by low mood, and difficulties expressing or controlling emotions. Services have reported seeing a greater proportion of children and young people with high levels of need, requiring urgent support. Referrals to the safeguarding hub due to concerning behaviour (including risk-taking behaviour) had increased from 90 referrals in Quarter 1 of 2020/21 to 273 in Quarter 1 of 2021/22. Referrals due to children experiencing neglect has also increased by 36% over the same time period.

[56] https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2017/2017
[57] https://files.digital.nhs.uk/AF/AECD6B/mhcyp_2020_rep_v2.pdf
[58] https://drive.google.com/file/d/19tcaSSfyxzTXWjBlj8LsgtJM-frrfbXu/view
[59] https://www.princes-trust.org.uk/about-the-trust/news-views/young-people-in-lockdown
[60] https://www.gov.uk/government/publications/covid-19-mental-health-and-wellbeing-surveillance-report/7-children-and-young-people#references

4.8 Local Economy

The COVID-19 pandemic and lockdown measures have had profound impacts on the national and local economy, as well as household incomes.

Cumbria's economy is heavily reliant upon tourism, which made the area particularly vulnerable to the impact of closure of hospitality, leisure and retail facilities. In 2019, tourism in Cumbria was worth £3.13 billion, supporting the full time equivalent of 38,000 jobs. In contrast, in 2020, tourist revenue dropped to £1.6 billion[61]. A survey of 896 Cumbrian businesses in April to May 2020 found that 44% of businesses relied on tourism for more than 50% of their trade. Overall, 22% of the Cumbrian workforce was employed in the subsectors of the economy considered most vulnerable to the effects of COVID-19 restrictions, however this rose to as high as 33% in South Lakeland[62] (**Figure 32**).

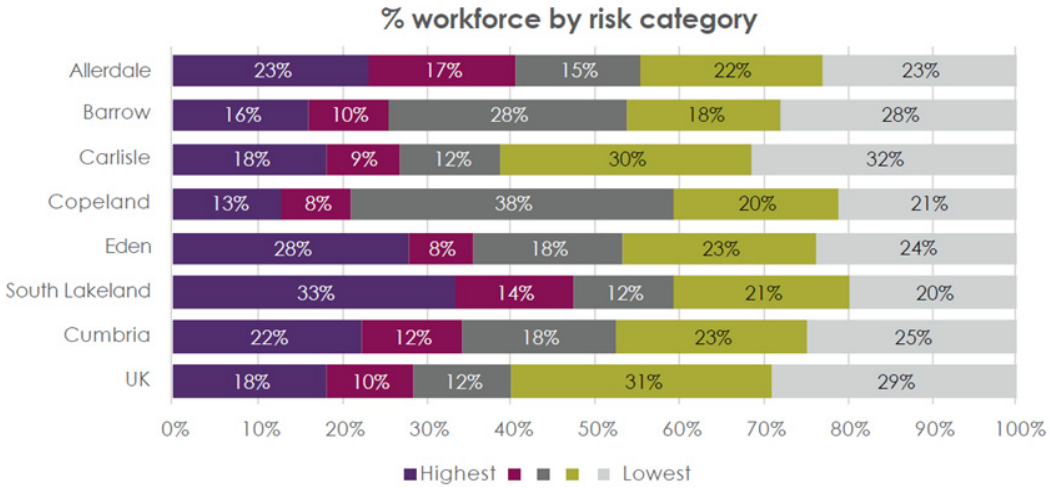

Figure 32: Anticipated percentage of workforce employed in each employment risk category, by district. Source: Restart Reboot Rethink A Plan for Cumbria's Economic Recovery.

The differences in economic vulnerability between districts were also reflected in job retention scheme uptake. Take up in Eden and South Lakeland was substantially higher than the national average until May 2021, however by August 2021, furlough uptake was lower than the national average in each of the six districts (**Figure 33**).

