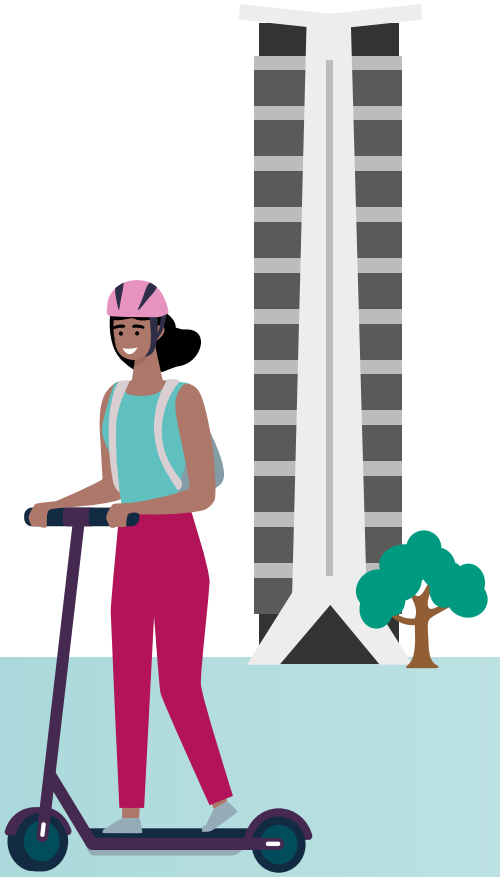
Healthy Hearts in Kingston

A focus on reducing health inequalities

THE ROYAL BOROUGH OF KINGSTON UPON THAMES

Kingston Director of Public Health Report 2024/25

FAIRER KINGSTON



Foreword

I am pleased to give my support to this new report on Healthy Hearts in Kingston. As the report shows, Kingston has made good progress on heart health over the last 20 years - but we still have a way to go. Not all of our residents have good heart health. Higher levels of risks and early deaths from heart health issues disproportionately impact our residents in more deprived parts of the borough.

Making further improvements to heart health requires a coordinated and systematic approach - from how we do our planning to promote good heart health infrastructure in the borough, to our services and messages to stay well, to detecting and treating heart health issues. All of these actions are possible.

Tackling heart health also brings other benefits. What is good for the heart is also good for the head - and can reduce some dementia risks. Addressing heart health can also support our climate goals - such as through increased walking and cycling over car use, thus reducing carbon emissions.

I look forward to seeing the recommendations of the report being taken forward, together with benefits through our borough's participation in the new pan London 'Million Hearts and Minds' initiative. Through improving heart health, we will also reduce health inequalities in the borough - something that we have committed to across all of our planning and strategies.

Cllr Sabah Hamed
Portfolio Holder for Public Health

Summary

Improving heart health will reduce health inequalities overall in Kingston. This is because heart health problems are more common among people living in the most deprived areas of Kingston than among people living in the least deprived areas. Early heart health-related deaths are the main cause of the five year life expectancy gap between men in the most and least deprived parts of the borough - and the second largest cause for women. Certain risks for heart health are also higher in some groups than others.

The four key actions that we all need to take to help prevent poor heart health are: not smoking, having a healthy diet and weight, avoiding excess alcohol consumption and engaging in enough physical activity. We have a way to go in all of these areas - with a particular need to reduce smoking rates in residents who work in routine and manual occupations, and those with poor mental health.. There are currently large numbers of children failing to achieve the minimum recommended levels of physical activity, and this may cause them health problems in the future.

A fifth key action is detecting risks for poor heart health at an early stage - because support and treatment is at hand and can be lifesaving. We can call this 'Knowing Our ABCs' (Atrial Fibrillation (an irregular heartbeat which can increase the risk of a stroke), Blood Pressure and Cholesterol levels). Having high blood pressure and high cholesterol are risks for poor heart health - and these can be identified in a NHS Health (or other) Check. While detection rates are good in Kingston, there are still estimated to be around 11,500 residents with high blood pressure who don't know it and won't be taking action to reduce it.

Our environment plays a key role in heart health - from the air that we breathe (air pollution increases heart attack risks), to the advertising around us and the warmth of our own homes (cold homes can raise heart attack risks for vulnerable people). Yet, our environment in the borough is inconsistent in supporting good heart health with junk food advertising across billboards and junk food vending machines in key locations. A healthy heart environment is supportive of our aims to reduce carbon emissions - more cycling and walking instead of car journeys helps hearts and reduces carbon emissions. A warm, insulated home helps protect heart health and reduces emissions. Conversely, extreme heat associated with climate change, increases heart health risks in vulnerable individuals.

'What is good for the heart is good for the head' is what the science shows. Acting to support heart health also reduces risk factors for dementia. Thus, taking action on heart health will contribute to our aims of being an Age Friendly borough, with residents staying in good health for longer through reducing these associated risks.

Finally, learning CPR is something that everyone can do - and it can save a life in the event of a cardiac arrest.

Working together, in Kingston and across the capital in the new pan-London Million Hearts and Minds campaign, we can take action to reduce health inequalities linked to heart health.

Heart health in Kingston
a key to reducing health inequalities

Over the last 20 years, the rate of premature death for stroke in Kingston has been more than halved[1]. For early heart disease deaths under 75, the rate has been reduced by around a third for most of this time[2]. Gains for most progress were in the first half of these two decades. Thanks to fewer people smoking and to major developments in health care - such as detecting and treating heart risk factors - more people in Kingston go on to enjoy life into older age. At the same time, some other risks are increasing - such as diabetes prevalence[3].

But, despite these developments within Kingston, residents in our areas of highest deprivation have not fully benefited. Today, people living in the most deprived parts of the borough are more than twice as likely to die from a heart health issue before the age of 75 years as those in the least deprived areas[4].

For male residents of Kingston, heart health problems[5] are the number one reason for the five year life expectancy gap between people in our most and least deprived areas of the borough. For women, heart health is the number two reason for this gap in life expectancy. If we focus on what is causing these heart health problems at an earlier age, we will reduce the gap in how long our residents live. In addition, many of the health issues that result in an early heart health related death are also linked to poor health more generally. Therefore, tackling poor heart health will also help people have more time in good health.

Many of the heart health related deaths before the age of 75 years in Kingston are avoidable[6]. We know this because long term studies have shown what kind of activities and behaviours can increase (or reduce) the risk of a heart problem - and also what medical interventions can help if a heart health risk is identified early. If these actions are fully taken forward, residents can live a longer and healthier life.

Heart health problems also have a financial impact for both Kingston residents and services in Kingston. Income losses due to being unable to work because of heart health issues are estimated to cost the national economy about £3 billion per year[7]. Families may also lose the income (and care) of a family member who has died prematurely from a heart health issue. As residents in the most deprived parts of Kingston are the most likely to have a heart health issue or die of a heart health condition, it is also these residents who are most likely to face the additional financial impacts of a heart related condition, including the financial burden of providing informal care for a loved one who is unwell.

In a 2024 study, it was estimated that coronary heart disease and stroke nationally cost £6.7 billion and £3.4 billion respectively in health care costs. Social care costs were estimated at £2.2 billion for coronary heart Disease and £3.3 billion for stroke in 2018[8]. Between 2018 and 2050, these costs could increase by 91% for social care[9] for coronary heart disease and 109% for stroke. Informal care is also projected to see a large increase.

Our ambition is to be a borough that actively reduces the health differences between our residents, while we improve all of our residents' time in good health overall. The data shows that we must therefore redouble our efforts to work in a coordinated and targeted way to address heart health issues in our most at risk residents, from prevention to uptake of effective treatment, while ensuring that our borough wide achievements in heart health for all continue.

Heart health

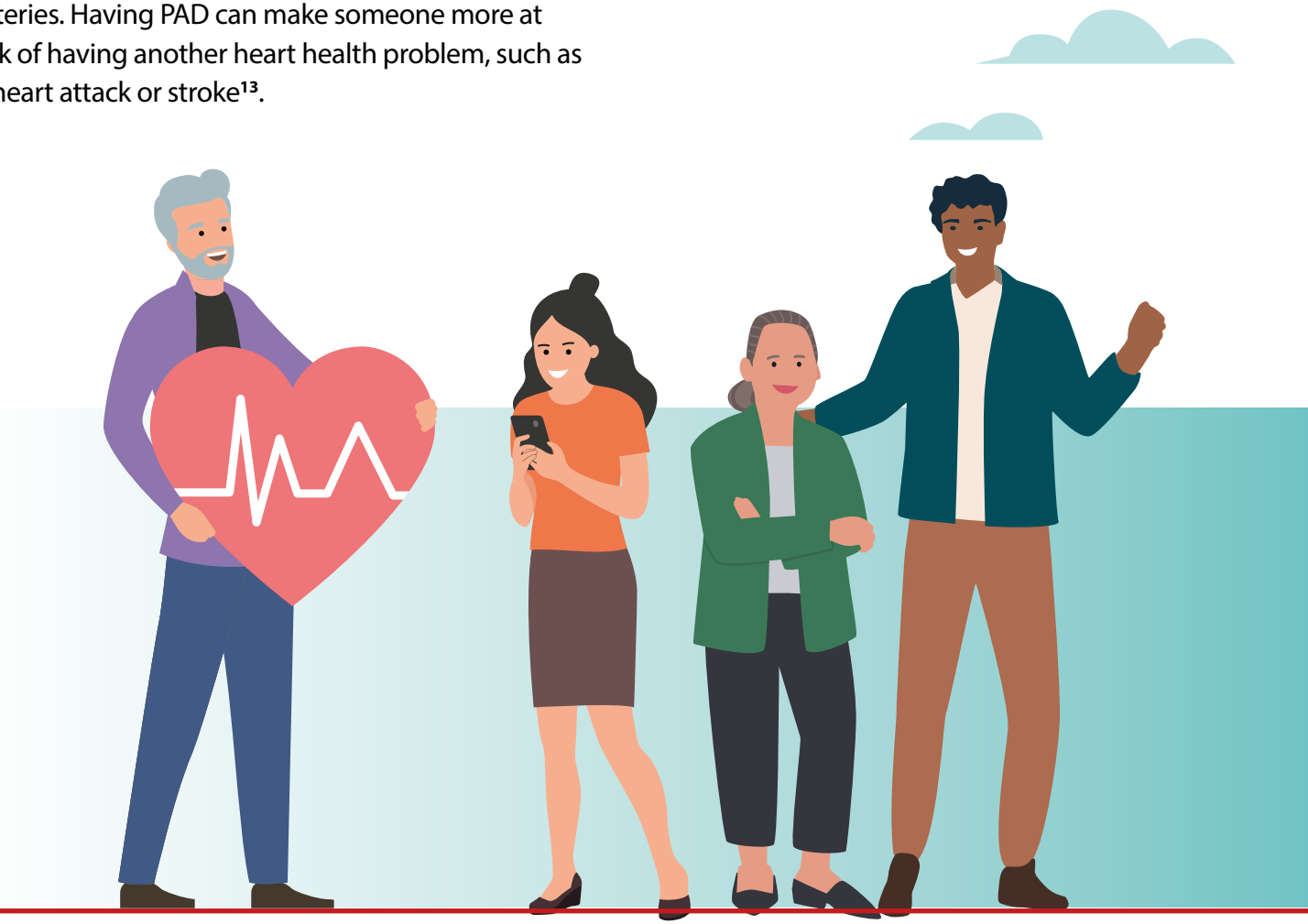
What kind of health issues are we talking about when we talk about 'heart health'? These are conditions known as 'cardiovascular disease' which affect the heart or blood vessels[10].

Types of heart health conditions that we are focussing on in this report include[11]:

'Coronary Heart Disease' ('CHD') which occurs when the blood flow to the heart is blocked or reduced. This can result in: angina (chest pain caused by the reduced blood flow), heart attacks (when the blood flow to the heart is suddenly blocked) and heart failure (where the heart is unable to pump blood around the body properly).

Strokes and 'Mini Strokes' ('TIAs'): A stroke is where the blood supply to part of the brain is cut off or interrupted. If blood flow to the brain is interrupted, brain cells can be damaged. There are different types of strokes[12].

Peripheral Arterial Disease ('PAD') : This can occur when there is a blockage in blood vessels to the limbs, usually legs. This can result in pain, ulcers, weakness in the legs and other complications such as erectile dysfunction. It is usually caused by a build-up of fatty deposits in the walls of the leg arteries. Having PAD can make someone more at risk of having another heart health problem, such as a heart attack or stroke[13].



