

**Insights and Intelligence on COVID-19 and Vulnerable Customers
in the Northern Gas Networks Area**

Report by Les Newby and Nicky Denison

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Executive Summary

This report provides data and insights on the impact of the Covid-19 pandemic on Northern Gas Networks (NGN) customers with vulnerabilities and challenges, and builds on a previous review in spring 2019 on the proportion of the population classified as 'vulnerable' in a range of ways.

In terms of the current spread of Covid-19, it shows that:

- The NGN area has had a slightly higher concentration of Covid-19 cases than England overall – 12.6% of Covid-19 cases nationally compared to the 11.9% it would expect based on population.
- Five areas in the NGN area are in the ten worst affected upper tier local authority areas in England in terms of cases per 100,000 population - Sunderland, Gateshead, South Tyneside, Middlesbrough and Cumbria. Areas in Yorkshire mostly have below average case levels. Deaths from Covid-19 largely mirror this pattern, with Middlesbrough, Sunderland and Gateshead all having over 100 deaths per 100,000 people.
- There were approximately 4,760 deaths in the NGN area (71 per 100,000 residents) up to 15 May 2020. This is 15.5% of Covid-19 deaths in England, almost a third higher than would be expected if deaths were evenly spread. It exceeds the proportion of cases in the NGN area and suggests greater vulnerability factors here which make death from Covid-19 more likely for those infected.

Our analysis has assessed risks and impacts around 20 vulnerability factors, grouped under six headings. The body of the report includes sections on data, available evidence, expected impacts and how the numbers affected may change for each of these, and the conclusions are set out below:

Age

Factor/Group	Conclusion
Older people	Older people, especially those with underlying health conditions, have greatly increased vulnerability. Many will also face increased socio-economic vulnerabilities. They should be a very high priority group in terms of response.
Young people	Young people will be the least affected by the health impacts of Covid-19 but may be among the worst affected socio-economically, e.g. in terms of unemployment in the short-term and the impact of long-term national debt.

Physical Health

Factor/Group	Conclusion
Disability	Health and wellbeing impacts on people with disabilities are likely to be significant and multiple and may endure if the systems of health, care and support do not return to normal for some time or cease to operate.
Serious underlying health conditions	The presence of pre-existing conditions in Covid-19 cases and deaths is overwhelming and is a clear indicator of the much higher vulnerability of people with these conditions.
Lifestyle related risk factors	Obesity is a major covid-19 risk factor. More widely, the pandemic is influencing people's lifestyle choices and behaviours, not always positively. For many, negative changes may be a 'blip', but for those already struggling (e.g. with alcohol/drug problems) there could be significant impacts.

Mental Health

Factor/Group	Conclusion
Depression, anxiety and loneliness	The mental health and wellbeing of whole societies have been severely impacted by this crisis, but impacts are uneven and tilted towards those already experiencing disadvantage. They are a priority to address urgently.
Learning disabilities	This is a highly vulnerable cohort both in terms of increased mortality and in the health, wellbeing and socio-economic ramifications of the pandemic and should be treated as a high priority group.
Dementia	People living with dementia and Alzheimer's disease are amongst the worst affected by the pandemic, with their risk compounded by multiple factors, and with impacts extending to those caring for them.

Geography, Rurality & Access

Factor/Group	Conclusion
Urban and rural environments	In general, urban areas have been hardest hit by Covid-19 impacts due to a mix of socio-economic and physical environment based factors. Rural areas with high dependency on tourism will also be impacted.
Access to services (including digital)	The main access related impacts relate to difficulties faced by those with poor digital access, often in rural and disadvantaged areas.

Financial and Economic

Factor/Group	Conclusion
Unemployment and benefits	Unemployment and benefits claims will rise during 2020 and may remain high for some time. Impacts will be amplified in places and groups that are already more deprived, and could hit those 'just about managing' previously.
Self-employment & small businesses	Impacts on most self-employed people have been ameliorated by support. However, there are likely to be impacts on them and small businesses when support schemes end, given the likelihood of recession.
Wages, low pay and inequality	Those on low wages will be among the groups hit hardest by Covid-19 in health and economic terms and inequalities are likely to increase.
Debt	Despite reductions in personal debt for some, debt is likely to become a major problem for many who suffer loss of employment or income.
Homelessness and housing (including fuel poverty)	Covid-19 has impacted disproportionately on those in poor and overcrowded housing, while fuel poverty may worsen in the future due to economic impacts. Rough sleepers have benefited from support in the short term, but how long this position will last is uncertain.

Other vulnerability factors

Factor/Group	Conclusion
Ethnicity	BAME communities have a raised risk of being exposed to and dying from Covid-19. The reasons for this are not yet clear and are likely to at least partially reflect wider socio-economic and health differences and inequalities, which themselves will be an area of increased focus.

Refugees and asylum seekers	Many refugees and asylum seekers will have suffered hardship from Covid-19 impacts, linked to difficulties in accessing support during the lockdown as well as exposure to health and wellbeing risks.
Sex and Gender	The main impact is a significantly greater risk of death for men than women, especially for older men with underlying health problems. Additionally, there is a heightened risk of job losses for young women.
Domestic violence and relationship breakdown	Many experiencing domestic violence are suffering more as a result of Covid-19, as perpetrators use the situation to exert greater control and abuse, and with victims having no escape from abusers during lockdown quarantine and facing difficulties in accessing support and safe haven.
Carers	This is an isolated and vulnerable group who in the context of Covid-19 are seeing significant additional pressures that impact on their personal, economic and social health and wellbeing.

Across these headings, some of the most marked and extensive impacts include:

- **Physical health impacts** and much greater risk of death from Covid-19, most starkly for those in the oldest age groups and with underlying health conditions
- **Mental health and wellbeing impacts** which are unevenly skewed towards the most deprived areas and are impacting on those who already struggle or are at higher risk
- **Economic impacts** in terms of business closures and loss of employment and incomes, especially for the low paid and young people, and extending to those who have been ‘just about managing’
- **Difficulty in accessing services and support** for those without digital connectivity, and for at-risk groups who rely on support, such as refugees, asylum seekers, and those facing domestic abuse

Other **conclusions** are that:

- **The most severe impacts are for those with multiple risk factors or vulnerabilities.** In terms of risk of death, this is greatest for older people (especially males) with serious underlying health conditions and exacerbated further for those in dense urban areas and overcrowded housing.
- **Those with severe health risks who are shielding face multiple difficulties.** Besides the health conditions that put them at risk, they contend with isolation and challenges in accessing services.
- **There is a clear pattern of different vulnerability factors being concentrated in the same areas,** most strikingly in the North East but also in parts of West Yorkshire. Many of the same places, notably in the Wear patch and Middlesbrough, are also the most badly afflicted by Covid-19.
- **Covid-19 impacts extend beyond vulnerable people to the organisations who support them.** Many groups and charities have been unable to provide their usual services, including hospices, domestic violence refuges and food banks, and financial pressures are threatening their viability. Likewise care homes have been at the sharp end of the crisis and schools are facing challenges.
- **Potential responses to Covid-19 impacts on vulnerable groups are wide ranging** and likely to include those that are about operational practices, communication to customers, action on fuel poverty, and help for vulnerable customers and the groups who support them.

1. Introduction and Methodology

“Whilst this disease affects everybody, it really, really affects the most vulnerable populations.”

Melinda Gates, Bill & Melinda Gates Foundation (BBC Radio 5 Live, 16/04/2020)

This report provides data, insights and intelligence on the impact of the Covid-19 pandemic on Northern Gas Networks (NGN) customers with vulnerabilities and challenges. It looks at the ways in which Covid-19 is likely to impact on these customers and considers how the numbers facing relevant vulnerabilities or in high risk groups may change. It is intended to help inform NGN’s response in relation to these customers and groups, and its vulnerability strategy more widely.

The report builds on a previous Les Newby Associates data review for NGN in spring 2019 on the proportion of the population within its area classified as ‘vulnerable’ in a range of ways. Data limitations and time lags mean that the data available in spring 2020 does not cover the period in which the UK has been affected by Covid-19. Hence, this report instead focuses on intelligence and insights about potential and likely impacts on vulnerable customers, based on evidence about how the disease is impacting on different groups and consideration of future impacts.

In line with NGN’s approach to customers in vulnerable groups, and also the nature of Covid-19 risks and impacts, the review covers six broad headings and a range of specific factors under each.

Table 1: Vulnerability Factors Considered

Vulnerability Heading	Factors Considered
Age	Impacts on older people and ageing population
	Impacts on young people
Physical Health	Disability
	People with serious underlying health conditions
	Lifestyle related risk factors (e.g. obesity, smoking)
Mental Health	Depression, anxiety and loneliness
	Learning disabilities; and children with special educational needs (including autism)
	Dementia
Geography, Rurality & Access	Prevalence and impact in urban and rural environments
	Access to services (including digital)
Financial and Economic	Unemployment, benefits and redundancy
	Self-employment and small businesses
	Wages, low pay and inequality
	Debt
	Homelessness and housing related issues (including fuel poverty)
Other (including temporary)	Ethnicity and related factors
	Refugees
	Sex and Gender
	Domestic violence and relationship breakdown
	Carers

For the factors under each of the six headings, the report:

- i)** Briefly restates and reviews the data position about the prevalence of that vulnerability and its variation across the NGN area (with reference to the previous 2019 data report).
- ii)** Summarises key evidence about the known or likely impact of the Covid-19 pandemic (direct or otherwise) on the vulnerability factor or groups under consideration.
- iii)** Discusses how those with the relevant vulnerability are likely to be affected now and in the future, building on or going beyond the available evidence. This includes consideration of the nature of direct and indirect impacts and cross-linkages with other vulnerabilities and types of impacts.
- iv)** Considers whether the number of people affected by the relevant vulnerability (as covered in the previous report) is likely to change in the future because of Covid-19.
- v)** Sets out overall conclusions on that vulnerability factor.

