JSNA Gloucestershire 2022/23

Cardiovascular Disease

Health ◊ Care ◊ Wellbeing

Cardiovascular Disease (CVD) morbidity and mortality[1]

CVD is the number one cause of death globally, with an estimated **17.9 million** people having died from CVD conditions in 2019, representing 32% of all global deaths

It is also a leading cause of disability and death in the UK, affecting around **7 million** people and being responsible for one in four premature deaths in the UK

In 2021, CVD was responsible for **168,030** deaths in the UK[1a]

25% of all UK deaths are caused by heart and circulatory disease[1b]

In 2021 in Gloucestershire…

The **mortality rate from all cardiovascular disease** of those **aged 65+** was **972.9 per 100,000** which was statistically similar to the England rate of 1,021.4 per 100,000.[2]

The **under 75 mortality rate** from **all people** with **Cardiovascular Diseases** was **65.8 per 100,000** which was **significantly better** than the England rate of 76 per 100,000.[3]

The **under 75 preventable mortality rate** for **Cardiovascular Disease** was **27.0 per 100,000** which was statistically similar to the England rate of 30.2 per 100,000.[4]

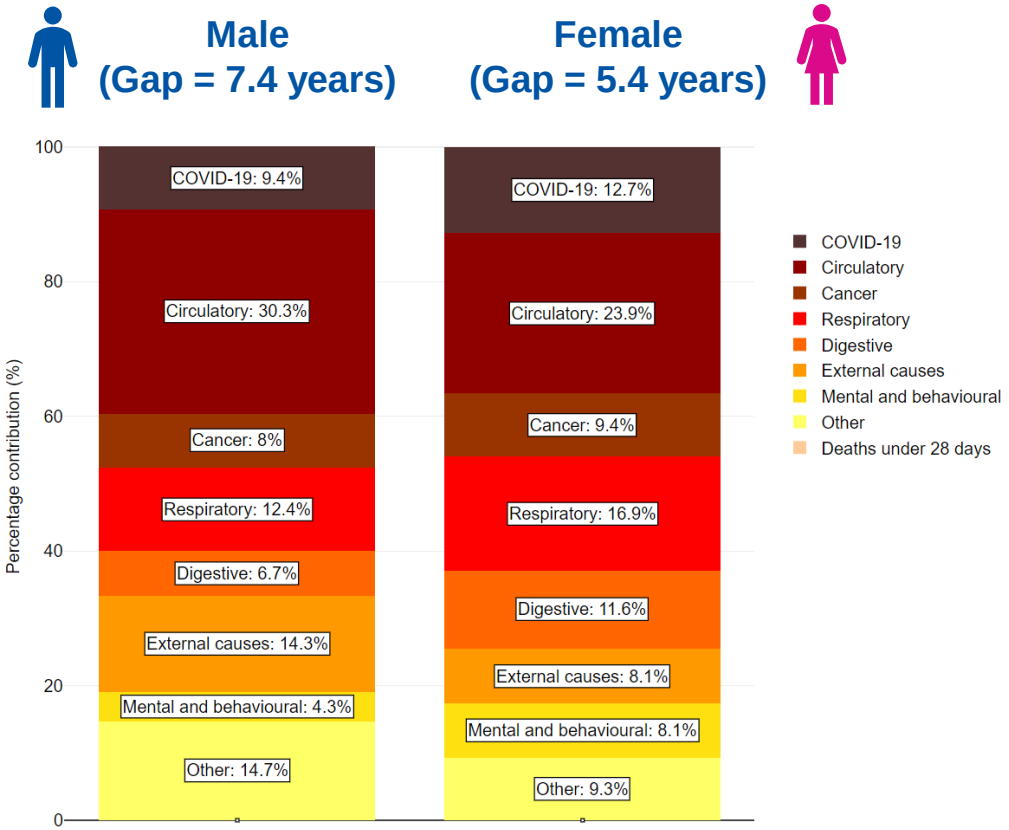
The total annual healthcare cost of heart and circulatory disease in the UK is[5] **£9 BILLION**

10 risk factors for cardiovascular disease

- High blood pressure
- Diabetes
- Obesity and overweight
- Age
- Poor diet and alcohol
- Lack of exercise
- Smoking
- High cholesterol
- Pre-eclampsia
- Genetics

Premature death rates from CVD in the most deprived 10% of the population are almost twice as high in the least deprived 10%.

