
LEICESTERSHIRE JOINT STRATEGIC NEEDS ASSESSMENT

Health Inequalities

2023

Leicestershire County Council Public Health Department



Public Health Department

Leicestershire County Council
County Hall, Glenfield
Leicester LE3 8RA

Tel 0116 3050705
Email phpool@leics.gov.uk

Whilst every effort has been made to ensure the accuracy of the information contained within this report, Leicestershire County Council cannot be held responsible for any errors or omission relating to the data contained within the report.

FOREWORD

The purpose of the Joint Strategic Needs Assessment (JSNA) is:

- To improve the health and wellbeing of the local community and reduce inequalities for all ages.
- To determine what actions the Local Authority, the local NHS and other partners need to take to meet health and social care needs, and to address the wider determinants that impact on health and wellbeing.
- To provide a source of relevant reference to the Local Authority, the Integrated Care System (ICS) and NHS England for the commissioning of any future services.

The Local Authority and the Integrated Care Board (ICB) have equal and joint statutory responsibility to prepare a Joint Strategic Needs Assessment (JSNA) for Leicestershire, through the Health and Wellbeing Board. The Health and Social Care Act 2012 amended the Local Government and Public Involvement in Health Act 2007 to introduce duties and powers for Health and Wellbeing Boards in relation to JSNAs.

The JSNA has reviewed the population health needs of the people of Leicestershire in relation to health inequalities. This has involved looking at the population groups at greater risk, what we know about these groups in Leicestershire, the geography of health inequalities across the County, the policy and guidance tackling health inequalities and existing services supporting those experiencing them. The unmet needs and recommendations that have arisen from this needs assessment are discussed.

The JSNA offers an opportunity for the Local Authority, ICS, and NHS England's plans for commissioning services to be informed by up to date information on the population that use their services. Where commissioning plans are not in line with the JSNA, the Local Authority, ICS and NHS England must be able to explain why.

Please note, the majority of indicators presented in this needs assessment are from national sources so are subject to a time lag due to the time required for data collection, data analysis and publication. Where possible, comparisons have been made to national averages and local context has been included. The term significance is used throughout the report and refers to statistical significance. This examines if the result presented is different to the national result, due to something other than chance. Most often, this is calculated using 95% confidence intervals.

EXECUTIVE SUMMARY

Health inequalities are avoidable, unfair, and systemic differences in health between different groups of people. Health inequalities are everywhere, people experience them as a result of their life experiences, the risks they're exposed to and the environments they live in as well as their access to services and to community, family, and friends.

Some groups of people experience worse outcomes as a result of health inequalities than others. To reduce the inequality in the population overall, there needs to be a focus on those with the worst outcomes in order to improve their health experiences. In doing this, we start to reduce the gap between the most and least healthy in Leicestershire.

This JSNA chapter reviews the evidence base for health inequalities in different populations. It looks at the local evidence of inequalities using key measures such as life expectancy and healthy life expectancy. It also examines the different measures of poverty and deprivation and who experiences these in Leicestershire. Whilst the local evidence shows that living in an area of high deprivation can reduce life expectancy by up to 9 years, national studies into health inequalities for other at risk population groups almost always reference the impact that poverty has in compounding the inequality experienced by that group already. For this reason, it may be wise to consider poverty as a way of identifying those at higher risk within each of the population groups below.

The groups at risk of facing health inequalities in Leicestershire are:

- People who identify as Lesbian, Gay, Bisexual or Transgender (LGBT)
- People with a disability, including **people with a learning disability**
- **People who are homeless**
- Victims of modern slavery
- Sex workers
- Vulnerable migrants
- Carers
- **People with severe mental illness**
- **Prisoners**
- People who have experienced trauma
- **Looked after children and care experienced adults**
- **People living in poverty/deprivation**
- A complex picture was identified around race and ethnicity but evidence of health inequalities being most common for people who are Bangladeshi, Pakistani or **Gypsy or Irish Travellers**

Those groups with a particularly high risk (evidence of years lost from their lives as a result) are identified in bold text in the list above.

When looking at health inequalities in Leicestershire, it is vital to examine differences that exist in neighbourhoods. On a whole County scale, Leicestershire is a relatively healthy and wealthy neighbour to the City of Leicester. However, this masks wide variation at a neighbourhood level with some communities experiencing the best health outcomes and others the worst. Through examining available data at a neighbourhood level, we can start to identify neighbourhoods at

higher risk of health inequalities, either because of an existing significantly lower life expectancy than England, higher rates of under 75 mortality or because of poverty or deprivation. Identifying these neighbourhoods is important as it helps to focus resource and efforts on prevention in order to reduce risk.

Whilst these population groups represent areas of focus for health inequalities, it is important to remember that the risk increases when someone belongs to more than one of these groups. This intersectionality of populations is where we see the greatest risk and where we must always go looking in terms of preventing the worst health inequalities.

The neighbourhoods (middle layer super output areas) identified as high risk in terms of potential health inequalities are:

- **Charnwood:** Loughborough Lemyngton & Hastings, Storer and Queens Park, University, Shelthorpe & Woodthorpe, Syston West and Shepshed East
- **Harborough:** Market Harborough Central
- **Hinckley and Bosworth:** Barwell, Hinckley Central and Hinckley Clarendon Park
- **Melton:** Melton Mowbray West
- **North West Leicestershire:** Agar Nook, Coalville
- **Oadby and Wigston:** Wigston Town, South Wigston

Whilst these neighbourhoods have been selected due to at least one indicator on socioeconomic need, under 75 mortality or life expectancy performing significantly worse than England, it is important to note that these communities also hold a huge amount of resilience, support and determination and it is these characteristics alongside positive action from agencies working alongside them that can reduce the risks that they face.

CONTENTS

1. Introduction	1
2. Who is at risk?	4
2.1. <i>Groups at higher risk of health inequalities.....</i>	4
2.1.1. Socio economic groups and deprivation.....	4
2.1.2. Inclusion health and vulnerable groups.....	9
2.1.3. Protected characteristics in the Equality Duty.....	15
2.1.4. Geography.....	22
2.2. <i>Intersectionality.....</i>	24
3. Level of need in Leicestershire.....	25
3.1. <i>Life expectancy</i>	25
3.2. <i>Healthy life expectancy.....</i>	28
3.3. <i>Under 75 mortality (Premature Mortality).....</i>	29
3.4. <i>Health conditions.....</i>	29
3.5. <i>Drivers of health inequality.....</i>	33
3.6. <i>Targeting action on health inequalities.....</i>	34
4. How does this impact	36
4.1. <i>Impact on the individual.....</i>	36
4.2. <i>Impact on society and the economy.....</i>	36
4.3. <i>Impact on health and social care.....</i>	36
5. Policy and Guidance	37
5.1. <i>Core20PLUS5.....</i>	37
5.2. <i>Core20PLUS5 for Children and Young People.....</i>	38
5.3. <i>Health Equity Assessment Tool (HEAT).....</i>	39
5.4. <i>Leicester, Leicestershire and Rutland Health Inequalities Framework</i>	39
5.5. <i>Leicestershire Joint Health and Wellbeing Strategy</i>	39
6. Unmet needs/Gaps	41
6.1. <i>Prevention for priority populations.....</i>	41

7. Recommendations	1
<i>Appendix A: Summary of neighbourhoods facing the greatest socioeconomic hardship in Leicestershire</i>	<i>12</i>
<i>Appendix B: Life expectancy indicators by district</i>	<i>13</i>
<i>Appendix C: MSOA's with significantly worse indicator performance against England (under 75 mortality and causes)</i>	<i>14</i>
<i>Appendix D: Intersectionality of risk</i>	<i>15</i>
<i>Appendix E: MOSA level potential drivers of health inequalities</i>	<i>16</i>

List of Tables

Table 1 Districts containing one or more (see number) LSOAs falling into the 10% most deprived for that domain.....	6
Table 2 Age adjusted rates of carers by district.....	11
Table 3 Age adjusted rates of people with a disability by district.....	20
Table 4 Life expectancy indicators.....	28
Table 5 Summary of recommendations.....	1

List of Figures

Figure 1 Dimensions of health inequalities.....	1
Figure 2 Core20PLUS5.....	2
Figure 3 IDACI by MSOAs in Leicestershire.....	7
Figure 4 IDAOPI, by MSOAs in Leicestershire.....	7
Figure 5 Modelled estimates of the proportion (%) of households in fuel poverty in Leicestershire, 2020.....	8
Figure 6 Summary of health inequalities experienced by carers.....	12
Figure 7 Rural/urban classification of LSOAs in Leicestershire.....	23
Figure 8 Life expectancy at birth (upper age band 90 and over) (male, 3 year range) 2016-20 by MSOAs in Leicestershire.....	25
Figure 9 Life expectancy at birth (upper age band 90 and over) (female, 3 year range) 2016-20 by MSOAs in Leicestershire.....	25
Figure 10 Inequality in life expectancy at birth (male) 2018-20, by districts in Leicestershire.....	26
Figure 11 Inequality in life expectancy at birth (female) 2018-20, by districts in Leicestershire.....	26
Figure 12 Life expectancy at birth (female, 3 year range) Leicestershire.....	27
Figure 13 Life expectancy at birth (Male, 3 year range) Leicestershire.....	27
Figure 14 Life expectancy gap between the most and least deprived quintiles of Leicestershire by cause of death 2020 to 2021.....	29
Figure 15 Breakdown of the life expectancy gap between the most and least deprived quintiles of Leicestershire by cause of death, 2020 to 2021 (provisional).....	30
Figure 16 Long term conditions for the 20% most deprived in Leicestershire.....	31
Figure 17 Core20PLUS for children and young people.....	38

1. Introduction

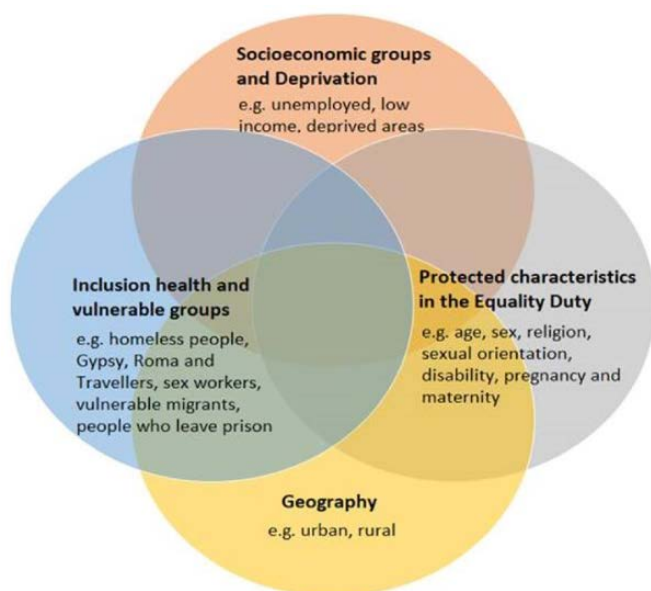
Health inequalities are avoidable, unfair, and systemic differences in health between different groups of people. Health inequalities are ultimately about differences in the status of people's health, but the term is also used to refer to differences in the care that people receive and the opportunities that they have to lead healthy lives – both of which can contribute to their health status.¹

Health inequalities have a huge impact on people's lives. In the worst examples, people are dying significantly earlier than the general population as a result of health inequalities. This includes people with a learning disability dying 20.7 years before the general population in England⁷⁹ and people who are homeless dying around 30 years earlier than the general population.²⁶ Health inequalities also impact on whether we live in good health. Carers in England report a 60% rate of long term conditions⁴⁵ (the rate is 50% in the general population) and disability-free life expectancy is estimated to be lower among several ethnic minority groups.⁶¹ As system partners, we need to address the drivers of these differences in order to improve life expectancy in Leicestershire and reduce the inequality in outcomes.

Health inequalities in England exist across a range of dimensions or characteristics, including the nine protected characteristics of the Equality Act 2010², socio-economic status, geographic deprivation, or being part of a vulnerable or Inclusion Health group. People who share protected characteristics, as defined in the Equality Act 2010, may experience poorer health outcomes as a direct result of discrimination or due to different experiences of the factors described above.³

Where the dimensions of health inequality overlap, people can often face greater risk of poor outcomes. This is often referred to as intersectionality. Figure 1 below shows how these dimensions overlap.

Figure 1 Dimensions of health inequalities



Source: HEAT (Health Equity Assessment) tool, Public Health England, 2021

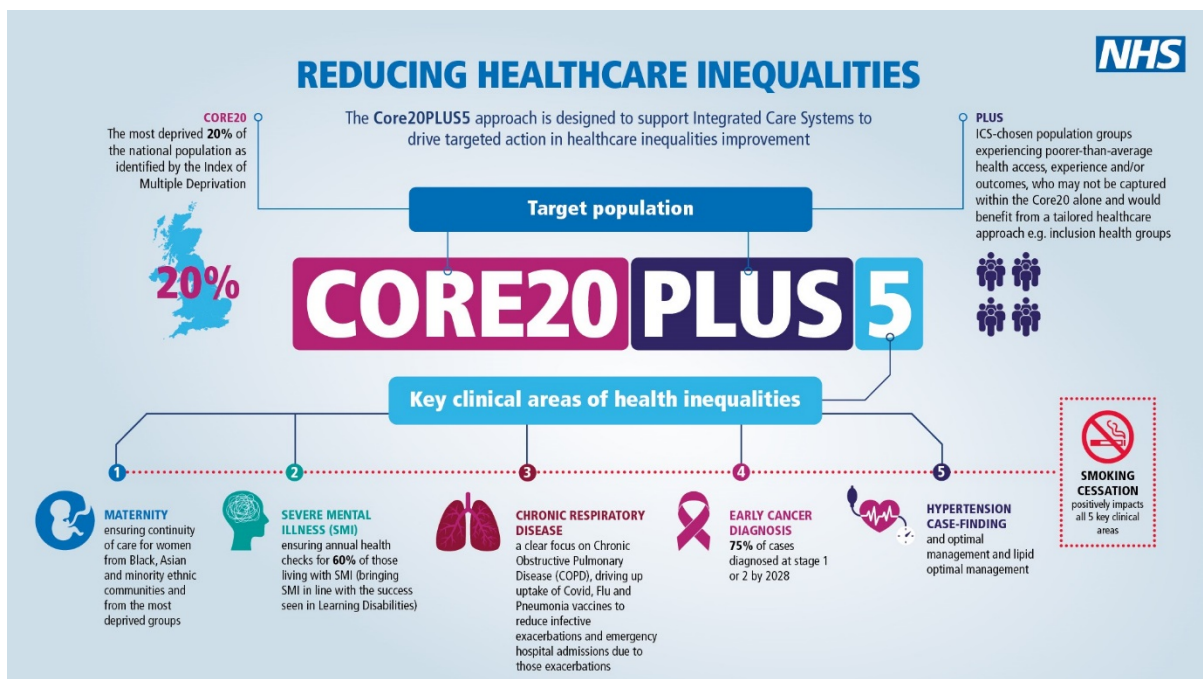
Health inequalities may be driven by:

- Different experiences of the wider determinants of health, such as the environment, income or housing
- Differences in health behaviours or other risk factors, such as smoking, diet and physical activity levels
- Psychosocial factors, such as social networks and self-esteem
- Unequal access to or experience of health services

These conditions influence our opportunities for good health and how we think, feel and act, and this shapes our mental health, physical health and wellbeing³.

Identifying and addressing health inequalities has become an important feature of the work of the NHS, Local Authorities and many voluntary and community sector organisations. The NHS Core20PLUS5⁴ approach (and Core20PLUS5 for children and young people⁵) provides a structured way of reducing health inequalities at a national and system level, tackling some of the biggest causes of inequalities in 5 clinical areas of focus. It proposes a focus on the core 20 most deprived areas, plus groups (populations more likely to face poor outcomes) and clinical areas of: maternity, severe mental illness, chronic respiratory disease, early cancer diagnosis and hypertension.

Figure 2 Core20PLUS5



Source: Core20PLUS5, NHS England

The recent pandemic has served to highlight the impact of health inequalities. Coronavirus (COVID-19) has not only replicated existing health inequalities, but in some cases, has

increased them, through its disproportionate impact on certain population groups. Analyses have shown that older age, ethnicity, male sex and geographical area are associated with the risk of getting the infection, experiencing more severe symptoms and higher rates of death.³

The cost of living crisis will likely worsen those inequalities that already exist. A 2022 survey commissioned by the Royal College of Physicians found that of those who reported their health getting worse, 84% said it was due to increased heating costs, over three quarters (78%) a result of the rising cost of food and almost half (46%) down to transport costs rising.⁶

Health inequalities occur across many population groups and across protected characteristics. For each protected characteristic group, health behaviour, condition, and neighbourhood in Leicestershire we would be able to identify inequalities in outcomes, access, and experience. For this reason, inequalities or differences in outcomes for different population groups are considered as part of each JSNA chapter developed.

This JSNA chapter will identify those population groups most at risk of health inequalities across many measures, conditions and experiences and those populations with poorer health or shorter lives than the rest of the population as a result. It will identify the available data on the key measures of health inequality and will provide a high level summary of evidence for the four dimensions of health inequalities identified (Figure 1). Where further, detailed work is needed to examine potential inequality in a particular dimension or population group, a further, specific JSNA may be recommended. For some populations, a JSNA chapter already exists and is referenced.

2. Who is at risk?

2.1. Groups at higher risk of health inequalities

Health inequalities occur across many population groups and across protected characteristics. For each protected characteristic group, health behaviour, condition, and neighbourhood in Leicestershire we would be able to identify inequalities in outcomes, access, and experience. This JSNA chapter reviews evidence to identify those facing the worst outcomes which supports those wanting to tackle health inequalities in knowing where to focus efforts. It is hoped that this will lead to further work, often directly involving people from these communities, to shape and focus service provision and resource.

Whilst the data and research reviewed provide helpful insight into where health inequalities may exist in Leicestershire, these can only provide a guide and need to be viewed alongside local knowledge and lived experiences to build a robust picture of need. It should also be remembered that populations and need changes over time and any approaches to identifying populations most at risk needs to build flexibility in approach to accommodate this change.

Whilst some population groups are at greater risk of experiencing health inequality, not everyone belonging to that group will have the same experience or outcome. Taking a population level view on which people may experience poorer outcomes is important to shape policy and action but an individual approach is always required when looking at service delivery. The groups detailed below are those where research, evidence or data helps to identify them as facing a greater risk of poor health outcomes. Many are also identified through the Core20PLUS⁴ approach or the Health Equity Assessment Tool (HEAT).³

2.1.1. Socio economic groups and deprivation

The impact of deprivation and poverty

The Marmot Review⁷, published in 2010, set out an analysis of the causes of health inequalities in England and what needed to be done about them. Since then, life expectancy (the average number of years a person would expect to live based on the age of death for those living in the same geographical area) in England has stalled, years in ill health have increased and inequalities in health have widened, especially for women.