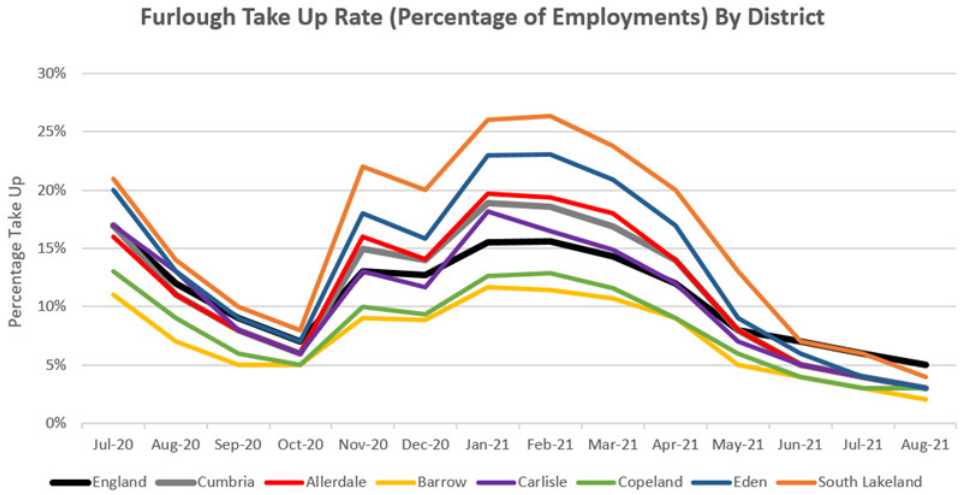

Figure 33: Percentage of Employments Taking Up Furlough Scheme, by District [63].

[61] Cumbria County Council Economy Tracker
[62] Restart Reboot Rethink A Plan for Cumbria's Economic Recovery.
[63] Restart Reboot Rethink A Plan for Cumbria's Economic Recovery.

In February 2020, before the country entered its first national lockdown, 7.1% of the working age population in England claimed universal credit (UC), compared with 6.6% in Cumbria. Allerdale and Copeland however both had UC claimant rates higher than the national average, at 8.9%. Across England, UC claimants increased sharply in March 2020. Cumbria experienced a smaller rise in claimants compared with nationally, with 11.3% of the working age population in Cumbria claiming UC in May 2020, compared with 12.9% nationally. By the end of 2020, the percentage of the working age population claiming UC was lower than the national average across all six districts, despite Allerdale and Copeland having started the year with above average claimant levels (Figure 34). There was a much smaller percentage increase in those claiming UC due to searching or preparing for work in Allerdale and Copeland compared to the England average. The percentage of the population claiming UC whilst searching or preparing for work rose from 1.9% in January 2019 to 5.7% in September 2021, whereas over the same time period, the value in Allerdale rose from 3.0 to 4.4%, and in Copeland from 3.2% to 4.4%[64].

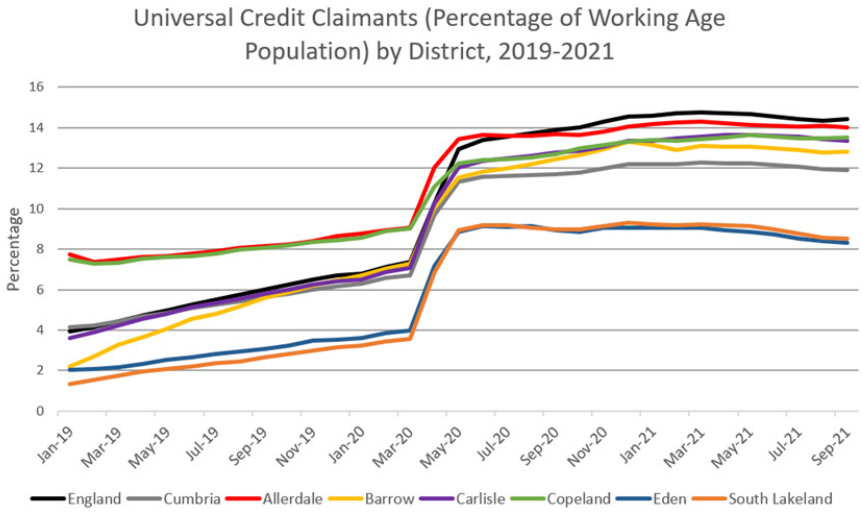

Figure 34: Percentage of working age population claiming universal credit, by district. This includes all universal credit claimants, including those in work[65].

Although many households experienced a reduction in income during lockdown, the risk of financial hardship was not equal across society. Lowest paid workers were 2.5 times more likely to experience a reduction in income when compared to the highest income quintile, as some of the hardest hit sectors (e.g. hospitality and leisure) were more likely to employ lower paid workers[66].