Between 2020-21, in the **least deprived** quintiles of Gloucestershire **males lived 7.4 years longer** and **females lived 5.4 years longer** than those in the **most deprived** quintiles.[6]



Circulatory diseases accounted for **2.26 years of this gap** in the **most deprived** quintile in **males** and **1.32 years of this gap** in **females.**

Heart disease accounted for **1.15 years of this gap** in the **most deprived** quintile for **males** (the largest contribution in the detailed breakdown) and **0.69 years** in **females,** the second largest contribution after covid (0.7 years).

In Gloucestershire in 2021/22…

Inequalities

Coronary Heart Disease prevalence was **3.3%** higher than in England (3%).[7]

For patients with **Coronary Heart Disease**, a **record that aspirin, an alternative anti-platelet therapy or an anticoagulant is being taken** was **89.3%** which was lower than England (90.30%).[8]

There were **397.8 per 100,000 Coronary Heart Disease hospital admissions** which was **significantly worse** than the England rate of 367.6 per 100,000.[9]

In 2020, the **Coronary Heart Disease mortality rate** for those aged **under 75** in Gloucestershire was **38.0 per 100,000**, which was similar to the England rate of 39.1 per 100,000.[10]

First-generation **South Asians living in the UK have a higher rate of coronary heart disease and diabetes** compared to White Europeans.[11]

In 2021/22, the record of **offer of support and treatment in the last 24 months for smokers** aged 15+ years in Gloucestershire was **67.4%**. This was **significantly worse** than the England rate of 73.4%.[12]

More information can be found on Inform under Tobacco Control.

In 2021/22, **hospital admission episodes for alcohol-related CVD** in Gloucestershire were **572 per 100,000** which was **significantly better** than the England rate of 759 per 100,000.[13]

In 2020/21 there were **161.6 per 100,000 hospital admissions for stroke** in Gloucestershire which was similar to the England rate of 161.8 per 100,000.[14]

Between 2016/17-2020/21 the standardised admission ratio for **emergency hospital admissions for stroke** in Gloucestershire was **90.9** which was significantly better than England (100).[15]*

> My blood pressure results were high, so I was referred to my GP who carried out further tests and identified an enlarged heart as well as poor kidney function and a number of infections. I'm now on medication to help control my blood pressure and heart condition. It's amazing what a community event can lead to, I'm so grateful to the team who offered me the check, if I hadn't taken up the offer I wouldn't know about my heart and kidney issues.
>
> - *Rebecca, Community drop-in for **'Know Your Numbers Week'** attendee*

In Gloucestershire, **deaths from stroke of all ages** were **105.1 per 100 SMR*** which was significantly worse than the England rate of 100.0 per 100 SMR between 2016-2020.[16]

Stroke mortality rates in those aged **under 75** in Gloucestershire were **10.6 per 100,000 DSR*** which was significantly better than the England rate of 12.5 per 100,000 DSR between 2017-19.[17]

Stroke mortality rates in those aged **over 75** in Gloucestershire were **519.7 per 100,000**. This was significantly worse than the England rate of 479.4 per 100,000 between 2016-18.[18]

Blood Pressure

High blood pressure is common, it affects around a quarter of all adults and costs the NHS around £2 billion per year with costs for social care considerably higher.
We know that at least half of all heart attacks and strokes are caused by high blood pressure and it is a major risk factor for chronic kidney disease and cognitive decline.

83.9% of patients (aged 45+ years) in Gloucestershire, had a **record of blood pressure in the last 5 years**. This was **significantly worse** when compared to England (85%) in 2021/22.[19]

In June 2023…

16.95% of patients (aged 18+ years) in Gloucestershire were **diagnosed with hypertension** compared to 16.16% in England.[20]

2.3% of patients (aged 18+ years) in Gloucestershire were identified as **'at risk' for hypertension**. This is above England figures at 1.92%.[21]

85.61% of patients (aged 18+ years) in Gloucestershire who were **diagnosed with hypertension had a blood pressure reading taken within the preceding 12 months**. This is in line with national monitoring figures of 85.29% in England.[22]

65.27% of patients (aged 18+ years) in Gloucestershire who were **diagnosed with hypertension were treated to the age appropriate target blood pressure thresholds** compared to 66.72% in England.[23]

0.44% of patients aged 18+ with GP recorded hypertension were potentially over treated with medication compared to 0.46% in England.[24]

It is important for those with CHD to have their annual flu immunisation as they are at greater risk of ill health if they catch it.

