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British Heart Foundation

UK Factsheet

August 2022

Our vision is a world free from the fear of heart and circulatory diseases.

Today in the UK

460 people will die from a heart or circulatory disease ...	... around **130** of them will be younger than **75**	**7.6m** people are living with a heart or circulatory disease
260 hospital admissions will be due to a heart attack	**180** people will die from coronary heart disease	**13** babies will be diagnosed with a heart defect

Quick Links

Heart and Circulatory Diseases	Cost	Coronary Heart Disease	Heart Attack
Atrial Fibrillation	Heart Failure	Stroke	Out-of-Hospital Cardiac Arrest
Congenital Heart Disease	Inherited (Genetic) Conditions	Vascular Dementia	Risk Factors

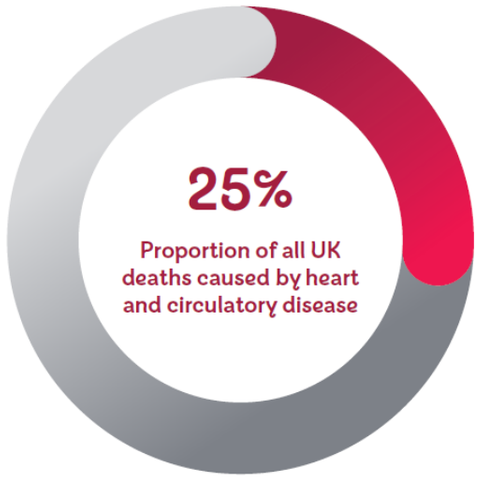
Heart and Circulatory Diseases (Cardiovascular Disease; CVD)

Heart and circulatory diseases is an umbrella term for all diseases of the heart and circulation. It includes everything from conditions that are inherited or that a person is born with, to those that develop later, such as coronary heart disease, atrial fibrillation, heart failure, stroke and vascular dementia.

- There are around 7.6 million people living with heart and circulatory diseases in the UK - an ageing and growing population and improved survival rates from heart and circulatory events could see these numbers rise still further.
- Around 4 million males and 3.6 million females are living with heart and circulatory diseases in the UK.
- We estimate that in the UK more than half of us will get a heart or circulatory condition in our lifetime.
- Around twice as many people are living with heart and circulatory diseases in the UK than with cancer and Alzheimer's disease combined.
- Heart and circulatory diseases cause around a quarter of all deaths in the UK; that's more than 160,000 deaths each year, or 460 each day – that's one death every three minutes.
- Around 48,000 people under the age of 75 in the UK die from heart and circulatory diseases each year.
- Since the BHF was established the annual number of deaths from heart and circulatory diseases in the UK has **fallen by around a half.**
- In 1961, more than half of all deaths in the UK were attributed to heart and circulatory diseases (320,000 deaths).

Linked conditions

Around 80 per cent of people with heart and circulatory diseases have at least one other health condition



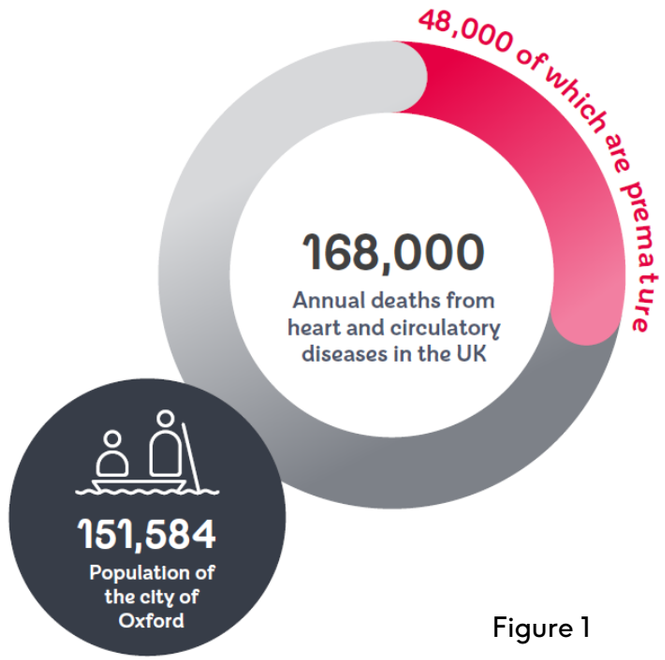


Figure 1

Deaths from and numbers living with heart and circulatory diseases (CVD)

Nation	No. of People Dying from CVD (latest year)	No. of People Under 75 Years Old Dying from CVD (latest year)	Estimated Number of People Living with CVD (latest estimate)
England (2021)	136,616	38,481	6.4 million
Scotland (2021)	17,639	5,345	700,000
Wales (2021)	9,503	2,864	340,000
Northern Ireland (2020)	4,102	1,179	225,000
UK total (latest)	168,099	48,024	7.6 million +

Deaths - BHF analysis of latest official statistics (ONS/NISRA/NRS); UK total includes non-residents (ONS Nomis data); ICD-10 codes I00-99, F01,Q20-8, C38.0, P29, G45
Living with CVD estimates based on latest health surveys with CVD fieldwork and GP patient data.