In response to the anticipated impact of COVID-19 on the local economy, the Cumbria Local Enterprise Partnership led the Business and Economic Response and Recovery Group (BERRG), with approximately 80 members. The group was tasked with assessing the economic implications of COVID-19, monitoring the effectiveness of mitigation measures, supporting businesses, and developing an economic recovery strategy. The Cumbria Local Enterprise Partnership has published the Restart Rethink Reboot plan for economic recovery, which highlights economic opportunities and plans for action.

[64] Cumbria County Council Economy Tracker
[65] Restart Reboot Rethink A Plan for Cumbria's Economic Recovery.
[66] Witteveen D. Sociodemographic inequality in exposure to COVID-19-induced economic hardship in the United Kingdom. Res Soc Stratif Mobil. 2020 Oct;69:100551.

4.9 Health Inequalities and COVID-19

Recent reports have highlighted the impact that the pandemic may have had on widening inequalities in society.

School closures have had a significant impact on children's education, with access to educational resources and time spent on learning varying by socioeconomic background[67]. A home learning survey found children eligible for the pupil premium were less likely to feel they understood their school work, were less likely to feel able to ask family or teachers for help, were less likely to establish a learning routine at home, and less likely to partake in regular exercise. These findings raise concerns that the fallout from COVID-19 may include widening of inequalities in educational attainment. School attendance by vulnerable groups of children including those with a social worker, and children with an Education, Health and Care Plan (EHCP), is lower than school attendance by other children. However, school attendance by these groups of children is higher in Cumbria compared to the national average for these groups.

Some reports suggest that women have been disproportionately affected by school closures during lockdowns. As parents found themselves juggling work and childcare, mothers were more likely than fathers to reduce their working hours or change their work schedule,[68] which may have hindered progress made towards gender equality in the workplace.

Concerning reports suggest that lockdown may have exacerbated domestic violence, with the charity Refuge receiving 65% more calls in April-June 2020 compared to the previous three months[69]. Cumbria Constabulary has seen an increase in the number of domestic violence safeguarding records from 14.8 per 1,000 population in 2019/20 to 15.3 per 1000 population in 2020/21. Increases were seen across the county, with the exception of Eden and South Lakeland (**Figure 35**). The rate of domestic violence safeguarding records was highest in Barrow-in-Furness, at 22.3 per 1,000 population.

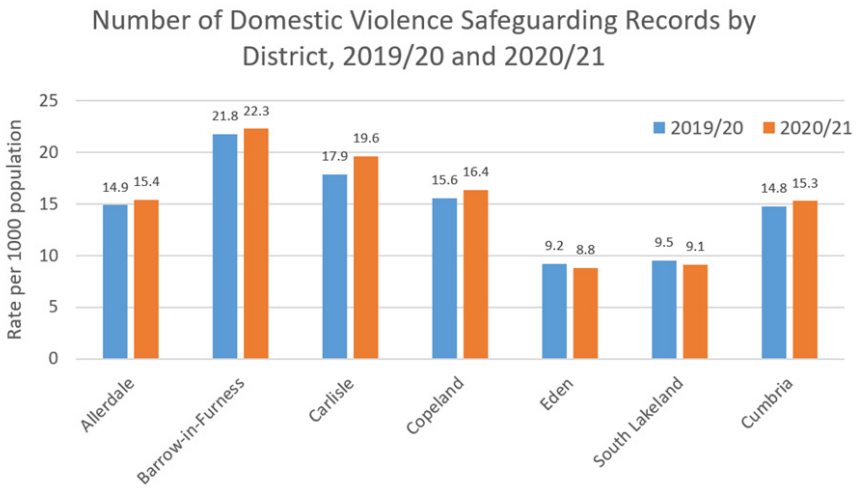

Figure 35: Number of Domestic Violence Safeguarding Records by District, Comparing 2019/20 to 2020/21. Source: Crime and Community Safety Strategic Assessment 2020/21

Nationally, non-white ethnic groups experienced significantly higher mortality due to COVID-19, even after taking into account differences in age, socioeconomic factors including keyworker status, and pre-existing health conditions[70]. The Black African ethnic group was most severely affected, with a hazard ratio of 2.51 (95% confidence interval 2.23 to 2.83) for males, and 2.06 (95% confidence interval 1.75 to 2.42) for females.