There is a strong relationship between deprivation measured at the small areas level and healthy life expectancy at birth (the years someone is expected to live in good health). The poorer the area, the worse the health. There is a social gradient in the proportion of life spent in ill health with those in poorer areas spending more of their shorter lives in ill health. There are also clear socioeconomic gradients in preventable mortality. The poorest areas have the highest preventable mortality rates, and the richest areas have the lowest.⁸

Further research into health inequalities in 2022 found that a 60-year-old woman in England's poorest areas typically has the same level of illness as a woman 16 years older in the richest areas.⁹ One in three children in the UK lives in relative poverty. There are clear and consistent links between child poverty and paediatric morbidity and mortality.¹⁰

Groups at higher risk of poverty

Disabled people are more likely to experience poverty than non-disabled people¹¹ and disabled adults in Great Britain were more likely to report it was difficult (very or somewhat) to afford energy, rent or mortgage payments than non-disabled adults in the period June to September 2022 according to data from the Opinions and Lifestyle Survey (OPN).¹²

Larger families and single-parent families have particularly high poverty rates at almost half for both single-parent families and for families containing three or more children. Households headed by someone of Bangladeshi, Pakistani or Black ethnicity have higher poverty rates (over 40% are in poverty).¹¹

Whilst being in a working family reduces the risk of poverty, it is not a guarantee, especially if that work is part-time or in self-employment in a low paying sector or if there is a single earner in the household. Almost a quarter of people working in the administrative and support sector are in poverty.¹¹ We know that the current cost of living crisis will substantially increase poverty and material deprivation. Based on current forecasts, absolute poverty is expected to rise from 11 million to 13 million in the UK by 2023/24.¹³

Socio economic need in Leicestershire

The Index of Multiple Deprivation¹⁴, commonly known as the IMD, is the official measure of relative deprivation for small areas in England. The IMD combines information from seven domains to produce an overall relative measure of deprivation. The IMD ranks every small area in England from 1 (most deprived area) to 32,844 (least deprived area).

Leicestershire is overall one of the least deprived upper tier local authorities in England, being in the top decile* when ranked using the Index of Multiple Deprivation 2019.¹⁵ All seven Leicestershire districts fall within the least deprived half of all local authority districts within England. North West Leicestershire is the most deprived district in the county (ranked 216th out of 326) while Harborough is the least deprived (ranked 308th out of 326).¹⁶

Despite the low average deprivation in Leicestershire, pockets of significant deprivation do exist, with four Lower Super Output Areas[†] (LSOAs) in the county falling within the most deprived decile in England. These areas can be found in Loughborough (within the Loughborough Lemyngton and Hastings and Storer and Queens Park MSOAs) and two in Coalville (within the Agar Nook MSOA).¹⁷

When expanded to the two most deprived deciles nationally (or the 20% most deprived neighbourhoods in England), there are 11,642 Leicestershire residents living in these deciles out of a total population of just over 713,000.¹⁷ The districts with populations living in the

* Deciles are calculated by ranking the 32,844 Lower Super Output Areas (LSOAs) in England from most deprived to least deprived and dividing them into 10 equal groups. These range from the most deprived 10% of LSOAs nationally to the least deprived 10% of LSOAs nationally.

† Lower layer Super Output Areas (LSOAs) are a standard statistical geography designed to be of a similar population size, with an average of approximately 1,500 residents or 650 households.

20% most deprived areas are Charnwood (7,006 people), Hinckley and Bosworth (1,269 people) and North West Leicestershire (3,367 people).¹⁷

Looking across the domains that make up the index of multiple deprivation, all of the district areas contain at least one Lower layer Super Output Area (LSOA) that falls into the lowest 10% nationally for at least one domain, with the exception of Blaby (Table 1). Blaby also has one of the smallest gaps between the most and least income deprived neighbourhoods (10th from all lower tier local authorities in England).¹⁷

Table 1 Districts containing one or more (see number) LSOAs falling into the 10% most deprived for that domain

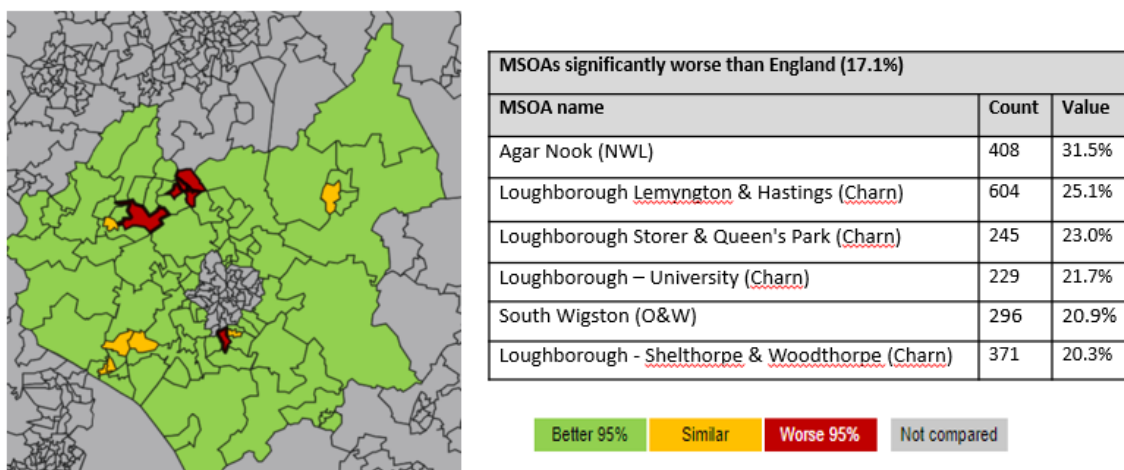
Contains an LSOA falling into 10% most deprived for domains:	Blaby	Charnwood	Harborough	Hinckley and Bosworth	Melton	North West Leicestershire	Oadby and Wigston
Income		2				2	
Employment		2		2		2	
Education		2		4	1	5	
Health		1					1
Crime		4					
Barriers to housing			8	4	6		
Living Environment		1	1	1	2	1	
IMD		2				2	

Source: IMD, Index of Multiple Deprivation 2019, local authority district summaries

The **Child Poverty, Income Deprivation affecting Children Index (IDACI)** shows there are 12,681 children in Leicestershire living in poverty in 2019. Populations are significantly worse (higher) in six Middle layer Super Output Areas (MSOAs)[‡] of Leicestershire (Figure 3).¹⁸

[‡] Middle layer Super Output Areas are made up of clusters of Lower layer Super Output Areas with an average population of 7,500 residents or 4,000 households.

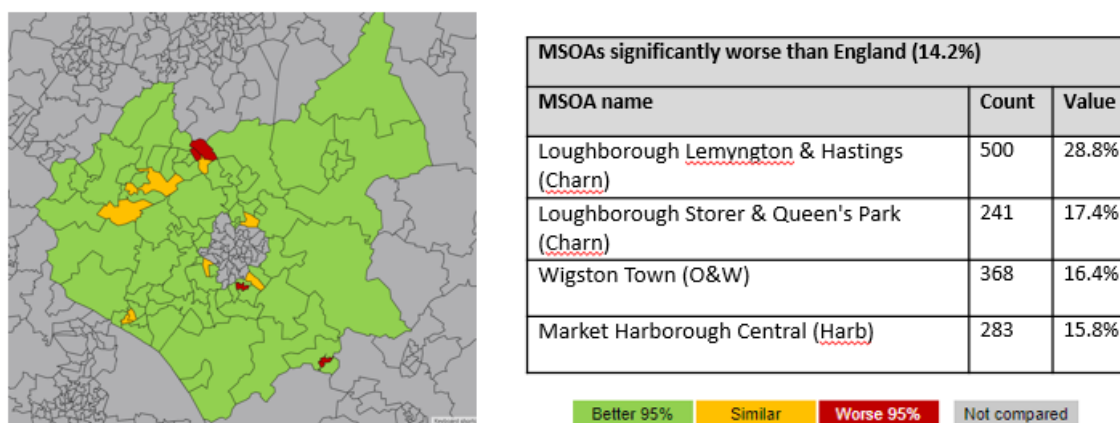
Figure 3 IDACI by MSOAs in Leicestershire



Source: Office for Health Improvement and Disparities, Fingertips, 2019

The **Income Deprivation Affecting Older People Index (IDAOP)** identifies Leicestershire overall as having significantly better (lower) rates of older people in poverty compared to England, but this is significantly worse (higher) in four MSOAs sitting within the districts of Charnwood, Oadby and Wigston and Harborough¹⁹ (Figure 4).

Figure 4 IDAOP, by MSOAs in Leicestershire

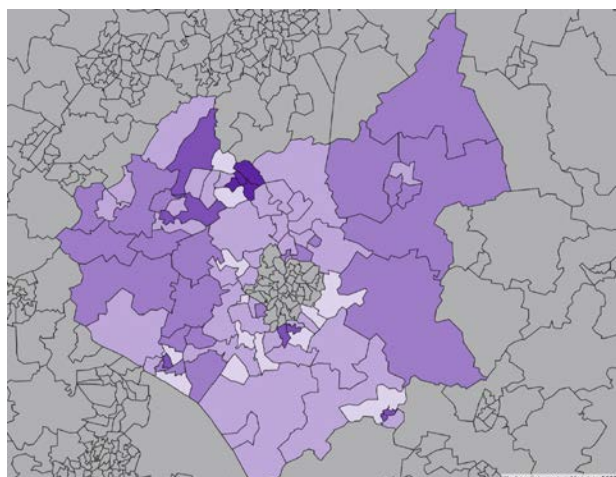


Source: Office for Health Improvement and Disparities, Fingertips, 2019

Modelling estimates of the proportion of households in **fuel poverty** look at the number of households whose fuel poverty energy efficiency rating is band D or below and their disposable income (after housing and fuel costs) is below the poverty line. Leicestershire has the lowest rate of fuel poverty in the East Midlands²⁰ but this still results in 32,496 people meeting these criteria in 2020. It should be noted that the latest data is from 2020 which is prior to the national increase in fuel costs which are likely to have increased fuel poverty numbers further.

Across the districts, Charnwood has the highest rate of fuel poverty (12.6%), followed by North West Leicestershire (12.4%) and Melton (12.1%). Blaby has the lowest rate (9.6%) (appendix A). When we look at the rates across Leicestershire by MSOA, there are four areas in the worst quintile in England, these are situated in Charnwood (Figure 5).²⁰

Figure 5 Modelled estimates of the proportion (%) of households in fuel poverty in Leicestershire, 2020



Quintiles: Best [lightest purple] [light purple] [medium purple] [dark purple] Worst

Source: Office for Health Improvement and Disparities, Fingertips, 2020

Unemployment rates across Leicestershire[§] (2.9%) in 2021/22 are significantly better (lower) than England (5.0%). All districts across Leicestershire were also significantly better (lower) in comparison to the England rate and only one MSOA (Loughborough Lemyngton & Hastings) had a rate that was significantly worse (higher) than England at 6.5%.²¹

Long term unemployment (claimants of Jobseeker’s Allowance for more than a year[§]) in 2021/22 was also significantly better (lower) than England at 0.5 per 1,000 working age population in Leicestershire compared to 1.9 in England. All district areas were also significantly better (lower) than England.²²

Rates of **economic inactivity** (people that are neither employed or unemployed) in Leicestershire (18.6%) are statistically similar to England (20.9%) as a proportion of the population in 2020/21. The districts are also classed as statistically similar to England with the exception of Harborough which is significantly better (higher) (13.6%) and Oadby and Wigston where significance is not calculated.²³

Leicestershire performs significantly better (higher) or statistically similar to England on a range of other employment related measures. The exception is people in contact with secondary mental health services and on the Care Plan Approach in paid employment (aged

[§] Value derived from monthly figures where counts <5 were suppressed, and all other counts rounded to the nearest 5.

18 to 69) at 6.0% for Leicestershire in 2020/21 compared to 9.0% for England²⁴, and the gap in employment rate for this same population and the overall employment rate in 2020/21 at 70.9 percentage points for Leicestershire and 66.1 percentage points for England.²⁵ Both are significantly worse (higher) than England.

2.1.2. Inclusion health and vulnerable groups

People experiencing homelessness

People experiencing homelessness have far worse health and social care outcomes than the general population. The average age of death for the homeless population is around 30 years lower than for the general population.²⁶ Homeless people aged 16-24 have twice the chance of dying as the general population; those aged 25-34 four times; aged 35-44 year olds five times; aged 45-54 three times; and aged 55-64 one and a half times the national risk.²⁷

People experiencing homelessness often experience severe and multiple disadvantage and unmet health and social care needs that may be contributing factors for becoming homeless as well as consequences of homelessness. As well as the experience of homelessness, other disadvantages that are likely to be present include harmful drug or alcohol use, criminal justice involvement, poor mental health, and domestic violence and abuse. People experiencing severe and multiple disadvantage have often experienced underlying adverse childhood experiences, poverty, psychological trauma, stigma and discrimination. People with these experiences may have had sporadic and inconsistent contact with services or been serially excluded from services. People who experience severe and multiple disadvantage tend to have much poorer physical and mental health, have higher social care needs, and die at a much younger age than people without severe and multiple disadvantage.²⁶ A report by the Centre for Homelessness Impact found more than a quarter of people experiencing homelessness in England had been in care at some point in their lives.²⁸

The Rate of homelessness (aggregated from all known lower geography values) in 2020/21 in Leicestershire (6.8 per 1,000 population) was significantly better (lower) than the England rate (11.3 per 1,000 population) and the rate in 2020/21 had significantly decreased from 2019/20 when the rate was 7.7 per 1,000 population. There were 1,379 people owed a duty under the Homeless Reduction Act in Leicestershire in 2020/21.²⁹ Blaby had the highest rate out of all the districts in the same period (8.0 per 1,000 population) and Harborough had the lowest (5.1 per 1,000 population).³⁰

Victims of modern slavery

Modern slavery is a term that includes any form of human trafficking, slavery, servitude or forced labour, as set out in the Modern Slavery Act 2015. Although the evidence base on the health consequences of modern slavery is not substantial or comprehensive, a range of serious physical and mental health consequences of modern slavery were documented across a range of settings. Health implications depended on the nature, duration and severity of abuse. An updated systematic review reported trafficked men, women and children had high exposure to violence and significant physical health symptoms such as

headaches, stomach pain and back pain and mental health problems such as depression, anxiety and post-traumatic stress disorder (PTSD). Sex trafficking resulted in high prevalence of sexually transmitted infections and PTSD associated with sexual violence. Modern slavery victims experienced high levels of unmet health needs and poor access to health services. Studies suggested mistrust in health services because of stigma, fear of law enforcement and experiences of discrimination.³¹**Error! Bookmark not defined.**

Research in 2019 looking at health inequalities and equity challenges for victims of modern slavery found that survivors experienced repeated challenges accessing healthcare, for themselves and their children, and initially could not access GP services. This improved when accompanied by an advocate.³²

Nationally (UK), the number of victims referred to the National Referral Mechanism in 2021 was 12,727. Of those referred, 75% were male and 25% female. The most common nationality for those referred was UK nationals (31%) followed by Albanian (20%) and Vietnamese (8%).³³ In 2021, 154 referrals for investigation into potential modern slavery offences were made to Leicester, Leicestershire and Rutland Constabulary. Of these referrals, 93 were for adults over 18, 49 for children 17 years or under and 12 were of an unspecified or unknown age.³⁴

Sex workers

Street sex workers are a highly marginalised and stigmatised group who carry an extremely high burden of unmet health need. They experience multiple and interdependent health and social problems and extreme health and social inequality. They frequently experience poor mental health, particularly anxiety, depression, isolation, post-traumatic stress disorder, self-harm, and suicide.³⁵ Research with both street and off street sex workers found violence, anxiety and depression linked to poverty, unstable housing and police enforcement. Street based sex workers experienced greater inequalities compared with off street for violence, homelessness and law enforcement.^{36,37}

There are 40,800 estimated sex workers outside of London.³⁷ Figures for Leicestershire are unknown.

Vulnerable migrants

The Race Equality Council found some barriers to health care arising from restricted entitlement for some vulnerable migrants.³⁸ Research into the health needs of asylum seekers and refugees show they have differing experiences of health and of health care. One in six refugees has a physical health problem severe enough to affect their life and two thirds have experienced anxiety or depression. Symptoms of psychological distress are common in this population, but do not necessarily signify a mental illness.³⁹

There have been 156 asylum resettlements between 2014 and 2022 in Leicestershire⁴⁰ and in the year ending December 2022 there were 2,595 people seeking asylum living in the County⁴¹.

Looked after children and care experienced people

A longitudinal study tracking adults who spent time in care as children between 1971 and 2001 in England and Wales found that care experienced people were 70% more likely to die prematurely than those who did not. The extra risk of premature death rose for care leavers from 40% in 1971 to 360% in 2011. Care leavers are also more likely to experience an unnatural death (suicide, violent death, accident). The same study found that adults who lived in residential care during childhood were between 3 and 4 times more likely to report their health as 'not good' compared with 'good'.⁴²

Care experienced children and young people have consistently been found to have much higher rates of mental health difficulties than the general population, including a significant proportion who have more than one condition. They are approximately four times more likely to have a mental disorder than children living in their birth families. Almost half (rising to three quarters in residential homes) meet the criteria for a psychiatric compared to 10% of general population.⁴³

Measures of the emotional and behavioural health of looked after children using the Strengths and Difficulties Questionnaire (SDQ) found that 37% had scores considered a cause for concern, compared to 12% of children in the general population. A Barnardo's survey of care leavers found that 46% identified as having mental health needs, with 65% not receiving any form of statutory support and further research identifies care leavers as between four and five times more likely than their peers to attempt suicide.⁴³

On 31st March 2021 there were 620 looked after children in Leicestershire.⁴⁴ It is not known how many care experienced adults live within Leicestershire.

Carers

The Census 2021 provides some data on the rates of caring in England and Wales and in Leicestershire. The rates of caring have been age standardised to take into account some areas having larger older populations that may require more care.

Across England and Wales, the age-standardised proportion of usual residents aged 5 years and over who provided any amount of unpaid care decreased from 11.4% in 2011 to 9.0% in 2021. It should be noted that there were some changes to the wording between 2011 and 2021 which may have had an impact on the number of people who self-reported as unpaid carers.

Table 2 Age adjusted rates of carers by district

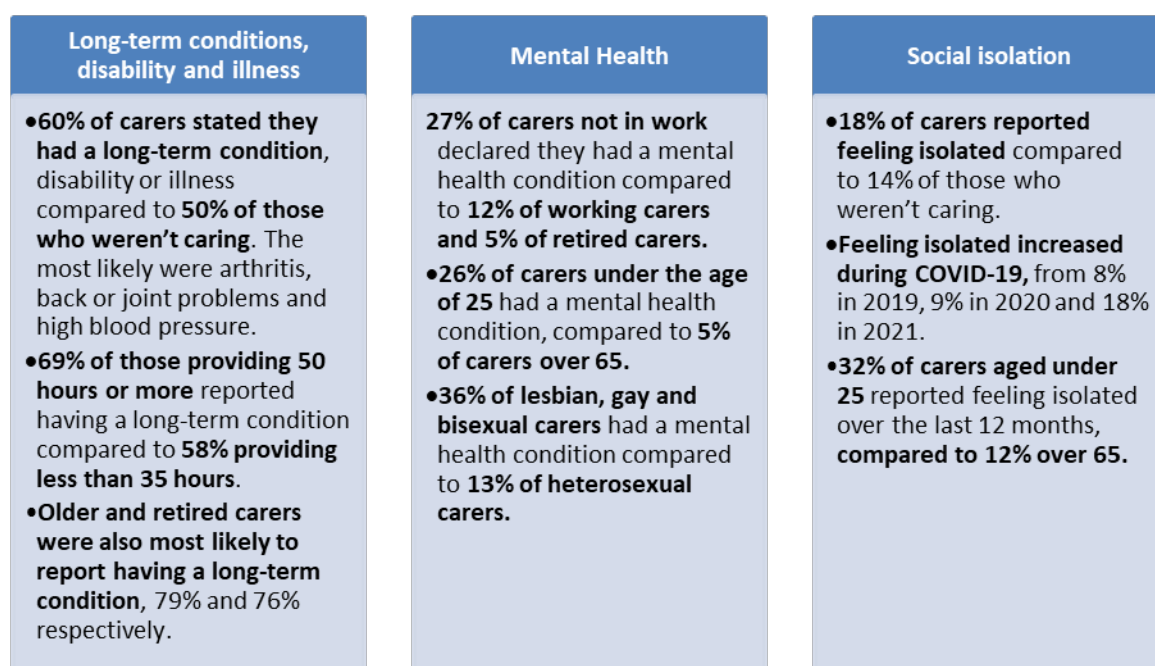
District	50 or more hours unpaid care a week	20 – 49 hours unpaid care a week	19 or less hours unpaid care a week
Blaby	2.5%	1.8%	5.0%
Charnwood	2.5%	1.6%	4.8%
Harborough	2.0%	1.4%	4.9%

Hinckley and Bosworth	2.6%	1.6%	5.0%
Melton	2.4%	1.5%	4.7%
North West Leicestershire	2.7%	1.7%	4.7%
Oadby and Wigston	2.7%	2.0%	5.1%

Source: Office for National Statistics, Unpaid care, England and Wales: Census 2021

A report by Carers UK⁴⁵ using data from the 2021 GP Patient Survey looked closer at the health of carers compared to non-carers. The key findings from the survey relating to inequality are presented below (Figure 6). 18% of the 850,000 respondents have some unpaid care responsibilities.