Key health conditions related to heart health:

High blood pressure: High blood pressure (also called 'hypertension') is one of the most important risk factors for heart health conditions. If someone's blood pressure is too high, it can damage their blood vessels. This can lead to heart attacks and strokes[14]. High blood pressure is the main reason for early (before 70 years) heart health related deaths in England, contributing to about 40% of such deaths[15].

High cholesterol: Cholesterol is a fatty substance found in the blood. Having 'high cholesterol' means that someone has too much cholesterol in their blood. If a person has high levels of cholesterol in their blood, it can cause their blood vessels to narrow. This can increase someone's risk of developing a blood clot[16]. High cholesterol is a key risk for an early death before 70 years from a heart health issue (Cardiovascular Disease CVD), with just under a third having high cholesterol contributing (2021, England)[17].

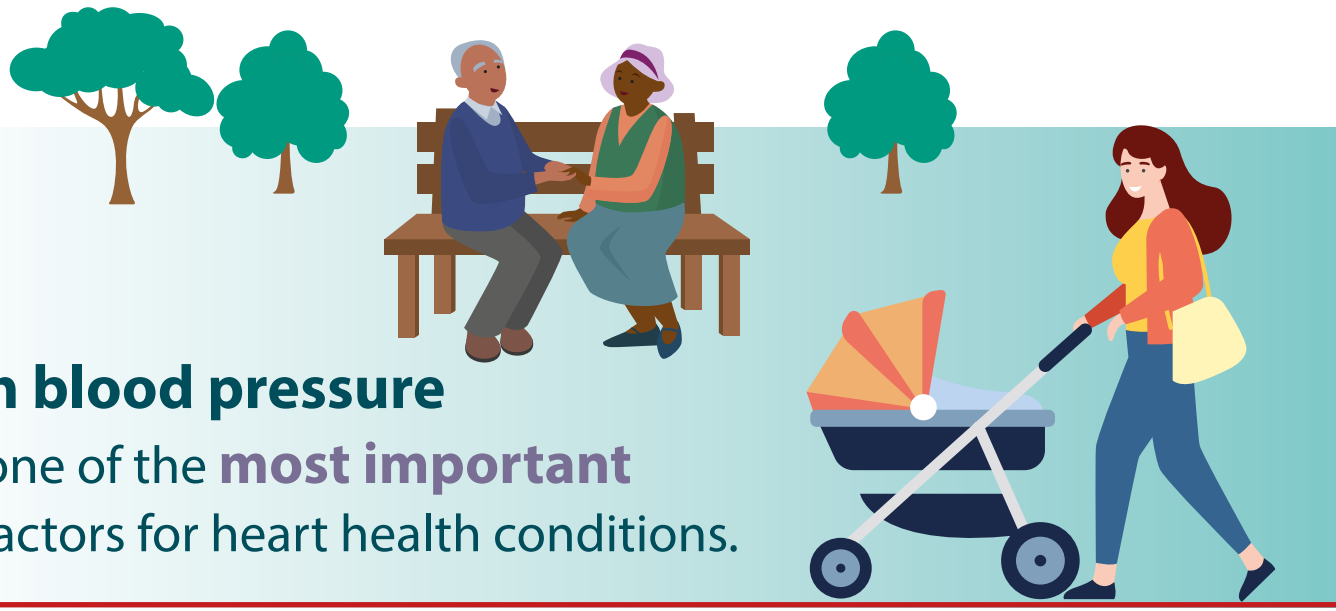
Diabetes: When someone has diabetes, sugar levels in their blood can become too high. High blood sugar levels can damage and even lead to blockages of blood vessels that go to and from the heart[18]. This can result in a heart attack or other heart condition. Keeping blood sugar levels at the correct level[19] helps protect blood vessels and the heart.

Kidney Disease: Chronic Kidney Disease (known as 'CKD') is a long term condition where kidneys do not work as well as they should. There is an interrelationship between heart health and kidney health - both impacting on each other. Kidney damage can lead to high blood pressure, which can lead to heart attacks and strokes[20].

Atrial Fibrillation: Atrial fibrillation ('AF' or 'afib') is a type of heart rhythm problem where the heartbeat is not steady[21]. Having AF can make someone more at risk of having a stroke.

While many cardiovascular illnesses do not present until later in life, certain conditions involving the heart and blood vessels are present from birth.

Congenital heart disease - usually caused by structural abnormalities in the heart - is one of the most common types of birth defect, affecting nearly 1% of babies born in the UK [22]. There are also a range of inherited conditions, which increase heart health risk - such as Familial Hypercholesterolaemia (FH)[23] (where members of a family have very high cholesterol levels). In addition, there are numerous congenital conditions that affect various components of blood itself, including clotting disorders and certain types of anaemia. The most common of these are sickle cell disease and beta thalassaemia, both genetic disorders that cause abnormal formation of red blood cells and can lead to severe and lifelong illness.



High blood pressure
is one of the **most important**
risk factors for heart health conditions.

Heart health trends over time in Kingston

A summary of some key heart health data trends in Kingston is as follows. For a more complete view of the data and trends, please see Appendix 1:

- Largely stable high blood pressure rates over the last few years (23,000 people currently)
- Stable levels of Coronary Heart Disease (CHD) (4,400 people currently)
- Small increase in stroke prevalence since 2017/18 (2,500 people with stroke history, currently)
- Large decreases in CHD hospital admissions over the last two decades
- Increase in numbers with heart failure over the last decade, although recently stable
- Large increase in mortality rate of deaths involving high blood pressure over the last decade
- Overall decrease in premature deaths from Cardiovascular Disease (CVD) over the last two decades but recent increase in men since 2020

Heart Health in Numbers

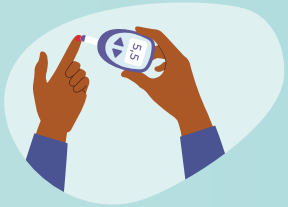
How many people in Kingston have a heart health condition and how many people have a key health condition that is a risk for heart health?

Over
10,000
people have **diabetes** in Kingston and another
5,500
people have **pre-diabetes** in Kingston

Over
23,000
people have **high blood pressure** in Kingston and
230
people were hospitalised **directly due to a heart attack** in Kingston in 2023

33
people died **primarily due to a stroke** in Kingston in 2023 and
340
people were **hospitalised directly due to a stroke** in Kingston in 2023
37
people died **primarily due to a heart attack** in Kingston in 2023 with over

3,700
Kingston residents were admitted to hospital **due to CVD** in 2023. Of these,
3,200
had CVD as the **primary cause of admission**
270
Kingston residents **died from an underlying CVD** cause in 2023





We have more to do where heart health is not as good as it could be

Heart health issues affect residents in all groups and income and deprivation categories in Kingston. But - the data shows that our residents in our more deprived parts of the borough have higher levels of poor heart health. This means they spend more of their lives in poorer health. These residents also attend hospital more on an emergency basis for heart health issues. These residents also have, on average, shorter lives, with heart health conditions being on
reasons for this difference.

Differences in levels of health conditions linked to heart health:

Our data also shows that the highest rates of high blood pressure and diabetes - key conditions for heart health risks - are found in Black residents and people of Asian ethnicity. As most people in Kingston are White, so are most people with high blood pressure and diabetes, but a Black or Asian resident is more likely, on average, to have high blood pressure or diabetes than residents of other ethnic groups.

Highest rates of high blood pressure and diabetes
...are found in **Black residents** and people of **Asian ethnicity**

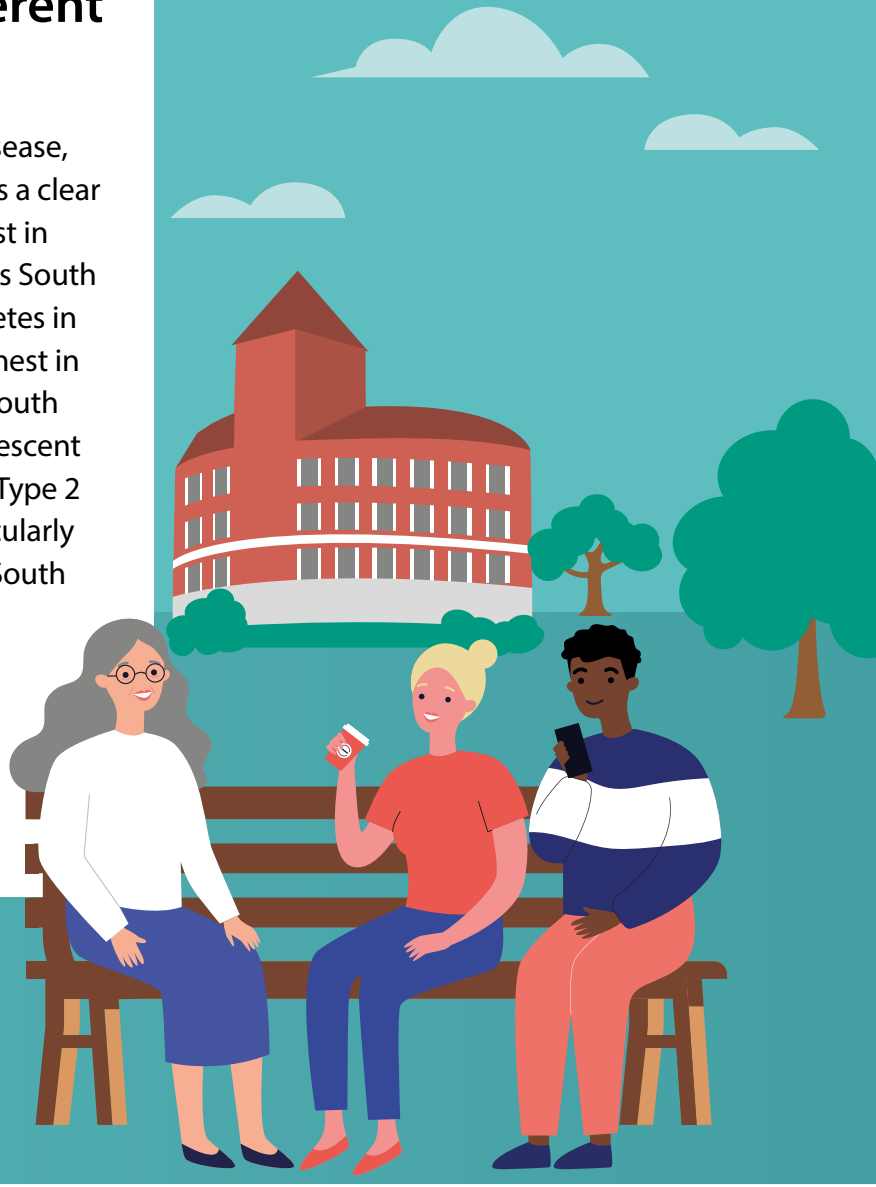
High blood pressure and diabetes - higher rates in different areas and different resident ethnicity:

High blood pressure (hypertension) is a major risk factor for heart attacks and strokes. In Kingston, as elsewhere, GPs routinely check patients' blood pressure. Our local data shows that rates of diagnosed high blood pressure are higher in more deprived areas - affecting just under 30% of people aged over 45 in the Index of Multiple Deprivation deciles 2-5, compared to just over 20% in the least deprived areas (decile 10)[24].

Ethnicity also plays a role. While the highest number of diagnosed cases are in White residents - again reflecting Kingston's population - the rate of high blood pressure is highest in Black residents (over 10%), followed by Asian residents (around 1 in 10), according to our 2023 Joint Strategic Needs Assessment (JSNA)[25].

Diabetes, another key risk factor for heart disease, shows a similar pattern. Our 2022 data shows a clear deprivation gradient, with prevalence highest in the most deprived areas of Kingston[26]. Across South West London, more White people have diabetes in terms of real numbers, but prevalence is highest in Asian communities[27]. Nationally, people of South Asian, African Caribbean and Black African descent are two to four times more likely to develop Type 2 diabetes. Risk also increases with age - particularly from age 40 in White adults, and from 25 in South Asian, African Caribbean, Black African and Chinese populations[28].