The report concludes with brief discussion of overall points coming out of the analysis in the round, including consideration of impacts upon groups and institutions supporting vulnerable communities (e.g. in the third sector) who may themselves be impacted by Covid-19.

To provide context for the core of the report on vulnerability factors, we first present basic data on the impact of Covid-19 in terms of cases and deaths and the concentration of these in local authority areas across the NGN patch. This shows how the prevalence of Covid-19 varies by area. Combining this with information about the concentration of customers with particular vulnerabilities and how this may change should provide a foundation for assessing needs and potential responses across geographies.

2. Covid-19 Cases and Deaths Across the NGN Area

Table 2 shows the number of Covid-19 cases in total and the concentration of these (cases per 100,000 resident population) for all local authority areas within the NGN patch. It also shows deaths from Covid-19 in total and per capita for upper tier local authorities (comparable data was unavailable at district level at the time of writing). This provides a snapshot based on the data available in late May 2020. It should be noted that trends across geography may change over time – especially if there is a second peak in infections. The data is useful in showing how badly affected different local areas are compared to the England average, and the pattern it reveals appears to be remaining broadly consistent moving into mid-June 2020.

Data is grouped by the nine patches within the NGN area, but patch totals and averages are only shown for cases (rather than deaths) due to the lack of data on the latter at district level – which impacts on any patches containing districts within the North Yorkshire County Council and Cumbria County Council areas. The Barnsley and Doncaster local authority areas in South Yorkshire are excluded from the table as only part of those local authorities are in the NGN area.

Data sources and notes used in Table 2 are:

- Population data is 2019 mid-year estimates from ONS (published in 2020)
- Cases data is for 25/5/2020 (as updated on 26/5/20)¹
- Deaths data is for up to 15 May 2020 (the latest available at local level on 26/5/2020), and covers death registrations where COVID-19 was mentioned on the death certificate (source: ONS, NRS and NISRA)²

¹ <https://coronavirus.data.gov.uk/#category=ltlas&map=rate>

² <https://www.bbc.co.uk/news/uk-51768274.co.uk>

Table 2: Covid-19 cases and deaths in local authority areas within the NGN area

Local Authority	Population	Covid-19 cases	Cases per 100,000	Covid-19 Deaths (up to 15 May)	Deaths per 100,000
Leeds Patch	793,139	1,802	228	574	72
Leeds	793,139	1,802	228	574	72
Bradford Patch	596,918	1,420	238		
Bradford	539,776	1,280	238	378	70
Craven	57,142	140	246		
Pennine Patch	651,242	1,025	157		
Calderdale	211,455	291	139	101	48
Kirklees	439,787	734	167	252	57
East Riding Patch	1,039,883	2,442	235		
Wakefield	348,312	728	211	250	72
Hull	259,778	695	267	120	46
East Riding	341,173	884	260	209	61
Selby	90,620	135	152		
North Riding Patch	535,586	1,115	208		
York	210,618	447	213	131	62
Scarborough	108,757	305	281		
Harrogate	160,831	285	178		
Ryedale	55,380	78	142		
Wear Patch	1,160,830	5,066	436		
County Durham	530,094	1,960	372	516	97
Gateshead	202,055	998	493	205	101
South Tyneside	150,976	736	490	119	79
Sunderland	277,705	1,372	495	298	107
North Tyne Patch	833,167	2,538	305		
Newcastle-upon-Tyne	302,820	1,043	347	183	60
North Tyneside	207,913	566	275	128	62
Northumberland	322,434	929	290	210	65
Tees Patch	821,268	2,653	323		
Middlesbrough	140,980	667	475	176	125
Darlington	106,803	368	345	68	64
Hartlepool	93,663	321	344	86	92
Redcar and Cleveland	137,150	406	297	86	63
Stockton-on-Tees	197,348	562	285	92	47
Hambleton	91,594	200	220		
Richmondshire	53,730	129	242		
Cumbria Patch	259,692	842	324		
Allerdale	97,761	248	254		
Carlisle	108,678	492	454		
Eden	53,253	102	193		
NGN Area total	6,691,725	18,903	282	4,760³	71
National Total (England)	56,286,961	149,802	266	30,753 ⁴	55
NGN as a % of national total	11.9%	12.6%		15.5%	

³ Estimated based on upper tier local authority and relevant county council area data (not shown in the table, method is overleaf)

⁴<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/articles/comparisonofweeklydeathoccurrencesinenglandandwales/uptoweekending22may2020> (data is for daily death count released by Gov.UK counting the total number of deaths reported to them among patients who had tested positive for COVID-19, regardless of place of death)

Key points to draw from the table are that:

- Overall, the NGN area has had a slightly higher concentration of Covid-19 cases than England overall. It had 12.6% of Covid-19 cases nationally compared to the 11.9% it would expect based on population.
- Within the NGN area, the incidence of Covid-19 cases has varied markedly by local area. The worst affected areas are mostly in the North East, in particular in all areas of the Wear patch (e.g. Sunderland) and in Middlesbrough, and cases are also high in Carlisle in Cumbria. The remainder of North East areas, i.e. the Tees and North Tyne patches, have above average case numbers, but less markedly so.
- Of the upper tier local authority areas within (or mostly in) the NGN area, five are in the worst affected ten upper tier local authority areas in England in terms of cases per 100,000 population. These are Sunderland (1), Gateshead (2), South Tyneside (3), Middlesbrough (4) and Cumbria (9) – with the number in brackets for each showing their rank order position for Covid-19 concentration in England.
- With the exception of Barnsley (373 cases per 100,000), areas in Yorkshire wholly or partially within the NGN area have been less badly affected and are nearly all below national average for cases per 100,000 population, most notably in the Pennine patch as well as in Selby, Ryedale and Harrogate, where rates are between a half and two thirds of average. Eden (in Cumbria) also has a low concentration of cases.
- The highest number of Covid-19 deaths had been in Leeds (574), Bradford (378) and County Durham (372) as of 15 May 2020. However, these numbers reflect the large populations of these areas. In terms of concentration of deaths, the areas worst affected largely mirror the pattern for cases, with Middlesbrough, Sunderland and Gateshead all being particularly badly hit and having over 100 deaths per 100,000 resident population, i.e. over one in a thousand people.
- Deaths in the Cumbria County area – 52% of which is in the NGN area – are also high and total 459, which equates to 92 per 100,000 resident population. However, based on case rates, there is considerable variation within Cumbria, with death rates in Carlisle likely to be above this level, while rates in Eden and Allerdale will be lower. Death rates in NGN areas within Yorkshire and the North Tyne patch are also somewhat lower, and typically in the region of 50-70 people per 100,000 population.
- Taking into account the local area deaths figures in the table, plus those in relevant county council areas within the NGN area,⁵ the total number of deaths in the NGN area was approximately 4,760. This equates to 71 per 100,000 residents, compared to an England average of approximately 55 per 100,000 (based on 30,753 deaths in England up to 15 May 2020).
- The NGN area accounts for approximately 15.5% of Covid-19 deaths in England but has only 11.9% of the population. This figure is nearly a third higher than would be expected if deaths were evenly spread across England and exceeds the 12.6% of cases in the NGN area. While the data behind this involves multiple sources and complexity and would benefit from independent confirmation, this suggests greater vulnerability factors in the NGN area, such as underlying health conditions, lifestyle factors that affect health, and poverty and deprivation, which make death from Covid-19 more likely for those infected.

⁵ 404 deaths in North Yorkshire, plus an estimated 38% of the 459 deaths in Cumbria, where three of the six districts, covering 52% of the population, are in the NGN area. The number of deaths estimate for the NGN area in Cumbria is based on applying the proportion of cases that are in the NGN area of Cumbria.

Covid-19 Evidence and Impacts on Vulnerability Factors

3. Age

3.1 Older people	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous research showed that 1.28 million people in NGN's area were aged 65+, while 161,000 were aged 85+, equivalent to 2.4% of the population and about the same proportion as nationally. That percentage is typically higher (3-4%) in more rural areas such as in parts of North Yorkshire, Cumbria and the East Riding of Yorkshire.
Evidence	<ul style="list-style-type: none"> Risk of death from Covid-19 increases substantially with age. In the UK, there have been 8.4 deaths per 100,000 people for those aged under-65, compared to 286 deaths per 100,000 amongst those aged 65+ - a rate that is 34 times higher than in the working age population.⁶ Data from China on the death rate for those infected with the virus is less than 0.5% for those aged under 50, but rises to 3.6% for those aged 60-69, 8% for those aged 70-79, and 14.8% for those aged 80+.⁷ Other factors including pre-existing medical conditions also have a major impact, so risks within an age group will vary according to this and other factors such as sex.
Expected or potential impacts	<ul style="list-style-type: none"> Clearly the most obvious impact is the risk of death to older people, especially above age 70. Risks of hospitalisation and after-effects from the disease are also greater for older people. This makes older people a key vulnerable group, especially given that a higher proportion of older people are likely to be 'shielding'. The vulnerability of this group is amplified by other factors such as lower digital access and awareness, and higher dependency on public transport – which many in this group will be seeking to avoid using. Other impacts affecting older people are likely to include isolation and loneliness, bereavement and limited access to services.
Future changes in numbers affected	<ul style="list-style-type: none"> Excess deaths amongst older people directly or indirectly due to Covid-19 mean that there is likely to be some reduction in the proportion of the population in the most elderly groups. For example, if there were 25,000 excess deaths amongst people aged 85+ in England, that would be just under 2% of the people in that age band.
Conclusion	<ul style="list-style-type: none"> Older people, especially in their 70s and above or with underlying health conditions, have greatly increased physical vulnerability. Many will also face increased social and economic vulnerabilities, and they should be a very high priority group in terms of response.