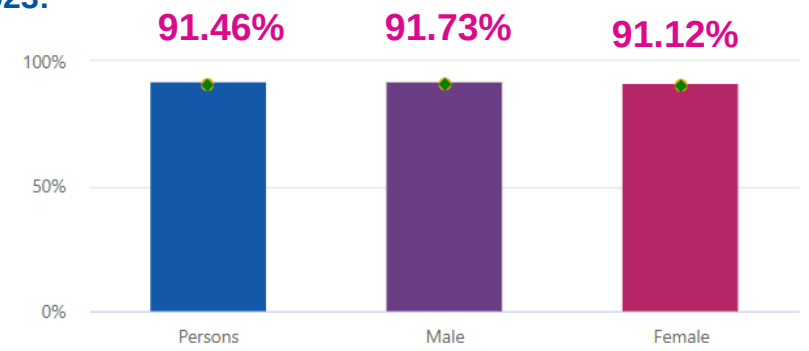
86% of patients with **Coronary Heart Disease** were **immunised against flu** which was higher than in England (82%).[25]

In 2020/21 there were **139.7 per 100,000 hospital admissions** relating to **heart failure** in Gloucestershire. This was similar to the England rate of 146.7 per 100,000.[26]

Heart Failure

Atrial fibrillation (AF) is a major risk factor for stroke and contributes to one in five strokes. Strokes where AF is a contributory factor are often more severe with higher mortality and greater disability. For people with AF who are at most risk of stroke in most cases the benefits of anticoagulation significantly outweigh the risks of bleeding.

Percentage of patients with high risk atrial fibrillation who are receiving anticoagulation therapy in Gloucestershire[27], March 2023:

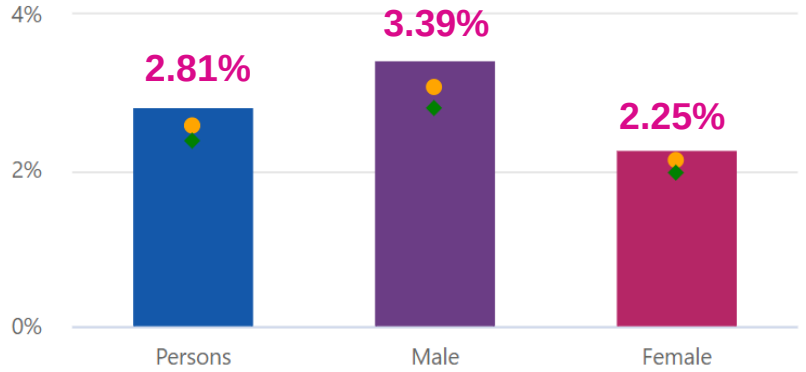


England (persons): 90.43%

◆ = *national value*

Diagnosis and recording on GP registers increases the probability of management according to the NICE guidelines.

Prevalence of GP recorded atrial fibrillation in patients aged 18 and over in Gloucestershire[28], March 2023:



England (persons): 2.38 %

Associations between cardiovascular disease (CVD), cardiovascular risk factors and COVID-19[29]

Cardiovascular disease:
3.9x higher odds of severe COVID-19 and **2.7x** higher odds of mortality