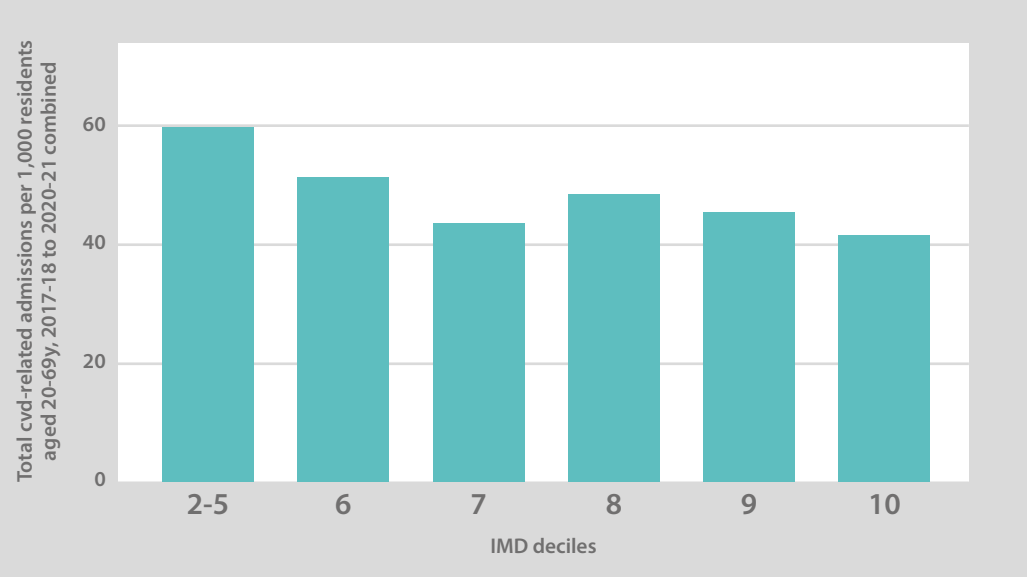
As Kingston's population becomes more diverse, it's important that heart health planning reflects the needs of all communities.



Differences in levels of emergency hospital attendance for heart health conditions

Residents in more deprived areas (IMD deciles 2-5) are around 50% more likely to have been hospitalised for chest pain across the four year period 2017-2021 than people living in the least deprived areas[29]. If all primarily cardiac-related hospitalisations are included, a similar picture can be seen in the 20-69 years age group, with people in the most deprived areas 50% more likely to have had a hospital admission than those in the least deprived parts.

Figure 1: Cardiovascular Disease (CVD) related Hospital Admission rate/ 1,000 residents, by Index of Multiple Deprivation (IMD), Kingston, 2017/18 to 2020/21 combined (20-69 years)



(N.B. the lower the IMD decile, the more deprived the area of residence)

Differences in early death from a heart health issue:

Early death from heart health conditions (or any other condition) brings sadness and financial costs to families. At the borough level, Kingston has a lower level of early death (premature mortality) from heart disease than England as a whole but a similar level of premature mortality from strokes as England as a whole[30]. Overall, over the last twenty years, there has been a decrease in premature heart disease and stroke deaths - this trend has somewhat flattened in the second half of that time.

However, within the borough we have some quite stark differences. Norbiton has much higher levels of early death due to heart health (CVD) conditions (data over 2016-2020)[31]. These levels are not only higher than other parts of Kingston but are much higher than the England average. Norbiton includes areas of higher deprivation. Across Kingston, we have a gradient of more early deaths from heart health conditions from most deprived to least deprived (data combined for 2018-2023). See Figure 2. The rate of early death from heart health conditions in deprived parts is more than double that of our least deprived areas. 169 people died early in Kingston due to a heart health condition between 2018 and 2023 in our most deprived areas (deciles 2-6). This pattern is similar to that seen across England as a whole - but it is not inevitable and can be improved.

Figure 2: Annual mortality rates from Cardiovascular Disease (CVD) in the under 75s, by deprivation, Kingston 2018-2023

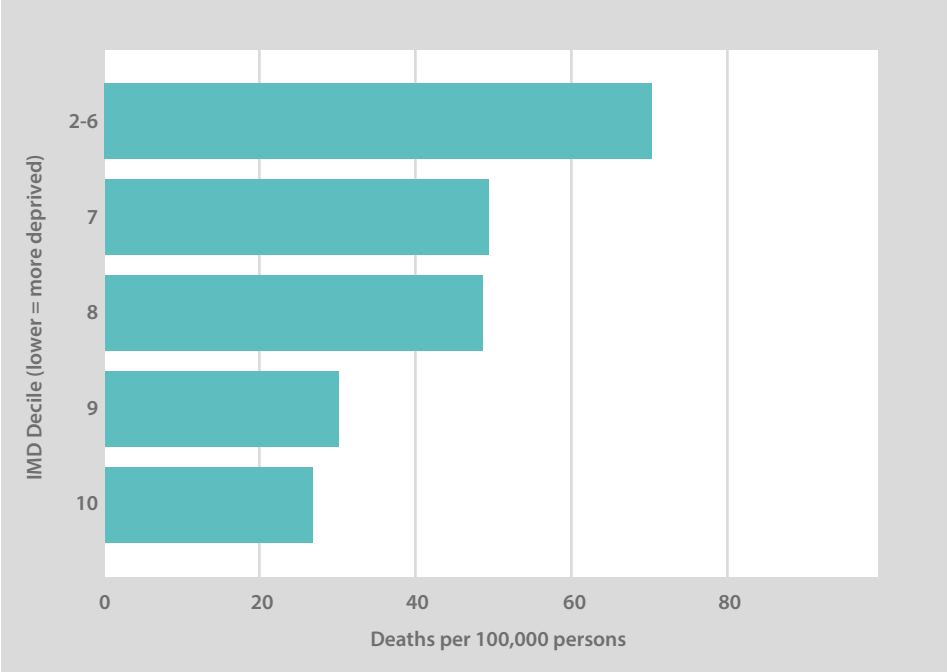


Figure 3: Mortality rates from cardiovascular disease (CVD) in the under 75s by deprivation in England, 2020

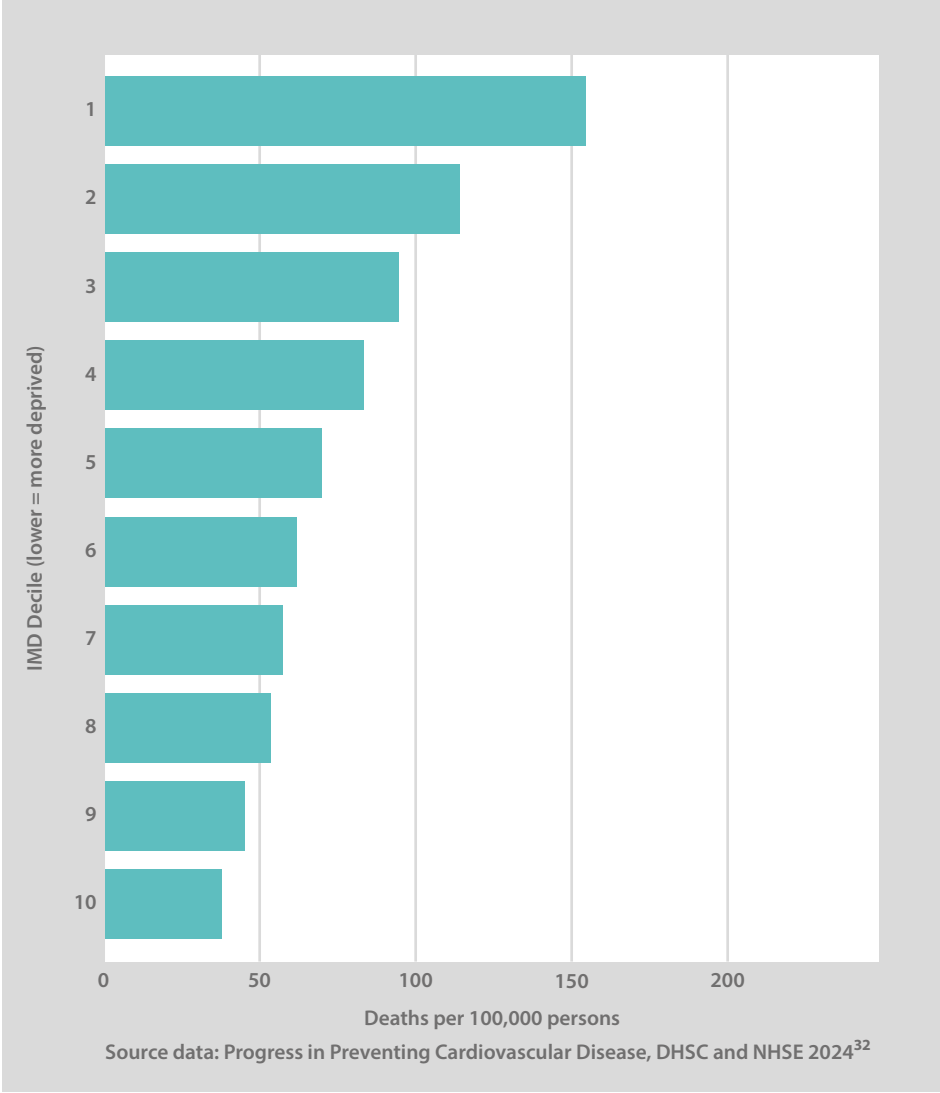
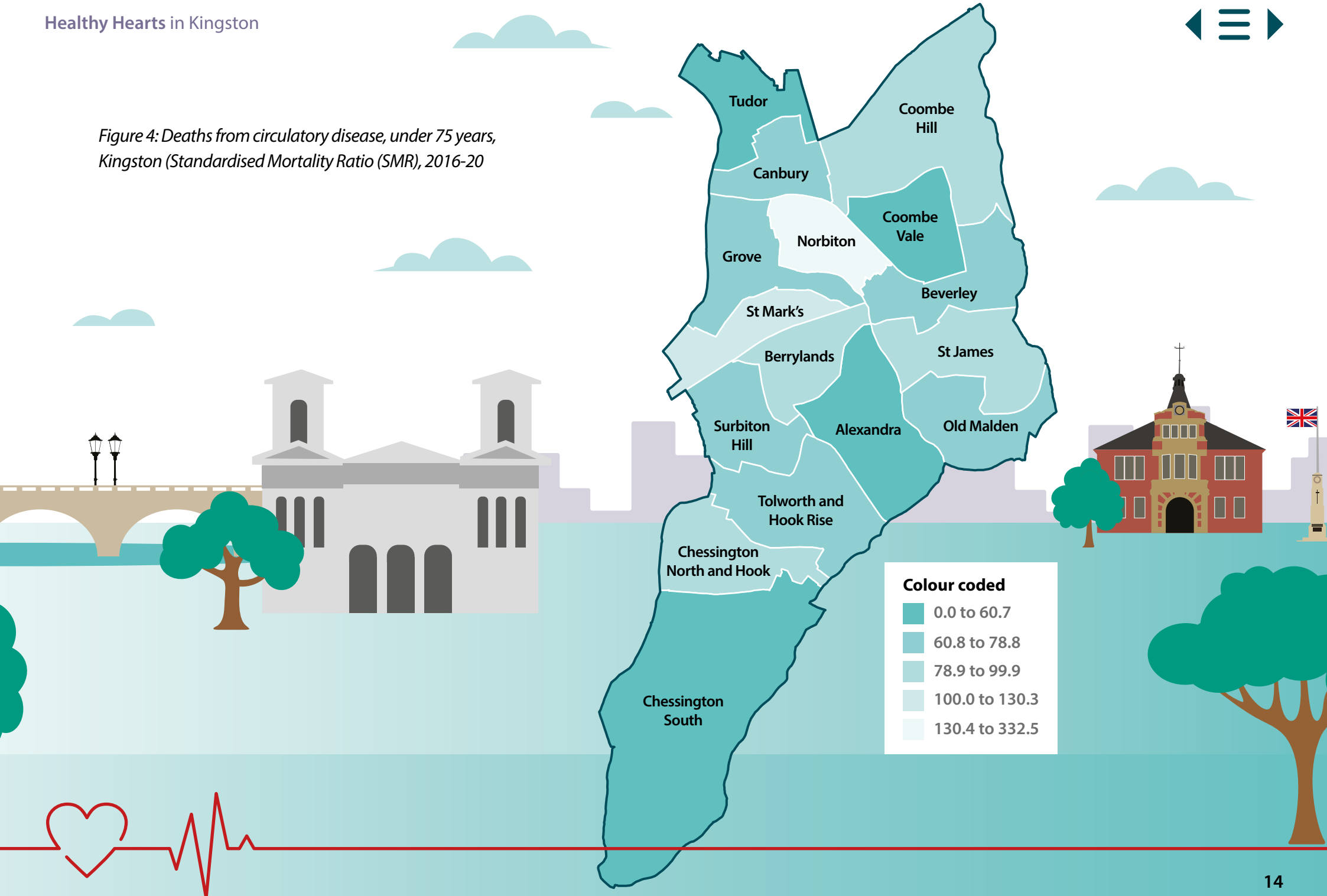


Figure 4: Deaths from circulatory disease, under 75 years, Kingston (Standardised Mortality Ratio (SMR), 2016-20