⁶ ONS data reported in <https://www.theguardian.com/uk-news/2020/may/13/pensioners-34-times-more-likely-to-die-of-covid-19-than-working-age-brits-data-shows> (accessed 30/05/2020)

⁷ <https://www.businessinsider.com/coronavirus-death-age-older-people-higher-risk-2020-2?r=US&IR=T>

3.2 Young people	
Baseline data - numbers affected	<ul style="list-style-type: none"> Data on the population of young people was not collated in the previous report, however, based on the latest available data, there are 1.25 million children aged 0-15 (18.6% of the population) and 827,000 young people aged 15-24 (12.3% of the population) in the NGN area.⁸ The proportion of young people is slightly higher than in England overall (11.8%). It is highest in university cities such as Newcastle (20.2%), York (17.9%) and Leeds (16.0%) and lower in more rural areas and districts without large cities, where the proportion is typically 9-10%.
Evidence	<ul style="list-style-type: none"> Children and young people without underlying health conditions typically have very low risk from Covid-19 - 0.01% of UK deaths have been people under 15,⁹ while, in China, those aged 10-29 had a 0.2% risk of death from Covid-19.¹⁰ A Resolution Foundation report¹¹ predicts that youth unemployment could rise by 640,000 in 2020 on top of 408,000 now. Around a quarter of 18 to 24-year-olds have been furloughed and a further 9% have lost their jobs - the most of any age group. School leavers are hard hit by recessions and many school leavers and graduates find their first job in the sectors hardest hit by lockdown such as hospitality and retail. The research also notes the risk that apprenticeships could 'dry up'. Research shows that lockdown and public health measures are having a profound effect on many young people with a history of mental health problems - 51% said the pandemic had made their mental health a bit worse and 32% said it had become much worse.¹²
Expected or potential impacts	<ul style="list-style-type: none"> The main impacts on children and young people are likely to include short and medium-term employment and economic prospects now and in the future, especially for those leaving education this year. As well as major impacts on those with mental health problems, for example related to increasing isolation and anxiety, there will be big social impacts for children through lack of social interaction, school and play, the long term effects of which are unknown. Child poverty may increase as unemployment and low wages hit more parents and inequalities and disadvantage increase. There are also heightened risks around children and neglect/domestic abuse.
Future changes in numbers affected	<ul style="list-style-type: none"> Covid-19 is not expected to have a significant impact on the number of young people, but this group could increase slightly as a percentage of the overall population given higher mortality rates among older people.
Conclusion	<ul style="list-style-type: none"> Young people will be the least affected by the health impacts of Covid-19 but may be among the worst affected socio-economically, e.g. in terms of unemployment in the short-term and long-term national debt.

⁸ Figure excludes Barnsley and Doncaster. Data is ONS mid-year estimate for 2018, accessed on 01/06/2020 from: <https://www.nomisweb.co.uk/query/construct/submit.asp?menuopt=201&subcomp=>

⁹ <https://www.bbc.co.uk/news/health-52003804> (accessed 01/06/2020)

¹⁰ <https://www.businessinsider.com/coronavirus-death-age-older-people-higher-risk-2020-2?r=US&IR=T>

¹¹ Kathleen Henehan, Class of 2020: Education leavers in the current crisis, Resolution Foundation briefing, May 2020

¹² https://youngminds.org.uk/media/3708/coronavirus-report_march2020.pdf (accessed 01/06/2020)

4. Physical Health

4.1 Physical disability	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report showed that incidence of physical disabilities such as hearing loss (affecting 17.6% of those in the NGN area), being blind or partially sighted (17.6%), or of having a long term health problem or disability (9.5%) were all slightly higher than England averages. Local data has only been updated on visual impairment (up to 2017).
Evidence	<ul style="list-style-type: none"> People with disabilities face higher risk of contracting the virus¹³ via factors such as living in institutional settings; barriers to implementing hygiene measures; difficulty social distancing due to support needs; the need to touch things to obtain information or for physical support; and barriers to accessing public health information and health care. There is also greater risk of developing a more severe infection and of mortality given greater, often complex and intertwined, existing health requirements such as lung and heart disease, diabetes and obesity. More disabled adults say they are “very worried” about the effects of Covid-19 on their lives than non-disabled adults (45.1% v 30.2%); and two-thirds say Covid-19-related concerns are affecting their wellbeing.¹⁴ Disabled adults are also significantly more likely than non-disabled adults to report spending too much time alone (35.0% v 19.9%).
Expected or potential impacts	<ul style="list-style-type: none"> Existing inequalities faced by people with disabilities (e.g. on income, jobs and education) are being compounded by the socio-economic consequences of Covid-19 and measures to control the pandemic. People with disabilities are seeing financial impacts arising from additional costs related to Covid-19, e.g. extra heating while at home more, and using taxis over public transport, but are not receiving additional benefits or support to manage this. Essential support services in the community are at risk in terms of their continued existence and in how they will operate whilst also containing the spread of the virus. For disabled people who rely on these services, there are big impacts on physical and mental health and wellbeing, which are compounded by concerns on social isolation and exclusion.
Future changes in numbers affected	<ul style="list-style-type: none"> Excess deaths directly or indirectly due to Covid-19 amongst some groups of disabled people mean that there is likely to be some reduction in the proportion of the population with such vulnerabilities.
Conclusion	<ul style="list-style-type: none"> Health and wellbeing impacts on disabled people are likely to be significant and multiple and may endure if the systems of health, care and support do not return to normal for some time or cease to operate.

¹³ https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2020/05/sg_policy_brief_on_persons_with_disabilities_final.pdf (accessed 04/06/2020)

¹⁴ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/articles/coronavirusandthesocialimpactsondisabledpeopleingreatbritain/2020-04-24> (accessed 04/06/2020)

4.2 People with serious underlying health conditions	
Baseline data - numbers affected	<ul style="list-style-type: none"> • The previous report included data on the proportion of people describing themselves as having ‘very bad health’. This was 1.4% in the NGN area, compared to 1.2% in England, and was highest in urban areas with high deprivation such as Sunderland (2.0%), Gateshead (1.9%), South Tyneside (1.9%) and Barrow-in-Furness (1.8%). It dropped to around a half of this in more rural and prosperous areas. The pattern mirrors the incidence of Covid-19 cases. No data update is available. • The report also contained data on hypertension, which 1.04 million people in the NGN area suffer from (15%), rising to 17%+ in East Riding, Northumberland and Hartlepool. Data update for 2018/19 is available. • Local Public Health Profiles include data on mortality rate from cancer and cardiovascular diseases (but not the numbers affected).
Evidence	<ul style="list-style-type: none"> • 90% of deaths involving Covid-19 occur in people with pre-existing conditions (including heart/kidney/respiratory disease or diabetes; see 5.3 regarding dementia and Alzheimer’s) which lead to weaker immune systems and reduced ability to fight infection.¹⁵ Reports, and the timing of them, differ as to what is the most common of these in deaths. • One in four people who died in hospital between 31 March and 12 May suffered from either type 1 or type 2 diabetes. This proportion was higher in all BAME groups than for the white British population. Diabetes was also more likely to be mentioned on the death certificate in more deprived areas. The same ethnic disparities have been seen for hypertensive disease.¹⁶
Expected or potential impacts	<ul style="list-style-type: none"> • The most immediate impacts are higher death rates for identified conditions, in certain groups and in more urban and deprived areas. • There are likely to be additional risks to, and impacts on, deterioration in the health of those living with pre-existing conditions arising from a backlog of postponed procedures/surgery. • Economic impacts may arise as the lockdown eases, with questions over how to return to work for those with pre-existing conditions or who need extended shielding. This presents real concerns around financial stability, particularly for those who are already ‘just about managing’. • There are societal considerations here too about how these people can be supported in their communities as their neighbours are perceived to be ‘getting back to normal’.
Future changes in numbers affected	<ul style="list-style-type: none"> • Excess deaths directly or indirectly due to pre-existing conditions mean that there is likely to be some reduction in the proportion of the population with such vulnerabilities.
Conclusion	<ul style="list-style-type: none"> • The presence of pre-existing conditions in Covid-19 cases and deaths is overwhelming and is a clear indicator of the much higher vulnerability of people with these conditions.

