Cardiovascular disease in Leicester adults

A Joint Strategic Needs Assessment (JSNA) is a statutory process by which local authorities and commissioning groups assess the current and future health, care and wellbeing needs of the local community to inform decision making.

Joint Strategic Needs Assessment Summary Document
Division of Public Health, Leicester City Council
Joint Strategic Needs Assessment (leicester.gov.uk)

Leicester City Council

February 2024

Cardiovascular diseases (CVDs) are a group of disorders of the circulatory system (heart and blood vessels) and are major causes of morbidity or mortality

Coronary heart disease is a form of CVD caused by the narrowing and blockage of arteries supplying the heart which can result in angina, chest pain or a myocardial infarction (heart attack), often complicated by disorders of heart rhythm (arrhythmia). The outcome can be acute heart failure, sudden death or slower progression to chronic heart failure.

Atrial fibrillation is a heart condition that causes an irregular and often abnormally fast heart rate. Usual symptoms include noticeable heart palpitations often for a few seconds or, in some cases, a few minutes. This can cause problems including dizziness, shortness of breath and tiredness. Atrial fibrillation increases the risk of stroke fivefold and can also lead to heart failure.

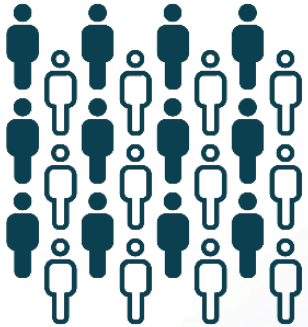
Stroke is caused by the interruption of the blood supply to the brain, usually because a blood vessel bursts or is blocked by a clot. This cuts off the supply of oxygen and nutrients, causing damage to the brain tissue. A very severe stroke can cause sudden death.

Hypertension is the medical term for high blood pressure. Persistent high blood pressure puts extra strain on blood vessels. Over time this makes it easier for arteries to become blocked by atheroma (fatty deposits), reducing or preventing the flow of blood to the heart and other organs.

Heart failure means that the heart is unable to pump blood around the body properly. It is a long-term condition that usually occurs because the heart has become too weak or stiff and tends to get gradually worse over time.

Source: Leicester City Council CVD JSNA 2023

CVD risk factors in Leicester's population



Risk factor	Likely to **increase** / **decrease** / **not significantly impact** CVD susceptibility compared to England's population
Increasing age	Just 28% of Leicester's population is over 50 years old compared to 39% for England overall
Ethnicity	Half of Leicester residents are of South Asian or Black heritage
Deprivation	Leicester is the 31st most deprived of 317 lower-tier local authorities
Unhealthy diet	27% of residents eat five portions of fruit or vegetables per day, which is significantly lower than England overall (33%)
Physical inactivity	33% of Leicester adults do less than 30 minutes' physical activity per week compared to 22% in England
Overweight and obesity	68% of Leicester adults are overweight or obese compared to 64% in England overall
Smoking	13% of Leicester adults smoke, which is similar to England overall
Excessive alcohol consumption	Half of Leicester residents abstain from alcohol, although many of those who drink consume at least 14 units a week

Source: Leicester JSNAs: Living in Leicester, Physical activity, Tobacco, Alcohol, Census 2021, OHID Fingertips

Prevalence

Leicester has a lower QOF prevalence than England and the other sub-locations within the Leicester, Leicestershire and Rutland Integrated Care Board for all the most common cardiovascular conditions.