Key actions for keeping hearts in good health

The top four actions[33] (and a fifth) we can take at the personal level to keep our hearts in good shape are:

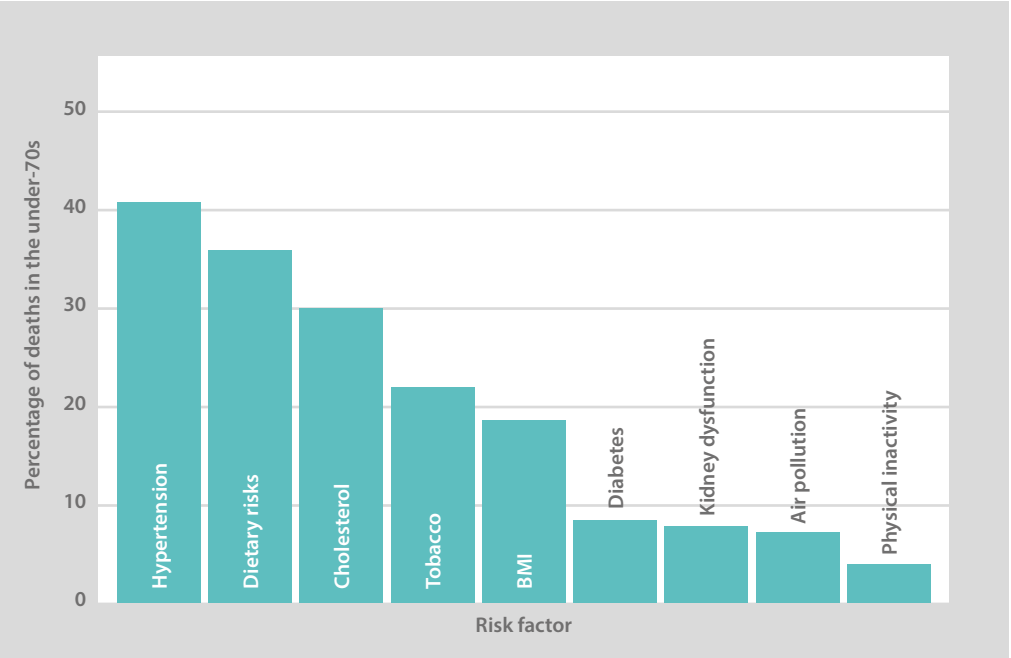
- Having a healthy diet and weight
- Not smoking
- Avoiding excess alcohol consumption
- Taking enough physical activity

And we could add a 'fifth action' - which we cover in the next section - which is to

- take up offers of checks for health risks for poor heart health - such as blood pressure and cholesterol checks.

In support of residents taking these four actions, the council and other local organisations have a role in creating an environment that supports residents in this[34].

Figure 5: Percentage of deaths in the under-70s from cardiovascular disease (CVD) which were attributed to modifiable risk factors in England, 2021[35]



Healthy diet and weight: Just under one in five children are overweight at Reception age (17.8% at 4-5 years old, 23/24) in Kingston[36]. More children are overweight by Year 6 (10-11 years old) at just over a quarter of all children (27.1%)[37]. However, encouragingly, there has been a reduction in excess weight in this age group over the last five years. Although Kingston has lower levels of overweight children than England as a whole, we still have large numbers of children whose weight may be a heart health risk in the future. These children are more likely to live in the parts of Kingston with higher levels of deprivation.

For adults in Kingston, just over half of adults in Kingston are estimated to be overweight[38], with about one in six estimated to be obese. National data shows that higher levels of excess weight in adults are found in people living in more deprived areas[39]. While rates of excess weight among adults in Kingston are lower than rates across England as a whole, they show that many adults in Kingston have a potentially reducible risk for weight-related heart health problems[40].

In terms of diet itself, one source of data we have is survey results which estimate how many residents consume the recommended 'five a day' fruit and vegetables. For the latest data, just over 30% of Kingston residents reported that they meet this guideline (35.6%, 22/23)[41]. Thus, the data suggests that most residents are not yet consuming a 'healthy heart' diet.

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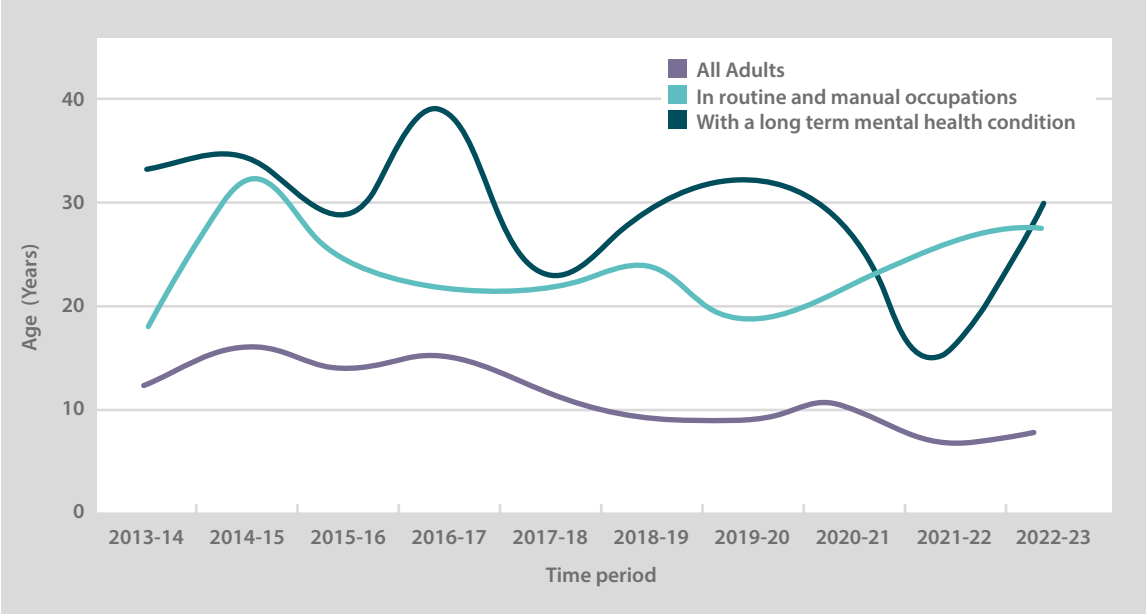
Smoking: Kingston has made great strides over the last dozen years in reducing smoking rates from 16.5% in 2011 to 7.5% in 2023. At the borough level, Kingston has one of the lowest smoking rates in London. This is great progress towards removing one of the biggest threats to heart health for many residents, and likely contributing to some of the drops in heart health deaths over that time.

However, underneath this great progress, we have seen little headway made in reducing smoking in our residents who work in routine and manual occupations (which may be, but not necessarily, linked to residence in more deprived parts of the borough)[42]. While at the borough level, about one in eight adults are recorded as being a smoker by their GP, about a quarter of people who work in routine and manual occupations in Kingston smoke (25.7%, 2022). Thus, a large number of our residents working in these occupations are at an incredibly high risk of a heart health problem due to smoking. Another group in Kingston that has a high level of smoking, compared to the borough as a whole, is adults with a long term mental health condition. Over a quarter of these residents smoke (27.7%, 22/23)[43]. Again, for this group, progress in reducing these rates has been limited over the last decade. Overall, about 22,000 adults in Kingston were recorded as smokers in the latest GP data (22/23)[44]. Smoking is estimated to cause 50 deaths from heart disease per year in the borough (2017-19 data)[45].

Figure 6: Current smokers (percentages of various groups), Kingston, 2013/14 to 2022/23



Box 1: Smoking and Heart Health

Quitting smoking cuts heart attack risk by 50% in just one year.

The heart is a powerful muscle that needs a steady supply of oxygen so it can pump blood to the rest of the body. A heart attack occurs when this oxygen supply is blocked, causing part of the heart muscle to die, which can lead to permanent damage or even death. Smoking disrupts oxygen delivery to the heart in several ways[46]:

- **Damages blood vessels:** Smoking harms blood vessel walls, allowing fat and cholesterol to build up inside them, which narrows the vessels and restricts blood flow. This process is called atherosclerosis.
- **Raises cholesterol:** Smoking raises levels of fats (triglycerides) and bad cholesterol (LDL), while lowering levels of good cholesterol (HDL) exacerbating atherosclerosis.
- **Promotes clot formation:** Smoking thickens the blood, making it more likely to form clots. These clots can get stuck in narrowed vessels, blocking blood flow to the heart.
- **Reduces oxygen supply:** Carbon monoxide from cigarette smoke replaces oxygen in the blood so less oxygen is delivered to the heart.
- **Increases heart strain:** Nicotine raises heart rate and blood pressure, making the heart work harder so increasing its oxygen needs.

The good news is that the heart begins to recover quickly after quitting smoking. The benefits start almost immediately[47].

- **20 minutes:** Your pulse rate returns to normal.
- **8 hours:** Carbon monoxide levels halve and oxygen levels rise.
- **48 hours:** Your body is nicotine-free.
- **1 year:** Your risk of a heart attack is cut in half.

Alcohol Consumption: Between 2023 and 2024, there were 1,044 hospital admissions in Kingston due to alcohol-related cardiovascular disease[48]. Over 80% of these alcohol heart health hospital admissions were in men[49]. For alcohol-related related hospital admissions in general (not heart health-related specifically), the areas in Kingston with the highest admission rates are Norbiton and Berrylands (2016-2021)[50]. While we don't have data on consumption in Kingston or patterns between groups, Kingston is a national outlier (along with nearly all other London boroughs) with regards to the high number of premises licensed to sell alcohol per square kilometre[51].

Physical activity: While a majority of people in Kingston are thought to meet the recommended physical activity levels, about a third of adults in the borough are not exercising enough. Concerningly, we may be building up heart trouble ahead as nearly half of children in Kingston are estimated to be not doing enough exercise[52].

Box 2: Alcohol and Heart Health

Cutting down alcohol reduces risk of heart disease in four weeks[53]

The heart sustains life by pumping oxygen-rich blood throughout the body. Heart failure is when this pump stops working efficiently, leading to symptoms of breathlessness, leg swelling and fatigue. Drinking too much alcohol contributes to heart failure by causing:

- **Damage to the heart muscle;** Long term, heavy drinking can lead to a condition called alcohol related cardiomyopathy, where the heart becomes weak and stretched like an elastic band that's been overextended. This reduces the heart's ability to pump blood effectively.
- **Irregular heart rhythms;** Alcohol can trigger palpitations and heart failure symptoms via a condition called atrial fibrillation; this is where the heart beats fast and irregularly. Even a single binge drinking session can cause this abnormal rhythm which is sometimes known as 'holiday heart syndrome'.

Alcohol also indirectly increases the risk of heart attack. A heart attack is when the oxygen supply to the heart is blocked and part of the heart muscle dies, resulting in reduced function of the heart and can lead to heart failure symptoms or even death[54]. The following conditions increase the risk of a heart attack and are exacerbated by drinking alcohol:

- **High blood pressure;** Alcohol affects the stress hormones, nervous system and increases fluid retention all of which raise blood pressure. The high pressure damages blood vessel walls, allowing fat and cholesterol to build up inside, which limits blood flow and oxygen supply to the heart. This process is called atherosclerosis.
- **Raised cholesterol;** Alcohol damages the liver which reduces its ability to remove bad cholesterol from the blood and so contributes to atherosclerosis.
- **Diabetes;** Alcohol changes the way the body responds to insulin, increasing the risk of developing diabetes. Heavy drinkers can also develop inflammation in their pancreas which can also lead to diabetes. The high sugar in the blood from diabetes damages the blood vessel walls contributing to atherosclerosis.

Sticking to the NHS maximum recommended amounts of alcohol avoids long-term damage to the heart:

- No more than 14 units per week for men and women
- Spread drinking over three or more days with several drink-free days
- No binge-drinking; more than eight units in a single session for males or six units for females (this is about four pints of normal strength beer for men and three pints for women)

Knowing our ABCs and NHS Health Checks. And are we reaching all of our residents who could benefit?

Knowing the heart health 'ABCs':

In the NHS Long Term Plan (2019), there was a call for more people to know their 'ABCs' of heart health to inform their actions[55]. The 'ABCs' are:

A: Atrial Fibrillation (AF): is a type of heart rhythm problem where your heartbeat is not steady[56]. The irregular beating commonly causes the formation of blood clots, which increases the risk of stroke by five times[57]. Today there is no national screening programme for AF but people can see their GP to get tested if they are concerned (or through attending A&E if they have specific symptoms that need urgent attention). There is very effective treatment for preventing strokes in people with AF. It has been estimated that 2.45% of the national population have AF (but this varies by local population). In 2019, the national aim was to detect 85% of AF cases by 2029[58] (it should be noted that Kingston exceeded this target in 2023/24).