¹⁵ <https://www.kingsfund.org.uk/publications/deaths-covid-19> (accessed 01/06/2020)

¹⁶ <https://www.theguardian.com/world/2020/may/14/one-in-four-people-who-died-in-uk-hospitals-with-covid-19-had-diabetes> (accessed 05/06/2020)

4.3 Lifestyle related risk factors (e.g. obesity, smoking, substance abuse)	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not cover these factors, but data is available via public health profiles on indicators such as smoking prevalence, obesity, physical activity and hospital admissions for alcohol related conditions.
Evidence	<ul style="list-style-type: none"> There has been speculation globally that tobacco or nicotine could <i>reduce</i> the risk of Covid-19.¹⁷ The WHO has urged caution as there is currently insufficient information to confirm any link. Tobacco kills 8 million people a year globally and smokers are at higher risk of developing severe disease and death including from impaired lung function, cardiovascular disease, cancer, respiratory disease and diabetes – all conditions linked to higher Covid-19 risk and impact.¹⁸ Obesity affects 30% of UK adults and is known to increase the risk of Covid-19 pre-existing conditions. In a study of 17,000 UK hospital patients with Covid-19, those who were obese (BMI 30+) had a 33% greater risk of death; another study has found a doubling of the risk of dying, higher still if other linked conditions are taken into account.^{19 20 21} Global data backs this up –73% of critically ill patients with Covid-19 in Italy, Spain, Sweden, Switzerland and the Netherlands are obese.²² Experts warn of the rise in problematic drug and alcohol use triggered by lockdown, shocks to economic and social circumstances and resulting increased anxiety. They also point to people with substance addiction facing compounding factors that make them more vulnerable and can lead to more severe cases or death, e.g. presence of serious mental and physical health issues, homelessness or poor living conditions.
Expected or potential Impacts	<ul style="list-style-type: none"> Measures to tackle the pandemic are impacting on those already struggling and further affecting their ability to make healthy life choices. Contributing factors include disruption to treatment and services, social isolation, limited access to green space and exercise facilities, pressure from new caring arrangements, and changes to work arrangements. Financial worries may also be a trigger. For obesity, this includes issues such as increased reliance on processed food over fresh fruit and vegetables. Set against this, more people may be keen to take exercise.
Future changes in numbers affected	<ul style="list-style-type: none"> There may be some reduction in numbers who are obese given the high prevalence of obesity in severe Covid-19 cases, and that knowledge of this risk could be a spur for some to become fitter and lose weight.
Conclusion	<ul style="list-style-type: none"> Obesity is a major covid-19 risk factor. More widely, the pandemic is influencing people’s lifestyle choices and behaviours. For many, any negative changes may just be a ‘blip’, but for those already struggling (e.g. with alcohol/drug problems) it can have significant impacts.

¹⁷ <https://www.newscientist.com/article/2243944-smoking-probably-puts-you-at-greater-risk-of-coronavirus-not-less/> (accessed 07/06/2020)

¹⁸ <https://www.who.int/news-room/detail/11-05-2020-who-statement-tobacco-use-and-covid-19> (accessed 07/06/2020)

¹⁹ <https://www.bbc.co.uk/news/health-52561757> (accessed 07/06/2020)

²⁰ <https://www.medrxiv.org/content/10.1101/2020.04.23.20076042v1> (accessed 07/06/2020)

²¹ <https://www.medrxiv.org/content/10.1101/2020.05.06.20092999v1> (accessed 07/06/2020)

²² <https://www.theguardian.com/world/2020/jun/03/obesity-and-coronavirus-how-can-a-higher-bmi-increase-your-risk> (accessed 07/06/2020)

5. Mental Health

Under this heading we consider the impact of Covid-19 on mental health (e.g. will it contribute to an increasing incidence of certain conditions) as well as how those with certain conditions may be impacted.

5.1 Depression, anxiety and loneliness	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report included data on the incidence of depression, which affected 591,000 people in the NGN area (10.5%) compared to 9.9% in England. Levels were highest in Stockton-on-Tees (13.6%), Calderdale (12.8%), Redcar and Cleveland (12.3%) and the Cumbria patch (11.9%). Data update for 2018/19 is available but only for CCG areas.
Evidence	<ul style="list-style-type: none"> Experts believe that Covid-19 and measures put in place to stop the spread will amplify mental health issues, including elevated levels of stress, anxiety, loneliness, depression, harmful alcohol and drug use, and self-harm or suicidal behaviour.²³ Evidence from SARS and MERS epidemics show that, whilst hard to attribute directly to the infection, people are more likely in the following months to report depression, anxiety and post-traumatic stress (PTSD), especially if they have experienced a severe infection, lost a loved one, or worked as a healthcare worker.²⁴ Evidence shows that 20% of survivors of intensive care (commonplace in Covid-19) routinely experience PTSD. Lockdown rules may also increase the number of people experiencing more complicated grief reactions.²⁵ A UCL study has found that levels of anxiety spiked around the start of lockdown but have been gradually subsiding, although they remain above the usual reported averages.²⁶ A survey of UK adults during lockdown found one in four (24%) to have had feelings of loneliness in the previous two weeks. When asked the same question before lockdown, just one in ten people (10%) had these feelings. Young people (18-24) were most likely to experience loneliness – one in six before the lockdown and almost half during.²⁷ From an economic perspective, research shows that if the UK were to experience a similar economic impact after this crisis to that of the recession that followed the 2008 banking crisis, an additional 500,000 people may be expected to experience mental health conditions.²⁸
Expected or potential impacts	<ul style="list-style-type: none"> Mental health problems sit on a continuum from mild, time-limited distress to severe mental health conditions. Many who previously coped well, may find themselves less able to and may experience

²³ <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/technical-guidance/mental-health-and-covid-19> (accessed 09/06/2020)

²⁴ [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(20\)30203-0/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30203-0/fulltext) (accessed 09/06/2020)

²⁵ https://www.centreformentalhealth.org.uk/sites/default/files/2020-05/CentreforMentalHealth_COVID_MH_Forecasting_May20.pdf (accessed 09/06/2020)

²⁶ <https://www.theguardian.com/commentisfree/2020/may/20/coronavirus-mental-health-trauma> (accessed 09/06/2020)

²⁷ <https://www.mentalhealth.org.uk/coronavirus/coping-with-loneliness> (accessed 08/06/2020)

²⁸ https://www.centreformentalhealth.org.uk/sites/default/files/2020-05/CentreforMentalHealth_COVID_MH_Forecasting_May20.pdf (accessed 09/06/2020)

	<p>increased anxiety or develop a mental health condition. Those who previously suffered, may experience worsening in their condition.²⁹</p> <ul style="list-style-type: none"> • The impacts of depression, anxiety and loneliness are wide ranging; can present in many forms; be triggered by many factors (financial concerns; isolation/loneliness; changed work situation; managing relationships, family or caring responsibilities etc); and can be short lived or enduring. • Whilst nobody is immune, the risk of experiencing mental ill-health is not equally distributed across society. Those who face the greatest disadvantages in life also face the greatest risk to their mental health. Longer term socio-economic impacts of the pandemic are likely, if anything, to exacerbate these inequalities. • It can be assumed that those for whom impacts may be most amplified include those already suffering; health and care workers; those who experience trauma as a result of having the illness or grief from bereavement; and those who have experienced major life changes. • There will be impacts on increased demand for (and cost to) NHS and local services, plus implications and costs to business through workplace sickness and absence due to mental health.
Future changes in numbers affected	<ul style="list-style-type: none"> • Reliable forecasting on the numbers of people experiencing mental illness is hard to achieve, but commentary from health bodies – here and elsewhere – point to there being big increases in numbers.
Conclusion	<ul style="list-style-type: none"> • Mental health and wellbeing of whole societies have been severely impacted by this crisis, but are uneven and tilted towards those already experiencing disadvantage. They are a priority to address urgently.

²⁹ https://www.un.org/sites/un2.un.org/files/un_policy_brief-covid_and_mental_health_final.pdf from <https://www.thelancet.com/commissions/global-mental-health> (accessed 09/06/2020)

5.2 Learning disabilities; and children with special educational needs (including autism)	
Baseline data - numbers affected	<ul style="list-style-type: none"> • The previous report showed that there were 20,585 adults gaining support for learning disabilities in the NGN area – 0.39% compared to 0.33% nationally. This rose to 0.5-0.6% in South Tyneside, Middlesbrough, and Hartlepool. 2018/19 data update is available. • The previous report showed that there were 12,400 (1.2%) children with autism known to schools in the NGN area, compared to 1.4% nationally. The highest incidence was in Sunderland (2.5%) followed by South Tyneside (1.7%). No data update is available beyond 2018, but wider data sets such as children with learning difficulties is available.
Evidence	<ul style="list-style-type: none"> • Deaths of people with a learning disability and/or autism in England have increased by 134% during Covid-19. Between 10 April and 15 May there were 386 deaths, with half of them confirmed or suspected Covid-19 cases. During the same period in 2019, there were 165 deaths.³⁰ • Even pre-pandemic, people with autism and learning disabilities in England die younger than their contemporaries.³¹ They have higher rates of known Covid-19 complications including respiratory conditions and obesity, made worse by facing additional barriers to health care.
Expected or potential impacts	<ul style="list-style-type: none"> • Covid-19 is impacting on this group disproportionately and increasing death rates, including through a link to prevalence of known pre-existing conditions and complications. This is more so when they are in a supported living environment or care home, with a lack of swift access to testing and PPE an issue in reducing infection and saving lives. • These individuals are also impacted by additional coping challenges such as difficulty understanding what is going on or around physical distancing or hygiene measures; distress in adjusting to new daily routines; or more difficulty in receiving needed therapies. • Limited contact with loved ones and care givers risks leaving people confused, isolated, prone to presenting more challenging behaviours, and at risk of experiencing safeguarding issues. In addition, services they rely on may have been suspended and they may face additional financial pressure that leaves them vulnerable, i.e. not having enough money for additional food, medicine, or home deliveries. • Parents of children living with such conditions are likely to face additional personal challenges, including working from home or loss of employment, and could become overwhelmed with the demands of looking after their children without the daily support of specialists.
Future changes in numbers affected	<ul style="list-style-type: none"> • Covid-19 could result in a fall in numbers of people with learning disabilities or children with SEND as a percentage of the overall population given higher mortality rates linked with such conditions.
Conclusion	<ul style="list-style-type: none"> • This is a highly vulnerable cohort both in terms of increased mortality and in the health, wellbeing and socio-economic ramifications of the pandemic and should be treated as a high priority group.