Figure 6 Summary of health inequalities experienced by carers



Source: Carers UK, Carer's health and experiences of primary care. Data from the 2021 GP Patient Survey

Carers over the age of 55 in England have significantly worse (lower) levels of physical activity (14%) than all adults (54%). Forty six percent of Carers are inactive, compared to thirty three percent of all adults, with the remaining fairly active. The greatest barriers were limited time, lack of motivation, affordability and not having anyone to go with. 76% of Carers do not feel that they can do as much physical activity as they'd like to do and this is highest in Carers who are disabled, lonely or struggling financially.⁴⁶

A review of evidence by the National Institute for Health and Care Research found that caring can have a serious financial impact with many needing to give up or reduce their employment, rely on charities for basic necessities and pay for expensive services or

equipment to support their loved one with 1 in 5 carers worried about being able to cope financially. The review suggests online resources (due to difficulties in people attending in person), support for daily tasks such as managing medication, supporting carers into work through initiatives such as flexible working hours for example and active engagement with carers e.g. when they attend clinical appointments, often with the person they care for, can all help to improve the health of carers.⁴⁷

People in or leaving prison

Evidence from Revolving Doors Agency, the Home Office and Public Health England identifies the mortality rate for prisoners is 50% higher than the rest of the population. People in and out of the criminal justice system are four times more likely to be smokers. 15% of prisoners had been homeless immediately prior to custody, compared to a lifetime experience of homelessness of 3.5% in the wider population. 42% of men and women in prison and 17.3% on probation suffered from depression, compared to just over 10% of the rest of the population. Further, it is broadly recognised that many prisoners have the biological characteristics of those who are 10 years older than them.⁴⁸

England and Wales data on prison releases from October to December 2021 showed approximately 12,000 people were released in this period.⁴⁹ Whilst local figures are not known, applying this rate to the Leicestershire population would result in 143 releases over this period.

People who have experienced trauma

Adverse childhood experiences (ACEs) are stressful or traumatic events that occur during childhood or adolescence. In England, a household survey found that nearly half of adults (aged 18 to 69) had experienced at least one ACE, including childhood sexual, physical, or verbal abuse, as well as household domestic violence and abuse (DVA) with 9% experiencing four or more ACEs. DVA is considered to be a chronic and cumulative cause of complex trauma. Up to 29% of women and 13% of men have experienced DVA in their lifetime, at a cost of £14 billion a year to the UK economy.⁵⁰

A study on trauma informed care in the UK finds that patients with four or more ACEs were at higher risk of a range of poorer health outcomes including cardiovascular disease and mental ill health, versus those with no ACEs history. Adults who had experienced four ACEs were twice as likely to attend their GP repeatedly compared to those with no ACEs history and incidence of health service use rose as the ACEs experiences increased. 47% of patients in mental health services had experienced physical abuse and 37% had experienced sexual abuse.⁵⁰

Leicestershire Police recorded a rate of 23.1 per 1,000 for domestic abuse related incidents and crimes in 2020/21 in Leicestershire. This was below the England value of 30.3.⁵¹ Estimates for the number of survivors of sexual abuse in Leicestershire suggest 14,728 male survivors and 34,048 female survivors aged 18-64 in 2020.⁵² If the rate of 9% found in the UK survey were applied to the Leicestershire population aged 18 to 69, this would equate to 51,330 people.

People experiencing Severe Mental Illness (SMI)

The phrase severe mental illness (SMI) refers to people with psychological problems that are often so debilitating that their ability to engage in functional and occupational activities is severely impaired. Schizophrenia and bipolar disorder are often referred to as an SMI.

Public Health England carried out research and analysis into severe mental illness and physical health inequalities in 2018⁵³. The results summarised in a briefing, highlight some important aspects of health inequalities faced by this population.

People with SMI are at a greater risk of poor physical health and have a higher premature mortality than the general population. People with SMI in England:

- die on average 15 to 20 years earlier than the general population
- have 3.7 times higher death rate for ages under 75 than the general population
- experience a widening gap in death rates over time

It is estimated that for people with SMI, 2 in 3 deaths are from physical illnesses that can be prevented. Major causes of death in people with SMI include chronic physical medical conditions such as cardiovascular disease, respiratory disease, diabetes and hypertension.

Compared to the general population, people aged under-75 in contact with mental health services in England have death rates that are:

- 5 times higher for liver disease
- 4.7 times higher for respiratory disease
- 3.3 times higher for cardiovascular disease
- 2 times higher for cancer

At the same time, the difference between the death rate in people under 75 years of age in contact with mental health services and the general population is:

- 84 more deaths per 100,000 population in adults with SMI for liver disease
- 147 more deaths per 100,000 population in adults with SMI for respiratory disease
- 198 more deaths per 100,000 population in adults with SMI for cardiovascular disease
- 142 more deaths per 100,000 population in adults with SMI for cancer

Reducing the difference in the premature death rate from each of the conditions will address health inequality experienced by the population with SMI. However, action to address cardiovascular disease mortality has the potential to impact on most people.

In addition to chronic physical health conditions, suicide is also an important cause of death in the SMI population. Suicide risk in people with SMI is high following acute psychotic

episodes and psychiatric hospitalisation. It peaks during psychiatric hospital admission and shortly after discharge. Other causes of death include substance abuse, Parkinson's disease, accidents, dementia (including Alzheimer's disease), and infections and respiratory acute conditions (particularly pneumonia).

Using analysis of GP data, the Health Improvement Network (THIN) was able to demonstrate that patients living in more deprived areas had a higher prevalence SMI and that SMI patients living in more deprived areas have a higher prevalence of physical health conditions. The analysis also found differences in age groups with the highest health inequality in ages 15 to 34 for asthma, diabetes, hypertension and obesity.⁵³

No data is available to show the size of the population with SMI in Leicestershire but there were 47,475 new referrals to secondary mental health services in 2019/20.⁵⁴

2.1.3. Protected characteristics in the Equality Duty

It should be noted that marriage and civil partnerships and religion or belief are not covered in this JSNA due to the lack of evidence of health inequalities resulting from these protected characteristics.

Age

Most studies on health inequalities for different age groups focus on many of the issues covered by this JSNA chapter including socio economic factors, health behaviours, vulnerable groups and protected characteristics and how these affect people of different ages.

Case studies explored by the Local Government Association focussing on health inequalities for children provide some key statistics including one in four children living with obesity by the end of primary school, up from 1 in 5 before the pandemic and one in six young people having a diagnosable mental health disorder, up from 1 in 9 in 2017.⁵⁵ A further report specifically focussing on mental health identifies that emotional disorders, particularly anxiety and depression are on the rise for young people.⁵⁶ This JSNA chapter details some of the local risks, particularly in socio economic terms with 12,681 children living in child poverty.¹⁸

The Association for Young People's Health (AYPH) has drawn together publicly available data on inequalities in health outcomes for 10-24 year olds. It identifies data and groups to display drivers of inequalities, levers for action and inequalities in health outcomes. Headline issues include one in five secondary school children being eligible for free school meals, England's richest areas having twice as many youth services than the poorest and, for 2021, there being a 16.6% gap between obesity rates in 10-11 year olds in the most and least deprived areas.⁵⁷

When it comes to older age, the Centre for Ageing Better report into inequalities in later life highlights inequalities can be the produce of cumulative advantage or disadvantage over time. People born at a similar point in time may have very different outcomes in later life due to experiences over the life course.⁵⁸ The State of Ageing report 2022 highlights a sharp increase in pensioner poverty, meaning that almost 1 in 5 pensioners were living in poverty in the 2019/20 period. There has also been a decline in employment rates among people

approaching retirement age and the number of older people renting rather than owning their own homes has reached an all-time high. There is a steady increase in the number of people in mid and later life who live alone.⁵⁹

Office for National Statistics population estimates for mid-2020 show that, compared with England, the population of Leicestershire is older, with higher proportions of the population aged 40-64 (32.9% in the county compared with 31.7% in England) and 65 and over (20.6% compared with 18.5% for England). There were 119,567 children under the age of 15 in Leicestershire in 2020 (16.8% of the population).⁶⁰

Race

In England, there are health inequalities between ethnic minority and white groups, and between different ethnic minority groups. The picture is complex, both between different ethnic groups and across different conditions.

Access to primary care health services is generally equitable for ethnic minority groups, but this is less consistently so across other health services. However, people from ethnic minority groups are more likely to report being in poorer health and to report poorer experiences of using health services than their white counterparts.

Before the COVID-19 pandemic, life expectancy at birth was higher among ethnic minority groups than the White and Mixed groups. The headline figures conceal significant differences between ethnic groups, for example:

- people from the Gypsy or Irish Traveller, Bangladeshi and Pakistani communities have the poorest health outcomes across a range of indicators
- compared with the white population, disability-free life expectancy is estimated to be lower among several ethnic minority groups
- rates of infant and maternal mortality, cardiovascular disease (CVD) and diabetes are higher among Black and South Asian groups
- mortality from cancer, and dementia and Alzheimer's disease, is highest among white groups

The COVID-19 pandemic has had a disproportionate impact on ethnic minority communities, who have experienced higher infection and mortality rates than the white population.

Unpicking the causes of ethnic inequalities in health is difficult. Available evidence suggests a complex interplay of deprivation, environmental, physiological, health-related behaviours and the 'healthy migrant effect'. Ethnic minority groups are disproportionately affected by socio-economic deprivation, a key determinant of health status in all communities, but it is not clear if the relationship applies equally across all ethnic groups.⁶¹

An Equality and Human Rights Commission report focussing on Gypsy and Travellers identifies life expectancy for Gypsy and Travellers as 10 years lower than the national average. The report also found that Gypsy and Traveller mothers are 20 times more likely than the rest of the population to have experienced the death of a child.⁹² In 2011, 14.1% of Gypsy and Irish Traveller people in England and Wales rated their health as bad or very bad,

compared with 5.6% on average for all ethnic groups.⁶² Further research evidences 14% of Gypsy and Traveller people describing their health as 'bad' or 'very bad', more than twice as high as the White British group. 42% of Gypsy and Traveller people are affected by a long term condition, as opposed to 18% of the general population.⁶³ A Parliamentary report⁶⁴ into the inequalities faced by Gypsy, Roma and Traveller communities reports 42% of this population affected by a long term condition, as opposed to 18% of the general population. It also reports that one in five Gypsy Traveller mothers will experience the loss of a child, compared to one in a hundred in the non-Traveller community.

There is a wealth of further research and evidence into health inequalities for different racial groups and this could be considered for further analysis as a standalone JSNA chapter if required.

In Leicester, Leicestershire and Rutland, analysis of data across a range of clinical areas at University Hospitals of Leicester looking at rates of people not attending arranged appointments, discharged after the first appointment and on waiting lists for treatment show higher rates across all of these measures for non-white ethnic groups and particularly high rates across many areas for people of Black ethnicity.

In Leicestershire, the majority of the population is White (91%) which is slightly higher than the figure for the East Midlands (89%) and England (85%). The next largest group in Leicestershire is Asian (6.3%) followed by Mixed or Multiple Ethnic Group (1.7%) and Black ethnic group (0.6%).⁶⁵⁶⁶

The Kings Fund long read examining the health of people from ethnic minority groups in England⁶¹ (as summarised above) presents a number of key messages, summarising overall that the picture is complex both between different ethnic groups and across different conditions. However, the report does state that people from the Gypsy or Irish Traveller, Bangladeshi and Pakistani communities have the poorest health outcomes across a range of indicators. When we look at where people from these ethnic groups live in higher numbers in Leicestershire, we can see that:

- The Census 2021⁶⁶ identifies Lutterworth MSOA has the highest proportion of people identifying as Gypsy or Irish Travellers (1.4%) in Harborough district. This is followed by Stoney Stanton, Sapcote & Sharnford MSOA (0.4%) in Hinckley and Bosworth district. However, it should be noted that the Multi Agency Travellers Unit (MATU) locally reports concerns with the census data which doesn't compare to local data on the number of travellers living on local sites. The MATU estimate the local traveller population to be between 0.2 and 0.4% of the local population, resulting in a range of 1,425 to 2,850 people (higher than the 0.1% identified in the census). The MATU reports larger traveller sites being situated in the districts of Blaby, Harborough, Hinckley and Bosworth and North West Leicestershire. Larger populations in housing in Leicestershire are located in Charnwood district.
- Loughborough Lemyngton and Hastings MSOA has the highest proportion of Bangladeshi people in Leicestershire (13.7%). This is followed by Loughborough Shelthorpe and Woodthorpe (2.2%). Both of these MSOAs are in the Charnwood district.

- Oadby East MSOA has the highest proportion of Pakistani people in Leicestershire (8%) of the population. This is followed by Oadby South and West (6.7%), Oadby North (6.6%) and Wigston North (4%). All of these MSOAs are in Oadby and Wigston district.⁶⁶

Data released in 2023 from the Office for National Statistics⁶⁷ shows Asian Pakistani and Asian Bangladeshi people have the lowest median income of all ethnic groups in England (although the Gypsy Irish Traveller population are not specifically identified).

Sex

Much of the research into health inequalities by sex focusses on inequalities experienced by women. Many also highlight the intersectionality of factors such as poverty or ethnicity alongside sex. A study on behalf of the British Medical Association into health inequalities experienced by women highlights that although women live longer than men on average, women are estimated to spend a lesser proportion (76.0%) of their lives free from disability compared with males (79.5%). There is evidence that poorer, migrant women suffer the worst health of all and there are differences in health outcomes between ethnic groups for women.⁶⁸

The inequality in life expectancy for women in Leicestershire (the gap between life expectancy for those in the least and the most deprived neighbourhoods) shows a larger gap for women (Figure 12) than for men (Figure 13).

The Women's Health Strategy for England was put before Parliament in August 2022 by the then Secretary of State for Health and Social Care.⁶⁹ This identified priority areas of:

- Menstrual health and gynaecological conditions
- Fertility, pregnancy, pregnancy loss and postnatal support
- Menopause
- Mental health and Wellbeing
- Cancers
- Health impacts of violence against women and girls
- Healthy ageing and long-term conditions

Sexual orientation and gender reassignment

The evidence that LGBT people have disproportionately worse health outcomes and experiences of healthcare is both compelling and consistent. With pretty much every measure we look at LGBT individuals fare worse than others. Further, trans and non-binary people are more likely to be disabled and to have chronic health conditions, and lesbian and bisexual women are more likely to be obese.⁷⁰

A national survey of LGBT people by the Government in 2017 found that at least 16% who accessed or tried to access public health services had a negative experience because of their sexual orientation, and that at least 38% had a negative experience because of their gender identity.⁷¹ Discrimination is not always overt, but can instead exist in more subtle forms

such as a heteronormative bias and a lack of LGBT representation in service promotion leaflets or assumptions that patients are heterosexual unless stated otherwise.⁷²

International studies have found the life expectancy of gay men to be up to 20 years less than their heterosexual counterparts, but most of this was attributable to HIV and subsequent work has suggested that the gap in life expectancy due to HIV is reduced substantially by treatment. However, more recent work in Denmark found that, despite the positive impact of same-sex marriage, individuals in same-sex relationships had a significantly higher mortality rate than the general population.⁷³

Based on the experiences of more than 800 trans and non-binary people, a 2018 study by Stonewall looked at the discrimination trans people face on a daily basis in the UK. When accessing general healthcare services in the last year, two in five trans people (41%) said healthcare staff lacked understanding of specific trans health needs. 7% of this cohort said they have been refused care because they are LGBT.⁷⁴

The census 2021 showed 89.4% of the population aged 16 years and above in England identified as straight or heterosexual, 1.5% identified as gay or lesbian. A further 1.3% identified as bisexual and 0.3% as any other sexual orientation.⁷⁵

In Leicestershire, the MSOAs with the highest proportion of people aged 16 year and over who identify as lesbian, gay, bisexual or other are:

- Loughborough Storer and Queens Park (5.55%)
- Loughborough University (5.55%)
- Loughborough Lemyngton and Hastings (4.81%)

The census 2021⁷⁶ showed 0.55% of the population aged 16 years and over reported their gender identify was different from their sex at birth. In Leicestershire, the MSOAs with the highest proportion of people identifying with a different gender from birth are:

- Coalville (0.81%)
- Hinckley Central (0.80%)
- Loughborough Lemyngton & Hastings (0.72%)
- Loughborough Storer & Queens Park (0.62%)

Disability

The census 2021 provides an insight into the outcomes for disabled people in the UK.⁷⁷ The impact of inequality experienced by people with a disability are clear to see from the insight this provides. Key points include:

- One-quarter (24.9%) of disabled people aged 21 to 64 years in the UK had a degree as their highest qualification compared with 42.7% of non-disabled people; 13.3% of disabled people had no qualifications compared with 4.6% of non-disabled people

(year ending June 2021)

- Around half of disabled people aged 16 to 64 years (53.5%) in the UK were in employment compared with around 8 in 10 (81.6%) for non-disabled people (July to September 2021); disabled people with severe or specific learning difficulties, autism and mental illness had the lowest employment rates.
- Nearly 1 in 4 (24.9%) disabled people aged 16 to 64 years in the UK rented social housing compared with fewer than 1 in 10 (7.9%) non-disabled people; they were also less likely to own their own home (39.7%) and less likely to live with parents (16.4%) than non-disabled people (53.3% and 19.2% respectively) (year ending June 2021).
- Disabled people aged 16 to 64 years had poorer ratings than non-disabled people on all four personal well-being measures; average anxiety levels were higher for disabled people at 4.6 out of 10, compared with 3.0 out of 10 for non-disabled people (year ending June 2021).
- The proportion of disabled people (15.1%) aged 16 years and over in England who reported feeling lonely “often or always” was over four times that of non-disabled people (3.6%) (year ending March 2021).

Census data for Leicestershire districts show disability rates for each of the districts as displayed in the table below:

Table 3 Age adjusted rates of people with a disability by district

District	Disabled under the Equality Act: day to day activities limited a lot	Disabled under the Equality Act: Day to day activities limited a little
Blaby	6.1%	9.6%
Charnwood	6.4%	10.2%
Harborough	5.1%	9.3%
Hinckley and Bosworth	6.5%	10.5%
Melton	5.7%	10.3%
North West Leicestershire	6.8%	10.6%
Oadby and Wigston	6.5%	10.1%

Source: Office for National Statistics, Census 2021, Census maps

It is worth noting that whilst Severe Mental Illness (SMI) is detailed as a specific population

group above, people with an SMI are often considered to have a disability.