B: Blood pressure: All (eligible) adults aged 40-74 years in Kingston (and England as a whole) should be invited to have their blood pressure measured at least every five years through the 'NHS Health Check' [59] (see NHS Health Check section) (either through their GP, pharmacy or other location). People aged over 40 years can also have their blood pressure checked at some pharmacies more frequently[60]. Detecting, managing and reducing high blood pressure is critical to good heart health outcomes. In Kingston, it is estimated that about 8% of residents have high blood pressure that has not yet been detected (equating to about 11,500 people)[61].

C: Cholesterol: All (eligible) adults aged 40-74 years in Kingston (and England as a whole) should be invited to have their cholesterol measured at least every five years through the 'NHS Health Check' [62] (see NHS Health Check section) (usually through their GP).

NHS Health Checks - the mid life 'MoT' [63] - helping detect some of the ABCs - making progress in Kingston and more to do

The NHS Health Check is one of our key ways for residents to know about two of their ABCs - B and C (**B**lood pressure and **C**holesterol levels). It is free (once every five years) to all eligible adults aged between 40 and 74 years (some people are not eligible if they have certain medical conditions - see the NHS Health Check website for more details)[64]. The check includes height and weight measurements, some questions about health (eg. smoking status) and also a blood pressure and cholesterol check. People receive a heart health (cardiovascular risk) score and advice based on the findings[65]. In Kingston, we have a wide range of services and offers that people can take up to improve their heart health scores if risks are identified. These include smoking cessation support, physical activity offers and support regarding alcohol use. Local support details are available through Connected Kingston. If high blood pressure or high cholesterol is detected, the GP can also offer additional medical support.

Each year, the eligible number of residents is calculated for the planning of the NHS Health Check programme. For 2020-2025, just under 50,000 adult residents in Kingston were eligible for this check.

As all eligible adults aged 40-74 years should be offered an NHS Health Check, this check is our major way to reach adults in midlife to improve heart health. We therefore want to undertake further work to ensure that all eligible residents are invited using a range of innovative communication methods, that checks are available to all residents at times and locations convenient to them to encourage uptake, to understand NHS Health Check uptake in our residents most at risk of heart health conditions and to look at any innovations needed to encourage uptake[66], and ensure that there is a strong link between the NHS Health Check and residents being made aware of, and taking up, local offers to improve heart health. We also want to work with regional and national colleagues to learn from international examples of healthy ageing work in support of our local Age Friendly Kingston ambitions and look at introducing innovation in the NHS Health Check design, with further consideration of a physical activity element.

The NHS Health Check

is one of our key ways for residents to know about their

blood pressure and cholesterol levels.

Staying well if a heart health risk or heart health problem is detected:

In Kingston, most people with a health risk for heart health, such as high blood pressure are having this detected. But not all people are having their blood pressure or other 'ABCs' detected or attending their NHS Health Checks. There is more to do to ensure that Kingston residents are aware of any health risks they have that can be acted upon to reduce the risk of a heart health problem such as a heart attack or stroke (detection of conditions). For those that do have a health risk identified, the good news is that there are actions that can be taken both by the individual (such as stopping smoking) and by their medical team, such as providing medication to reduce the heart health risk.

Data on actions taken on managing heart health risks in primary care are collected in the 'Quality Outcomes Framework' data. Data is collected on treatments such as cholesterol control and management, regular blood pressure readings for people with certain conditions, medication for people with Atrial Fibrillation and others. The data shows that Kingston GPs are making enormous contributions in helping people keep their heart well by supporting their patients with these evidence based measures. Most Kingston residents who have these risks are getting effective treatment. However, there is still a small way to go to further reach more residents with these effective measures - and this is outlined below in the 'Size of the Prize' estimates.

'Size of the Prize' estimates - potential heart health risk reductions and lives that could be saved:

Analysis has been done by UCL Partners called 'Size of the Prize' to see what could be achieved if all medical targets were met for detecting and treating two of the key risks for heart health: high blood pressure and high cholesterol[67]. The estimates are based on regions of London. Replace the section from the sentence starting Across South West London as a whole, it is estimated that another 24,556 residents could benefit from having their blood pressure treatment optimised (if 80% of the target group was reached).

If this was achieved, 147 heart attacks and 220 strokes would be prevented and 118 lives could be saved over three years. Similarly, if optimal cholesterol treatment (lipid lowering therapy) was reaching 95% of adults who could benefit, this would mean about 6,034 residents across South West London would be having this treatment. It is estimated that this would prevent 362 heart health events (such as heart attacks and strokes) and prevent the loss of 44 residents (see **Appendix 2**).

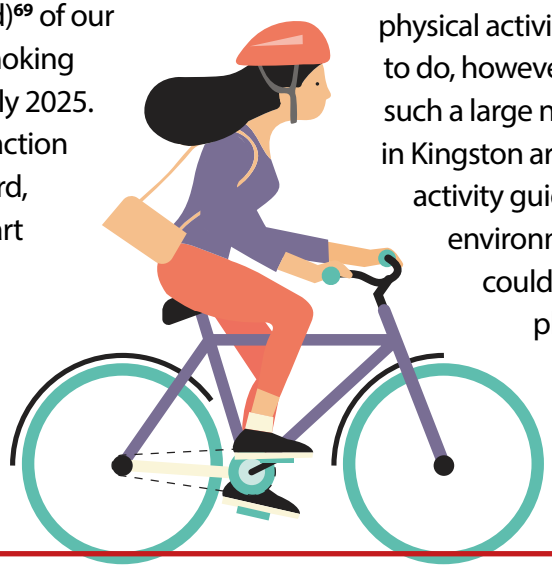
Applying this 'Size of the Prize' analysis to Kingston for high blood pressure estimates, if 80% of all residents with high blood pressure had blood pressure treated to reach target levels, it is estimated that about another 2,900 residents would be having treatment. This could prevent about 18 heart attacks and 26 strokes and prevent 14 deaths over three years. For cholesterol optimisation, about another 712 patients would need treatment - and this could contribute to reducing about 43 heart attacks and strokes and a further five deaths."

A healthy heart environment - how our surroundings can impact our heart health:

We have seen what the major risk factors are for preventable heart health conditions - such as not smoking, healthy weight, not drinking too much alcohol and taking enough exercise. While we each take our own individual actions in relation to these, we are also influenced by the environment around us. In fact, some estimates suggest that our social circumstances and environment account for nearly half of our state of health[68].

In terms of **heart health and smoking risks**, these might include things such as availability of cigarettes or, alternatively, an environment that supports workers or residents to quit smoking (or reduces exposure to others of secondary tobacco smoke). An indepth analysis (using the national CLeaR' method)[69] of our local Kingston environment in terms of smoking and tobacco control was completed in early 2025. From this, some opportunities for further action have been identified, which if taken forward, should contribute to supporting good heart health in Kingston in our populations with higher levels of smoking.

For **physical activity**, accessible outdoor areas nearby that are perceived as safe and attractive for physical activity are all part of a healthy heart environment. In terms of active travel, although Kingston has been a pioneer in active travel promotion through some excellent cycle lanes, we still have further to go to make cycling safe for all ages as a means of travel. Furthermore, some outdoor areas, including cycle lanes, are not perceived as safe by all. For example, in a recent London Cycling Campaign report, one in three women of over 1,000 surveyed (across the whole of London) stopped cycling altogether after dark or in winter, due to a lack of safe TfL routes[70]. In terms of other types of physical activity in the borough, residents have given their input and suggestions into the recent 2024 Kingston Green Spaces Survey and focus groups on physical activity[71]. There is more work to do, however, to understand why such a large number of young people in Kingston are not meeting physical activity guidelines and whether any environmental improvements could support increases in their physical exercise levels.



A **warm home** is also part of a healthy heart environment. For a vulnerable person, living in a cold home increases their chance of serious illness or death - they are at higher risk of a heart attack or stroke (and other conditions)[72]. A cold home can be associated both with low income but also the design of the home (for example, some people may be 'asset rich' with a large home but 'cash poor' to heat it). In Kingston, we had about 6,415 households thought to be at risk of cold homes in 2022[73] (9.1% of households, lower than England as a whole, where the figure is 13.1%). The rate had been reducing every year for the four years up to 2022. It should be noted that there have been significant increases in energy costs since 2022. We have ongoing work to support residents with available programmes such as the Warm Homes Better Health scheme[74] and various nationally led financial support offers.

Some estimates suggest that our **social circumstances and environment** account for nearly **half** of our state of health.

Environmental factors can also promote or discourage the **consumption of food and drink that are risk factors** for poor heart health (such as ultraprocessed foods) through advertising or provision[75]. In Kingston, while we have a range of work ongoing to support people to access a healthy diet for those experiencing food insecurity[76], we are currently not consistent in our messaging around the consumption of ultraprocessed foods, particularly with regards to the food made available in locations attended by Kingston residents, and in advertising around the borough. Like other London boroughs, we also have an environment of a high number of premises (compared to England as a whole) licensed to sell alcohol.

Even the **air that we breathe** is all part of contributing to a healthy heart environment. Poor air quality is the largest environmental risk to public health in the UK, as long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy. Short-term exposure (over hours or days) to elevated levels of air pollution can also cause a range of health impacts, including increases in respiratory and cardiovascular hospital admissions and mortality[77]. These pollutants come from transport, industrial processes, agriculture and energy consumption[78]. National air quality standards and objectives have been established by the Government and local authorities. Local air quality management is a statutory process through which local authorities monitor, assess, and act to improve local air quality, as set by the Environment Act 1995[79]. Kingston's Air Quality Action Plan (AQAP)[80] outlines the actions that RBK will deliver up to June 2026 in order to reduce concentrations of pollution and exposure to pollution.

'Lonely Hearts' and heart risk - social connectedness

Social connectedness plays an important role in maintaining both mental and physical health, with growing evidence linking loneliness and social isolation to poorer heart health outcomes. For example, a 2023 study investigating loneliness as a risk factor for heart health found that poor social relationships were associated with a 29% increased risk of coronary heart disease and a 32% increased risk of stroke[81].

Locally, the 2023 Mental Health Joint Strategic Needs Assessment identified that older populations in areas such as Coombe Hill, Norbiton, and Chessington South may be particularly vulnerable to loneliness[82]. These findings were also echoed in the 'South London Listens' campaign, where social isolation was the most frequently reported theme.

Connected Kingston offers a practical, local solution. As a local website (social prescribing platform), it can link residents to community groups, social activities and practical support that can all help reduce social isolation and build a sense of local community - helping to create the conditions for better heart health.

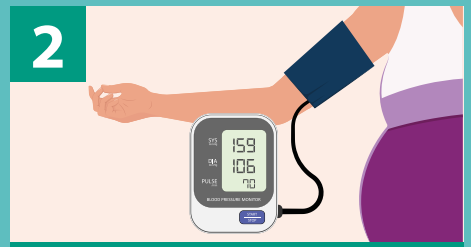
What is good for the heart is good for the head

'What is good for the heart is good for the head' is what the science shows. Acting to support heart health also reduces risk factors for dementia. A 2020 study indicates that nearly 40% of all Alzheimer's disease and related dementias may be prevented or delayed by modifying 12 'risk factors' [83] - several of which also support heart health.

The 12 'modifiable factors' are: education, hypertension, hearing impairment, smoking, obesity, depression, physical inactivity, diabetes, low social contact, excessive alcohol consumption, traumatic brain injury, and **air pollution**. As we have seen, if we improve many of these twelve factors - such as reducing high blood pressure, we improve not only heart health but also reduce dementia risks in Kingston.