³⁰ <https://www.cqc.org.uk/news/stories/cqc-publishes-data-deaths-people-learning-disability> (accessed 09/06/2020)

³¹ <https://digital.nhs.uk/data-and-information/publications/statistical/health-and-care-of-people-with-learning-disabilities/experimental-statistics-2018-to-2019> (accessed 09/06/2020)

5.3 Dementia and Alzheimer's Disease	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report showed there to be 56,900 people aged 65+ with dementia in NGN's area (4.5%) versus 4.3% nationally and with only slight variation between local areas. Data update for 2019 for upper tier local authorities is available, as well as prevalence for under 65s.
Evidence	<ul style="list-style-type: none"> ONS analysis of deaths involving Covid-19 registered during March and April saw dementia and Alzheimer's as the most common main pre-existing condition – involved in 6,887 deaths (20.4% or one in five of all deaths involving Covid-19).³² In the same period, dementia and Alzheimer's was involved in 42.5% of all deaths of care home residents involving Covid-19.³³ Over two thirds of people in care homes have dementia. It is unclear what links Covid-19 and these diseases, however age and the fact that older people are more likely to experience severe symptoms from Covid-19 may partly explain the high number of deaths. In a survey of 128 care homes, 79% report that lack of social contact is deteriorating the health and wellbeing of their residents with dementia, leaving them feeling confused and abandoned by the lack of visits, stopping eating, losing the ability to speak and 'disappearing'.³⁴
Expected or potential impacts	<ul style="list-style-type: none"> Dementia itself does not increase risk of Covid-19. However, people living with dementia are impacted significantly – at greater risk due to their pre-existing condition, presence of other health conditions that accompany dementia, their age, and by whether or not they live in a care home. This all increases the risk from and exposure to Covid-19. Sufferers are highly likely to be negatively impacted by social distancing measures and isolation from friends and family, anxiety and confusion, and risk of behavioural changes. Cognitive impairment such as memory problems lead to difficulty in understanding or remembering social distancing or hygiene instructions and may increase Covid-19 exposure. Families caring for someone with dementia can feel cut-off, overwhelmed and anxious, not helped by rapidly changing information and guidance and isolation from normal support systems.
Future changes in numbers affected	<ul style="list-style-type: none"> Until more is known about the link between dementia and Covid-19, and the chronic situation in care homes is brought under control, it is likely that these diseases will continue to be a major cause of deaths involving Covid-19.
Conclusion	<ul style="list-style-type: none"> People living with dementia and Alzheimer's disease are amongst the worst affected by the pandemic, with their risk compounded by multiple factors, and with impacts extending to those caring for them.

³²<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19englandandwales/deathsoccurringinapril2020> (accessed 09/06/2020)

³³<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/deathsoccurringupto1may2020andregisteredupto9may2020provisional> (accessed 09/06/2020)

³⁴<https://www.alzheimers.org.uk/news/2020-06-05/thousands-people-dementia-dying-or-deteriorating-not-just-coronavirus-isolation> (accessed 09/06/2020)

6. Geography, rurality and access

Under, this heading we consider how the prevalence of Covid-19 and those who are vulnerable to it varies across urban and rural geographies, and how geography and access issues related to it may have impact.

6.1 Prevalence and impact in urban and rural environments	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report looked at population density by district and established that the NGN area has some of the most rural and sparsely populated areas in England (e.g. in parts of Cumbria and North Yorkshire) as well as densely populated districts such as Hull, Newcastle and Middlesbrough. No data update is available.
Evidence	<ul style="list-style-type: none"> Research has shown that death rates from Covid-19 are much higher in cities than in rural areas and suggests that poverty and population density significantly increase the risk of being killed by the virus. Based on English data between 1 March and 17 April 2020, age standardised mortality rates from Covid-19 are on average over 60 deaths per 100,000 people in major urban conurbations, and around 30 deaths per 100,000 in minor conurbations and cities/towns. This rate falls to 10-20 deaths per 100,000 in a range of rural settings.³⁵
Expected or potential impacts	<ul style="list-style-type: none"> In urban areas, the most immediate impacts are higher death rates. These are likely to be due to a range of factors including population density and structure, poorer health, public transport use, greater poverty and more people in low paid jobs in higher risk categories (e.g. security guards, bus and taxi drivers, shop workers). Economic impacts also appear to be greater in urban areas, especially those with less people in skilled, professional roles where home working has been easier. However, rural areas with high dependence on the visitor economy will be vulnerable to economic impacts and to influxes of visitors and potential spread of the virus if not well managed. Access to green space, gardens and the outdoors can support mental health and wellbeing, and more people in urban areas will have been impacted by a lack of this – especially in the ‘stay at home’ phase of lockdown. Isolation in some rural areas could also have been exacerbated, especially in areas with poor digital connectivity.
Future changes in numbers affected	<ul style="list-style-type: none"> The pandemic is not expected to change population density patterns or data, although there is potential it could increase demand for less dense housing (including away from towns and cities) and for properties with gardens and access to green space.
Conclusion	<ul style="list-style-type: none"> In general, urban areas have been hardest hit by Covid-19 impacts due to a mix of socio-economic and physical environment based factors. Rural areas with high dependency on tourism will also be impacted.

³⁵ <https://www.ft.com/content/c26434a2-5337-45e9-a94b-2c33fd55306a> (accessed 02/06/2020)

6.2 Access to services (including digital)	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not cover digital connectivity but did look at average journey times to access services, which were longest in sparsely populated areas such as Eden, Richmondshire and Ryedale. Data has been updated and now covers 2017 rather than 2016 and access by cycle as well as by car and public transport.
Evidence	<ul style="list-style-type: none"> We have not found strong evidence about likely changes in access to services due to Covid-19 impacts apart from for specific groups, and there being a clear shift to greater digital access now and in the future. In respect of digital connectivity, coverage and speed of access tends to be lower in more rural and remote areas and to be fastest in major cities. However, pilot schemes and early roll outs of improvements can mean that some areas have better access than may be expected. For example, in North Yorkshire, whilst digital connectivity is poorer in the national park areas, there is strong connectivity in York and Harrogate.
Expected or potential Impacts	<ul style="list-style-type: none"> Access to services remains in flux in line with the various stages of lockdown and changes in what is open when, with key problems including reduced access to (non-Covid related) healthcare and education. It is hard to predict longer term changes in access to services that may arise, other than a general trend towards digital service provision and away from face to face. This may be problematic for those in areas of poor connectivity (often rural areas) and groups of the population with lower digital literacy or poorer access to digital technology (most affecting older people and more deprived areas). More online shopping may accelerate the decline of high street retail, and there may be more closures of local shops and pubs impacting on communities and local economies. The time taken to physically access services will also be variable in the short term and may be quicker (in urban centres especially) due to less journeys and congestion. Trends towards more home working in the long term too may help to reduce congestion and reduce journey times. However, this may be counteracted by wariness about using public transport, where reduced demand could also affect long term service viability and have access impacts for some groups and areas. An upsurge in cycling and walking to access work and services could benefit health and reduce pollution and congestion. Cycling often also has quicker journey times than public transport for shorter trips.
Future changes in numbers affected	<ul style="list-style-type: none"> It is hard to predict how journey times to access services will change overall as this will vary locally depending on whether any local services close and a complex mix of factors that affect travel and congestion.
Conclusion	<ul style="list-style-type: none"> The main access related impacts are likely to relate to difficulties faced by those with poor digital access, often in rural and disadvantaged areas.

7. Financial and Economic Vulnerability

This heading covers how Covid-19 will affect unemployment, low pay, debt and housing issues.