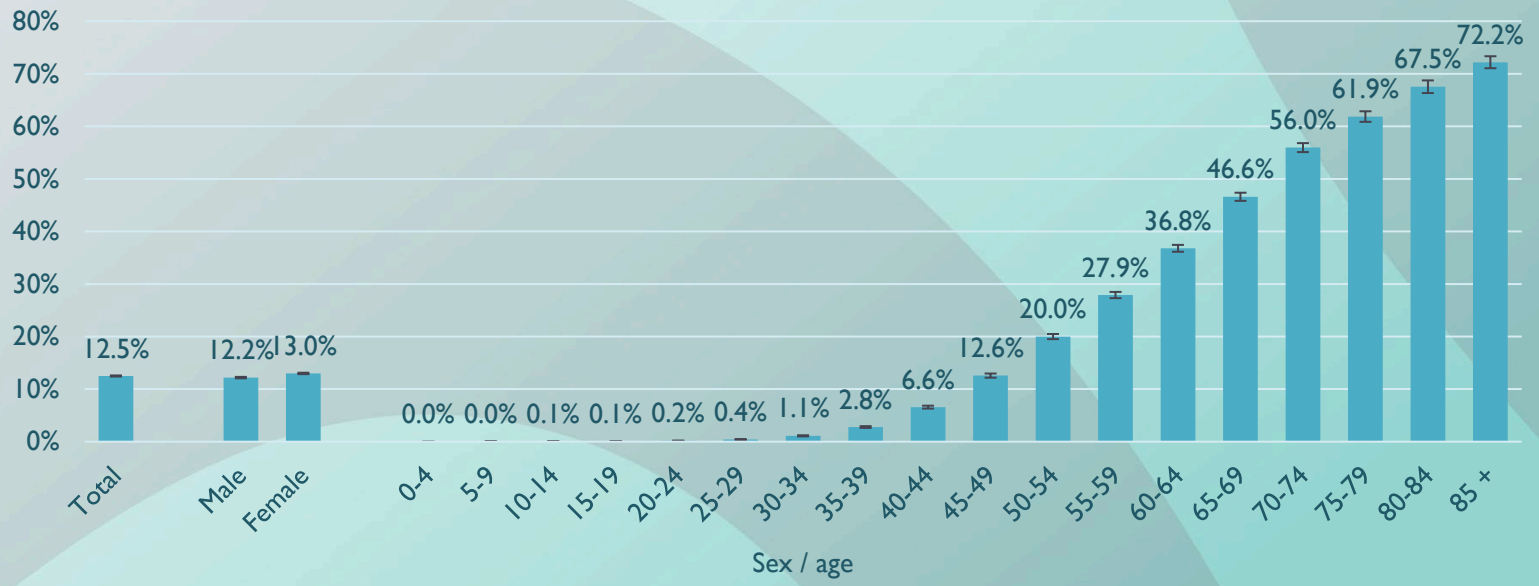
Hypertension (high blood pressure) is the most common condition, affecting at least 12% of the population in Leicester. Similar to other conditions, such as Coronary Heart Disease (CHD) and stroke, prevalence increases significantly with age.

Substantial numbers of hypertension and atrial fibrillation cases are estimated to be undiagnosed. Detecting and managing these conditions early can help to prevent more serious illness.

Long-term cardiovascular condition	Leicester count	QOF prevalence by ICB sub-location, 2021/22				
		Leicester (04C)	West Leicestershire (04V)	East Leicestershire and Rutland (03W)	LLR ICB	England
Hypertension	52,211	12.2%	14.9%	16%	14.3%	14.0%
Coronary heart disease	9,951	2.3%	2.8%	3.2%	2.7%	3.0%
Stroke or TIA	5,237	1.2%	1.9%	2.0%	1.7%	1.8%
Atrial fibrillation	4,532	1.1%	2.3%	2.7%	2.0%	2.1%
Heart Failure	3,567	0.8%	1.3%	1.3%	1.1%	1.0%

Statistically significantly lower than England | Statistically significantly higher than England