Learning disability and autism

The Learning from Lives and Deaths – people with a learning disability and autistic people (LeDeR programme) nationally reports that the median age of death for people with a learning disability in 2021 was 62. The median age of death for the general population in England in 2018-20 was 82.7.⁷⁹ The Local LeDeR programme in Leicester, Leicestershire and Rutland in 2022 reports a similarly poor life expectancy of 64 years.⁷⁸ This compares to a Leicestershire 2020 one year range for the general population of 79.9 years for men and 83.7 years for women.⁹⁹

The national LeDeR programme also identifies that 6 out of 10 people with a learning disability died before they were 65. This compares to around 1 in 10 of the general population. 49% of deaths were classified as avoidable for people with a learning disability, compared to 22% for the general population. The greatest causes of avoidable deaths in those with a learning disability were cancer (8%), hypertension (14%), diabetes (17%) and respiratory (17%) conditions.

The report highlights that over 50% of people with a learning disability died in areas rated as some of the most deprived (25% fell into the 20% most deprived, rising to 50% of people living in the 40% most deprived areas). People of Black, Black British, African or Caribbean, mixed ethnic group and Asian or Asian British ethnicity died at a younger age in comparison to people of White ethnicity.⁷⁹

The National Institute for Health and Care Excellence (NICE) identify that people with a learning disability are 3 to 4 times more likely to die from an avoidable medical cause of death. Most of the avoidable deaths in people with a learning disability were because timely and effective treatment was not given.⁸⁰ The report highlights the importance of annual health checks, cancer screening and advice and health action plans for people with a learning disability in order to reduce health inequalities and the impact these are having.

Mencap provide a summary of research findings into health inequalities for people with a learning disability, highlighting 38% of people with a learning disability died from an avoidable cause, compared to 9% in the general population.⁸¹

The Office for Health Improvement and Disparities (OHID) have produced a set of summaries⁸² of specific health inequalities experienced by people with learning disabilities covering a range of issues from physical activity to cardiovascular disease and cancer screening. The summaries provide evidence on prevalence and risk factors, the impact on people with a learning disability, healthcare and treatment, social determinants and signposting to resources.

GP records in April 2023 show 2,680 people registered with a learning disability with practices that are based in Leicestershire. These records also show that 5.5% of patients on the learning disability register lived in IMD 20% most deprived areas of Leicestershire which compares to 3.2% of the non-learning disability population. Across Leicester, Leicestershire and Rutland, people with a learning disability are four times more likely to have 5 or more chronic conditions (39.2%) than people without a learning disability (9.7%).⁸³

A report into the determinants of health inequalities experienced by children with learning disabilities concluded these children were more likely to live in households characterised by

low socio-economic position and poverty, more likely to be exposed to a wide range of material and psychosocial hazards e.g. inadequate nutrition, poor housing, family, peer and community violence and poor parenting and family instability. They were also less likely to have access to the resources necessary to build resilience in the face of adversity.⁸⁴

In the academic year 2021/22, there were 12,500 children with Special Educational Need (SEN) support and 4,613 children with an Education, Health and Care Plan (EHCP) or statement in Leicestershire.⁸⁵

Research⁸⁶ using self-reported data from people with autism identified lower quality healthcare for people with autism than non-autistic adults, including poorer access to healthcare and poorer communication amongst other factors. Autistic adults were also more likely to have chronic health conditions than non-autistic adults.

The National Strategy for Autistic Children, Young People and Adults⁸⁷ states that autistic people die on average 16 years earlier than the general population⁸⁸. Reasons for this include poor professional understanding of autism amongst health and care staff, and a lack of adjustments needed for autistic people to engage in medical appointments, leading to avoidance of seeking medical attention or losing out of support.

The National Strategy⁸⁷ estimates there are 700,000 autistic adults in the UK with the National Autistic Society estimating the proportion of the UK population that have autism at 1.1%⁸⁹. Applying this 1.1% rate to the population of Leicestershire would result in 7,836 autistic people.

Pregnancy and maternity

Inequalities in pregnancy and maternity are often linked to deprivation and ethnicity. The lowest rates of neonatal deaths occur for White British babies in the least deprived areas, the highest rates are for Pakistani babies in areas of higher deprivation.⁹⁰ There is a gap between the mortality rates for women from Black, Asian, Mixed and White ethnic groups, with women from Black ethnic groups four times more likely to die than women from White groups. Women from Asian ethnic backgrounds are almost twice as likely to die in pregnancy compared to White women. Women living in the most deprived areas are twice as likely to die than those in the most affluent areas.⁹¹ Gypsy and Traveller mothers are 20 times more likely than the rest of the population to have experienced the death of a child.⁹²

These stark figures have led to maternity featuring as one of the 5 clinical areas of focus within the Core20PLUS⁴ approach to health inequalities for the NHS and has also led to the inclusion of maternity in the NHS Long Term Plan.⁹³ Fertility, pregnancy, pregnancy loss and postnatal support are all areas set out in the Department for Health and Social Care's Women's Health Strategy for England.⁹⁴

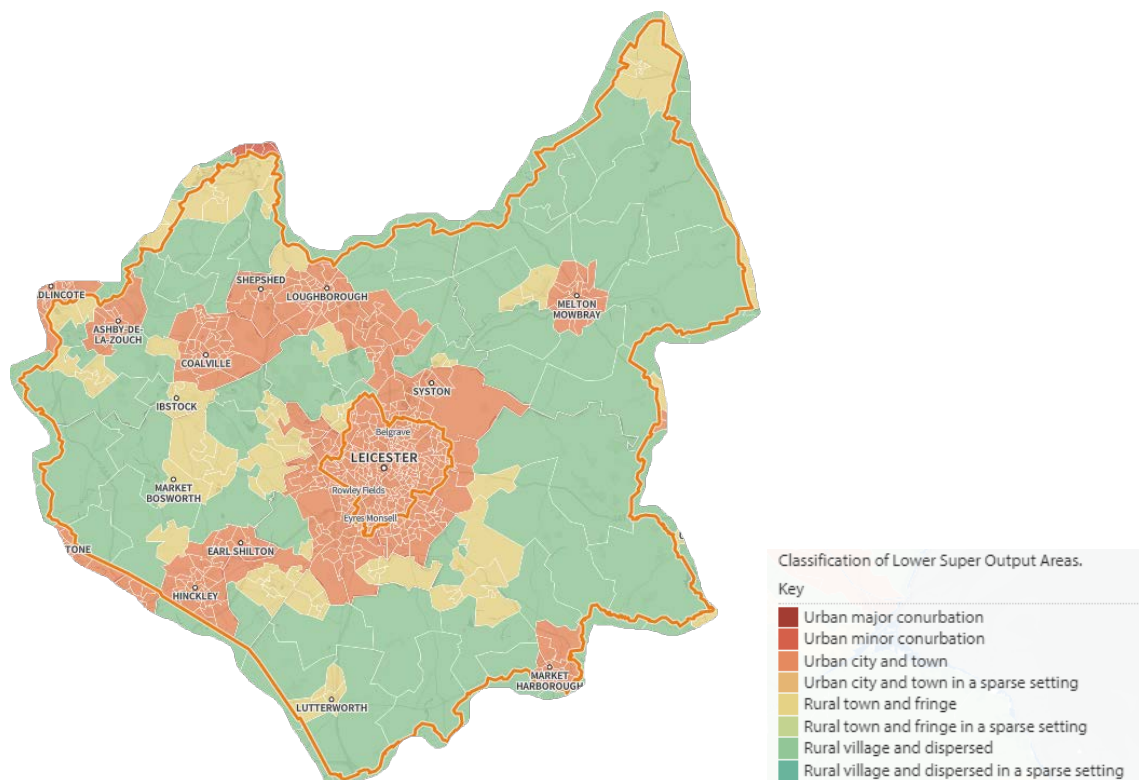
2.1.4. Geography

Health inequalities can also occur across different geographies and be influenced or driven by the issues presented by both rural and urban areas. Living in a deprived area of the North East is worse for your health than living in a similarly deprived area in London for example, to the extent that life expectancy is nearly five years or less.⁸

While the county is rural in terms of area, the population is concentrated within urban areas. Overall, 69 percent of the population of Leicestershire live in areas classed as Urban

City and Town, while 19 percent live in area classed as Rural Town and Fringe and the remaining 12 percent live in areas classed as Rural Village and Dispersed.¹⁵

Figure 7 Rural/urban classification of LSOAs in Leicestershire



Source: Office for Health Improvement and Disparities, SHAPE Atlas. 2011

Urban risk

Eight out of ten people in the UK currently live in cities or towns. Where we grow up, live and work hugely influences our health. In urban areas, we see the best and worst health outcomes, often just roads away from each other.⁹⁵

In Leicestershire, the work on mapping neighbourhood level areas at greater risk of health inequalities has identified these as urban (Appendix D). It is also urban areas that come up in mapping of deprivation, a key risk factor in health inequalities.

Rural risk

Nineteen per cent of the population of England live in rural areas which make up 85 per cent of the land. Overall, health outcomes are more favourable in rural areas than in urban areas. But broad brush indicators can mask small pockets of significant deprivation and poor health outcomes. Rural communities are increasingly older and issues of access to health and care services, travelling and transport uses and lack of community support in some areas contribute to pressures on local government and the NHS.⁹⁶

In Leicestershire, 18 Lower layer Super Output Areas fall into the most deprived 10% in England for the Index of Multiple Deprivation Domain of Barriers to Housing and Services which may help to highlight areas of higher risk in terms of access in particular. However, it is worth noting that 14 of these LSOAs fall into the 20% least deprived in England and 4 of them in the 40% least deprived for income, suggesting they may have the means to pay for

travel to access services as needed.⁹⁷

2.2. Intersectionality

Intersectionality is a way of thinking about how multiple identities together shape how a person experiences oppression or privilege.³ It means that if someone falls into more than one at risk group, their risk increases e.g. someone who is a carer and who lives in an area of high deprivation would have a higher risk of experiencing health inequalities than someone who fell into only one of these groups. Some of the population summaries above make reference to intersectionality, particularly in relation to deprivation and ethnicity.

Ideally this JSNA chapter would build a picture of where people in Leicestershire fall into more than one at risk group (as defined in section 2). However, much of the data on population groups in particular is not available at a neighbourhood level and a national or Leicestershire level is too broad to map where intersectionality may be occurring.

Some indicators on life expectancy, under 75 mortality and socioeconomic deprivation are available at an MSOA level. Therefore, a map of these at a smaller neighbourhood footprint can start to build a geographical picture of where risk may be higher in terms of current key measures of health inequality and one of the key risks of deprivation (appendix D). As new data comes through the census 2021, we can also start to map some of the populations facing higher risk onto these areas.

It is important to consider these geographical MSOAs alongside the population groups identified in section 2 as many of these population groups cannot be mapped to neighbourhoods (and should not be excluded from efforts to address health inequality). It should also be noted that MSOA level data may be masking further variance (and potentially starker inequality) at a lower neighbourhood level.

3. Level of need in Leicestershire

Life expectancy and healthy life expectancy are two key measures that help to identify where health inequalities exist. Indicators on inequality in life expectancy and healthy life expectancy identify the difference in the results for people in areas of highest deprivation and those in the areas of least deprivation using a national approach to grading known as the slope index of inequality.⁹⁸

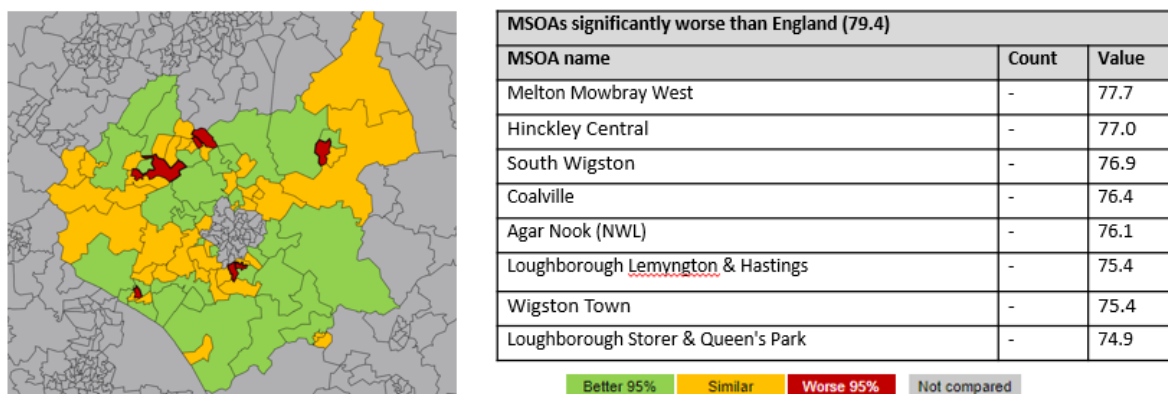
3.1. Life expectancy

Life expectancy at birth is significantly better (higher) than England for both men and women in Leicestershire at 80.5 and 84.1 years respectively when looking at the 3 year range data 2018 to 2020. Life expectancy at age 65 is also significantly better (higher) for women in Leicestershire and is similar to England for men in the 1 year data range in 2020 (Appendix B).⁹⁹

Across the districts, life expectancy is either significantly better (higher) than or similar to England on all indicators (Appendix B).⁹⁹

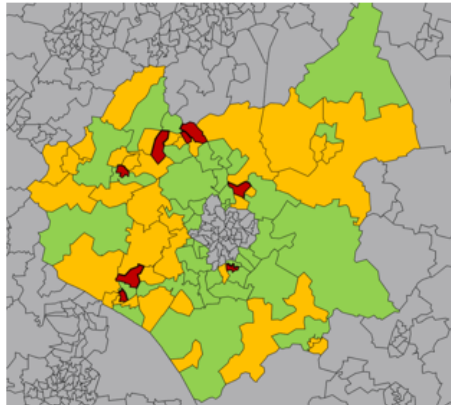
However, when life expectancy data is viewed at MSOA level for 2016-20, we can see there are 11 areas where life expectancy is significantly worse (lower) than England for males and/or females. These areas cover parts of Charnwood, Hinckley and Bosworth, Melton, North West Leicestershire and Oadby and Wigston⁹⁹ (Figure 8 & Figure 9).

Figure 8 Life expectancy at birth (upper age band 90 and over) (male, 3 year range) 2016-20 by MSOAs in Leicestershire



Source: Office for Health Improvement and Disparities, Fingertips, 2016 - 2020

Figure 9 Life expectancy at birth (upper age band 90 and over) (female, 3 year range) 2016-20 by MSOAs in Leicestershire



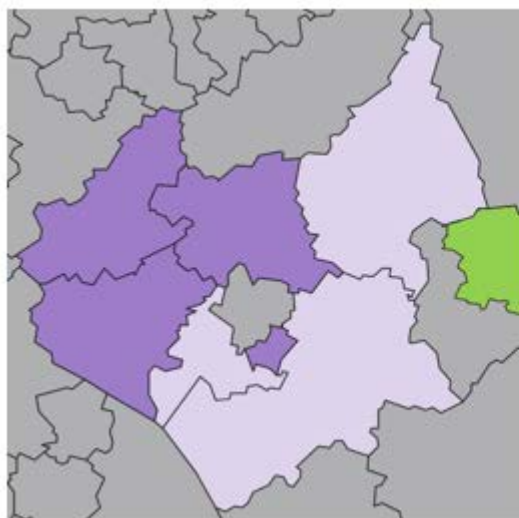
MSOAs significantly worse than England (83.1)		
MSOA name	Count	Value
Barwell	-	81.2
Syston West	-	80.9
Loughborough Storer & Queen's Park	-	80.7
Shepshed East	-	80.1
Wigston Town	-	79.5
Hinckley Central	-	79.3
Loughborough Lemington & Hastings	-	79.1
Coalville	-	77.6

Better 95% Similar Worse 95% Not compared

Source: Office for Health Improvement and Disparities, Fingertips, 2016 - 2020

Life expectancy at birth is calculated for each deprivation decile of lower layer super output areas for each area. This allows for a slope index of inequality to be calculated which represents the range in years of life expectancy from the most to least deprived area, allowing for a calculation of the difference (or inequality) in life expectancy. Inequality in life expectancy is felt to a lesser extent on the East of the county (dark purple) than on the West (light purple), with the exception of Oadby and Wigston in the South. Inequality in life expectancy at birth is noticeably wider for women in Charnwood¹⁰⁰ (Figure 10 & Figure 11)

Figure 10 Inequality in life expectancy at birth (male) 2018-20, by districts in Leicestershire

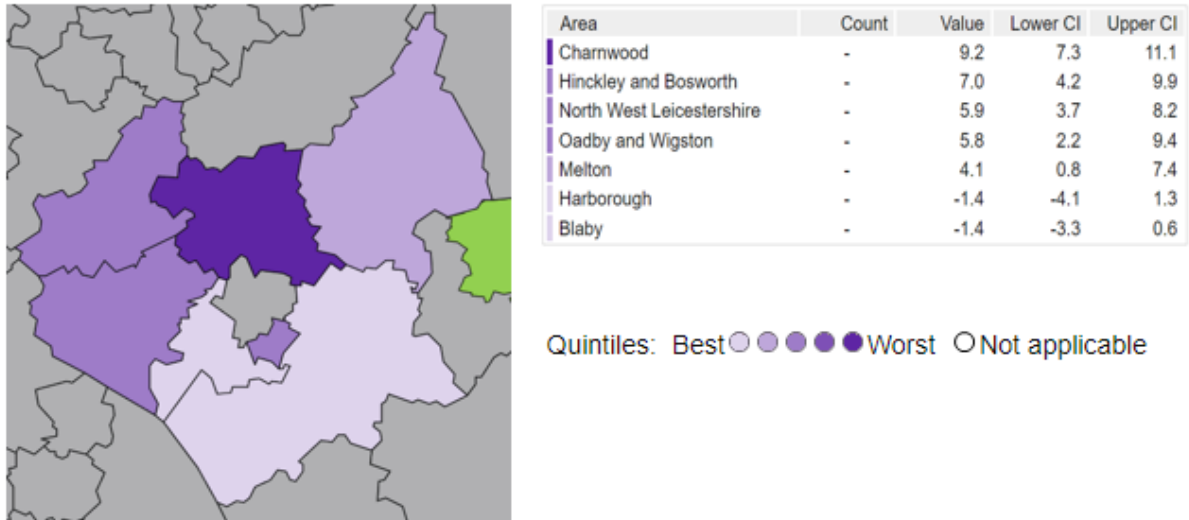


Area	Count	Value	Lower CI	Upper CI
North West Leicestershire	-	8.3	6.1	10.4
Oadby and Wigston	-	8.3	4.5	12.0
Charnwood	-	7.1	5.4	8.8
Hinckley and Bosworth	-	7.0	4.9	9.2
Melton	-	4.0	0.4	7.7
Harborough	-	2.3	-0.2	4.8
Blaby	-	1.7	-0.5	3.9

Quintiles: Best ○ ● ● ● ● Worst ○ Not applicable

Source: Office for Health Improvement and Disparities, Fingertips, 2018 - 2020

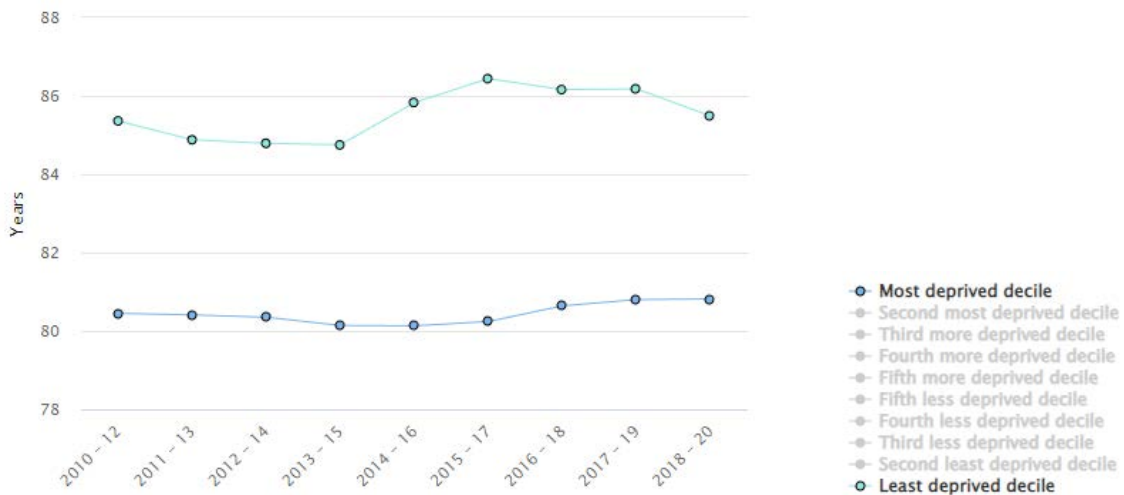
Figure 11 Inequality in life expectancy at birth (female) 2018-20, by districts in Leicestershire



Source: Office for Health Improvement and Disparities, Fingertips, 2018 – 2020

The inequality in life expectancy across Leicestershire can be seen (Figure 12 & Figure 13) when we look at life expectancy in the least deprived decile and those in the most deprived decile. For women in Leicestershire in 2018-20 this is 4.7 years, and for men it is 7.2 years.