7.1 Unemployment, benefits and redundancy	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report included data on unemployment, benefits and workless households. The NGN area was above average across these measures, with levels typically highest in the North East (e.g. Hartlepool and South Tyneside), Hull and to a lesser extent West Yorkshire. Updated data extends to Dec 2018 for workless households, Dec 2019 for unemployment, and April 2020 for benefits claimant count.
Evidence	<ul style="list-style-type: none"> The latest UK level data, for the three months to the end of March 2020, shows unemployment (3.9%) to be at a very low level, and to be largely unaffected by Covid-19 at that point (i.e. mostly before peak impact). However, local benefits claimant count data, which runs up to 9 April 2020, shows a different story. Across England, benefits claimant rates had doubled to 5.0% (from 2.5% in Feb 2019), with peaks in the NGN area including rises to 9.1% in Middlesbrough (up from 5.1%), 9.0% in South Tyneside (up from 5.9%) and 8.6% in Hull (up from 4.1%). UK Universal Credit claims totalled 550,000 in each of the two weeks following lockdown, compared to around 50,000 in a normal week.
Expected or potential impacts	<ul style="list-style-type: none"> UK unemployment will rise sharply - one forecast suggests to 10% in the 2nd quarter of 2020 before falling back gradually over 2020 and 2021.³⁶ The rate is likely to be higher in areas where unemployment is already high, and in areas where badly affected sectors are prominent. The furlough scheme has reduced redundancies and unemployment to date (for those on payroll on 28 February). However, impacts will increase as the scheme is phased out during 2020, and joblessness will be greatly affected by the extent to which lockdown is scaled back and whether any second peak in Covid-19 cases arises. Worst affected groups include young people, women, the low paid and less affluent areas. Sectors that are shut down employed nearly a third of all young workers compared to one in eight workers aged 25+.³⁷ Longer term, the high level of Government debt may lead to public sector cuts which would also lead to job losses.
Future changes in numbers affected	<ul style="list-style-type: none"> As per the above, unemployment and benefits claimants are expected to rise sharply during mid-2020. They could either fall back later in the that year and in 2021 or remain high depending on how events unfurl and whether economic recovery is quick or drawn out.
Conclusion	<ul style="list-style-type: none"> Unemployment and benefits claims will rise sharply during 2020 and may remain high for some time. Impacts will be amplified in places and groups that are already more deprived, and could hit those 'just about managing' previously

³⁶ <https://www.statista.com/statistics/1107870/uk-unemployment-forecast/> (accessed 4/6/2020)

³⁷ <https://www.bbc.co.uk/news/business-52660591> (accessed 4/6/2020)

7.2 Self-employment and small businesses	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not include data on self-employment or business ownership and profiles. However, as of January-March 2020, there were approx. 5 million self-employed people in the UK (15% of all employment), 69,000 more than a year earlier.³⁸ Local data is available up to the period January-December 2019. Categories of self-employment include those ‘working for themselves’ (the most common category), running a business, freelancers, subcontractors and partners.
Evidence	<ul style="list-style-type: none"> Self-employment varies by sector and is highest in construction, road transport, agriculture, arts and media. It is most prevalent among men (19% of working men are self-employed compared to 11% of women) although it is rising faster amongst women. 10% of self-employed people are aged 65 years or over, compared with just 3% of employees.
Expected or potential Impacts	<ul style="list-style-type: none"> Impacts on the self-employed and SMEs are sizeable, if softened by Government support schemes which pay up to a threshold of £25,000. This will cover the usual incomes of many but not all self-employed people, but be below what many small business owners would earn. The Self-Employment Income Support Scheme (SEISS) is eligible to those with a trading profit below £50,000/yr and whom have submitted a tax return for the year ending April 2019. 3% of self-employed people in the UK have become self-employed since then, meaning that they may not be eligible for SEISS and could be left without work or support.³⁹ So far, 2.3 million self-employed people (nearly a half of this group) have signed up to grants totalling £6.8bn.⁴⁰ Many of these people may be left in a difficult situation if self-employment incomes do not provide a viable living after the Covid-19 peak and once support has ended. Impact on businesses has been marked. A survey⁴¹ found that 24% of firms had temporarily closed or paused trading during 23 March-5 April (rising to 82% of arts, entertainment and recreation businesses) while 0.3% had permanently closed. 66% of those still trading said their financial performance was outside of their ‘normal’ range.
Future changes in numbers affected	<ul style="list-style-type: none"> The number of businesses will fall in the short term due to closures. While some self-employed people may seek work with an employer, recessions also tend to prompt some newly unemployed people to seek self-employment or start a business, and these factors may balance out.
Conclusion	<ul style="list-style-type: none"> Impacts on most self-employed people have been ameliorated by support. However, there are likely to be impacts on them and small businesses when support schemes end, given a likely recession.

³⁸<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/employmentinttheuk/may2020> (accessed 04/06/2020)

³⁹<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandselfemploymentintheuk/2020-04-24> (accessed 04/06/2020)

⁴⁰ <https://www.bbc.co.uk/news/business-52052123> (accessed 04/06/2020)

⁴¹<https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/coronavirusandtheeconomicimpactsontheuk/23april2020> (accessed 04/06/2020)

7.3 Wages, low pay and inequality	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report showed that within the NGN area, only in Leeds did median pay exceed national average. In five areas more than 20% of workers earned below £10,000 per year (e.g. in Kirklees, Scarborough and Northumberland). Data update is available.
Evidence	<ul style="list-style-type: none"> Socio-economic inequalities in health and mortality in England and Wales have been reported for decades and they are widening.⁴² Mortality rates from Covid-19 in the most deprived areas are more than double those in the least deprived areas. This gap exceeds existing health inequalities. Higher rates may be due to geographic proximity to infection and housing density, more workers in higher risk occupations, and more people with existing medical conditions. Poor outcomes from Covid-19 infection in deprived areas remain after adjusting for age, sex, region and ethnicity; the role of comorbidities requires investigation.⁴³ People in low-skilled, low paid and manual jobs face a much greater risk of dying from Covid-19 than higher-paid, white-collar workers. For example, men in low-skilled jobs are almost four times more likely to die than professionals. Security guards, care workers, construction workers, plant operatives, cleaners, taxi drivers, bus drivers, chefs and retail workers are all at a greater risk of dying.⁴⁴
Expected or potential impacts	<ul style="list-style-type: none"> In the short term, the furlough scheme in operation is likely to have protected many of those in low paid jobs who would have been at risk of losing their jobs, and to have done so more fully than for higher paid workers, given the maximum payment thresholds of the scheme. However, the health, economic and educational impacts of Covid-19 are likely to exacerbate social and regional inequalities. Groups that will be affected include young workers, the low paid and women. Longer term, it remains to be seen how far the Government commitment to 'levelling up' poorer and 'left behind' areas will be realised in the face of higher impacts in the already economically worst off areas, and a context of massive public debt. Cuts to benefits and the public sector have followed recessions previously, and if repeated, would be likely to widen rather than reduce inequalities.
Future changes in numbers affected	<ul style="list-style-type: none"> Median pay levels are likely to rise slower (it at all) in the short to medium term due to greater competition for jobs and financial pressures on employers, while the proportion on low pay may rise.
Conclusion	<ul style="list-style-type: none"> Those on low wages will be among the groups hit hardest by Covid-19 in health and economic terms and inequalities are likely to increase.

⁴² <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on> (accessed 08/06/2020)

⁴³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/890258/disparities_review.pdf (accessed 08/06/2020)

⁴⁴ <https://www.theguardian.com/world/2020/may/11/manual-workers-likelier-to-die-from-covid-19-than-professionals> (accessed 08/06/2020)

7.4 Debt	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report could not identify household debt data at local authority level and this remains unavailable. At GB level, mean household property debt for April 2016-March 2018 was £126,500 (median £96,000) while mean financial debt was £9,400 (median £4,500).⁴⁵ Most of the latter was loans and credit/store card debts.
Evidence	<ul style="list-style-type: none"> Household debt has reduced rapidly since the onset of Covid-19. Total consumer debt fell by £7.4bn in April, with £5bn paid back on credit cards, after a previous record pay back of £2.4bn in March.⁴⁶ Lower borrowing stemmed mainly from reduced spending. There is also evidence of debts put on hold. In addition to mortgage holidays, UK Finance identified almost 878,000 payment holidays taken out on credit cards by 21 May and 608,000 on personal loans.
Expected or potential impacts	<ul style="list-style-type: none"> Debt and financial situations are likely to vary hugely by household depending on whether individuals have retained work and incomes and do so in the future - those who have may become less in-debt as a result of lower spending during lockdown. However, there are likely to be many who have unexpectedly suffered unemployment or wage cuts, and for whom debts mount up after payment holidays expire. The most exposed groups in terms of debt are likely to be those who have lost income or employment and are in low income groups, those with little in the way of savings, those with high mortgage debts, and those (often with physical disabilities as shown in 4.1) facing higher costs associated with lockdown such for utilities, food or transport. Small and microbusiness owners in the worst affected sectors (e.g. travel, retail and leisure) are also likely to face major impacts and potential personal or business debt.
Future changes in numbers affected	<ul style="list-style-type: none"> It is hard to predict how overall debt will change with lower spending but also loss of incomes. However, it is likely that the worst affected groups will include those on low incomes, whose employment prospects have been hardest hit by Covid-19.
Conclusion	<ul style="list-style-type: none"> Despite reductions in personal debt for some, debt is likely to become a major problem for many who suffer loss of employment or income.