Death Rates

Death rates take the age structure (demography) of local areas into account to reveal the real differences in statistics. This is very important when there are big variations in the age profile of communities across the UK.

- Since 1961 the UK death rate from heart and circulatory diseases (CVD) has declined by more than **three quarters**. Death rates have fallen more quickly than the actual number of deaths because people in this country are now living longer.
- The premature (under 75) CVD death rate for Glasgow (134 per 100,000 people) is more than three times than that for Mid Sussex in South East England (39 per 100,000)
- Early deaths from heart and circulatory diseases (before the age of 75) are most common in the north of England, central Scotland and the south of Wales, and lowest in the south of England.

Death rates from heart and circulatory diseases (CVD), UK, 1969 to 2020

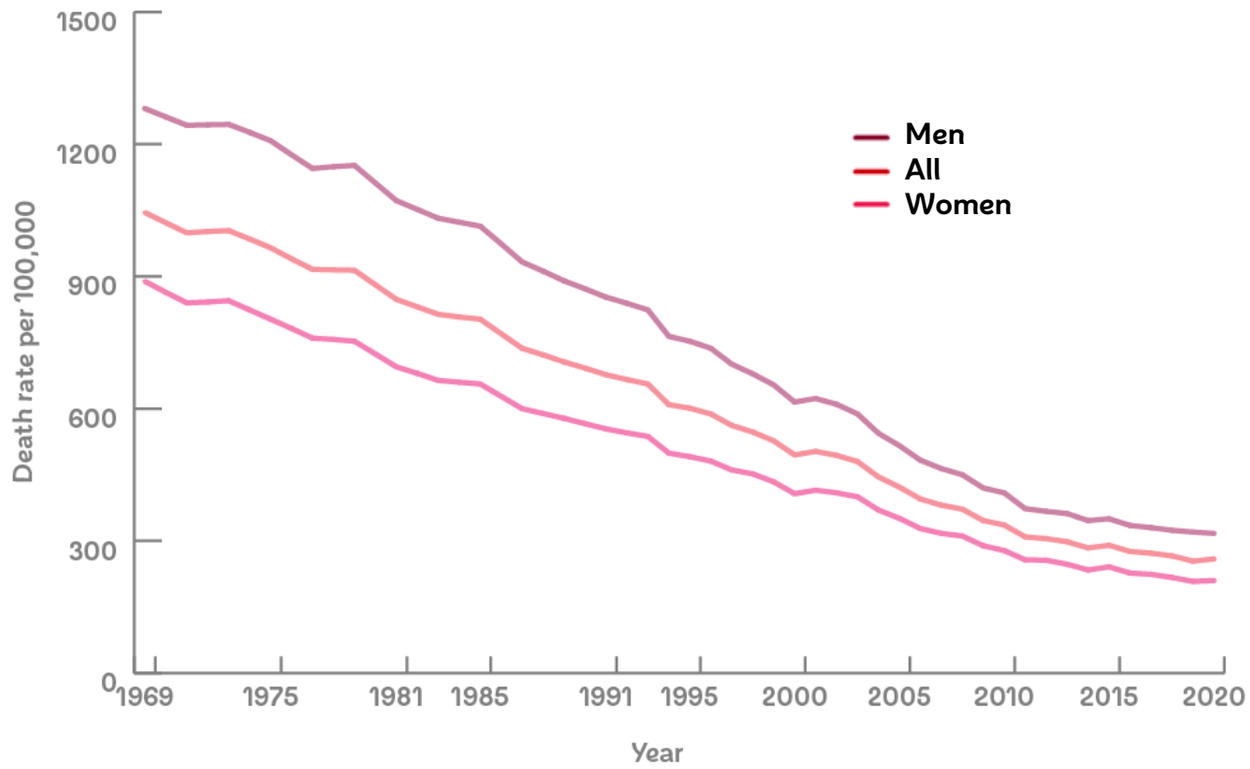


Figure 2

Top five UK premature heart & circulatory disease (CVD) death rates 2018-20

Local Authority	Location	Under 75 Death Rate per 100,000 People	Under 75 Annual Number of CVD Deaths
Glasgow City	Scotland	133.6	606
Blackpool	North West England	125.8	167
Manchester	North West England	122.0	357
West Dunbartonshire	Scotland	113.9	98
Sandwell	West Midlands	113.5	276

The Cost of Heart and Circulatory Diseases

- Healthcare costs relating to heart and circulatory diseases are estimated at £9 billion each year.
- CVD's cost to the UK economy (including premature death, disability and informal costs) is estimated to be £19 billion each year.