Percentage of people registered with a Leicester GP with hypertension, 2023



Source: Leicester City Council CVD JSNA 2023

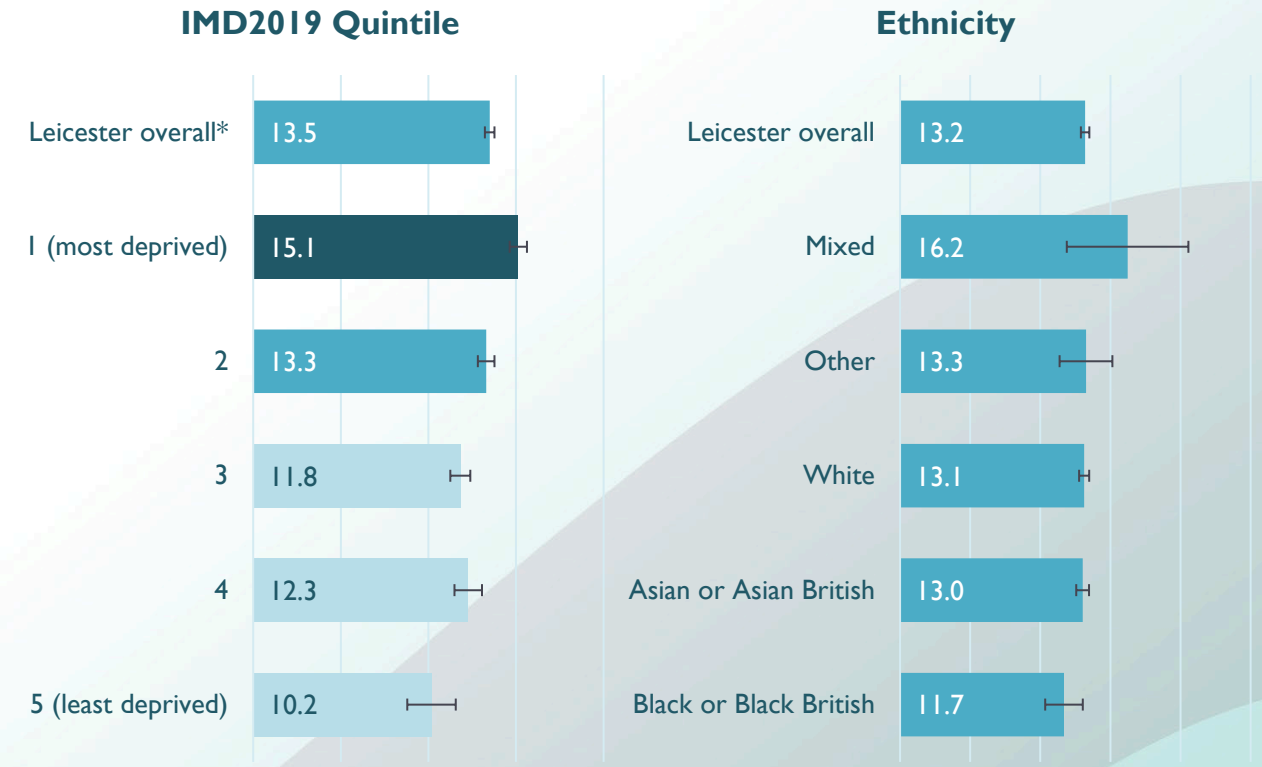
Note: recorded prevalence is slightly different between the 2021/22 QOF and 2023 GP registers, likely due to the difference in time periods.

Admissions There were 9,863 emergency hospital admissions of Leicester residents between 2018/19 and 2020/21.

Rates are significantly higher in men than women and increase significantly with age. Coronary heart disease was the most common primary diagnosis, accounting for 22% of CVD hospital admissions. For all CVD, people from Leicester's most deprived areas were significantly more likely to be admitted. Admission rates for CHD were significantly higher in the Asian population than the White or Mixed populations.