Figure 12 Life expectancy at birth (female, 3 year range) Leicestershire



Source: Office for Health Improvement and Disparities, Fingertips, 2018-2020

Figure 13 Life expectancy at birth (Male, 3 year range) Leicestershire



Source: Office for Health Improvement and Disparities, Fingertips, 2018-2020

3.2. Healthy life expectancy

Healthy life expectancy in Leicestershire is statistically similar to England on all measures¹⁰¹ (Table 4). Data on these indicators is not available at district or MSOA level.

Table 4 Life expectancy indicators

Indicator	England	East Midlands	Leicestershire	Rank amongst CIPFA neighbours (1 is best, 16 worst performing)
Healthy life expectancy at birth (male) 2018 – 20	63.1	62.0	62.9	13 of 16
Healthy life expectancy at birth (female) 2018-20	63.9	61.9	63.6	13 of 16
Healthy life expectancy at 65 (male) 2018-20	10.5	9.7	10.2	14 of 16
Healthy life expectancy at 65 (female) 2018-20	11.3	10.4	11.1	13 of 16
Disability free life expectancy at 65 (male) 2018-20	9.8	9.4	10.0	12 of 16

Disability free life expectancy at 65 (female) 2018-20	9.9	9.5	10.1	14 of 16
--	-----	-----	------	----------

Source: Office for Health Improvement and Disparities, Fingertips, 2018 – 2020

3.3. Under 75 mortality (Premature Mortality)

Leicestershire performs significantly better (lower) than England on under 75 mortality ratios from all causes (appendix C). There are many indicators available to show the causes of under 75 death and Leicestershire performs either significantly better (lower) or similar to all measures with the exception of excess under 75 mortality rate in adults with severe mental illness (SMI) and excess under 75 mortality rate due to cancer in adults with severe mental illness (SMI) which are both significantly worse (higher) than England.¹⁰²

Many of these indicators are also available at a district level (appendix B). Again, performance is similar to or better (lower) than England on the indicators available with 3 exceptions:

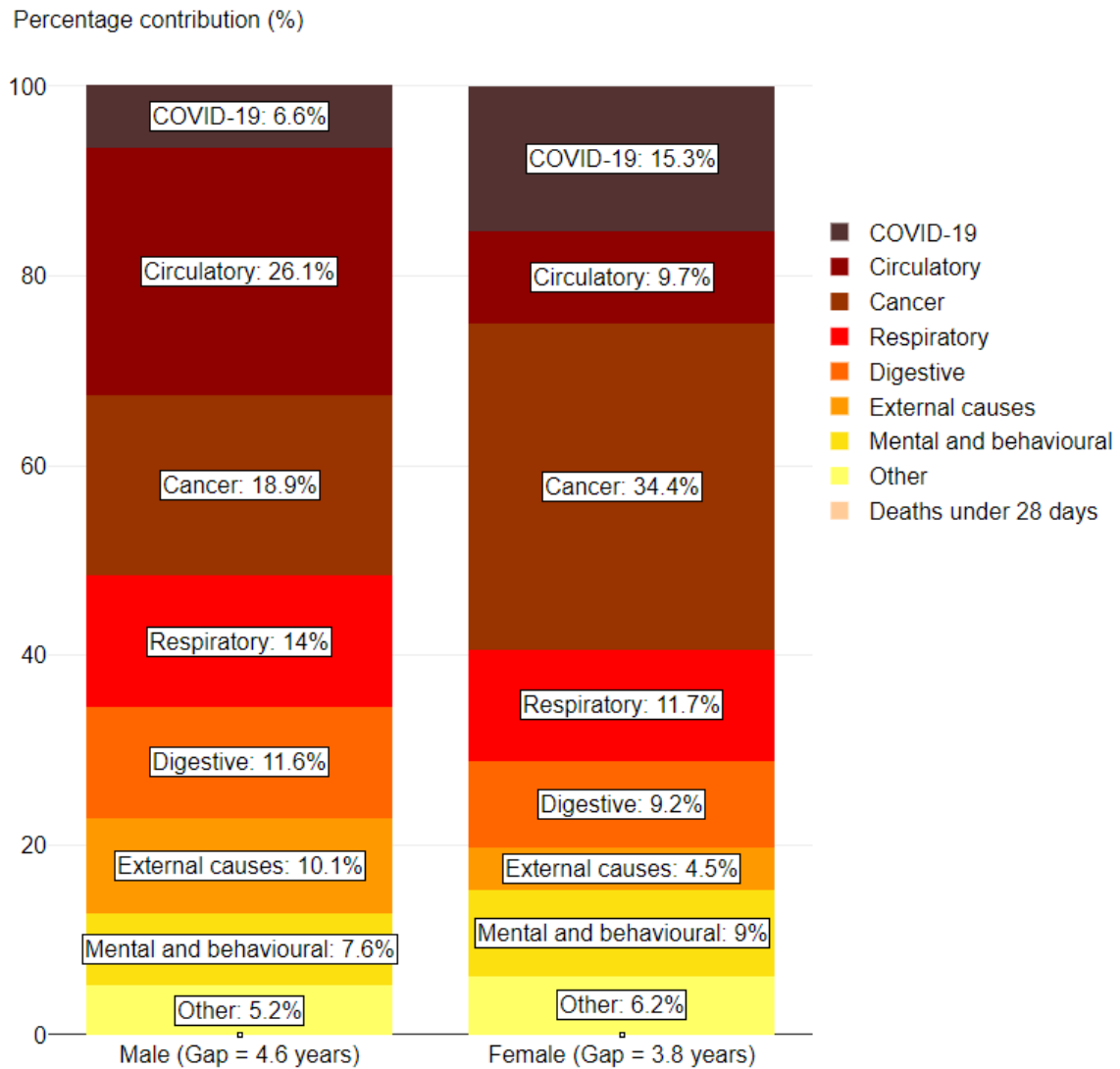
- Under 75 mortality rate from colorectal cancer (persons, 3 year range) 2017-19 for Blaby and Oadby and Wigston,
- Under 75 mortality rate from colorectal cancer (male, 3 year range) 2017-19 for Blaby and Oadby and Wigston
- Under 75 mortality rate from cancer considered preventable (2019 definition) (female, 3 year range) 2020 in Blaby.¹⁰²

At an MSOA level there is more variation in performance with 7 MSOA's having significantly worse (higher) under 75 mortality ratios than England¹⁰² (appendix C).

3.4. Health conditions

The Segment tool¹⁰³ provides an overview of the causes of death and the leading differences in cause between the most and least deprived quintiles in Leicestershire (Figure 14). This identifies circulatory in men (26.1%) and cancer in women (34.4%) as the biggest difference in cause of death between the most and least deprived quintiles in Leicestershire.

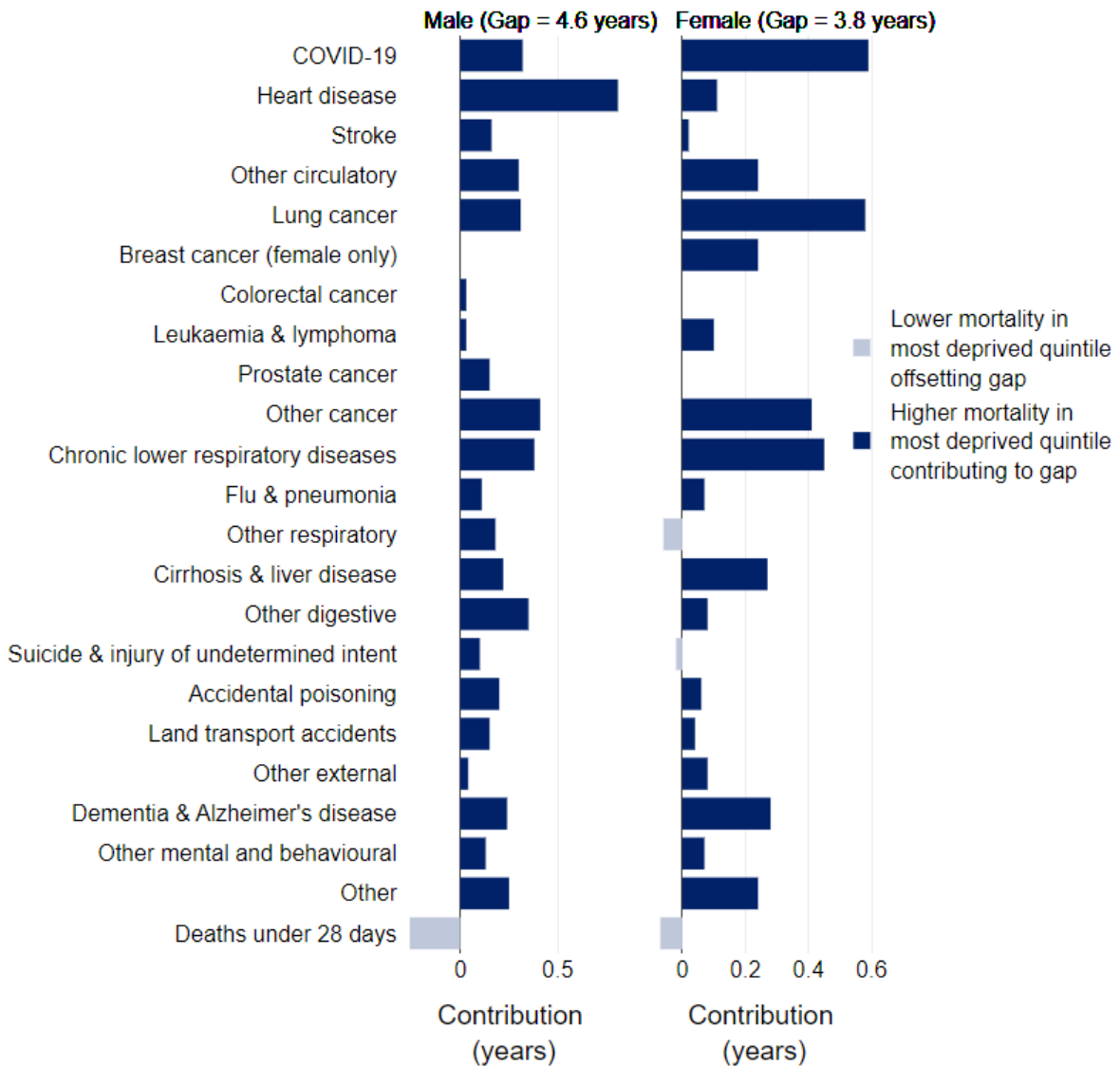
Figure 14 Life expectancy gap between the most and least deprived quintiles of Leicestershire by cause of death 2020 to 2021



Source: Office for Health Improvement and Disparities, Segment tool, 2020 - 2021

It is possible to drill down into more detail behind these headlines (Figure 15) revealing heart disease as particularly high for men followed by other circulatory and stroke as circulatory causes and lung cancer as a particularly high cancer rate for women, followed by other cancers, breast and leukaemia and lymphoma. When cancers aren't grouped, COVID 19 becomes the biggest difference for women.

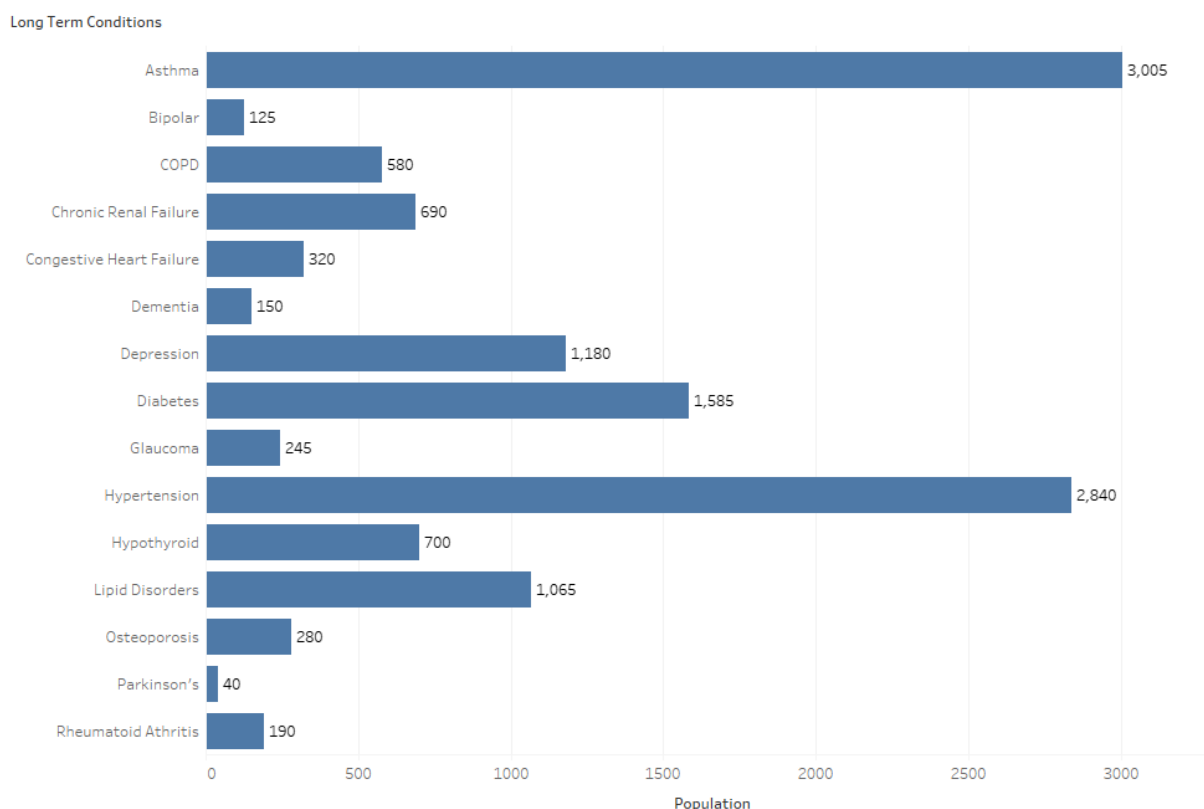
Figure 15 Breakdown of the life expectancy gap between the most and least deprived quintiles of Leicestershire by cause of death, 2020 to 2021 (provisional)



Source: Office for Health Improvement and Disparities, Segment tool, 2020 - 2021

It is possible to view population level data about certain patient groups in Leicestershire held through GP records, accessed through the Aristotle system. For people living in the most deprived 20% LSOAs and registered with GP's based in Leicestershire, the most common long term conditions are Asthma (3,005 people) and hypertension (2,840 people) (Figure 16).

Figure 16 Long term conditions for the 20% most deprived in Leicestershire



Source: Midlands and Lancashire Commissioning Support Unit, Aristotle

When we look at the 15 MSOAs of higher risk (see appendix D), we are able to look at other measures for those neighbourhoods using the OHID Local Health tool.¹⁰⁴ Whilst data is limited at this MSA level, it does provide some early flags for further investigation. It should also be noted that these provide a snapshot at whichever date the measure relates to. A review of performance over a longer period should be carried out as part of any further work to see whether the issue is persistent. A summary of poor performing indicators for each at risk MSA is provided in appendix E, complimenting other data for the areas in appendix C and D.

Appendix E includes data on emergency hospital admission rates¹⁰⁵ for key conditions in the MSOAs identified as high risk. Whilst this doesn't mean that prevalence for that condition is necessarily high (it may be that it's poorly managed more frequently in those MSOAs, resulting in higher admission rates for example), it does help to provide some information on the conditions people are experiencing in those MSOAs. A summary is provided below:

- 9 MSOAs have significantly higher rates of emergency admissions for stroke than England, with the highest rate at 198.8 (almost twice the rate of England at 100)
- 12 MSOAs have significantly higher rates of emergency admissions for Chronic Obstructive Pulmonary Disease (COPD) than England, with the highest rate at 212.9 (over twice the rate of England at 100)
- 10 MSOAs have significantly higher rates of emergency admissions for hip fractures than England, with the highest rate at 224.1 (over twice the rate of England at 100)

- 2 MOSAs have significantly higher rates of emergency admissions for intentional self harm than England, with the highest rate at 131.8 (England is 100)
- 4 MSOAs have significantly higher rates of emergency admissions for alcohol attributable conditions (narrow definition), with the highest rate at 149.7 (England is 100)

3.5. Drivers of health inequality

At the start of the chapter, we reviewed the Health Equity Assessment Tool (HEAT)³ definitions of the drivers of health inequalities. These were:

- Different experiences of the wider determinants of health, such as the environment, income or housing
- Differences in health behaviours or other risk factors, such as smoking, diet and physical activity levels
- Psychosocial factors, such as social networks and self-esteem
- Unequal access to or experience of health services

As we looked into the inequalities faced by the populations set out in part 2 of this chapter, we found a mixture of all of the above contributing in many cases, and increased risk through intersectionality (as people fall into more than one at risk group). Understanding the drivers locally requires further work and it is suggested in section 8 below that we may wish to undertake a review of these drivers to contribute to our understanding and action to address.

Some early suggestions for further investigation resulting from significantly higher than England average rates at MSOA (see appendix C, D and E) are set out below but this should not be viewed as a comprehensive list of drivers due to the absence of data for many drivers at MSOA level:

Wider determinants

- Overcrowded housing in Charnwood in Loughborough Lemyngton & Hastings and Loughborough Storer & Queen's Park (appendix E)
- Socio economic challenge e.g., deprivation, child poverty, fuel poverty etc in 9 of the MSOA's (note that these challenges are one of the reasons why the MSOA was selected as high risk so we would expect to see high rates) (appendix D)

Health behaviours

- Smoking as a lead cause of lung cancer (the leading cancer for women in Figure 15) although it should be noted that no MSOAs of risk had significantly higher than England rates of smoking which is the cause of lung cancer in more than 70% of cases.¹⁰⁴

- Childhood obesity as significantly higher rates are occurring in several of the at risk MSOAs but particularly Loughborough Lemyngton & Hastings (appendix E). The National Child Measurement Programme data for 21-22 in England shows obesity prevalence is over twice as high in reception (13.6%) and year six (31.3%) in the most deprived areas than the least deprived areas (6.2% and 13.5%).¹⁰⁶
- 832 people living in the 20% most deprived LSOAs and registered with GPs based in Leicestershire are classed as obese on their records.¹⁰⁷
- 4 MOSA's having significantly higher rates of hospital admissions for alcohol attributable conditions (narrow definition) and 2 under the broad definition.