The 12 Risk Factors

Education



Hypertension

Hearing impairment

Smoking

Obesity

Depression

Physical inactivity

Diabetes

Low social contact

Excessive alcohol consumption

Traumatic brain injury

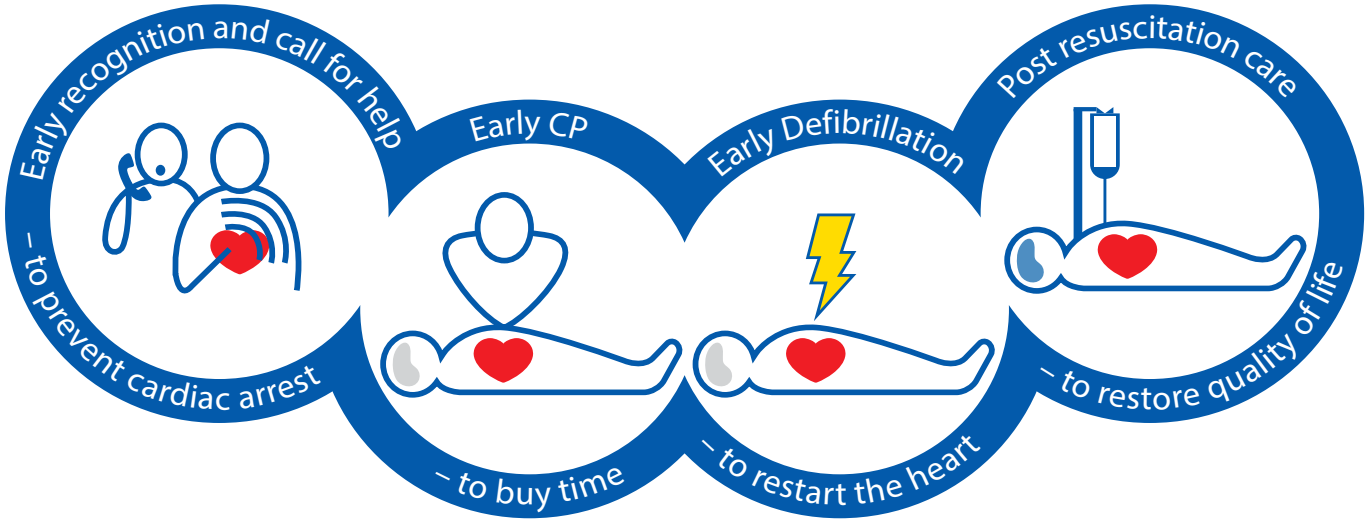
Air pollution

Everyone has a role to play in an emergency - learning 'CPR'

A cardiac arrest is when your heart suddenly stops pumping blood around your body. Although it's sometimes mistaken for a heart attack, a cardiac arrest is different from a heart attack[84]. A cardiac arrest is an emergency that usually happens without warning[85]. There are estimated to be about 30,000 cardiac arrests (out of hospital) in the UK each year[86]. The advice from the British Heart Foundation in relation to a cardiac arrest is if you see someone having a cardiac arrest, phone 999 immediately and start CPR (resuscitation)[87]. The chance of survival from a cardiac arrest that occurs out of hospital doubles if someone receives immediate resuscitation (CPR) or a high energy electric shock to the heart (defibrillation)[88].

In Kingston, many schools, organisations and workplaces train their staff in CPR and also host defibrillators. However, there are further opportunities to ensure that all children in Kingston are trained in CPR - and also adults. At the national level, it would be helpful to consider other opportunities to maximise CPR training which would also benefit Kingston residents - such as including it as part of the national driving test or other widely taken up activities. Regarding defibrillators, further opportunities remain to make locations of these in Kingston more easily known and to continue to expand the network of this equipment.

Figure 7: The chain of survival: maximising the chance of survival following a cardiac arrest (British Heart Foundation, 2025)[89]



Heart Health and Climate:

A healthy heart is linked to a healthy climate. Why is this?

Positively, actions that are good for the heart such as active travel (eg cycling and walking rather than driving), planting vegetation to reduce air pollution and retrofitting homes to be thermally comfortable are also good for the climate as they help to reduce carbon emissions.

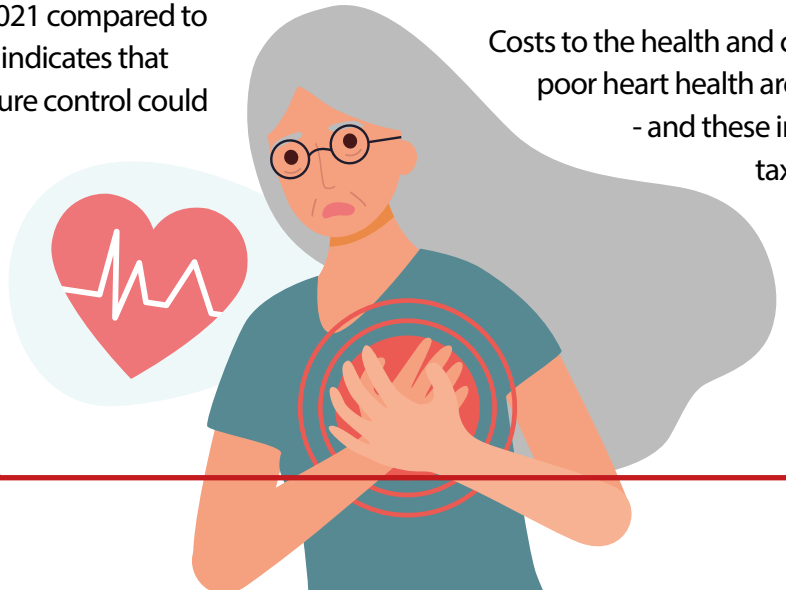
Negatively, a changing climate is likely to have adverse heart health impacts. Climate change is causing warmer temperatures in the UK and also more adverse weather events, such as extreme heat. The warmest years on record in the UK have occurred since 2002, and in July 2022 temperatures exceeded 40°C for the first time on record in the country. It is estimated that 2,803 people aged 65 years and over died due to the heat in England in 2022[90].

Climate change resulting in adverse weather such as extreme heat can result in stress for hearts, particularly in our most vulnerable residents[91]. Hot weather means your body has to work harder to keep its core temperature to normal levels, and this puts extra strain on your heart, lungs and kidneys. This means that you can be at greater risk if you have a heart condition[92].

What do these links between climate and heart health tell us? Number one - we need to double down on efforts to reduce carbon emissions through taking actions to promote good heart health (such as active travel and house adaptation measures that also support heart health, by both reducing carbon emissions and improving winter heart health). Number two - we are already facing challenges to heart health through more extreme heat and cold. We therefore need to ensure that we are taking action to support our most vulnerable residents in times of extreme weather.

COVID-19 and heart health

In 2020, the world faced a pandemic with COVID-19. Evidence continues to be analysed on the risks of COVID-19 to heart health. Studies have suggested increased risks of heart attack and stroke after a COVID-19 infection and possible increased risks of heart failure after infection[93]. Research continues on risks to heart health for all ages. Aside from the direct impact of infection, the COVID-19 pandemic impacted heart health across the country in another way - people were less likely to come forward for care or screening for conditions such as high blood pressure or cholesterol. NHS England (NHSE) reported that 'during the pandemic, fewer people came forward for the kind of non-urgent/routine care where the early signs of CVD are often picked up. As a result we saw a reduction in diagnosis, monitoring and treatment of the A-B-C conditions. Data shows that two million fewer people were recorded as having controlled hypertension in 2021 compared to the previous year. Modelling indicates that this reduction in blood pressure control could lead to an estimated 11,190 and 16,702 additional heart attacks and strokes respectively over a three year period'[94].



The cost of poor heart health - an additional burden on those who can least afford it - and an added pressure on health and care systems

As we have seen, our residents in parts of the borough with higher deprivation have higher rates of poorer heart health and early death from heart conditions. Further, some of the environmental issues - such as the inability to afford to heat a home to protect heart health - hit our lower income residents harder. The resulting impact of poor heart health outcomes - such a job loss - or loss of an income earner for the household - are disproportionately further financially hitting some of our lower income households hardest.

Costs to the health and care sector from poor heart health are very significant - and these impact us all as taxpayers and service users. According to a Kings's Fund Report (2022)[95]:

- There were about 1 million hospital admissions for Cardiovascular disease (CVD) in England in 2019/20, leading to 5.5 million bed days.
- CVD costs the health system an estimated £7.4 billion and the economy an estimated £15.8 billion a year.
- 1 in 6 people will have a stroke during their lifetime and social care costs to the UK economy for stroke survivors are estimated at £5.2 billion annually.

Although there are costs to both local government and the health services, pharmacy and other partners in supporting good health (eg by supporting a healthy heart environment, supporting people to quit smoking etc, ensuring people who have heart health risk conditions receive appropriate treatment), analysis by the NHS Confederation (2024) has shown that investing in key preventive activities to support heart health results in financial savings[96]. Optimising medical treatments with conditions such as high blood pressure and high cholesterol result in savings to the health and care system (and also to residents). The 'Size of the Prize' analysis discussed earlier in this report[97] estimates that, for preventing 100 strokes by detecting more cases in residents across SW London and optimising treatment, for example, £951,100 would be saved by Adult Social Care and £1,391,000 would be saved by the NHS over three years.

Working together to focus on heart health

As we have seen, from our genes, our home, our environment around us, our actions and services that support us to keep our heart healthy, detection of heart risks, heart health treatment to keep us well as possible, to emergency actions needed in the event of cardiac arrest - actions are needed by us all to maximise heart health in Kingston. What is very important is to have as systematic and coordinated an approach as possible to ensure that we reach those residents most at risk.

Across the council and the voluntary sector, we can contribute further to joint work with health partners to improve heart health. Through our wide range of services in Kingston, we are in contact with residents who could benefit from signposting or other support for good heart health. For example, in the ongoing work of our Housing or Social Care teams or those with links with routine and manual businesses, we are in contact with most people who could benefit from support to reduce health risks or those that have not yet been tested for hidden heart health risks, such as high blood pressure. Our voluntary sector is also in contact with many people who could benefit from additional action to improve heart health. We need to maximise the opportunities to 'make every contact count' for heart health - with clear messages and actions.

In the longer term, in our planning, we need to make sure that our environment is as 'heart friendly' as possible - for example, that supports physical activity by all. As Churchill is reported to have said (not about heart health - but the sentiment is relevant): 'We shape our buildings; thereafter they shape us' [98] - we want our buildings (and our roads and parks) to shape good health rather than inactivity. We also need consistent messaging about a healthy diet across both the council, NHS, partner organisations and wider environment - in advertising that we can influence and in what we offer as food and drink in buildings that we own or commission.

Joining together in common aims:

Guiding us forward as a pan-London programme, Kingston has committed to support the new 'Million Hearts and Minds' campaign. Through this, there are some high level outcomes focussing on detection and treatment of heart health risks that it is hoped will be achieved across London (see box):

Supporting this, will be borough or regional (or whatever is the best level) wide campaigns and other efforts to address heart health risks. At the borough level, to support the Million Hearts and Minds (and other ambitions), we need to take action on those activities and processes that are within our powers. In our new Kingston Joint Local Health and Wellbeing Strategy 2025-28, the Health and Wellbeing Board member organisations have committed to support action on heart health inequalities. These priority areas will aim to improve heart health in Kingston through a concerted focus on primary prevention, such as smoking and physical activity[99] and increased uptake of secondary prevention[100] offers (such as blood pressure checks) in target areas/ groups in Kingston where there are currently poorer outcomes. Targets for elements of some heart health indicators have also been set out in the 'Core 20 Plus Five Plan (focus on case finding people in the 20% most deprived areas with one of the five priorities being with blood pressure and improving treatment)'[101]. A new NHS Long Term Plan is also in development. These programmes, strategies and plans will help guide our joint work.

Box: London Million Hearts and Minds goals (by 2029)

- Ensure that at least 80% of Londoners who have high blood pressure are aware of their diagnosis.
- Ensure that at least 80% of Londoners who have been diagnosed with high blood pressure are receiving effective treatment.
- Ensure that at least 80% of Londoners who have atrial fibrillation (irregular heart rhythm) are aware of their diagnosis.
- Ensure that at least 95% of people with atrial fibrillation who are at high risk for conditions such as stroke are receiving effective blood thinners.
- Ensure that at least 70% of Londoners over the age of 40 have had their cardiovascular risk assessed
- Ensure that at least 75% of people with a very high risk of developing heart disease in the next 10 years are receiving statins (cholesterol lowering drugs).