⁴⁵<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddebtgreatbritain/april2016tomarch2018> (accessed 03/06/2020)

⁴⁶<https://www.thisismoney.co.uk/money/cardsloans/article-8380019/Consumer-debt-falls-record-7-4bn-April-borrowing-spend-slumps.html> (accessed 03/06/2020)

7.5 Homelessness and housing related issues	
Baseline data - numbers affected	<ul style="list-style-type: none"> • Data on statutory homelessness in the previous report showed a modest level overall, but a sharp spike in Leeds, and to a lesser extent in Newcastle, Hull and Hartlepool. No data update is available. • 12.8% of people in the NGN area suffer fuel poverty compared to 11.1% nationally. The proportion rises to 14% in the Tees and Wear patches and is highest in Middlesbrough (17%). No data update is available.
Evidence	<ul style="list-style-type: none"> • Analysis points to a pattern between hotspots of Covid-19 deaths and housing factors such as overcrowding and homelessness. Of the 20 local authority areas where Covid-19 has claimed most lives per capita, 14 also have the highest percentage of households in homes with fewer bedrooms than they need.⁴⁷ This reflects increased exposure to pathogens and risk of infection. There are also connections between overcrowding, poverty, ethnicity and multi-generational households. • More than 14,500 people who were on the streets or at risk of sleeping rough have been given emergency accommodation since lockdown. However, funding to councils to enable this is due to end shortly.⁴⁸
Expected or potential impacts	<ul style="list-style-type: none"> • Those living in poor and overcrowded housing, and in high density areas suffer more Covid-19 cases and deaths now and are expected to be at greater risk in the future due to proximity. The same groups are also more likely to experience other Covid-19 risk factors such as low pay and poor health, or to be from the worst affected ethnic groups. • Covid-19 is likely to impact on housing markets, for instance to spark recession that depresses house prices and rates of house building, or to cause people to seek houses with gardens and access to open space and to avoid high density housing and areas. • Rough sleepers have benefited from the 'Everyone In' scheme to help them into accommodation during lockdown. However, this may not last and negative impacts and risk factors for this group will increase if so. • Job losses and reduced incomes are likely to worsen fuel poverty, and to make it more difficult for young people to afford homes.
Future changes in numbers affected	<ul style="list-style-type: none"> • Things could go either way on homelessness. Success in getting people off the streets in the period of lockdown has shown this is possible and may help to foster long term solutions. But this may not happen, and economic impacts could push more people into homelessness. • Lower incomes may cause more people to suffer fuel poverty.
Conclusion	<ul style="list-style-type: none"> • Covid-19 has impacted disproportionately on those in poor and overcrowded housing, while fuel poverty may worsen in the future due to economic impacts. Rough sleepers have benefited from support in the short term, but how long this position will last is uncertain.

⁴⁷ <https://www.insidehousing.co.uk/news/news/council-with-highest-covid-19-death-rate-brands-illness-a-housing-disease-66608>

⁴⁸ <https://www.bbc.co.uk/news/uk-52915913> (accessed 05/06/2020)

8. Other Vulnerabilities

Under, this heading we consider how the prevalence of Covid-19 and its impact in relation to a range of other factors including ethnicity, sex and gender, caring responsibilities and domestic violence.

8.1 Ethnicity	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report set out the percentage of the population from an ethnic minority group by local area. This varied from 25% in Bradford to around 1-2% in large parts of Cumbria, North Yorkshire and the North East, compared to 13.6% nationally. No data update is available.
Evidence	<ul style="list-style-type: none"> A greater proportion of people from BAME communities are dying from Covid-19. Risk of death is twice as high for people of Bangladeshi ethnicity than for White British people, and between 10 and 50% higher for those of Chinese, Indian, Pakistani, Other Asian, Caribbean and Other Black ethnicity.⁴⁹ The analysis did not account for occupation, comorbidities or obesity, which are also risk factors for acquiring and dying from Covid-19. Higher mortality is also reported for NHS and social care staff from BAME groups.
Expected or potential impacts	<ul style="list-style-type: none"> It is not clear how much of the increased risk from Covid-19 associated with ethnicity is due to other risk factors that are also higher in BAME communities (e.g. overcrowded housing, low incomes, comorbidities and living in certain areas), or whether any elements to do with genetic predispositions or with discrimination may be involved. While it is difficult to say whether variable impacts from Covid-19 may in part be directly due to ethnicity or whether they mainly reflect other risk factors, the pattern of deaths shines a light on racial inequalities around deprivation, employment and incomes. Increased focus on this, coupled with the higher death rate, is likely to bring extra and longer-term attention to issues of race inequality and discrimination, especially in the shadow of the death of George Floyd and the response to it.
Future changes in numbers affected	<ul style="list-style-type: none"> Variation in the Covid-19 death rate is not likely to significantly affect the percentage of people from ethnic minorities across the NGN area overall. However it may have some impact in areas (e.g. Bradford, Kirklees, Newcastle) where a high proportion of the population are BAME and where there is a higher incidence of other risk factors among this group there (e.g. having an underlying health condition).
Conclusion	<ul style="list-style-type: none"> BAME communities have a raised risk of being exposed to and dying from Covid-19. The reasons for this are not yet clear and are likely to at least partially reflect wider socio-economic and health differences and inequalities, which themselves will be an area of increased focus.

⁴⁹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/890258/disparities_review.pdf (accessed 08/06/2020)

8.2 Refugees and asylum seekers	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not identify data on numbers of refugees and asylum seekers at local level. Since then, data has been published on the number of asylum seekers receiving 'section 95 support' for pending asylum seekers and failed asylum seekers with children – of whom there are in the region of 9,000-10,000 in the NGN area; and those who have gained refugee status through the vulnerable persons and vulnerable children resettlement schemes – of whom there were around 800 in the NGN area from April 2019 to March 2020.
Evidence	<ul style="list-style-type: none"> Refugee Action report that Covid-19 has massively impacted on refugees, asylum seekers and the organisations who support them, with the biggest issues including destitution, mental health, coordination, remote delivery of services and maintaining contact given tech poverty.⁵⁰ They note that the current situation is putting already at-risk groups at even further risk, and that their clients have an increased risk of infection because they are living in shared accommodation and are unable to self-isolate.
Expected or potential impacts	<ul style="list-style-type: none"> Impacts on refugees and asylum seekers have and will vary at different points of the pandemic. In the early stages of lockdown, destitution meant that some refugees struggled to buy food amidst panic buying and stockpiling. Accommodation pressures were helped by councils being instructed to find places for anybody who is homeless, although this has often been in multi-occupancy accommodation with lack of privacy. Reported impacts also include women experiencing abuse. Other impacts affect the support refugees and asylum seekers receive and the ability of organisations to provide this, as well as complications around how claims (e.g. for refugee status) are processed. Many support organisations have had to close face to face services like advice centres, although some are still offering support such as food parcels. Language and tech barriers make alternative provision more difficult, with isolated people becoming more so. Overall, this group is likely to face increased risks to their health and wellbeing, with the difficulties and challenges they face exacerbated while the pandemic is impacting on services and support they rely on.
Future changes in numbers affected	<ul style="list-style-type: none"> In the short term, travel disruption and restrictions may reduce the number of asylum seekers and migrants entering the UK, however the longer term impacts are unclear.
Conclusion	<ul style="list-style-type: none"> Many refugees and asylum seekers will have suffered hardship from Covid-19 impacts, linked to difficulties in accessing support during the lockdown as well as exposure to health and wellbeing risks.

⁵⁰ <https://www.refugee-action.org.uk/how-the-refugee-and-asylum-sector-responded-rapidly-to-the-impact-of-covid-19/> (accessed 08/06/2020)

8.3 Sex and Gender	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not cover sex or gender.
Evidence	<ul style="list-style-type: none"> Men die of Covid-19 at about twice the rate of women in England and Wales.⁵¹ In England, the age standardised mortality rate was 782 deaths per 100,000 for males compared to 439 per 100,000 for women.⁵² Various reasons have been put forward for this difference, but none has been scientifically established yet. Women, especially younger women, are more likely to be hit by short term job losses as sectors that are now 'shut down' employed 25% of young men but 36% of young women.⁵³ Additionally, more women tend to be in 'precarious' jobs with low pay, shorter hours and job insecurity (at EU level this is 27% of women compared to 15% of men).⁵⁴
Expected or potential impacts	<ul style="list-style-type: none"> The main physical impacts are disproportionately high health risks and fatalities for men. There may also be elevated impacts on men who have not caught the disease but have other risk factors and may be more likely to be shielding – and hence face isolation, limited access to services or economic impacts. Older men with underlying health conditions, or with other risk factors (e.g. housing or job related) are the main at-risk group in this respect. Impacts on women are likely to be more indirect and potentially less visible, but to affect significant numbers. These include economic impacts through job losses and the taking on of additional caring roles and pressures (see 8.5). There is also evidence of increased incidence of gender based domestic violence (see 8.4). Impacts on transgender people are likely to include delays in or difficulty in accessing gender reassignment surgery.
Future changes in numbers affected	<ul style="list-style-type: none"> Differential fatality rates from Covid-19 are unlikely to be of a scale to significantly affect the population profile overall, potentially except in the relation to the number of men in the oldest age bands and with underlying health conditions. If job losses play out as expected and persist for some time, the short to medium term increase in female unemployment, especially for younger women, may exceed the equivalent increase for men.
Conclusion	<ul style="list-style-type: none"> The main impact is a significantly greater risk of death for men than women, especially for older men with underlying health problems. Additionally, there is a heightened risk of job loss for young women.