Psycho social

- 2 MSOA's have significantly higher rates of hospital admissions for intentional self harm than England
- Significantly higher rates of older people living alone than England across 6 MSOA's, potentially impacting on support available to them and/or loneliness
- Rates of excess under 75 mortality rates in adults with severe mental illness (SMI) and excess under 75 mortality rate due to cancer in adults with severe mental illness (SMI)¹⁰² are both significantly worse (higher) in Leicestershire than England (identified under 3.3 above)

Unequal access to or experience of health services

In Leicester, Leicestershire and Rutland, analysis of data across a range of clinical areas at University Hospitals of Leicester looking at rates of people not attending arranged appointments, discharged after the first appointment and on waiting lists for treatment show higher rates across all of these measures for non-white ethnic groups and particularly high rates across many areas for people of Black ethnicity. The data also shows higher rates for people living in higher levels of deprivation.

A further JSNA chapter considering access to services is recommended and planned for 2023/24.

3.6. Targeting action on health inequalities

Action to address health inequalities needs to be targeted at all of the population groups identified in section 2 of this chapter. However, this is still a large cohort and there may be a need to target further.

We have shown in 2.1 that there are a number of groups at greater risk. From the available data or estimates, two populations are particularly large in Leicestershire:

- Carers (92,049 people as per estimate in 2.1.2)
- People with a disability (118,287)¹⁰⁸

In addition, some populations have a strong evidence base for substantial years of life lost:

- People with a learning disability (20.7 years lost)⁶⁹
- Looked after children or care experienced people (360% higher risk of premature death)⁴²
- People who are homeless (around 30 years lower)²⁶
- People living in poverty or deprivation (9.7 years for men and 7.9 years for women in England)¹⁰⁰
- Gypsy or Irish Travellers (life expectancy of 10 years lower)⁶³
- People who are in prison (mortality rate for prisoners is 50% higher)⁴⁸
- People with a Severe Mental Illness (on average 15-20 years earlier death than the general population)⁵³

Given the population of people with a learning disability is estimated to be both large in Leicestershire and the evidence base suggests a high number of years lost, this may be a useful population of priority focus. The significant estimated population of carers in Leicestershire may also present a reason for prioritising action for this population.

4. How does this impact

4.1. Impact on the individual

Health inequalities have a huge impact on people's lives. In the worst examples, people are dying significantly earlier than the general population as a result of health inequalities. This includes people with a learning disability dying 20.7 years before the general population in England⁷⁹ and people who are homeless who are dying around 30 years earlier than the general population.²⁶ Health inequalities also impact on whether we live in good health. Carers report a 60% rate of long term conditions⁴⁵ (the rate is 50% in the general population) and disability-free life expectancy is estimated to be lower among several ethnic minority groups.⁶¹ This JSNA chapter has provided detail on the inequalities faced by key population groups in section 2.

4.2. Impact on society and the economy

The benefits of reducing health inequalities are economic as well as social, there is a cost to the economy of additional illness. If everyone in England had the same death rates as the most advantaged, people who are currently dying prematurely as a result of health inequalities would, in total, have enjoyed between 1.3 and 2.5 million extra years of life. They would, in addition, have had a further 2.8 million years free of limiting illness or disability. It is estimated that this illness accounts for productivity losses of £31-33 billion per year, lost taxes and higher welfare payments in the range of £20-32 billion per year and additional NHS healthcare costs well in excess of £5.5 billion per year. If no action is taken, the cost of treating the various illnesses that result from inequalities in obesity alone will rise from £2 billion per year to £5 billion per year in 2025.¹⁰⁹

4.3. Impact on health and social care

Socioeconomic inequalities result in increased morbidity and decreased life expectancy. Interventions to reduce inequality and improve health in more deprived neighbourhoods have the potential to save money for health systems not only within years but across peoples' entire lifetimes, despite increased costs due to longer life expectancies. Research from the University of York found a steep social gradient in overall inpatient hospital admissions. This gradient was steeper for emergency than for elective admissions. The total cost associated with this inequality in 2011/2012 was £4.8 billion. A social gradient was also observed in the modelled lifetime costs where the lower life expectancy was not sufficient to outweigh the higher average costs in the more deprived populations. Lifetime costs for women were 14% greater than for men, due to higher costs in the reproductive years and greater life expectancy.¹¹⁰ Data published by the ONS shows that care homes in the most deprived areas (decile 1) had a lower proportion of self-funders (18.7%) than care homes in the least deprived areas (decile 10; 52.5%). This difference was statistically significant.¹¹¹

5. Policy and Guidance

This chapter provides an overview of key policies and guidelines relating to Health Inequalities.

5.1. Core20PLUS5

Core20PLUS5⁴ is a national NHS England and NHS Improvement approach to support the reduction of health inequalities at both national and system level. The approach defines a target population cohort – the ‘Core20PLUS’ – and identifies ‘5’ focus clinical areas requiring accelerated improvement.

The Core20 element is the most deprived 20% of the national population as identified by the national Index of Multiple Deprivation (IMD). The IMD has seven domains with indicators accounting for a wide range of social determinants of health.

The plus element is population groups at greater risk of facing health inequalities. This includes ethnic minority communities; inclusion health groups; people with a learning disability and autistic people; coastal communities with pockets of deprivation hidden amongst relative affluence; people with multi-morbidities; and protected characteristic groups; amongst others. Inclusion health groups include: people experiencing homelessness, drug and alcohol dependence, vulnerable migrants, Gypsy, Roma and Traveller communities, sex workers, people in contact with the justice system, victims of modern slavery and other socially excluded groups. This JSNA chapter helps to define our plus populations for Leicestershire.

The five element refers to five clinical areas of focus. Governance for these five focus areas sits with national programmes; national and regional teams coordinate local systems to achieve national aims.

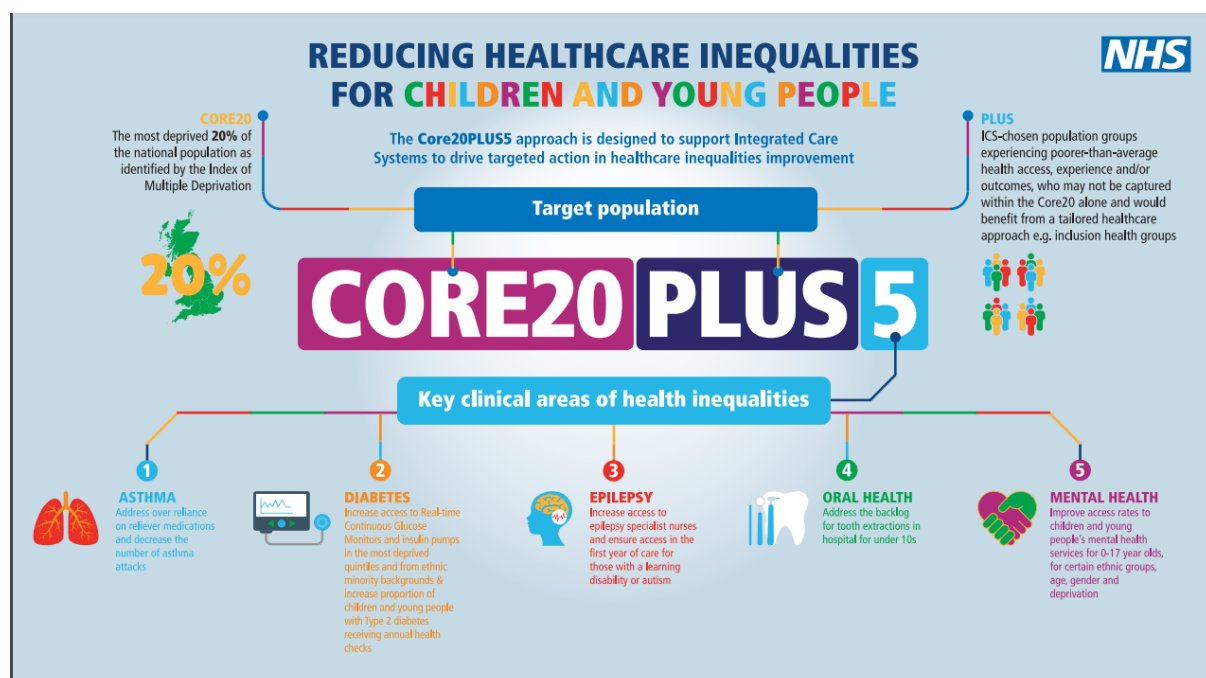
1. Maternity: ensuring continuity of care for women from Black, Asian and minority ethnic communities and from the most deprived groups. This model of care requires appropriate staffing levels to be implemented safely.
2. Severe mental illness (SMI): ensuring annual health checks for 60% of those living with SMI (bringing SMI in line with the success seen in learning disabilities).
3. Chronic respiratory disease: a clear focus on Chronic Obstructive Pulmonary Disease (COPD) driving up uptake of COVID, flu and pneumonia vaccines to reduce infective exacerbations and emergency hospital admissions due to those exacerbations.
4. Early cancer diagnosis: 75% of cases diagnosed at stage 1 or 2 by 2028.
5. Hypertension case-finding and optimal management and lipid optimal management: to allow for interventions to optimise blood pressure and minimise the risk of myocardial infarction and stroke.

5.2. Core20PLUS5 for Children and Young People

Core20PLUS for children and young people⁵ mirrors the approach taken by the Core20PLUS initiative but with a focus on children and young people. The Core20PLUS elements place the same focus on those living in the 20% most deprived areas and populations facing poorer than average access or outcomes. The five clinical areas are adjusted to children and young people specific national clinical aims:

1. Asthma – address over reliance on reliever medications and decrease the number of asthma attacks
2. Diabetes – increase access to real time continuous glucose monitors and insulin pumps in the most deprived quintiles and in those from ethnic minority backgrounds and increase proportion of children and young people with Type 2 diabetes receiving annual health checks
3. Epilepsy – increase access to epilepsy specialist nurses and ensure access in the first year of care for those with a learning disability or autism
4. Oral health – address the backlog for tooth extractions in hospital for under 10s
5. Mental health – improve access rates to children and young people’s mental health services for 0-17 year olds for certain ethnic, age, gender and deprivation groups

Figure 17 Core20PLUS for children and young people



Source: NHS England, 2022

5.3. Health Equity Assessment Tool (HEAT)

Public Health England (PHE) fulfils the Secretary of State for Health and Social Care's statutory duty to address health inequalities. Reducing health inequalities is also an important priority within PHE's strategy 2020 to 2025, PHE's Infectious Diseases Strategy 2020 to 2025 and within the NHS Long Term Plan.

Health inequalities in England exist across a range of dimensions or characteristics, including the 9 protected characteristics in the Equality Act: socioeconomic position, occupation, geographic deprivation and membership of a vulnerable group. These dimensions can overlap.

Health inequalities may be driven by:

- different experiences of the wider determinants of health, such as the environment, income or housing
- differences in health behaviours or other risk factors, such as smoking, diet and physical activity levels
- psychosocial factors, such as social networks and self-esteem
- unequal access to or experience of health services

These conditions influence our opportunities for good health and how we think, feel and act, and this shapes our mental health, physical health and wellbeing.

Action on health inequalities requires improving the lives of those with the worst health outcomes, fastest. The Health Equity Assessment Tool (HEAT) aims to empower professionals across the health and the wider system landscape to do this. It supports the user to identify practical action in their work programme or service to address health inequalities and consequently improve health outcomes. HEAT is highly pertinent in the context of COVID-19, enabling colleagues in the system to consider which groups have been particularly affected by the pandemic, and mitigate any negative impacts in collaboration with other system partners.³

5.4. Leicester, Leicestershire and Rutland Health Inequalities Framework

The Integrated Care System in Leicester, Leicestershire and Rutland have developed a Health Inequalities Framework¹¹² which sets out how partners plan to take action, both collectively and through specific organisations to positively impact not just the direct causes, but the "causes of the causes" of local inequalities. It does this by defining 13 principles and 9 system actions to progress this.

5.5. Leicestershire Joint Health and Wellbeing Strategy

The Joint Health and Wellbeing Strategy for Leicestershire¹¹³ contains a strategic priority to reduce health inequalities. The strategy references three key commitments to achieve this:

- We want equitable access, excellent experiences and optimal outcomes for all those using health and care services across Leicestershire. To do this we will embrace a 'proportionate universalism' approach where interventions are targeted to enable a 'levelling up' of the gradient in health outcomes. This means that although there will be a universal offer of services to all, there will be justifiable variation in services in response to differences in need within and between groups of people, that will aim to bring those experiencing poorer outcomes the opportunity to 'level up' to those achieving the best outcomes. (I.e., developing the national CORE20PLUS5 initiative.)
- We will translate the Leicester, Leicestershire and Rutland Health Inequalities framework for Leicestershire. This will include embedding a Health and Equity in all policies approach, utilising anchor institutions, training our leaders on health inequalities and ensuring we are collating data to analyse health inequalities effectively.
- Within the NHS we will also prioritise the five key clinical areas of health inequalities including early cancer diagnosis (screening & early referral), hypertension case finding, chronic respiratory disease (driving COVID & Flu vaccination uptake), annual health checks for people with serious mental illness and continuity of maternity care plans.

6. Unmet needs/Gaps

6.1. Prevention for priority populations

Nationally, evidence suggests that there is a lack of successful preventative measures to stop health inequalities occurring for the populations identified in 2.1.1, 2.1.2 and 2.1.3 of this chapter. For some of these populations, local evidence suggests that similar health inequalities are also experienced in Leicestershire (for other populations there is a lack of local evidence). Known risk factors or evidence of poor health outcomes are also evidenced in some MSOAs in Leicestershire as identified in Appendix D. Again, this would suggest a lack of successful preventative measures with significant impact at scale to stop them occurring for these populations.

Whilst work should continue to identify local evidence of need and to establish the drivers of these inequalities in Leicestershire, the evidence provided in this chapter should support a focussing of prevention resource into priority populations now. Whilst it is recognised that not all prevention activity is about preventing health inequality, a proportionate universalism approach should be taken to ensure a focus on these at risk populations.

It is clear that the drivers of health inequalities are complex and as such there is rarely a simple solution. Some contributing factors are outside of the influence of local partnerships, but where there is local opportunity, this should be taken.

7. Recommendations

This JSNA chapter has identified the local needs and current gaps in service provision relating to health inequalities. The following recommendations have been produced on the basis of these findings, to support improved outcomes for the people in Leicestershire. Initial actions in support of the recommendations are also mapped but more actions will be added as this chapter is shared with a wider range of partners.

Table 5 Summary of recommendations

Agreeing our populations and neighbourhoods of concern		
<p>Recommendation 1: This JSNA chapter helps to identify some of the key populations and neighbourhoods of concern across Leicestershire. Identifying these populations enables partners to acknowledge the greater risk of them facing health inequalities and the additional barriers they may face in accessing services. All partners with investment in preventing health inequalities should acknowledge the populations at higher risk and consider how they will respond to the specific needs and barriers faced by these populations.</p>		
What will be done?	Who will do it?	When will it happen?
<p>Presentation of findings and populations of focus to the following boards/groups/organisations to highlight populations and neighbourhoods at highest risk:</p> <ul style="list-style-type: none"> • Leicestershire Health and Wellbeing Board • Staying Healthy Partnership Board • Learning Disability and Autism Health Inequalities Group (sub group of the LDA Collaborative) 	<p>Public Health or other members and agencies from the steering group for this JSNA chapter</p>	<p>February to May 2023</p>

<ul style="list-style-type: none"> Leicestershire Growth Service Steering Group Leicestershire Mental Health Group Leicestershire Housing Services Partnership Healthy choices group Strategic Planning Group <p>Other boards and groups are likely to be identified as the work is shared.</p>		
<p>Agreement at place that these will be the populations of focus across Leicestershire in terms of health inequalities.</p>	<p>Health and Wellbeing Board (Leicestershire)</p>	<p>May 2023</p>
<p>Focussing our efforts and prioritising these populations and neighbourhoods</p>		
<p>Recommendation 2: As opportunities arise for new provision, or improvement of services, need should be rationalised and resource prioritised to ensure we consider those at greatest risk of health inequalities in our approach.</p>		
<p>Each neighbourhood to consider these populations when looking at their own priority setting for health inequalities, e.g., through Community Health and Wellbeing Plans, especially those areas with MSOAs of concern.</p>	<p>ICB & Community Health and Wellbeing Plan working groups (and others as relevant) at neighbourhood level</p>	<p>As they are developed through 2023</p>
<p>As new services are developed or existing services reviewed, consideration should be given to the priority populations and neighbourhoods and their access needs. This includes new hubs, service access points and on-line provision.</p>	<p>All partners</p>	<p>Various – as and when opportunities arise</p>

Where prioritisation of service delivery needs to occur (e.g., when resources mean provision needs to be targeted rather than universal), consideration should be given to priority populations and neighbourhoods as areas of greatest need.	All partners	Various – as and when services are prioritised or rationalised
Consider the access needs of our priority population groups and adjust our services to meet them		
Recommendation 3: Consider carrying out Health Equity Audits or other similar assessments, and/or Population Health Management analysis on take up for all preventative service areas (at all tiers), considering those population groups identified in section 2 and identifying any groups facing health inequalities in that specific area of work (which may be different to those groups facing wide scale health inequalities as identified in this chapter). Where assessments identify negative impacts or populations where a more focussed approach would be beneficial, work should take place to address this and re-focus provision.		
What will be done?	Who will do it?	When will it happen?
Take up of Public Health delivery services to be analysed to be the MSOAs of concern identified in this JSNA wherever data allows for this. Where take up identifies underrepresentation, this should be followed up with positive action to address.	Public Health	Spring 2023 if data is available, if not then plans to develop this should be made.
Population Health Management support for primary care in addressing health inequalities. This includes a training offer from Public Health and support to implement.	Public Health	Training delivered and one in-depth pilot has occurred with findings widely shared. Offer remains ongoing
Review of GP data (via the Aristotle system) for people with a learning disability in LLR to identify	Public Health	March 2023

the conditions with significantly higher prevalence in people with a learning disability.		
Once the necessary system adjustments have been made to allow work to be undertaken, review of GP data for people with Autism in LLR to identify the conditions with significantly higher prevalence in people with Autism.	Public Health	Spring/Summer 2023
<p>Recommendation 4: Consider further work focussing on the most common causes of death between the least and most deprived in Leicestershire (i.e., cancer for women and circulatory for men) to better understand what may be driving inequalities in these causes of death in Leicestershire and what could be done to narrow this gap. This should consider focussed work with those populations most at risk of health inequalities as set out in section 2 of this chapter.</p>		
What will be done?	Who will do it?	When will it happen?
Further piece of work focussed on the 20% most deprived areas to look at barriers to prevention and treatment of cancer and circulatory disease and/or the underlying drivers of these.	Public Health with partners	Starting spring 2023, end date to be scoped as part of the work
Public health offer to work with PCNs with registered populations living in the 20% most deprived neighbourhoods to take a population health management approach to understanding health inequalities with a focus on these conditions.	Public health to offer support to PCN's to examine health inequalities and to train others in the approach.	Offer made and training provided. Further offers to be made when opportunities arise.