[67] Green F. Schoolwork in lockdown: new evidence on the epidemic of educational poverty [Internet]. 2020
[68] https://dx.plos.org/10.1371/journal.pone.0247959
[69] https://www.refuge.org.uk/wp-content/uploads/2021/03/Refuge-Covid-Service-Report.pdf
[70] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/deathsoccurring2marchto28july2020#age-standardised-rates-of-death-involving-covid-19-by-ethnic-group

5. Moving Towards Recovery after COVID-19

As we approach the end of 2021, COVID-19 cases continue to remain high, however the success of the COVID-19 vaccination programme has prevented a large increase in hospitalisations and mortality as was seen in the winter of 2020/21. We are moving towards a situation where COVID-19 is endemic, and will likely present ongoing challenges in the years to come, albeit less severe than has been experienced over the previous two years.

The COVID-19 pandemic has highlighted the impact that socioeconomic factors can have on health outcomes. Deprivation, ethnicity and employment type have all been associated with differential risks of COVID-19 infection and mortality. Additionally, we have witnessed widening of health inequalities during the pandemic and lockdown. Addressing inequalities by targeting support for communities most severely impacted by the pandemic will therefore play a vital part of the recovery process, as well as playing a key role in future pandemic preparedness. This will require collaborative working between Public Health, central and local government, the NHS, local businesses and employers, the third sector and community groups.

As we move to recover from COVID-19, the Public Health Recovery & Restart Plan has been developed to set out the initial prioritisation of work to be undertaken. Through the Recovery & Restart Plan, the ongoing response to COVID-19 will be supported, whilst also addressing the adverse impact that COVID-19 and control measures have had on physical and mental wellbeing, and tackling the root causes of health inequalities. This section will provide an overview of some areas that have will be prioritised under the Recovery & Restart Plan.

COVID-19 Response and Health Protection

The plan supports the ongoing response to COVID-19 that will be required in months and years to come, including building capacity for health protection and IPC team, and operating in collaboration with the NHS to plan and implement screening and immunisation programmes across the county.

Mental Wellbeing

The plan considers the impact that COVID-19 will have had on both children's and adult's mental wellbeing, and will have a dual purpose of establishing and developing both rapid and longer term support. In the short term, we will establish a programme of activity that can provide some rapid opportunities for mental wellbeing support in the context of Covid recovery. In the longer term, the plan will build a system of wellbeing support that is connected to wider education and early help services, as well as to the existing CAMHS and adult mental health care system as appropriate for those who need more formal clinical care.

Obesity

Obesity has been highlighted as a risk factor for severe illness and death due to COVID-19[71], and this risk factor is correlated with deprivation. The pandemic and lockdowns will have exacerbated this major risk factor, with surveys suggesting behavioural changes, including more frequent eating and reduced motivation and control around food, as well as reduced physical activity during lockdown, playing a role[72]. 2020/21 saw a sharp increase in obesity among children, with 14.4% of children entering reception obese in 2020/21 compared with 9.9% in the previous year. This rose to 20.3% of reception children from the most deprived areas, compared to 7.8% in the least deprived[73].

Support for nutrition, obesity and weight management will therefore play a key role in the recovery strategy. As part of this strategy, a community weight management service has been developed across the county, and will be operational from December 2021. The programme will accept self-referrals, as well as referrals from the wider health and social care system.

Physical Activity

Physical activity plays a vital role in maintaining general physical and mental wellbeing, as well as assisting with maintaining a healthy weight. Patients who were inactive in the two years prior to the pandemic were at a greater risk of hospitalisation, intensive care admission and death due to COVID-19[74]. The COVID-19 pandemic and lockdown measures have had a negative impact on physical activity levels across the country: The Active Lives Survey has revealed that during the first phase of the pandemic (March to May 2020), there were 3 million fewer active adults in England. Unfortunately, some of the groups with a higher risk of severe illness due to COVID-19, including those over 75, people with disabilities or long term health conditions, and those from minority ethnic backgrounds also experienced the most significant reductions in physical activity levels[75].

Additional funding will be used to increase capacity and enhance the services provided by Active Cumbria into targeted communities where the highest levels of health inequalities exist. Through the recruitment of additional project officers, Active Cumbria will work with communities to support the creation of ‘Active Estates’, ‘Active Towns’ or ‘Active Villages’ within priority locations. Active Cumbria will provide support and resources to these networks, such as through marketing, communication, and influencing skills, whilst following asset-based community development principles, building on the strengths in the community, ensuring that sustainability was at the heart of all projects.