⁵¹ <https://www.theguardian.com/world/2020/apr/16/men-die-of-coronavirus-at-twice-womens-rate-in-england-and-wales> (accessed 06/06/2020)

⁵² <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvedcovid19englandandwales/deathsoccurringinapril2020> (accessed 06/06/2020)

⁵³ <https://www.bbc.co.uk/news/business-52660591> (accessed 04/06/2020)

⁵⁴ <https://eige.europa.eu/covid-19-and-gender-equality/economic-hardship-and-gender> (accessed 08/06/2020)

8.4 Domestic violence and relationship breakdown	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report did not include data on this factor.
Evidence	<ul style="list-style-type: none"> Over 1 in 5 adults (21%) say their relationships are being affected, with partners or spouses causing the most concern.⁵⁵ In April, Refuge noted a 700% increase in helpline calls in a single day; and a helpline for perpetrators of domestic abuse seeking help to change behaviour had 25% more calls after the start of lockdown.⁵⁶ Survivors have reported domestic abuse to be escalating under lockdown. 72% said their abuser has more control over their life since Covid-19; 78% said Covid-19 has made it harder for them to leave their abuser.⁵⁷ Increased abuse is also being seen in other countries.⁵⁸ Calls to the NSPCC from adults concerned about child abuse rose from 1,867 in the four weeks before lockdown to 2,216 between 23 March and 19 April – an increase of 20%.⁵⁹
Expected or potential impacts	<ul style="list-style-type: none"> Women are considerably more likely to experience repeated and severe forms of abuse, and more likely to have experienced sustained physical, psychological or emotional abuse, or violence resulting in injury or death.⁶⁰ Children and LGBTQ+ individuals are also significantly impacted. Lockdown measures have presented a significant risk of escalating domestic abuse, as perpetrators have been more likely to be at home with the victim for longer periods of time. This is exacerbated by the pandemic leading to increased tensions or stress within a household that can accelerate or intensify abuse (recognising that abuse is not just one-off acts of violence but patterns of coercive behaviour and control). There is also the impact of new domestic abuse cases occurring but with less opportunities to identify the early warning signs. Situations have been compounded by traditional routes to seek help and support such as schools, GPs, and workplaces being closed; and with capacity of specialist support services and refuges also constrained.
Future changes in numbers affected	<ul style="list-style-type: none"> Numbers of people experiencing domestic violence are increasing. Reported cases may increase further as lockdown eases and people can seek support more readily. The long term impact is unknown.
Conclusion	<ul style="list-style-type: none"> Many experiencing domestic violence are suffering more as a result of Covid-19, as perpetrators use the situation to exert greater control and abuse, and with victims having no escape from abusers during quarantine and facing difficulties in accessing support and safe haven.

⁵⁵<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandthesocialimpactsongreatbritain/7may2020> (accessed 08/06/2020)

⁵⁶<https://www.theguardian.com/society/2020/apr/12/domestic-violence-surges-seven-hundred-per-cent-uk-coronavirus> (accessed 08/06/2020)

⁵⁷https://www.womensaid.org.uk/survivors-say-domestic-abuse-is-escalating-under-lockdown/?utm_campaign=11500758_Key%20Issues%2029%20April%202020&utm_medium=email&utm_source=London%20Councils&dm_i=192K,6UI11,RAR7ET,RH0HO,1 (accessed 08/06/2020)

⁵⁸<https://www.cfr.org/in-brief/double-pandemic-domestic-violence-age-covid-19> (accessed 08/06/2020)

⁵⁹<https://www.bbc.co.uk/news/uk-wales-52473453> (accessed 08/06/2020)

⁶⁰<https://www.womensaid.org.uk/information-support/what-is-domestic-abuse/domestic-abuse-is-a-gendered-crime/> (accessed 08/06/2020)

8.5 Carers	
Baseline data - numbers affected	<ul style="list-style-type: none"> The previous report showed that 2.6% of people (173,500) in the NGN area had unpaid caring responsibilities for 50+ hours per week, compared to 2.4% nationally. The proportion was typically higher in the North East, e.g. 3.5% in Sunderland and 3.3% in County Durham and Hartlepool. No updated data is available.
Evidence	<ul style="list-style-type: none"> A survey⁶¹ in April 2020 of 5,000 unpaid carers found that 70% are providing more care due to the virus; over a third are providing more care due to local services reducing or closing; and on average, the additional care amounts to 10 hours a week (65 hours per week now, compared to 55 hours before). In addition, 81% are spending more money, with 72% spending more on food and 50% spending more on household bills, leading to 38% being concerned about their financial situation. 55% agreed/strongly agreed with the statement “I feel overwhelmed and I am worried that I’m going to burnout in the coming weeks”; and 87% agreed/strongly agreed with the statement “I am worried about what will happen to the people I care for if I have to self-isolate or become ill”.
Expected or potential impacts	<ul style="list-style-type: none"> Unpaid carers give vital care to people with chronic illness, disability or other long-lasting care needs, but often unpaid and with minimal support, and at the expense of their own health, social and economic outcomes. Evidence shows that this is being compounded by Covid-19. In this context, these individuals risk becoming more isolated and vulnerable. Working carers, are either having to juggle the pressures of working with additional caring responsibilities or face reductions in their income if they are forced to give up work as a result of being unable to do this. Only 1% of those surveyed above were aged under 24. There is therefore a big evidence gap on how Covid-19 is impacting young carers (aged 12 up to 17) and young adult carers (aged 18 to 25). However, anecdotal evidence suggests they are disproportionately impacted, including experiencing high levels of anxiety and isolation as a result of the lockdown.⁶²
Future changes in numbers affected	<ul style="list-style-type: none"> As the Covid-19 crisis in the care sector continues to unfold, it seems realistic to assume that the numbers of people providing unpaid care in the community will maintain or increase.
Conclusion	<ul style="list-style-type: none"> This is an isolated and vulnerable group who in the context of Covid-19 are seeing significant additional pressures that impact on their personal, economic and social health and wellbeing.

⁶¹https://www.carersuk.org/images/News_and_campaigns/Behind_Closed_Doors_2020/Caring_behind_closed_doors_April20_pages_web_final.pdf (accessed 08/06/2020)

⁶² <https://carers.org/what-we-do/our-survey-on-the-impact-of-coronavirus-on-young-carers-and-young-adult-carers-> (accessed 08/06/2020)

9. Conclusions

A wide range of people and groups with existing vulnerability factors across the NGN area will be impacted by Covid-19 and to a greater extent than is typical for the overall population. The body of the report illustrates the wide-ranging nature and scale of these impacts, and some of the most marked and extensive impacts include:

- **Physical health impacts** and much greater risk of death from Covid-19, most starkly for those in the oldest age groups and with underlying health conditions (e.g. diabetes and hypertension), and to a lesser extent for men, BAME communities, people with low pay and poor housing, and those who are obese.
- **Mental health and wellbeing impacts** that may affect everybody to some degree, but which are unevenly skewed towards the most deprived areas. These are impacting on those who already struggle or are at higher risk, e.g. people with depression, learning disabilities or dementia, as well as the families and loved ones who care for them. Isolation and loneliness are key triggers.
- **Economic impacts** in terms of business closures and loss of employment, incomes and opportunities, especially for the low paid and young people and notably those leaving education. Risks and impacts are also amplified for those who were previously 'just about managing'.
- **Difficulty in accessing services and support**, particularly for those without digital connectivity or skills, and for at-risk groups who rely on support, such as refugees and asylum seekers, and those facing domestic abuse.

While these impacts are major in themselves, **the most severe risks and impacts are for those with multiple risk factors or vulnerabilities.** In terms of risk of death, this is greatest for older people (especially males) with serious underlying health conditions and exacerbated even further for those in dense urban areas, poor and overcrowded housing, or exposed occupations on the frontline. Likewise social and economic impacts are compounded for BAME communities, and groups such as young women with low skills in low paid sectors hit by Covid-19. Additionally, the challenges facing those 'furthest away from the labour market', often in deprived areas, may increase just as work becomes harder to find; and a large group of 'just about managing' people in relatively low paid and insecure employment will be vulnerable to job losses and reduced incomes that lower their quality of life.

Those with severe health risks who are shielding are another group facing multiple difficulties.

Besides the health conditions that put them at risk, they have to contend with isolation and the challenges in accessing services, getting exercise and living daily life that come with shielding. This group also sees less of the benefits and opportunities that come from the phased lifting of lockdown measures, and is at risk of continuing hardship and vulnerability in the event of a second Covid-19 peak.

Geographically, **there is a clear pattern of the different vulnerability factors being concentrated in the same areas. This is most striking in the North East, but also applies in other areas such as parts of West Yorkshire.** Given that these areas have more people with individual vulnerability factors (with the important exception of age), the chances of there being a concentration of people with multiple vulnerabilities is also greater, for example a combination of underlying physical health conditions, low pay or unemployment, poor housing and fuel poverty, debt and poor digital access.

The areas with the greatest concentration of vulnerability factors tend also to be the places most badly affected by Covid-19 in terms of the proportion of cases and deaths. The four worst affected *upper tier* local authority areas in England in terms of Covid-19 cases per 100,000 population are Sunderland, Gateshead, South Tyneside and Middlesbrough and these areas also have high levels of deprivation and vulnerability factors. Interwoven health and economic impacts highlight the potency of social determinants of health.

The impacts of Covid-19 extend beyond vulnerable people to the groups and organisations who support them, as well to small and micro businesses. Lockdown and social distancing regimes, coupled with the inability of staff and volunteers to be able to work have prevented many groups and charities from providing their usual support services, including for example hospices, domestic violence refuges and food banks. Likewise care homes have been at the sharp end of the crisis and schools are facing huge challenges in getting education back to full steam and catching up lost ground. These organisations, as well as voluntary and community groups have new and ongoing requirements such as for digital technology equipment and PPE which present cost as well as organisational pressures. Loss of income for charities, such as from mass participation fundraising events or the potential loss of sponsorship from businesses who are themselves in financial difficulty, also threatens the viability of some of these groups. This would add further to the impacts already experienced on a personal level by those experiencing vulnerabilities, hardship, and disadvantage.

Potential responses to the spread of Covid-19 and impacts on vulnerable groups are wide ranging, and likely to include those that are about operational practices, communication to customers, action to help tackle increased fuel poverty, and help for vulnerable customers and the groups who support them. They will include short term measures to help the most vulnerable to deal with and emerge from the current crisis, but potentially also involve strategic and business planning matters and changes in approach and priority which enhance resilience, well-being and opportunity long term.