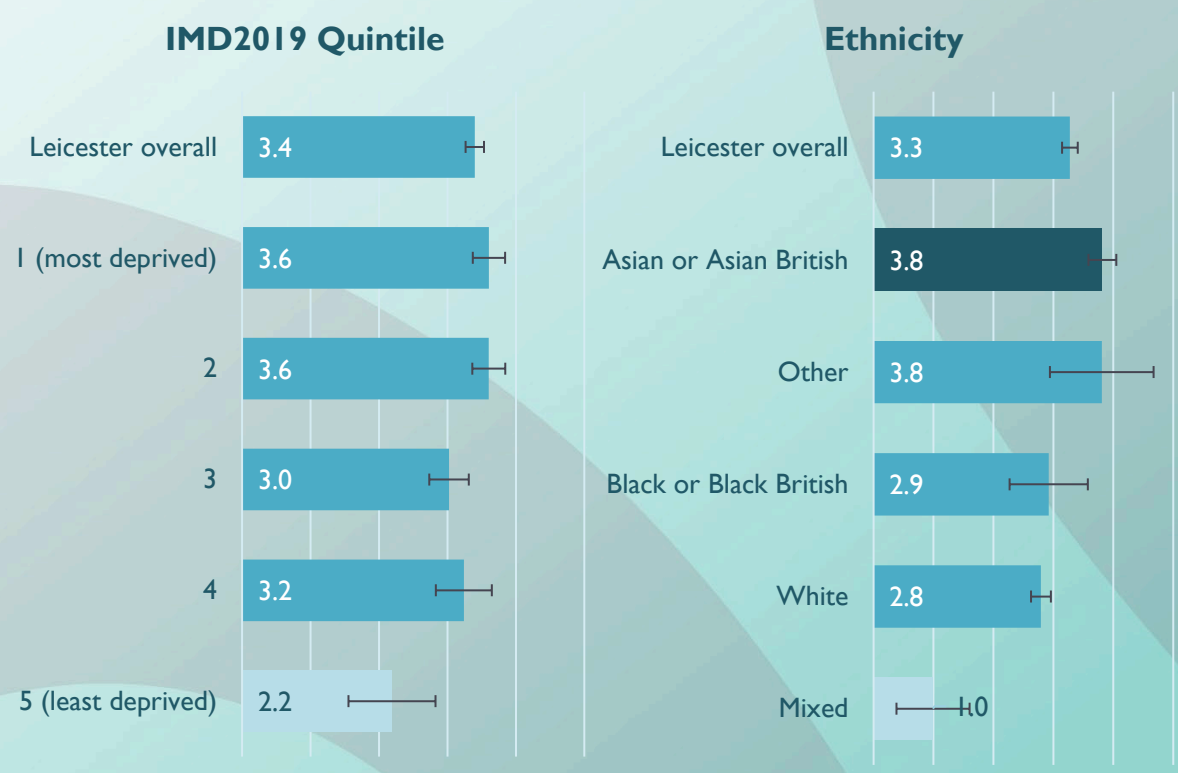
All cardiovascular disease

Age-standardised emergency admission rates per 1,000 population by:



Coronary heart disease

Age-standardised emergency admission rates per 1,000 population by:



Statistically significantly lower than Leicester overall | Statistically significantly higher than Leicester overall