[71] https://www.bmj.com/content/372/bmj.n411
[72] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7540284/
[73] https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year
[74] https://www.nature.com/articles/s41574-021-00521-1
[75] https://www.sportengland.org/news/impact-coronavirus-activity-levels-revealed

NHS Contribution to Lifestyle Change and Prevention

The health conditions responsible for the stark differences seen in premature mortality by area deprivation shown in Section 4.2 includes respiratory conditions, circulatory disease, cancer, and external causes of morbidity and mortality (which includes intentional self-harm and drug use). The prevalence of long-term conditions within these communities can be reduced by addressing social inequalities and reducing the prevalence of risk factors such as obesity, high alcohol consumption and tobacco use.

Work is therefore currently ongoing to support the NHS in addressing these risk factors at an individual patient level. For example, in Morecambe Bay, patients on waiting lists for elective surgery with risk factors for poor health outcomes, including smoking, physical inactivity, and obesity, will be offered access to enhanced smoking cessation and physical activity services, and can receive additional support and coaching delivered by volunteers. The emphasis will then be to move these interventions "upstream" into primary care, in order to allow earlier intervention and support in addressing these risk factors.

Across the nation, alcohol consumption by people who already drank heavily increased by 14.3% in 2020/21 from the previous year. Deaths due to alcoholic liver disease rose 20.8% between 2019 and 2020, compared to a 2.9% rise between 2018 and 2019, suggesting that increased alcohol consumption by at-risk individuals will have contributed to acute-on-chronic liver failure and a sharp rise in mortality[76]. Work is ongoing to develop the support network provided during and after alcohol related hospital admissions in Barrow-in-Furness, an area which experiences rates of hospital admissions due to alcohol significantly higher than the national average. By linking in with support services in the community, the aim is to reduce future alcohol-related repeat admissions.

Mobilising local government and the third sector around action on the wider determinants

Public health will provide leadership and engagement for the broader system-wide work being undertaken by Cumbria County Council on tackling poverty. The Cumbria Poverty and Financial Hardship Working Group brings together people with an interest in, or direct experience of, poverty and financial hardship along with agencies, and have developed the Poverty Framework. The group is working to[77]:

- Ensure that the immediate problems and future pinch points are identified
- Check that the measures and support proposed by Cumbria's partnerships to address these immediate problems are appropriate and adequate.
- Involve people affected by poverty in the development of the framework (in ways that work for them).
- Connect the work to tackle poverty that is taking place across Cumbria to allow sharing of good practice.
- Provide some ongoing challenge as the framework is implemented across organisations and the strategic partnerships and point out where it's not working on the ground.

Mobilising communities and individuals to take action on their own health and wellbeing

The remarkable response by community groups across Cumbria during the COVID-19 pandemic provided vital support for vulnerable members of the community and eased the unprecedented demand on statutory services. In Cumbria, this community response was actively supported and facilitated by County and District Councils, the NHS and established third sector organisations. Community resilience will continue to play a key role in COVID-19 recovery. We will work collaboratively to broaden the role from emergency COVID-19 support to wider community resilience and mutual support, embedding this for the longer term.

[76] https://www.gov.uk/government/publications/alcohol-consumption-and-harm-during-the-covid-19-pandemic/monitoring-alcohol-consumption-and-harm-during-the-covid-19-pandemic-summary
[77] Cumbria County Council. COVID-19: Health and Wellbeing Board – The Impact of COVID-19 on Inequalities.

6. Reflecting on the Previous Annual Report - Climate Change, Nature and Health 2019

Public Health Annual Reports usually reflect on progress made on the recommendations in the previous year's report. As 2020/21 has been such an exceptional time, it feels perhaps unreasonable to think that much progress would have been made on the detailed recommendations in the 2019 Public Health Annual Report, "Climate Change, Nature and Health", which laid out the stark impact that climate change may have on health in Cumbria, the importance of the environment for health and wellbeing, and the urgency of mitigating climate change by reducing or preventing greenhouse gas emissions. However in fact environmental concerns have also been at the forefront of public debate during this time, helped by the hosting of the international conference on climate change, COP26, in Glasgow in November 2021 – but also because lockdowns highlighted the environmental impact of the way society normally functions.