Conclusions

Kingston has made great progress on heart health. More people are alive today, compared to 20 years ago, thanks to progress in fewer people smoking, new ways to detect conditions that may have heart health risks and effective treatment to manage some of the key heart health risks. However, we still have some way to go - while heart health conditions affect people from all parts of Kingston and all income groups, people in our more deprived areas experience poorer health outcomes compared to people in our least deprived areas in terms of their hearts. To take us forward in reducing health inequalities in Kingston we need t
where we have pow
promotes good hea
reach those who mi
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people are reached
detect and treat hea
longer time in good

Recommendations

Million Hearts and Minds Goals:

- Collaborate with partners within the borough and across London on the city-wide Million Hearts and Minds programme to meet target goals (such as detection of and treatment of high blood pressure etc) as set out in this report and support overall programme aims[102]
- Work in partnership across the borough with GPs, pharmacy, community services, voluntary sector and council services to help support the meeting of these goals

Making Every Contact Count:

- Utilise contacts of council and commissioned services staff with residents who are at higher risk of poor heart health - to signpost to local stop smoking and other stay well offers and also to support increased uptake of the ABCs to detect currently undetected heart risk conditions - with a focus on blood pressure and cholesterol checks

Physical activity:

- Ensure that green spaces across Kingston are safe and accessible
- Offer and promote accessible and attractive physical activity opportunities, with a focus on where activity is lowest

Healthy diet:

- Ensure that any council or commissioned services which residents attend offer and promote heart friendly food and drink only
- On council commissioned/owned advertising boards, promote only 'heart friendly' food and drink (no ultraprocessed food products)
- Continued delivery and building upon the work and direction of the Kingston Healthy Weight Strategy for all ages
- Working to ensure that food support provided for those in need is as 'heart healthy' as possible

Smoking:

- In partnership across the borough, implement recommendations in the 2025 Kingston 'Clear' smoking and tobacco review to reduce smoking in residents with routine and manual occupations, those with a long term mental health condition and during pregnancy

Planning and Local Plan:

- Design in 'heart friendly' - ensure new buildings / structures are linked to and facilitate active travel, and that also protect residents from extreme heat or cold

NHS Health Checks:

- Undertake further work to ensure that all eligible residents are invited using a range of innovative communication methods, that checks are available to all residents at times and locations convenient to them to encourage uptake
- Complete further data analysis to understand NHS Health Check uptake in our residents most at risk of heart health conditions and to look at any innovations needed to encourage uptake
- Ensure that there is a strong link between the NHS Health Check and residents being made aware of, and taking up, local offers to improve heart health.
- Look at giving input to national planners regarding introducing further innovation in the NHS Health Check design, with further consideration of a physical activity element

Heart Health and Climate

- Offer and promote active travel opportunities and fuel poverty alleviation measures (such as Warm Homes Better Health[103]) that improve reduce carbon emissions
- Council and local organisations to promote to residents and support implementation of hot and cold weather advice and guidance[104 105]
- Council and other staff in contact with eligible residents to support national and local vaccination promotion by signposting residents to vaccination opportunities

Heart Health and Alcohol

- Kingston Public Health to continue to raise awareness of drinking and alcohol health via Connected Kingston, which promotes the low risk drinking guidelines from the Chief Medical Officers and offers residents tools to cut down on their drinking as well signposting to specialist alcohol services
- Endorse and support across the borough national alcohol campaigns locally such as Dry January and Alcohol Awareness Week.
- Continue to roll out Alcohol Identification and Brief Advice training to enable frontline workers to:
  - identify those drinking above lower risk levels
  - give simple brief advice regarding alcohol use
  - make referrals to appropriate services
- Offer specialist alcohol training to Kingston Hospital workforce supporting them to work with people with alcohol, co-occurring conditions and complex needs. The aim of this training is to increase referrals from hospital to alcohol treatment and support services.
- Kingston Public Health to continue to commission specialist alcohol interventions for people with alcohol related issues. This includes community and inpatient detoxification programmes as well as psycho-social support (one to one and group work).

CPR:

- Increase uptake of CPR training in young people and adults in Kingston.

Appendix 1: Heart Health Trends and Graphs

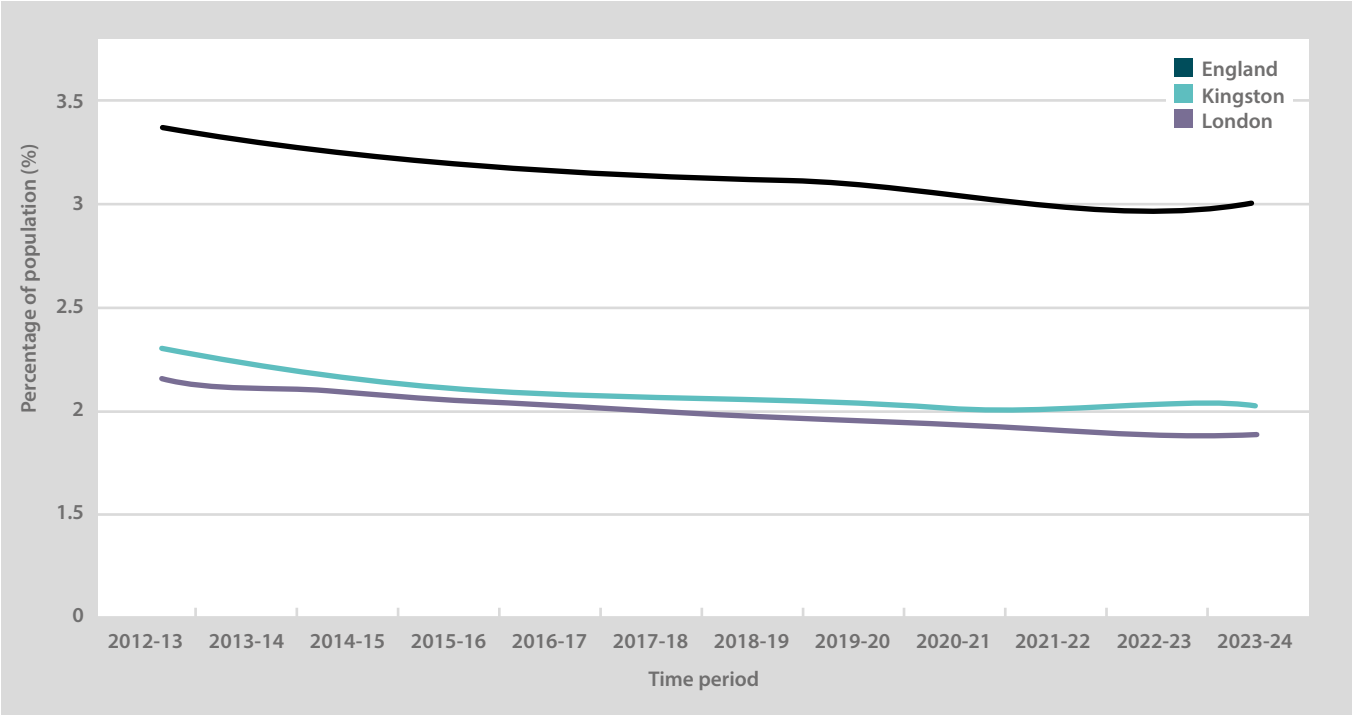
High blood pressure (Hypertension)

High blood pressure (hypertension) has been diagnosed in 10.3% of Kingston's population (in 2023-24), which is a stable rate, relatively unchanged in the past few years. Around 23,000 people in Kingston have high blood pressure recorded. The Kingston hypertension rate is lower than the London (11.1%) and England (14.8%) figures, both of which have risen in the past few years.

Coronary Heart Disease (CHD)

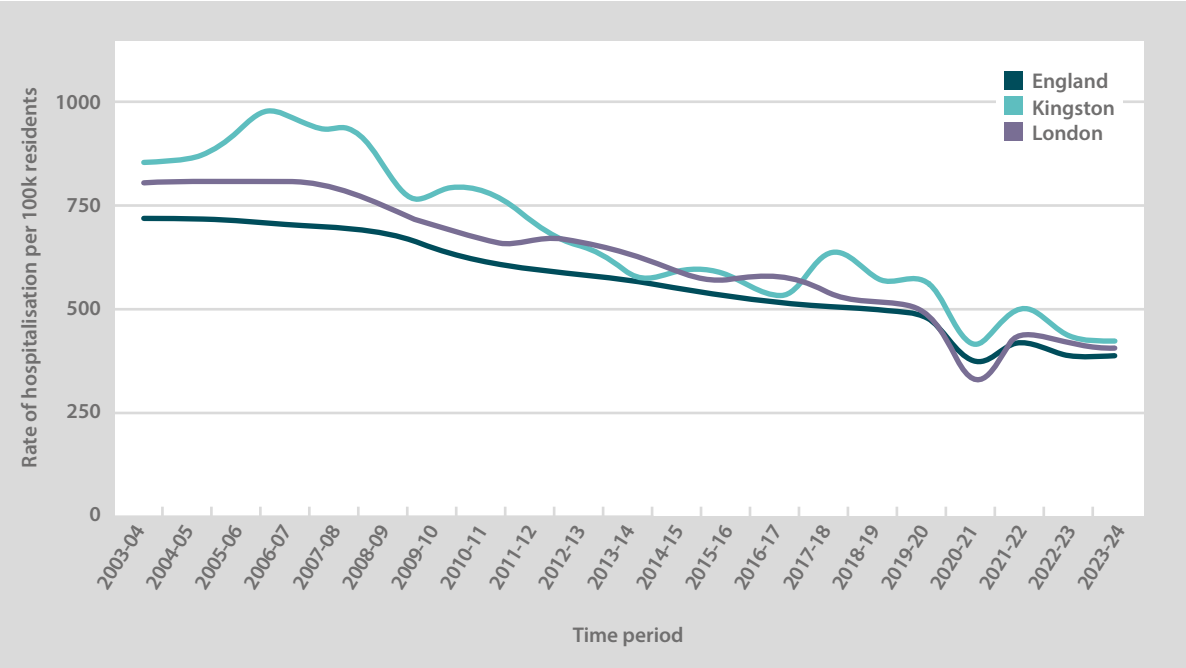
Almost 4,400 people in Kingston have had Coronary Heart Disease (CHD) diagnosed. The prevalence among GP-registered patients in Kingston is 2.0% in 2023-24[106]. The prevalence has decreased from 2.3% in 2012-13 and has been consistently lower than the national average (3.0% in 2023-24), but slightly higher than the London level (1.9%) over the past few years. As Kingston has an older population than London overall, and CHD is more common in older people, this slightly higher rate is is not altogether unexpected.

Figure 8: Coronary Heart Disease (CHD) prevalence (% of local population), 2012/13 to 2023/24 (Kingston, London, England)



In terms of hospital admissions for CHD, rates in the borough are falling, and have dropped by more than half in the past 20 years. However, hospital admission rates for CHD in Kingston are above England overall, and close to the London average (in 2023/24)[107].

Figure 9: Coronary Heart Disease (CHD) hospitalisation rate, per 100,000 residents



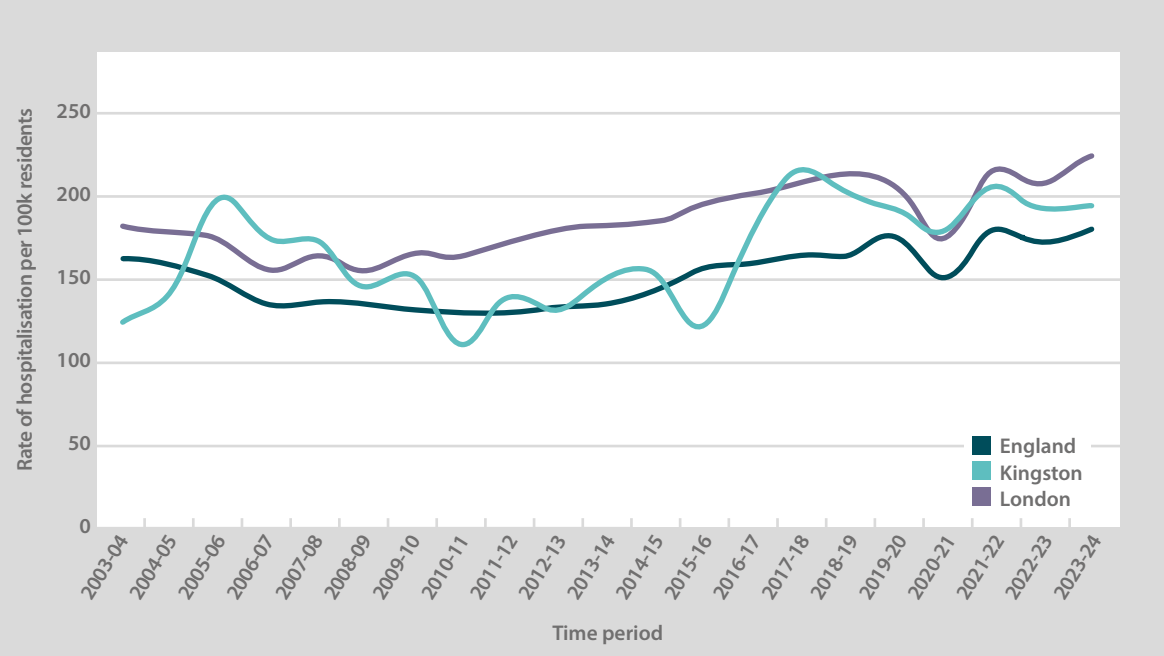
Stroke / Transient Ischaemic Attack (TIA)

The prevalence of a history of stroke among adult patients registered with a GP in Kingston was 1.2% (2,500 people) in 2023-24[108], which has increased from 1% in 2017-18. This is slightly higher than the London average of 1.1%, but considerably lower than the national prevalence of 1.9%.