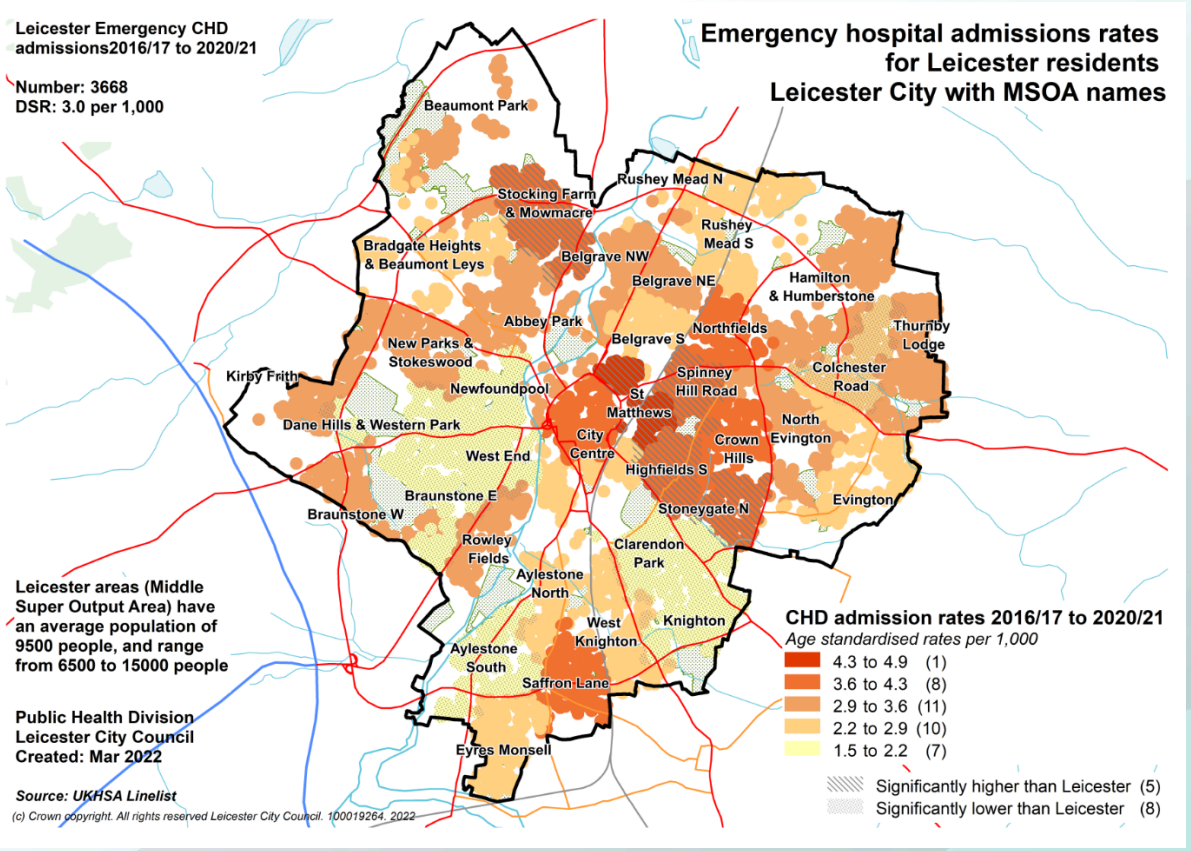
Source: Leicester City Council CVD JSNA 2023 **Note: overall admission rates are slightly different for deprivation and ethnicity because the IMD2019 uses old LSOAs with mid-year estimates rather than the 2021 census population as the denominator*

Admissions There were 9,863 emergency hospital admissions of Leicester residents between 2018/19 and 2020/21.