In overarching terms, the recommendations in the 2019 report emphasising the importance of prioritising "green growth" have very much been reflected in the Covid-19 Recovery Strategy, and it does indeed feel as if environmental issues are rising in priority across the County. The Zero Carbon Cumbria Partnership has begun rolling out a wide range of action focused on tackling climate change, including Citizens' Juries and carbon literacy training, which was specifically called for in the 2019 report. And the Director of Public Health has recently been appointed as the Chair of the Local Nature Partnership, with a remit to build the strategic role of that Partnership further including overseeing the implementation of the Local Nature Recovery Strategy.

The 2019 Annual Report highlighted the impact of air pollution on acute and chronic illness. This has become highly topical, as research around the world has described an association between air pollution and an increased risk of death from COVID-19[78]. Cumbria is fortunate to have good air quality, with lower levels of particulate air pollution than much of England[79]. However, there is no safe level of particulate air pollution exposure, and those from more deprived backgrounds are more likely to live in areas with higher levels of air pollution, contributing to health inequalities. In addition, there are pockets of particularly high levels of air pollution within Cumbria. A British Lung Foundation report using DEFRA models to estimate particulate pollution at NHS premises throughout the country found that some GP practices in Barrow-in-Furness were amongst the highest in the country in terms of fine particulate air pollution (PM2.5)[80].

Transport is a significant contributor to carbon emissions and air pollution, with transport (excluding motorway traffic) accounting for 0.9 MtCO2, approximately 28% of net production-based CO2 emissions in 2017. Domestic energy and industrial and commercial fuel use are the other major contributors. Driving related emissions for Cumbrian residents are approximately 20% higher than the UK average[81], which can potentially be explained by the county's rural geography.

[78] https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-pollution/
[79] https://fingertips.phe.org.uk/search/Mortality%20attributable%20to%20air%20pollution#page/0/gid/1/pat/6/par/E12000002/ati/102/iid/30101/age/230/sex/4/cid/4/tbm/1
[80] https://www.blf.org.uk/air-quality?cmp_id=1486843417&adg_id=63798229194&kwd=%2Bpollution%20%2Buk&device=c
[81] https://slacc.org.uk/wp-content/uploads/2020/06/Cumbria-Carbon-Baseline-Report-2019-200229-Final.pdf

Across the nation, motor vehicle use, and resulting carbon emissions, fell dramatically during the first half of 2020. In April 2020, car use nationally was estimated to range between 22-40% of that in the first week of February 2020[82]. The number of heavy goods vehicles on the roads also substantially reduced, to 60-75% of normal levels. This trend was also seen in Cumbria, with approximately 3 billion vehicle miles travelled on Cumbrian roads in 2020, compared with 4 billion vehicle miles in 2019 (**Figure 36**). Although private car use fell during lockdown, concerns about COVID-19 transmission has still left many people feeling safer travelling by car and more reluctant to use public transport[83].

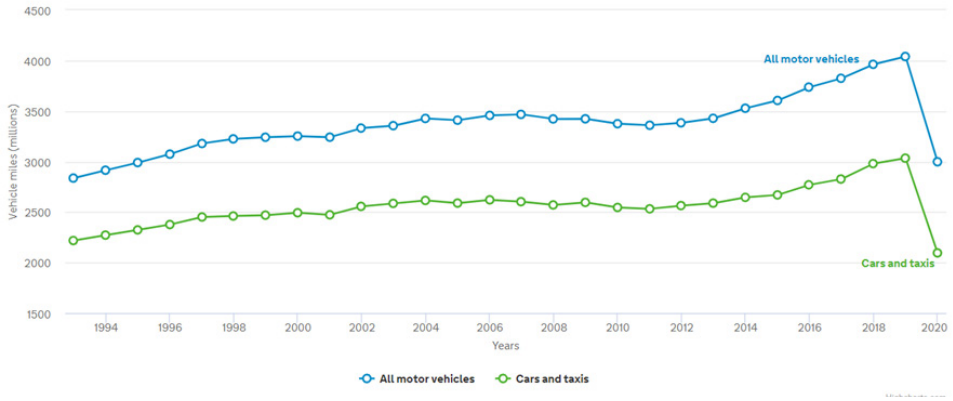

Figure 36: Annual Traffic in Cumbria in Vehicle Miles (millions)[84].