Current smoking:
1.8x higher odds of severe COVID-19, but not mortality

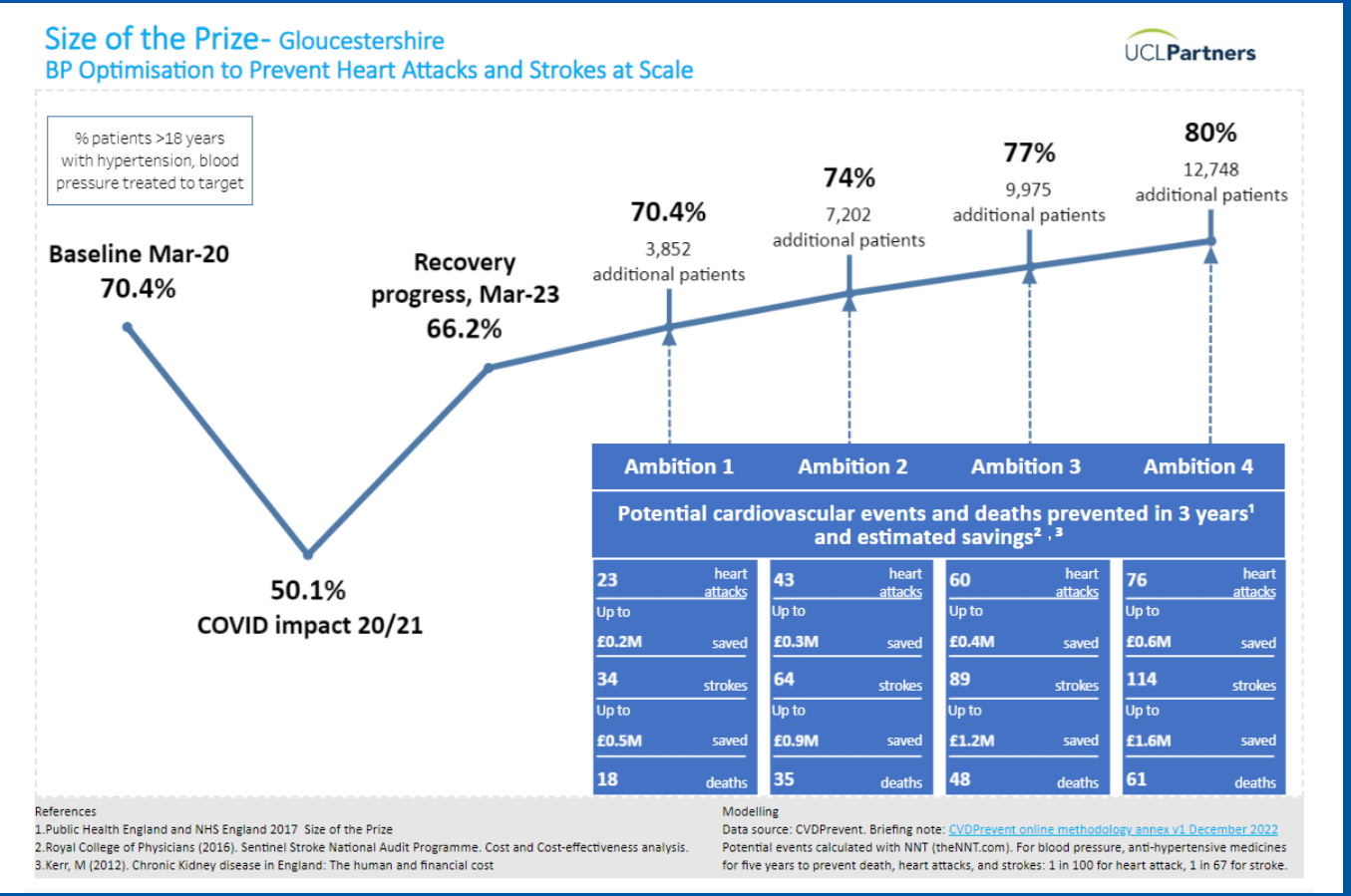
Hypertension:
2.6x higher odds of severe COVID-19 and **2.5x** higher odds of mortality

Obesity:
Significantly associated with severe COVID-19 and **2.2x** higher odds of mortality

Diabetes:
2.5x higher odds of severe COVID-19 and **2.1x** higher odds of mortality

Cerebrovascular disease:
2.8x higher odds of severe COVID-19 and mortality
(to note it is unclear if stroke occurred prior to or following Covid-19 infection)

The UCL Size of the Prize tool[30] shows clear reduction in heart attacks, strokes, deaths, and cost, when those with high blood pressure or high cholesterol are on the right levels of treatment. Covid had a huge impact on those seeking treatment and treatment itself, with figures now recovering.