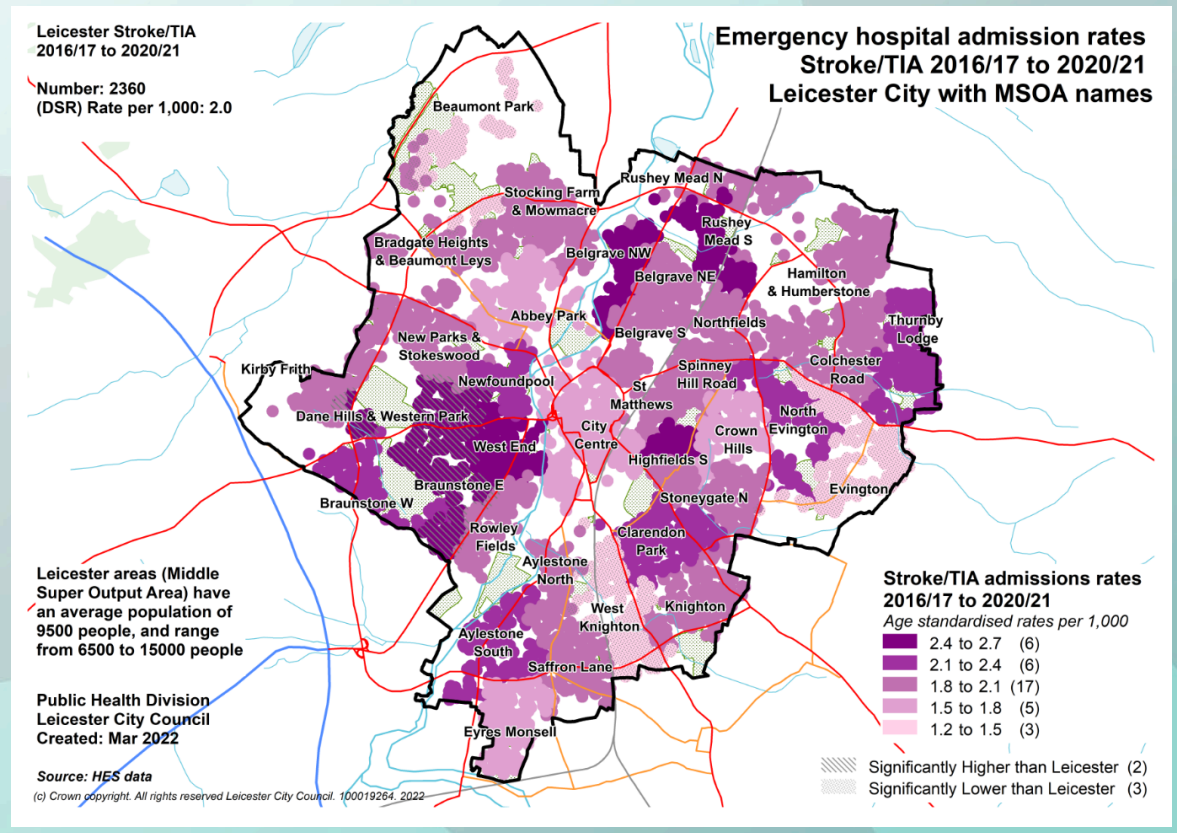
Emergency admissions for Coronary heart disease admissions are significantly higher in Stocking Farm & Mowmacre, Spinney Hill Road, Highfields, Stonegate and St Matthews – areas with large Asian populations

Emergency admissions for stroke are significantly higher in Western Park and Braunstone Park in the west of Leicester

Coronary heart disease



Stroke

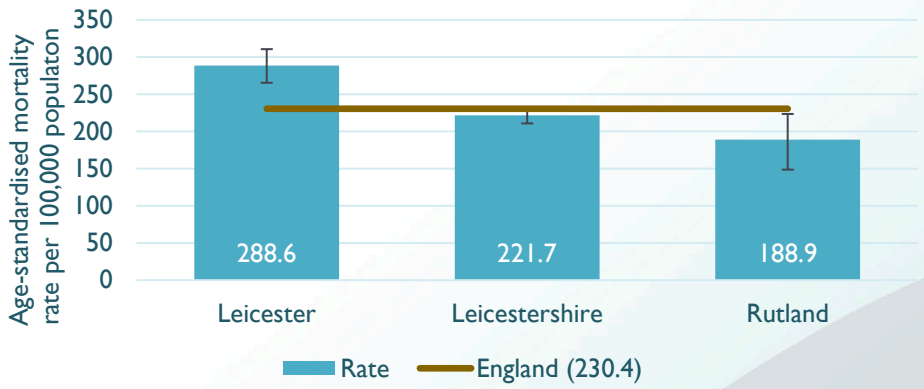


*Source: Leicester City Council CVD JSNA 2023 *Note: overall admission rates are slightly different for deprivation and ethnicity because the IMD2019 uses old LSOAs with mid-year estimates rather than the 2021 census population as the denominator*