A major contributor to the reduction in road traffic were the home working practices rapidly implemented by employers in response to the national lockdown. The Chartered Institute of Personnel and Development estimate that 54% of employees were working from home during the pandemic, compared with 9% before the first lockdown was announced[85]. Many employers are preparing for continued home working arrangements, even after a return to normality after COVID-19. This seismic shift in working patterns in little over a year could not have been predicted when the previous annual report was prepared. As well as a reduction in transport related carbon emissions, for many employees, home working has offered more flexibility and leisure time due to hours saved from the commute[86]. However, the rapid introduction of home working practices has left many to do so in unsuitable conditions, with insufficient home office space and unsuitable furniture. A survey of homeworkers conducted by the Institute for Employment Studies found that more than half of respondents had newly developed back, shoulder or neck pain since working from home[87]. Although homeworking certainly leads to reduced transport related carbon emissions, it is not without environmental consequences. The Royal Institute of British Architects has warned of a housing emissions crisis, because substantially more homes are being heated throughout the day[88]. This will, however, in part be offset by the reduction in carbon emissions from offices and workplaces.

[82] https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic
[83] https://media.rac.co.uk/pressreleases/pandemic-makes-having-access-to-a-car-more-important-than-ever-3049233
[84] https://roadtraffic.dft.gov.uk/local-authorities/77
[85] https://www.cipd.co.uk/about/media/press/home-working-increases
[86] https://www.mdpi.com/1660-4601/18/4/1826/htm
[87] https://www.employment-studies.co.uk/resource/ies-working-home-wellbeing-survey
[88] https://www.architecture.com/-/media/GatherContent/Paywalled-resource-with-many-PDFs-VPC/Additional-Documents/GreenerHomespdf.pdf

The pandemic also saw people take to active forms of transport, with a 27% rise in bicycle sales in the UK in April to September 2020 compared with the previous year, and an estimated million additional cyclists on the roads[89]. Across Europe, cities adapted to become more pedestrian and cycle-friendly, such as with pop-up cycle lanes[90]. Cumbria received funding from the government's emergency active travel fund announced in May 2020, which was allocated to develop segregated cycleways and improved junctions and pedestrian crossings for roads in Barrow,[91] as well as providing grants to community groups promoting active travel[92]. Following easing of national lockdown restrictions, Cumbria County Council consulted residents about their views on how cycling and walking infrastructure can be improved in towns across Cumbria[93]. The responses will help inform Local Cycling and Walking Infrastructure Plans (LCWIPs), with the hope of facilitating continued uptake of active means of transport. Not only does active transport reduce air pollution and carbon emissions, it provides a form of exercise and is an important tool for maintaining a healthy lifestyle and weight.

Evidence demonstrates that obesity increases the risk of serious illness or death from COVID-19 infection[94]. In 2019/2020, 60.9% of adults in Cumbria were overweight or obese, lower than the national prevalence of 62.8%. This important risk factor is correlated with deprivation, and significant differences exist within the county, with 73.2% of adults in Barrow overweight or obese, compared with 49.2% in South Lakeland[95]. This may have contributed to the unequal impact that COVID-19 has had on communities within Cumbria.

The global tourism industry was hit heavily by the pandemic, and at the end of 2020, commercial flights remained significantly below pre-pandemic levels[96]. However, among those cancelling overseas holidays in 2020, Cumbria was one of the most popular "staycation" destinations. The 2019 annual report highlighted the importance of sustainable tourism in Cumbria, and this is now more pertinent than ever. Tourism will be vital in Cumbria's recovery from COVID-19, and sustainable tourism will work to limit the health impacts from traffic congestion and air pollution, as well as to limit damage to the natural environment.

[89] https://www.bicycleassociation.org.uk/news-press/official-industry-stats-reveal-record-extent-of-covid-cycling-sales-growth/
[90] Belesova K, Heymann D, Haines A. Integrating climate action for health into covid-19 recovery plans. BMJ 2020;370:m3169
[91] https://www.cumbria.gov.uk/planning-environment/cyclingandwalking/default.asp
[92] https://www.yourcumbria.org/News/2021/grantsboostforactivetravelbarrow.aspx
[93] https://www.cumbria.gov.uk/planning-environment/cyclingandwalking/default.asp
[94] https://www.bmj.com/content/372/bmj.n411
[95] https://fingertips.phe.org.uk/search/overweight#page/4/gid/1/pat/6/ati/401/are/E07000031/iid/93088/age/168/sex/4/cat/-1/ctp/-1/cid/4/tbm/1/page-options/car-do-0
[96] https://www.bbc.co.uk/news/business-51706225

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