Recommendation 5: Consider engagement with populations identified in section 2 of this chapter to better understand the local issues and drivers of health inequalities and how we might collectively improve the experiences of these populations. This should link to the other recommended work set out above to inform findings and recommended action.

What will be done?	Who will do it?	When will it happen?
Engagement re barriers to access cancer screening for population groups least likely to attend in Charnwood (with promotion of the approach to other PCN's in case they wish to implement a similar approach)	Public Health	2022/23
Engagement to be considered as a way of gathering evidence of barriers/improvements that could be made during any needs assessment work (see recommendations 11, 12 and 13 below)	Public Health and Partners	As per timescales in 11, 12 and 13 below
Planned engagement across partner services with these populations should include an element of health inequalities questioning where possible.	Various partners	As opportunities arise

Use our positions as a sector to maximise the opportunities to address health inequalities

Recommendation 6: Continue to identify opportunities to reduce health inequalities through our work as anchor organisations. Opportunities include the use of social value achieved through procurement exercises which could be targeted towards at risk populations and employment initiatives that promote opportunities and positive action for at risk groups such as care experienced people or those with learning difficulties or disabilities. Positive action to support people from areas of high deprivation and lower educational achievement into

skills development, volunteering and employment and providing opportunities for progression to support social mobility should also be implemented.

What will be done?	Who will do it?	When will it happen?
Social value review in LCC to consider opportunities to create social value for at risk groups	Sally Vallance (Public Health, Leicestershire)	2023
Integrated Care Strategy to highlight the role of anchor organisations as an area of focus over the next 5 years.	Integrated Care Partnership	2023

Recommendation 7: Continue to lead and support boards and groups focussing on health inequalities or populations at risk, alongside those focussed on the cost of living challenges. These partnership approaches should continue to target health inequalities, the drivers and the challenges faced by these populations and build a more specific and detailed picture for these populations.

What will be done?	Who will do it?	When will it happen?
Relevant agencies to attend the following key health inequalities boards and groups: <ul style="list-style-type: none"> • LD.A Health Inequalities Group (a sub group of the LD.A Collaborative) • LLR Carers Partnership Board • Leicestershire Mental Health Group • Children and Families Collaborative • Cost of living place based groups • Staying Healthy Partnership Board 	Relevant officers as per TOR to attend regularly	Ongoing

Recommendation 8: Continue to implement the Leicestershire Joint Health and Wellbeing Strategy as a key place document with focus on health inequalities and the drivers of these as well as a focus on the Marmot⁷ goals.

What will be done?	Who will do it?	When will it happen?
Partners to continue to implement the JHWS for Leicestershire in order to focus on key aspects of health inequalities. This should include a focus on populations and neighbourhoods most at risk of health inequalities.	Variety of organisations (see delivery plans)	Ongoing until 2032

Create and make the most of opportunities to reduce health inequalities

Recommendation 9: Ensure Leicestershire County Councils Health in all Policies approach considers the populations and areas most at risk of health inequalities to ensure this forms part of cross council decision making.

What will be done?	Who will do it?	When will it happen?
Ensure the health in all policies approach clearly communicates populations and neighbourhoods of concern across Leicestershire with LCC and partner organisations to acknowledge the greater risk and encourage action to address health inequalities.	Public Health	March 2023 onwards

Recommendation 10: Consider developing a toolkit for interested agencies to use, offering practical steps to start addressing health inequalities in their work in a scalable way

What will be done?	Who will do it?	When will it happen?
Consider work with system partners to explore tools to support a structured and evidence based approach to improving health equity (e.g., health inequalities toolkit)	System governance groups and partners	Consideration to be given during Spring 2023 with development of the toolkit following this if approved.
<p>Recommendation 11: Continue to promote Making Every Contact Count + and take up the local ‘Healthy Conversation Skills’ training and other, similar programmes to ensure anyone coming into contact with people more likely to experience health inequalities are able to support them in improving their outcomes</p>		
What will be done?	Who will do it?	When will it happen?
Continue to offer Healthy Conversation Skills training programme as part of MECC+ to all partners over the coming year	Public Health	2023
<p>Further exploration of health inequalities for some populations and conditions</p>		
<p>Recommendation 12: Needs assessments should be considered for people with a disability and carers as the estimated largest populations facing health inequalities in Leicestershire as identified in 3.6. People with a learning disability should be considered for early work given evidence also suggests they face some of the most years of life lost.</p>		
What will be done?	Who will do it?	When will it happen?
Consider a needs assessment for people with a Learning Disability	Public Health lead, other agencies via steering group	Will be determined if this goes ahead

Undertake a JSNA chapter for people who are carers	Public Health lead, other agencies via steering group	2023
Consider undertaking a needs assessment for people with a disability (other than learning disability which is considered separately)	Public Health lead, other agencies via steering group	To be considered for future programmes
<p>Recommendation 13: Further targeted work or needs assessments could also be considered for those population groups where evidence exists for them losing years of life as a result of health inequalities. These should explore the drivers of these inequalities. This includes:</p> <ul style="list-style-type: none"> • Looked after children or care experienced people (360% risk of premature death)⁴² • People who are homeless (around 30 years lower)²⁶ • People living in poverty or deprivation (9.7 years for men and 7.9 years for women in England)¹⁰⁰ • Gypsy or Irish Travellers (life expectancy of 10 years lower)⁶³ • People who are in prison (mortality rate for prisoners is 50% higher)⁴⁸ • People with a Severe Mental Illness (15-20 years lower life expectancy)⁵³ 		
What will be done?	Who will do it?	When will it happen?
Consider further needs assessments as part of future programmes, subject to other work priorities.	Public Health lead, other partners as steering group members	TBD
<p>Recommendation 14: Carry out an access to services JSNA chapter (as planned for 2023/24), including a look at access for those population groups identified in section 2 of this JSNA chapter. This should include further analysis of access to University Hospitals of Leicester amongst other services, helping to build on initial action to address emerging patterns of differential experience and outcomes.</p>		
What will be done?	Who will do it?	When will it happen?

Undertake an access to service JSNA chapter	Public Health lead, various partners on steering group	2023/24
---	--	---------

GLOSSARY OF TERMS

CQC	Care Quality Commission
GP	General Practitioner
HWB	Health and Wellbeing Board
ICB	Integrated Care Board
ICS	Integrated Care System
IDACI	Income Deprivation Affecting Children
IDAOP1	Income Deprivation Affecting Older People
IMD	Index of Multiple Deprivation
JHWS	Joint Health and Wellbeing Strategy
JSNA	Joint Strategic Needs Assessment
LLR	Leicester, Leicestershire and Rutland
LPT	Leicestershire Partnership Trust
LSOA	Lower Super Output Area
MSOA	Middle Super Output Area
NHS	National Health Service
ONS	Office of National Statistics
OHID	Office for Health Improvement and Disparities

Appendix A: Summary of neighbourhoods facing the greatest socioeconomic hardship in Leicestershire

(All MSOA's where at least one indicator was significantly higher than England or where the MSOA contains an LSOA that falls into the 20% most deprived in England)

Indicator	Period	England	Leics.	Loughborough Lemington & Hastings	Loughborough Storer & Queen's Park	Loughborough - University	Loughborough - Shelthorpe & Woodthorpe	Market Harborough Central	Hinckley Clarendon Park	Agar Nook (NWL)	Wigston Town	South Wigston
Income deprivation, English Indices of Deprivation (%)	2019	12.9	7.8	20.6	9.0	6.3	13.5	11.5	11.6	20.0	14.7	13.2
Child Poverty, IDACI (%)	2019	17.1	10.6	25.1	23.0	21.7	20.3	13.4	14.9	31.5	18.8	20.9
Older people in poverty (IDAOPi) (%)	2019	14.2	9.2	28.8	17.4	11.3	15.5	15.8	14.4	14.2	16.4	11.7
Modelled estimates of the proportion of households in fuel poverty (%)	2020	13.2	11.3	19.2	28.7	19.5	18.5	14.6	12.9	16.7	13.9	14.0
IMD score	2019	21.7	12.3	31.9	17.4	11.5	22.0	15.9	20.7	32.1	25.8	22.3
Contains an LSOA that falls into 20% most deprived in England (calculated using IMD deprivation (2019))		N/A	N/A	Yes	Yes	N/A	N/A	N/A	Yes	Yes	N/A	N/A
Unemployment (% claiming out of work benefit)	2021/2022	5.0	2.9	6.5	2.1	1.3	3.9	3.0	4.6	4.8	5.0	5.1

Better 95%
Similar
Worse 95%
Not compared

Source: ONS, 2019 and OHID Fingertips

Appendix B: Life expectancy indicators by district

	Period	England	Leicestershire	Blaby	Charnwood	Harborough	Hinckley and Bosworth	Melton	NWL	Oadby and Wigston
Life expectancy at birth (male, 1 year range)	2020	78.7	79.9	80.5	79.5	80.3	81.0	79.6	78.9	78.8
Life expectancy at birth (male 3 year range)	2018-2020	79.4	80.5	81.2	80.2	81.2	80.4	80.6	79.7	79.5
Life expectancy at birth (female 1 year range)	2020	82.6	83.7	84.3	83.9	83.5	83.3	84.6	82.9	84.2
Life expectancy at birth (female 3 year range)	2018-2020	83.1	84.1	85.1	83.6	84.4	83.6	84.2	83.5	84.6
Life expectancy at 65 (male 1 year range)	2020	18.1	18.3	18.2	18.2	19.2	19.0	18.0	17.7	17.3
Life expectancy at 65 (male 3 year range)	2018-2020	18.7	19.1	19.3	18.9	19.9	19.0	19.2	18.4	18.9
Life expectancy at 65 (female 1 year range)	2020	20.7	21.4	22.2	21.6	21.4	20.8	21.8	21.2	20.9
Life expectancy at 65 (female 3 year range)	2018-2020	21.1	21.8	22.4	21.7	22.0	21.5	21.9	21.5	21.9

Better 95%
Similar
Worse 95%
Not compared

Source: OHID, fingertips

Appendix C: MSOA's with significantly worse indicator performance against England (under 75 mortality and causes)

	Period	England	Leicestershire	Loughborough Lemyngton & Hastings	Loughborough Storer & Queen's Park	Loughborough - University	Market Harborough Central	Hinckley Central	Agar Nook (NWL)	Coalville	Wigston Town	South Wigston
Deaths from all causes, under 75 years, standardised mortality ratio	2016-20	100	86.3	155.6	139.2	105.3	125.4	123.0	121.9	149.5	146.2	126.8
Deaths from all cancer, under 75 years, standardised mortality ratio	2016-20	100	92.1	119.0	116.8	126.8	120.3	108.5	115.4	126.9	147.3	123.8
Deaths from all circulatory disease, under 75 years, standardised mortality ratio	2016-20	100	86.0	173.3	211.4	164.8	115.9	125.0	100.9	128.2	153.8	153.5
Deaths from all causes considered preventable, under 75 years, standardised mortality ratio	2016-20	100	83.6	173.9	114.6	109.7	130.4	124.8	131.7	160.3	145.6	153.4

Better 95%
Similar
Worse 95%
Not compared

Source: OHID, fingertips

Appendix D: Intersectionality of risk

The table below has been created by selecting MSOA's that fall into at least one of the following categories:

- MSOA's where life expectancy at birth is significantly lower than England
- MSOA's where under 75 mortality is significantly higher than England
- MSOA's where at least one indicator of socio economic risk is significantly worse than England

Inclusion and protected characteristic groups are stated in order to inform potential intersectionality occurring in high risk areas, these are not necessarily the MSOAs with the highest proportion of these populations in Leicestershire. Each MSOA is compared to England.

		Period	England	Leicestershire	Loughborough Lemington & Hastings	Loughborough Storer & Queen's Park	Shepshed East	Loughborough - University	Loughborough - Shelthorpe & Woodthorpe	System West	Market Harborough Central	Barwell	Hinckley Central	Hinckley Clarendon Park	Melton Mowbray West	Agar Nook (NWL)	Coalville	Wigston Town	South Wigston
Life expectancy	Life expectancy at birth (upper age band 90 and over) (male)	2016-20	79.5	80.6	75.4	74.9	78.0	78.7	78.5	78.9	78.5	78.8	77.0	79.8	77.7	76.1	76.4	75.4	76.9
	Life expectancy at birth (upper age band 90 and over) (female)	2016-20	83.2	84.2	79.1	80.7	80.1	85.7	84.2	80.9	84.2	81.2	79.3	84.7	82.1	82.2	77.6	79.5	82.4
Under 75 mortality	Deaths from all causes, under 75 years, standardised mortality ratio	2016-20	100	86.3	155.6	139.2	115.9	105.3	98.6	98.7	125.4	100.4	123.0	103.5	116.0	121.9	149.5	146.2	126.8
	Deaths from all cancer, under 75 years, standardised mortality ratio	2016-20	100	92.1	119.0	116.8	108.5	126.8	108.1	82.2	120.3	102.2	108.5	96.8	120.1	115.4	126.9	147.3	123.8
	Deaths from all circulatory disease, under 75 years, standardised mortality ratio	2016-20	100	86.0	173.3	211.4	112.8	164.8	116.2	117.4	115.9	98.9	125.0	129.0	127.8	100.9	128.2	153.8	153.5
	Deaths from all causes considered preventable, under 75 years, standardised mortality ratio	2016-20	100	83.6	173.9	114.6	91.1	109.7	103.4	79.8	130.4	99.1	124.8	106.2	104.3	131.7	160.3	145.6	153.4
Socio economic risk	Income deprivation, English Indices of Deprivation %	2019	12.9	7.8	20.6	9.0	8.9	6.3	13.5	7.6	11.5	12.4	12.0	11.6	11.2	20.0	12.1	14.7	13.2
	Child Poverty, IDACI %	2019	17.1	10.6	25.1	23.0	11.9	21.7	20.3	8.9	13.4	18.5	15.5	14.9	17.5	31.5	16.4	18.8	20.9
	Older people in poverty (IDAOPI) %	2019	14.2	9.2	28.8	17.4	9.3	11.3	15.5	11.8	15.8	12.3	15.0	14.4	10.6	14.2	12.9	16.4	11.7
	Modelled estimates of the proportion of households in fuel poverty (%)	2020	13.2	11.3	19.2	28.7	10.2	19.5	18.5	9.1	14.6	12.9	15.8	12.9	13.0	16.7	15.4	13.9	14.0
	IMD score (higher = MD)	2019	21.7	12.3	31.9	17.4	14.9	11.5	22.0	13.1	15.9	18.9	21.3	20.7	18.1	32.1	20.3	25.8	22.3
	Contains an LSOA that falls into 20% most deprived in England	See footnote			Yes	Yes								Yes		Yes			
	Unemployment (% claiming out of work benefit)	2021/22	5.0	2.9	6.5	2.1	3.0	2.0	1.3	3.9	3.2	3.0	4.1	5.3	4.6	4.8	4.8	4.7	5.0
Inclusion and vulnerable groups	Carers	2021	8.4%	8.6%	7.0%	5.2%	8.3%	5.3%	8.2%	8.9%	8.3%	9.2%	8.5%	8.2%	8.0%	10.1%	8.0%	9.0%	8.9%
	Disabled (under the Equality Act)	2021	17.3%	16.6%	19.2%	16.4%	20.2%	13.3%	18.3%	18.0%	21.2%	20.2%	19.7%	18.4%	18.0%	30.4%	18.8%	23.3%	20.5%
	Gypsy or Irish Traveller**	2021	0.1%	0.1%	0.2%	0%	0%	0%	0.1%	0%	0.2%	0.2%	0%	0%	0%	0%	0.1%	0%	0%
Protected characteristic groups	Bangladeshi	2021	1.1%	0.5%	13.7%	1.4%	0.1%	1.3%	2.2%	0.1%	0.2%	0%	0%	0.5%	0.1%	0.1%	0%	0.2%	0.2%
	Pakistani	2021	2.8%	0.6%	0.6%	0.5%	0.0%	0.9%	0.3%	0.2%	0.1%	0.2%	0.3%	0.1%	0%	0.2%	0%	1.1%	0.8%
	LGB+	2021	3.2%	2.4%	4.8%	5.5%	2.8%	5.5%	3.5%	2.1%	2.8%	2.7%	3.3%	3.1%	2.5%	2.3	3.5%	2.6%	2.9%
	Gender other than same as registered at birth	2021	0.5%	0.3%	0.7%	0.6%	0.3%	0.4%	0.4%	0.2%	0.5%	0.4%	0.8%	0.4%	0.4%	0.4%	0.8%	0.3%	0.5%
Geography	Urban/rural	2011	-	-	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban

Lower Similar Higher key: inclusion and protected characteristic groups only. Key: all other indicators Better 95% Similar Worse 95% Not compared

Sources: Life expectancy and under 75 mortality: OHID, fingertips
 Socioeconomic risk excluding MSA's containing an LSOA in the 20% most deprived in England: OHID, fingertips
 Socioeconomic risk MSA containing and LSOA that falls into 20% most deprived in England: calculated using IMD deprivation (2019) and ONS midyear estimates (2020)
 Geography: SHAPE Atlas
 Protected characteristic groups: Office for National Statistics (ONS), Census 2021, various topic data

** Note the challenge to these figures from the local Multi Agency Travellers Unit as covered in Protected characteristics in the Equality Duty in the main report

Appendix E: MOSA level potential drivers of health inequalities. A review of Local Health indicators, displaying only those where performance is significantly worse than England for that MSOA and where they have not already been listed in Appendix C or D.

		Period	England	Leicestershire	Loughborough Lemington & Hastings	Loughborough Storer & Queen's Park	Shepshed East	Loughborough - University	Loughborough - Shelthorpe & Woodthorpe	System West	Market Harborough Central	Barwell	Hinckley Central	Hinckley Clarendon Park	Melton Mowbray West	Agar Nook (NWL)	Coalville	Wigston Town	South Wigston	
Disease and poor health	Overcrowded houses (%)	2011	8.7%	3.7%	12.6%	10.4 %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Older people living alone (%)	2011	31.5%	28.7%	39.0%	37.6 %	N/A	N/A	N/A	N/A	44.8 %	N/A	N/A	35.4%	35.6%	N/A	N/A	33.8%	N/A	
	Reception: Prevalence of obesity (including severe obesity) (%)	19/20 – 21/22	9.7%	8.3%	14.1%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Reception: Prevalence of overweight (including obesity) (%)	19/20 – 21/22	22.6%	21.0%	29.5%	N/A	N/A	31.6 %	N/A	N/A	N/A	32.7%	32.7%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Year 6: Prevalence of obesity (including severe obesity) (%)	19/20 – 21/22	20.4%	17.5%	26.3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Year 6: Prevalence of overweight (including obesity) (%)	19/20 – 21/22	34.6%	31.1%	40.8%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deliveries to teenage mothers (%)	2016/17 – 2020/21	0.7%	0.5%	N/A	N/A	N/A	N/A	2.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Emergency hospital admissions for all causes, all ages (SAR per 100)	2016/17 – 2020/21	100.0	89.8	114.7	N/A	107.8	N/A	N/A	N/A	N/A	N/A	107.9	N/A	106.6	112.9	118.2	131.6	123.5		
Emergency hospital admissions for stroke (SAR per 100)	2016/17 – 2020/21	100.0	105.2	198.8	133.5	164.8	N/A	127.7	N/A	N/A	N/A	N/A	N/A	140.9	132.3	151.9	158.6	135.6		
Emergency hospital admissions for COPD (SAR per 100)	2016/17 – 2020/21	100.0	87.7	189.0	163.6	125.9	165.8	144.1	N/A	134.3	N/A	147.2	N/A	161.9	142.1	193.0	200.9	212.9		
Emergency hospital admissions for hip fractures (65+) (SAR per 100)	2016/17 – 2020/21	100.0	126.0	184.2	187.7	224.1	N/A	N/A	146.6	N/A	154.5	152.0	N/A	168.4	N/A	218.8	154.0	161.5		
Emergency hospital admissions for intentional self harm (SAR per 100)	2016/17 – 2020/21	100.0	69.3	128.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	131.8	N/A	
Hospital admissions for alcohol attributable conditions (narrow definition) (SAR per 10)	2016/17 – 2020/21	100.0	90.9	149.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120.9	128.2	129.4	N/A	
Hospital admissions for alcohol attributable conditions (broad definition) (SAR per 100)	2016/17 – 2020/21	100.0	85.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	147.1	126.0	131.5	105.0	

Source: Office for Health Improvement and Disparities, Local Health. Accessed 01.11.22

If you require information contained in this leaflet in another version e.g. large print, Braille, tape or alternative language please telephone: 0116 305 6803, Fax: 0116 305 7271 or Minicom: 0116 305 6160.