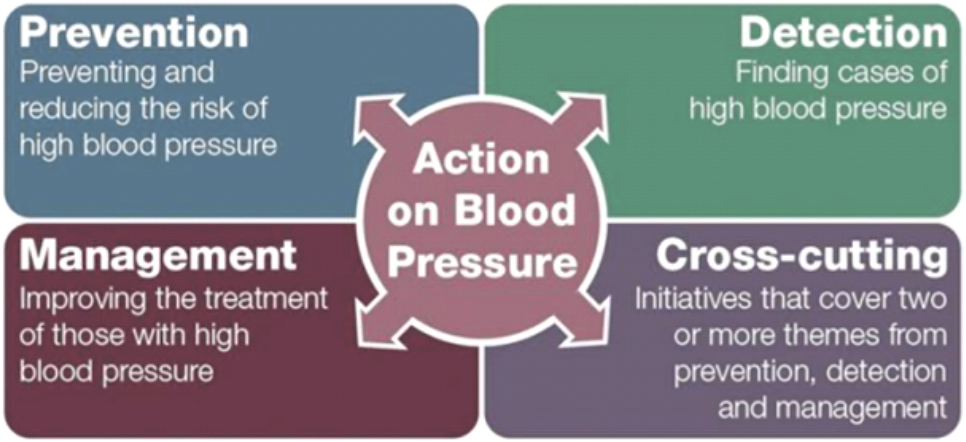


Prior to covid 70.4% of over 18s in Gloucestershire were treated to target, in March 2023 66.2% were treated to target, and the aim to recover to 70.4% by next year would mean savings of up to £0.7million, 23 less heart attacks, 34 less strokes, and 18 less deaths.

If the aim of treating 80% in the next 3 years is realised it could save Gloucestershire residents from 76 heart attacks (saving 0.6 million) and 114 strokes (saving up to £1.6 million), and 61 deaths.

What are we doing locally?

Gloucestershire Health and Wellbeing Partnership (HWP) developed the **Integrated Care Strategy** based upon engagement with the public and other stakeholders. Within this, exemplar themes were selected to coalesce around: **blood pressure**, smoking and employment. Each theme not only supports our aim for better health and wellbeing, but also emphasizes preventative interventions to reduce the demand on the health and care system in the medium to longer term. For **Blood Pressure,** work is being taken forward across the partnership to **improve detection, management and prevention of hypertension** in a way that is informed by a firm understanding of local population needs.



Areas of best practice

The NHS Health Check is a systematic approach to identifying local people at high risk of CVD, offering behaviour change support and early detection of the high risk but often undiagnosed conditions such as hypertension, atrial fibrillation, chronic kidney disease (CKD), diabetes and prediabetes.

Gloucestershire Healthy Lifestyles Service (HLS) provides free support to people who want to give up smoking, reduce their alcohol intake, increase their physical activity levels and manage their weight. For more information go to HLS Gloucestershire - Home (hlsglos.org), telephone 0800 122 3788 or email glicb.hlsglos@nhs.net

The Gloucestershire Heart Failure Team was established more than 20 years ago and are nationally recognised for their work to support and improve patient outcomes.

Key evidence

- NHS Long Term Plan: Cardiovascular disease
- Health matters: preventing cardiovascular disease
- Cardiovascular disease - NHS
- NHS Health Check programme to prevent CVD

DATA SOURCES: 1. Heart UK State of the Nation Report 2018 1a. BHF UK CVD Factsheet. 1b. BHF UK CVD Factsheet. 2. Public health profiles. 3. Public health profiles. 4. Mortality Profile. 5.BHF UK CVD Factsheet. 6. Segment Tool (phe.gov.uk).). 7. Public health profiles. 8. Public health profiles. 9. .Public health profiles. 10. Cardiovascular Disease - OHID. 11. BHF. 12. Cardiovascular Disease - OHID. 13. Public health profiles. 14. Cardiovascular Disease - OHID. 15. Public health profiles - OHID. * *Standardised Admission Ratio.* 16. Public health profiles. **Standardised Mortality Ratio. Expected deaths were calculated by applying age-specific death rates for England in 2016-20 to each area's population. SMRs were calculated by dividing the observed total deaths in the area by the expected deaths and multiplying by 100.* 17. Cardiovascular Disease - OHID *Directly standardised rate.* 18. Cardiovascular Disease - OHID (phe.org.uk). 19. Cardiovascular Disease - OHID. 20. CVD PREVENT. 21. CVD PREVENT. 22. CVD PREVENT. 23. CVD PREVENT. 24. CVD PREVENT. 25. Public health profiles. 26. Cardiovascular Disease – OHID. 27. CVD PREVENT. 28. CVD PREVENT. 29. Public Health England. 30. UCL Size of the Prize tool.