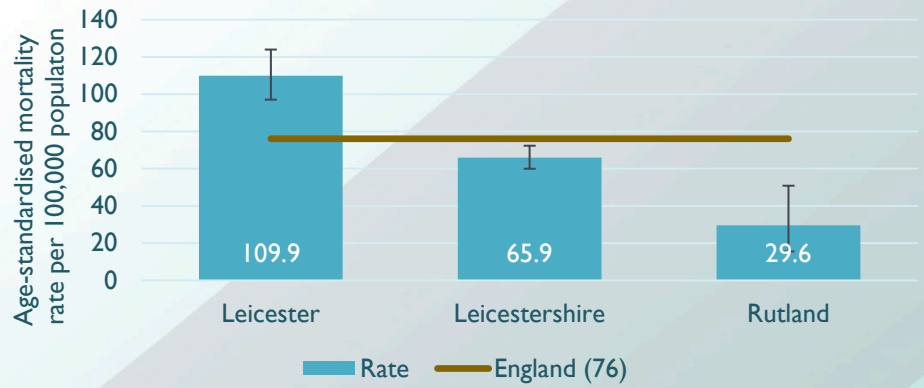
Mortality

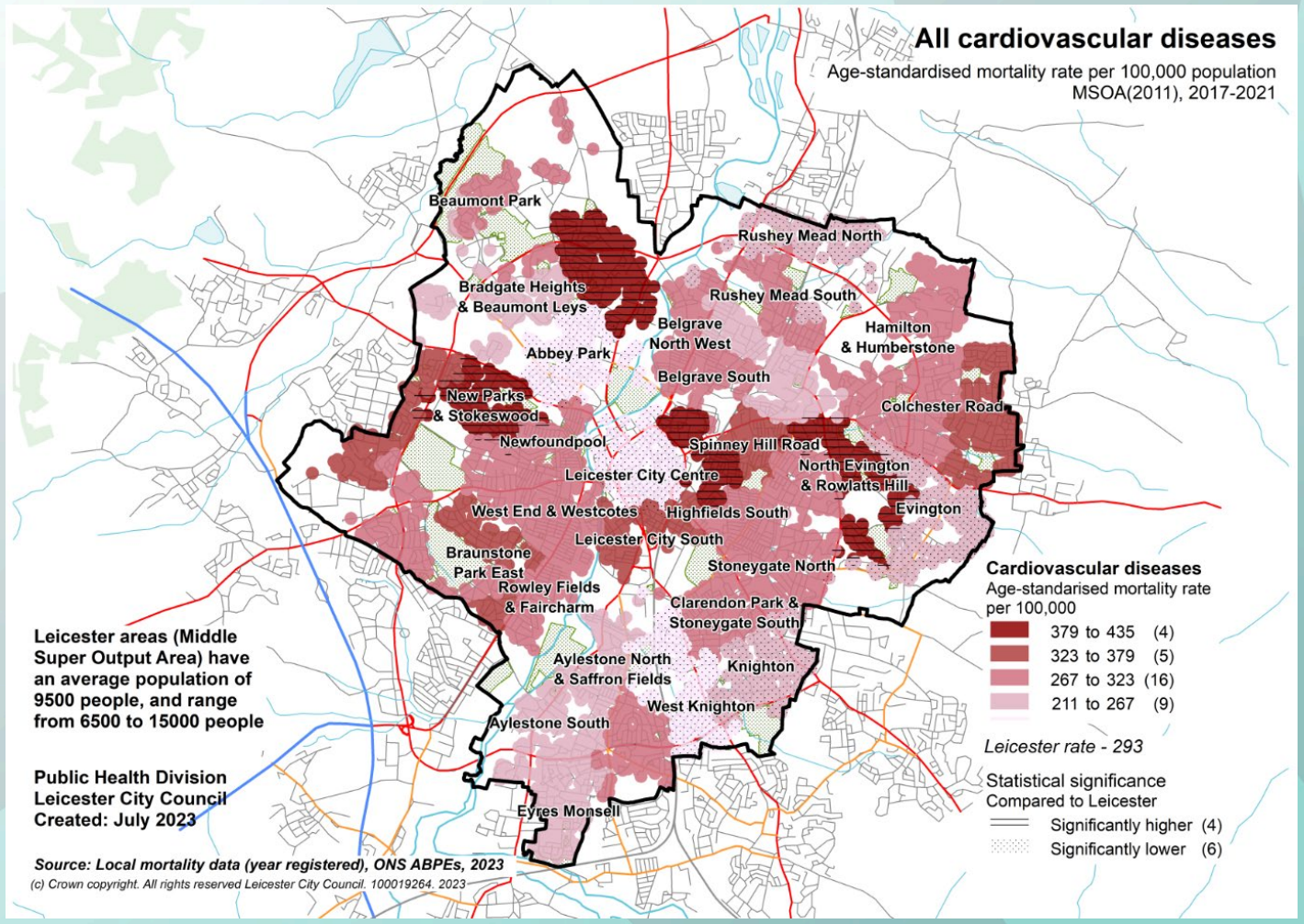
In 2021 there were 663 deaths from CVD in Leicester, accounting for 22.3% of all deaths. Cardiovascular diseases were the most common cause of death, closely followed by cancer (20.6%). Leicester has a significantly higher CVD mortality rate than the other local authority areas which make up the LLR ICB. When only CVD mortality in under 75s is considered, there is an even larger disparity. Within Leicester, CVD mortality rates are highest in New Parks, Mowmacre & Stocking Farm, St Matthews & Highfields North, and North Evington & Rowlatts Hill.