જો આપ આ માહિતી આપની ભાષામાં સમજવામાં થોડી મદદ ઇચ્છતાં હો તો 0116 305 6803 નંબર પર ફોન કરશો અને અમે આપને મદદ કરવા યત્ન કરીશું.

નેકર ડુગાનું ઇસ જાઠકારી નું સમઝઠ વિચ વ્રઝ મદદ ચાઘીલી હૈ ડાં વિરપા કરવે 0116 305 6803 નંબર ડે ફોન કરે અઢે અસીં ડુગાઢી મદદ લીઠી વિસે ડા પૂર્ણ કર દવાંગે।

এই তথ্য নিজের ভাষায় বুঝার জন্য আপনার যদি কোন সাহায্যের প্রয়োজন হয়, তবে 0116 305 6803 এই নম্বরে ফোন করলে আমরা উপযুক্ত ব্যক্তির ব্যবস্থা করবো।

اگر آپ کو یہ معلومات سمجھنے میں کچھ مدد درکار ہے تو براہ مہربانی اس نمبر پر کال کریں
0116 305 6803 اور ہم آپ کی مدد کے لئے کسی کا انتظام کر دیں گے۔

假如閣下需要幫助，用你的語言去明白這些資訊，請致電 0116 305 6803，我們會安排有關人員為你提供幫助。

Jeżeli potrzebujesz pomocy w zrozumieniu tej informacji w Twoim języku, zadzwoń pod numer 0116 305 6803, a my Ci pomożemy.

Strategic Business Intelligence Team
Strategy and Business Intelligence Branch

Chief Executive's Department
Leicestershire County Council
County Hall
Glenfield
Leicester
LE3 8RA
ri@leics.gov.uk
www.lsr-online.org

REFERENCES

- ¹ The Kings Fund. What are Health Inequalities? June 2022
- ² The Equality Act, 2010
- ³ Office for Health Improvement & Disparities. Health Equity Assessment Tool (HEAT). 2020
- ⁴ NHS England, Core20PLUS5
- ⁵ NHS England, Core20PLUS5 children and young people
- ⁶ Royal College of Physicians, May 2022
- ⁷ Institute of Health Equity. Fair Society, Healthy Lives (the Marmot Review). February 2010
- ⁸ The Health Foundation. Health Equity in England: The Marmot Review 10 Years On. February 2020
- ⁹ The Health Foundation, Quantifying health inequalities in England. August 2022
- ¹⁰ Alice R Lee, Camilla C Kingdon, Max Davie, Daniel Hawcutt, Ian P Sinha. Child poverty and health inequalities in the UK: a guide for paediatricians.
- ¹¹ Joseph Rowntree Foundation. UK Poverty 2022: The essential guide to understanding poverty in the UK
- ¹² Office for National Statistics. Impact of increased cost of living on adults across Great Britain: June to September
- ¹³ Faculty of Public Health. Living Healthier and Longer: Poverty and the Cost-of-Living Crisis.
- ¹⁴ Indices of Deprivation 2019, Ministry of Housing, Communities and Local Government, 2019
- ¹⁵ Leicestershire Joint Strategic Needs Assessment 2018-2021. Demography Report. [Isr-online.org](http://www.leicestershire.gov.uk): Leicestershire County Council; 2021.
- ¹⁶ Calculation based on LSOA level IMD data (2019)¹⁷ and population count from Office of National Statistics Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2020
- ¹⁷ Ministry of Housing, Communities and Local Government. English indices of multiple deprivation 2019
- ¹⁸ Public Health Profiles. Child Poverty, Income deprivation affecting children index (IDACI). <https://fingertips.phe.org.uk/search/child%20poverty> Accessed on 24.10.22
- ¹⁹ Public Health Profiles. Older people in poverty: Income deprivation affecting older people Index (IDAOPI) 2019 proportion. [Fingertips.phe.org.uk](https://fingertips.phe.org.uk)
https://fingertips.phe.org.uk/search/deprivation#page/3/gid/1938133180/pat/402/par/E10000018/ati/3/are/E02005347/iid/93279/age/214/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/map-ao-1_car-do-0 Accessed 30.08.22
- ²⁰ Public Health Profiles. Modelled estimates of the proportion of households in fuel poverty (%) 2020 proportion (%). https://fingertips.phe.org.uk/search/deprivation#page/3/gid/1938133180/pat/402/par/E10000018/ati/3/are/E02005347/iid/93280/age/-1/sex/-1/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/map-ao-1_car-do-0 Accessed on 30.08.22.
- ²¹ Public Health Profiles. Unemployment (percentage of the working age population claiming out of work benefit) 2021/22 proportion - %.
<https://fingertips.phe.org.uk/search/unemployment#page/3/gid/1938133180/pat/402/par/E10000018/ati/3/are/E02005334/iid/93097/age/204/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/car-do-0> . Accessed 21.10.22
- ²² Public Health Profiles. Long-Term Unemployment rate per 1,000 working age population. 2021/22 crude rate – per 1,000.

<https://fingertips.phe.org.uk/search/unemployment#page/3/gid/1938133180/ati/3/iid/93097/age/204/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/car-do-0>. Accessed 21.10.22

²³ Public Health Profiles. Economic inactivity rate 2020/21 proportion - %.

<https://fingertips.phe.org.uk/search/employment#page/3/gid/1/ati/402/iid/92899/age/204/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/car-do-0> Accessed 21.10.22

²⁴ Public Health Profiles. The percentage of the population who are in contact with secondary mental health services and on the Care Plan Approach, that are in paid employment (aged 18 to 69) 202/21.

<https://fingertips.phe.org.uk/search/employment#page/3/gid/1/pat/6/par/E12000004/ati/402/are/E10000018/iid/93886/age/208/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1> Accessed 21.10.22.

²⁵ Public Health Profiles. Gap in the employment rate between those who are in contact with secondary mental health services (aged 18 to 69) and on the Care Plan Approach, and the overall employment rate 2020/21.

<https://fingertips.phe.org.uk/search/employment#page/3/gid/1/pat/6/par/E12000004/ati/402/are/E10000018/iid/90635/age/208/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/car-do-0> Accessed on 21.10.22

²⁶ NICE guidance, Integrated health and social care guidance for people experiencing homelessness

²⁷ Thomas, B. (2012) Homelessness kills: An analysis of the mortality of homeless people in the early twentyfirst century in England. Crisis.

²⁸ Centre for Homelessness Impact. Homelessness and Children's Social Care in England. 2022

²⁹ OHID, fingertips. Homelessness – households owed a duty under the Homelessness Reduction Act. Accessed 13.10.22

³⁰ Public Health Profiles. Homelessness – households owed a duty under the Homelessness Reduction Act 202/21.

<https://fingertips.phe.org.uk/search/homelessness#page/3/gid/1/pat/6/par/E12000004/ati/402/are/E10000018/iid/93736/age/-1/sex/-1/cat/-1/ctp/-1/yr/1/cid/4/tbm/1> Accessed on 24.10.22

³¹ Laurent, C., Jaipaul, R. et al (2020) Modern slavery and public health: a rapid evidence assessment and an emergent public health approach

³² Dando, Brierley, Saunders, Mackenzie. Health inequalities and health equity challenges for victims of modern slavery. 2019

³³ Home Office, Modern Slavery: National Referral Mechanism and Duty to Notify statistics UK, end of year summary, 2021

³⁴ Home Office, Modern Slavery: National Referral Mechanism and Duty to Notify statistics UK, 2021. End of year 2021 January to December

³⁵ Potter, Horwood, Feder. Access to healthcare for street sex workers in the UK: perspectives and best practice guidance from a national cross-sectional survey of frontline workers. 2022

³⁶ Elmes J, Stuart R, Grenfell P, *et al*, Effect of police enforcement and extreme social inequalities on violence and mental health among women who sell sex: findings from a cohort study in London, UK. *Sexually Transmitted Infections* 2022;**98**:323-331.

³⁷ House of Commons Home Affairs Committee. Prostitution, third report of session 2016-2017

³⁸ The Race Equality Foundation. Health and access to health care of migrants in the UK. 2010

³⁹ Burnett, Peel. Health needs of asylum seekers and refugees (2001)

-
- ⁴⁰ Office for National Statistics (ONS). Resettlement by LA since 2014, ONS, asylum and resettlement data sets, Dec 22
- ⁴¹ Gov.uk. Immigration System Statistics, year ending December 2022. Asylum seekers in receipt of support by local authority 2023
- ⁴² Emily T Murray et al, Non-parental care in childhood and health up to 30 years later: ONS Longitudinal Study 1971–2011
- ⁴³ Sanders, R (2020) ESSS Outline: Care experienced children and young people’s mental health. Iriss.
- ⁴⁴ Gov.uk, Children Looked After Including Adoptions 2021, published Nov 21, data as at 31st March 2021
- ⁴⁵ Carers UK, Carers’ health and experiences of primary care, 2021
- ⁴⁶ Carers UK, Carers and Physical Activity, 2021
- ⁴⁷ National Institute for Health and Care Research, Supporting family and friends: how can research help carers? October 2022
- ⁴⁸ Public Health England, Home Office and Revolving Doors Agency. Rebalancing Act, A resource for Directors of Public Health, Police and Crime Commissioners, the police services and other health and justice commissioners, service providers and users.
- ⁴⁹ Releases, Offender management statistics quarterly: October to December 2021 and annual 2021, gov.uk
- ⁵⁰ Emsley, Smith, Martin & Lewis. Trauma informed care in the UK: where are we? A qualitative study of health policies and professional perspectives
- ⁵¹ Public Health Profiles. Domestic abuse related incidents and crimes 2020/21. <https://fingertips.phe.org.uk/search/domestic%20abuse> Accessed on 24.10.22
- ⁵² Oxford Brookes University, PANSI. People aged 18-64 predicted to be survivors of childhood sexual abuse, by gender, projected to 2040. Projection for the year 2020 for Leicestershire
- ⁵³ Public Health England, Severe mental illness (SMI) and physical health inequalities: briefing. Published 27 September 2018
- ⁵⁴ Public Health Profiles. New referrals to secondary mental health services, per 100,000 (all ages) 2019/20. <https://fingertips.phe.org.uk/search/mental%20health#page/3/gid/1/pat/6/par/E12000004/ati/402/are/E10000018/id/93623/age/1/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/car-do-0>
- ⁵⁵ Local Government Association. Health inequalities: Children. 2022
- ⁵⁶ Local Government Association. Children and young people’s emotional wellbeing and mental health – facts and figures. January 2022
- ⁵⁷ Association for Young People’s Health. Health inequalities data set. Available at <https://ayph-youthhealthdata.org.uk/health-inequalities/> page accessed on 13.10.22
- ⁵⁸ Centre for Ageing Better. Inequalities in later life. 2017
- ⁵⁹ Centre for Ageing Better. The State of Ageing 2022.
- ⁶⁰ Leicestershire County Council, Leicestershire Joint Strategic Needs Assessment 2018-2021, Demography report, December 2021
- ⁶¹ Kings Fund, the health of people from ethnic minority groups in England. September 2021

-
- ⁶² Race Disparity Unit, Cabinet Office. Gypsy, Roma and Irish Traveller ethnic group: facts and figures. February 2022
- ⁶³ Office for Health Improvement and Disparities. Gypsy, Roma and Traveller groups: An introduction to history and culture, health and disparities
- ⁶⁴ UK Parliament. Tackling inequalities faced by Gypsy, Roma and Traveller communities. April 2019
- ⁶⁵ Leicestershire County Council, Leicestershire 2018-2021 JSNA, Demography Report (2021 Update)
- ⁶⁶ Office for National Statistics (ONS), released 29 November 2022, ONS website, statistical bulletin, [Ethnic group, England and Wales: Census 2021](#)
- ⁶⁷ Office for National Statistics. Developing subnational multivariate income by ethnicity statistics from administrative data, England and Wales: tax year ending 2018. Released 20th February 2023
- ⁶⁸ British Medical Association. Health inequalities and women – addressing unmet needs.
- ⁶⁹ Department of Health and Social Care. Policy paper Women’s Health Strategy for England. August 2022
- ⁷⁰ LGBT foundation, Hidden Figures: LGBT Health Inequalities in the UK
- ⁷¹ Stonewall, LGBT in Britain Health Report
- ⁷² Almack K. ‘I didn’t come out to go back in the closet’. 2018. p. 158-71.
- ⁷³ Phillips, Callum. (2021). How covid-19 has exacerbated LGBTQ+ health inequalities. BMJ. 372. m4828.
- ⁷⁴ Stonewall. LGBT in Britain. Trans report. 2018
- ⁷⁵ Office for National Statistics (ONS), released 6 January 2023, ONS website, statistical bulletin, [Sexual orientation, England and Wales: Census 2021](#)
- ⁷⁶ Office for National Statistics (ONS), released 6 January 2023, ONS website, statistical bulletin, [Gender identity, England and Wales: Census 2021](#)
- ⁷⁷ Office for National Statistics (ONS), released 10 February 2022, Outcomes for disabled people in the UK:2021
- ⁷⁸ Leicester, Leicestershire and Rutland LeDeR Annual Report June 2022
- ⁷⁹ Kings College London and University of Central Lancashire. LeDeR Takehome fact sheet 2021
- ⁸⁰ National Institute for Health and Care Excellence (NICE). NICE impact people with a learning disability. November 2021
- ⁸¹ Mencap, Health inequalities. Accessed at <https://www.mencap.org.uk/learning-disability-explained/research-and-statistics/health/health-inequalities> Accessed on 20.10.22
- ⁸² Office for Health Improvement and Disparities. Learning disabilities health inequalities summaries. Accessed here <https://fingertips.phe.org.uk/profile/learning-disabilities> on 26.10.22
- ⁸³ Midlands and Lancashire Commissioning Support Unit, Aristotle. Patients registered at a practice in Leicestershire and filtered by LD flag. Accessed on 18.04.232
- ⁸⁴ Public Health England. The determinants of health inequities experienced by children with learning disabilities. February 2015
- ⁸⁵ Special educational needs in England (2021/2022), Gov.uk, accessed 14.04.23
- ⁸⁶ Weir, E., Allison, C. & Baron-Cohen, S. Autistic adults have poorer quality healthcare and worse health based on self-report data. *Molecular Autism* **13**, 23 (2022).
- ⁸⁷ The National Strategy for Autistic Children, Young People and Adults: 2021-2026. Department for Education.

-
- ⁸⁸ Premature Mortality in Autism Spectrum Disorder, the British Journal of Psychiatry, 2016.
- ⁸⁹ National Autistic Society - 'How many people in the UK are autistic?' available at:
<https://www.autism.org.uk/about/what-is/myths-facts-stats.aspx>
- ⁹⁰ Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK. Baby deaths in the UK:2020 Summary of key findings.
- ⁹¹ Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK. Saving Lives, Improving Mothers' Care Lay Summary 2021
- ⁹² Equality and Human Rights Commission. Gypsies and Travellers: simple solutions for living together
- ⁹³ NHS England. The NHS Long Term Plan. 2019
- ⁹⁴ Department for Health and Social Care. Women's Health Strategy for England. 2022
- ⁹⁵ Impact on Urban Health. Landing page available at <https://urbanhealth.org.uk/> accessed 13.10.22
- ⁹⁶ Local Government Association and Public Health England. Health and Wellbeing in rural areas. 2017
- ⁹⁷ Ministry of Housing, Communities and Local Government, 2019
- ⁹⁸ Office for National Statistics. Slope index of inequality (SII) in life expectancy (LE) at birth by sex for Upper Tier Local Authorities (UTLA's) in England
- ⁹⁹ Public Health Profiles. Life expectancy at birth 1 year range 2020 and 3 year range 2018 – 2020. Fingertips.phe.org.uk
<https://fingertips.phe.org.uk/search/life%20expectancy#page/1/gid/1/pat/6/ati/402/are/E10000018/iid/93283/age/1/sex/1/cat/-1/ctp/-1/yr/5/cid/4/tbm/1>
- ¹⁰⁰ Public Health Profiles. Inequality in life expectancy at birth and 65 2018-2020.
<https://fingertips.phe.org.uk/search/inequality> Accessed on 24.10.22
- ¹⁰¹ Public Health Profiles. Healthy life expectancy at birth and at 65, 2018 – 2020.
<https://fingertips.phe.org.uk/search/healthy%20life%20expectancy> Accessed on 24.10.22
- ¹⁰² Public Health Profiles. Under 75 mortality (all measures). Fingertips.phe.org.uk
<https://fingertips.phe.org.uk/search/under%2075%20mortality#page/1/gid/1938133185/pat/6/ati/402/are/E10000018/iid/93480/age/163/sex/4/cat/-1/ctp/-1/yr/5/cid/4/tbm/1/page-options/car-do-0> Accessed on 31.08.22
- ¹⁰³ Office for Health Improvement and Disparities. Segment Tool. Breakdown of the life expectancy gap between the most and least deprived quintiles of Leicestershire by cause of death, 2020 to 2021 (provisional). Accessed at
<https://analytics.phe.gov.uk/apps/segment-tool/> Accessed on 26.10.22
- ¹⁰⁴ Office for Health Improvement and Disparities. Local Health. Available at <https://www.localhealth.org.uk/>. Accessed on 26.10.22
- ¹⁰⁵ Office for Health Improvement and Disparities. Fingertips, emergency hospital admissions indicators. Accessed on 26.10.22
- ¹⁰⁶ NHS Digital. National Child Measurement Programme, 2021/22.
- ¹⁰⁷ Midlands and Lancashire Commissioning Support Unit, Aristotle. Patients registered with practices in Leicestershire, filtered by deprivation 1 and 2 and filtered by obesity. Accessed on 04.11.22
- ¹⁰⁸ Office for National Statistics. Disability, England and Wales: Census 2021
- ¹⁰⁹ Institute of Health Equity. Economic analysis. <https://www.instituteofhealthequity.org/file->

<manager/FSHLrelateddocs/economic-analysis-fshl.pdf>

¹¹⁰ Asaria M, Doran T, Cookson R. The costs of inequality: whole-population modelling study of lifetime inpatient hospital costs in the English National Health Service by level of neighbourhood deprivation. *J Epidemiol Community Health* 2016;70:990-996.

¹¹¹ Office for National Statistics, Care homes and estimating the self-funding population, England: 2021 to 2022

¹¹² Leicester, Leicestershire and Rutland Integrated Care System. Health inequalities Framework. 2021

¹¹³ Leicestershire Health and Wellbeing Board. Joint Health and Wellbeing Strategy 2022 - 2032