Heart failure

In Kingston, around 1,500 people are currently living with heart failure[109]. The rate of hospitalisations for heart failure has been largely stable in the past few years. However, overall over the past decade, rates have risen by about 50% and are higher than the national average (although lower than London, as a whole)[110].

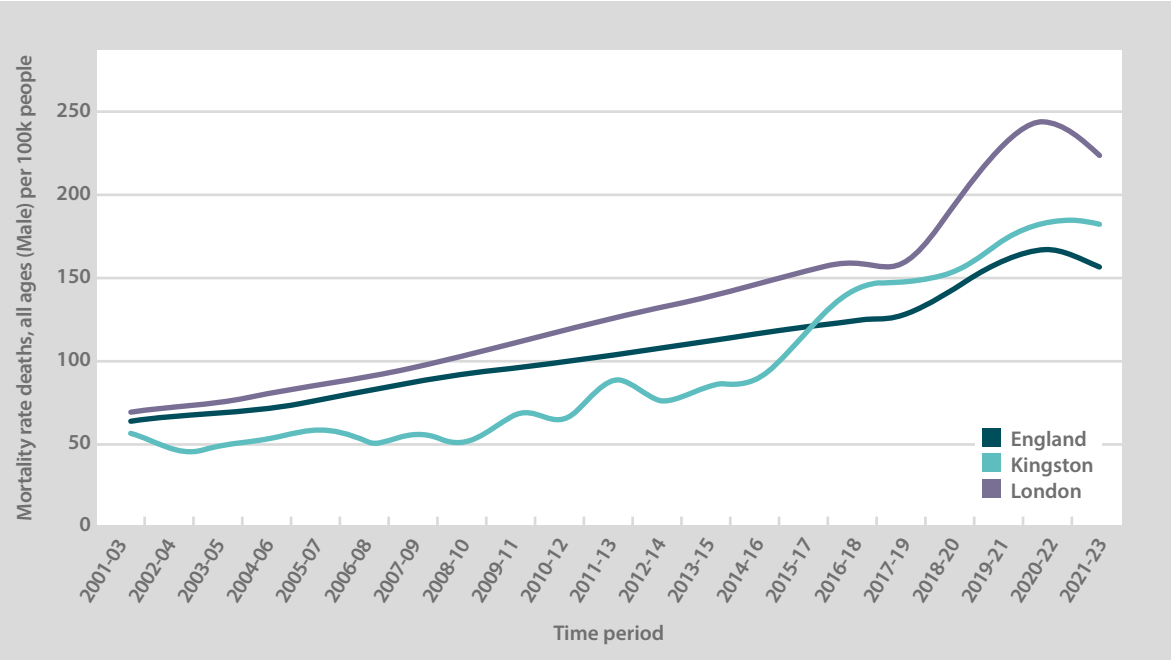
Figure 10: Heart Failure Hospitalisation rate, per 100,000 residents (2003/4 to 2023/24), Kingston, London, England



Mortality

Mortality rate for deaths involving high blood pressure (hypertensive disease): High blood pressure can contribute to someone dying (such as from a heart attack or stroke). This chart shows mortality trends for all deaths where hypertension was mentioned as a contributing cause, as hypertension contributes to a proportion of deaths that are not selected as the underlying cause of death. Such deaths have been increasing, with the rate (per 100,000 residents) in Kingston more than trebling in the past 20 years in men [111] (see figure below) and in women. This increase is similar to the London picture, but greater than the national rise over the same time frame.

Figure 11: Mortality rate for deaths involving hypertensive disease, All ages (Male), per 100,000 people, Kingston, London, England 2001/03 to 2021/23)



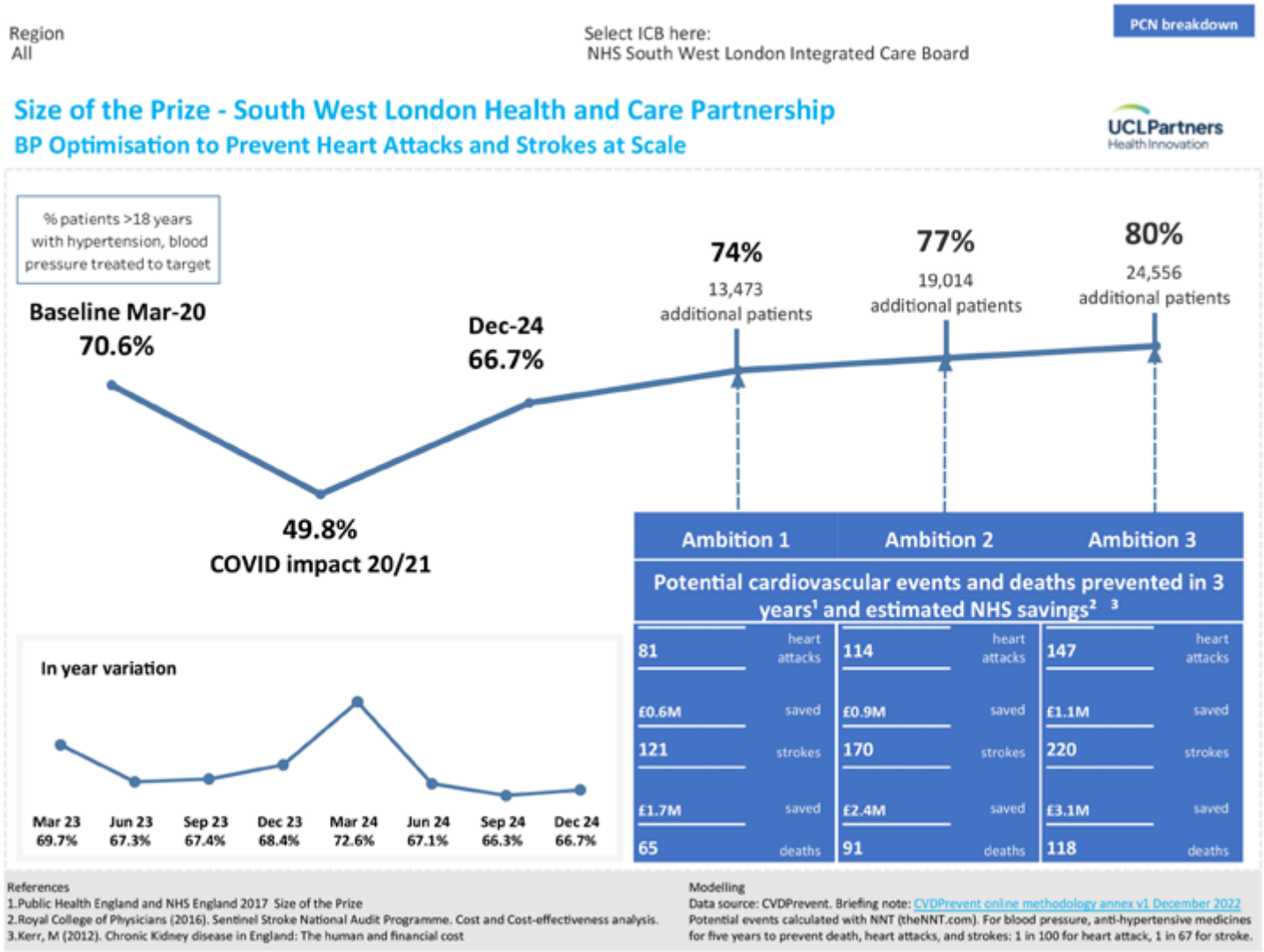
Premature mortality from all cardiovascular diseases (CVD) in Kingston has been significantly lower than the London and England averages in recent years. However, in 2023, circulatory diseases (a part of the umbrella term CVD) were the most common cause of death in the borough for people of all ages. The premature death rate from CVD in Kingston's men is considerably higher than that of women. It has always been this way, as seen in the time line chart below. At the start of the 2000s, the rate in Kingston's men was around double that of women, and although rates came down significantly in the 2000s, they have only fallen slightly in the past decade or so[112].

The gap remains consistent between men and women, with the most recent data (2021-23) showing a rise in men, and the gap between the sexes the widest it has been since 2000, with rates in men three times those in women over the last three years.

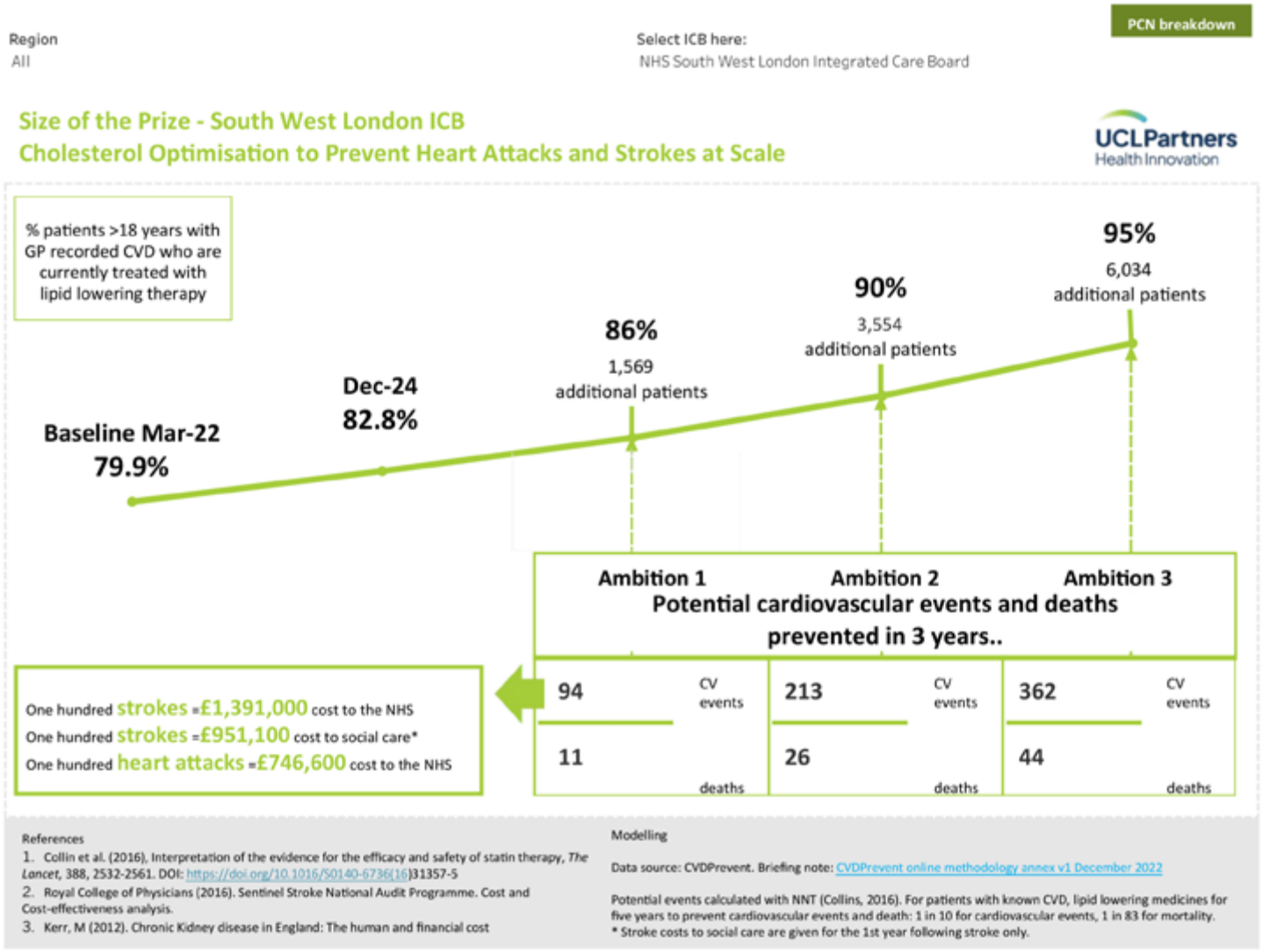
Almost three quarters of early deaths from CVD in Kingston were in men in 2021-23 (167 men and 59 women across the three years), a slightly higher proportion than London and England.

Appendix 2: Size of the Prize diagrams

Size of the Prize: High blood pressure (Hypertension)



Size of the Prize: Cholesterol



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