Mortality rate from all cardiovascular diseases, all ages, 2021



Under 75 mortality rate from all cardiovascular diseases, 2021





Source: Leicester City Council CVD JSNA 2023

Services:

Prevention:

2 main ways of reducing the risk factors associated with CVD:

- Better management of weight, diet, smoking and exercise
- Identifying people at risk early via programmes such as NHS Health Checks

Management:

Integrated Cardiovascular service commissioned by ICB:

- Detection, diagnosis and optimised management of Atrial Fibrillation and Heart Failure
- Level 4 anticoagulation service including monitoring of warfarin therapy, patients with Deep Vein Thrombosis and Near patient Testing
- Defibrillators and Heartshield Project

Unmet needs and service gaps:

Diagnosis gaps: significant gaps between estimated prevalence and rate of recorded diagnosis for hypertension and atrial fibrillation

Health inequalities: Significantly higher rates of emergency hospital admissions for people living in most deprived areas of Leicester are of Asian ethnic groups

- Core 20 Plus 5 national framework has a clinical focus area for hypertension case-finding to optimise blood pressure and minimise the risk of myocardial infarction and stroke

Source: Leicester City Council CVD JSNA 2023

Recommendations:

- Hypertension and Atrial Fibrillation case findings through partnerships with PCNs and primary care services
- Adopting a proportionate universalism approach (services and resources at a scale and intensity according to need)
- Work towards the ambitions of Leicester's Care, Health and Wellbeing Strategy
- Work to deliver the CORE20PLUS5 for people who are homeless, have severe mental illness or have learning disabilities
- Develop a preventative strategy through providers and commissioners of clinical care and public health interventions
- Establish a joint approach to early detection to close the prevalence gap and reduce variation in outcomes for people at high risk or with an established cardiovascular condition
- Close the inequality gap through better understanding of need and appropriate action
- Improve the coding of patient characteristics for health inequality analysis eg ethnicity
- Improvements in CVD care and prevention in the community
- Take steps outlined in the National CVD Prevention Programme

Source: Leicester City Council CVD JSNA 2023