The total annual healthcare cost of heart and circulatory disease in the UK is

For more information please visit:

- Regional and local statistics

UK premature heart & circulatory disease (CVD) death rate by local authority 2018-20

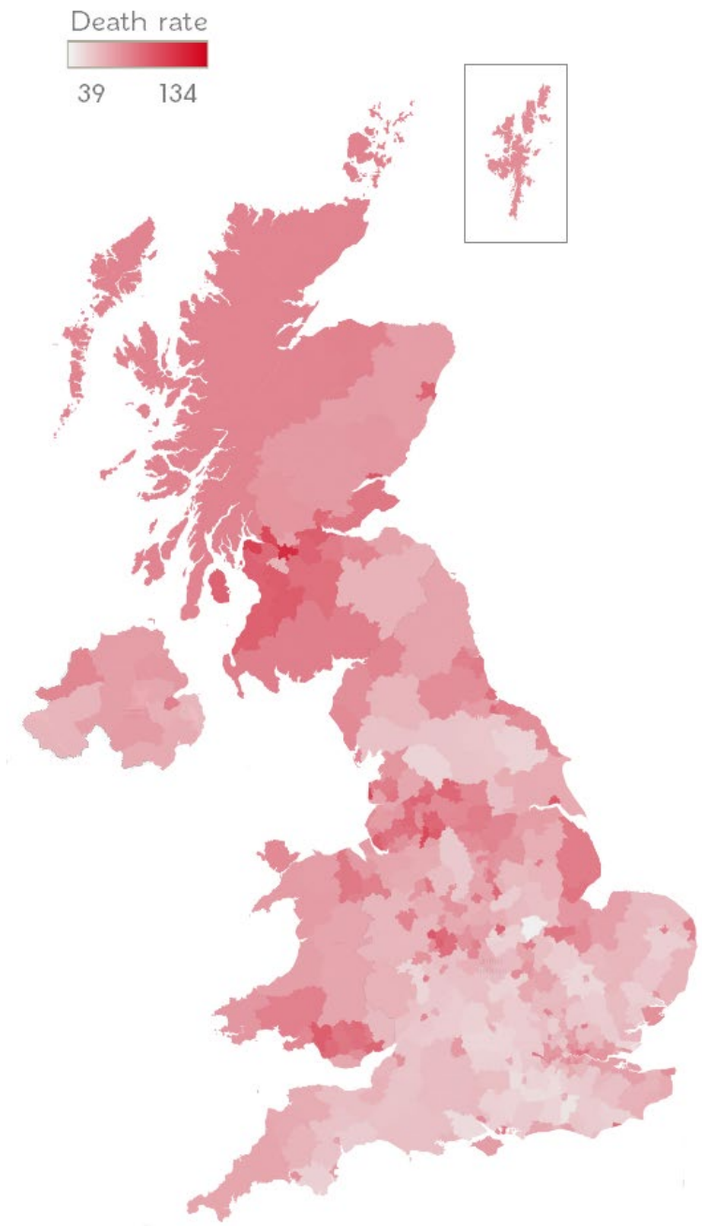


Figure 3

Coronary Heart Disease (CHD; IHD; Ischaemic Heart Disease)

Coronary heart disease (CHD) is the most common type of heart and circulatory disease. It occurs when coronary arteries become narrowed by a build-up of atheroma, a fatty material within their walls. The pain or discomfort felt from such narrowing is called angina and if a blockage occurs it can cause a myocardial infarction (heart attack).

Key Facts

- CHD is the one of the UK's leading causes of death and the most common cause of premature death.
- It was also the **leading cause of death worldwide in 2019**.
- CHD is responsible for **around 66,000** deaths in the UK each year, an average of 180 people each day, or one death around every eight minutes.
- In the UK, **one in eight** men and **one in 14** women die from coronary heart disease.
- CHD kills more than twice as many women in the UK as breast cancer – it even kills more women prematurely (before their 75th birthday).

Top 5 UK Causes of Death (2021*)

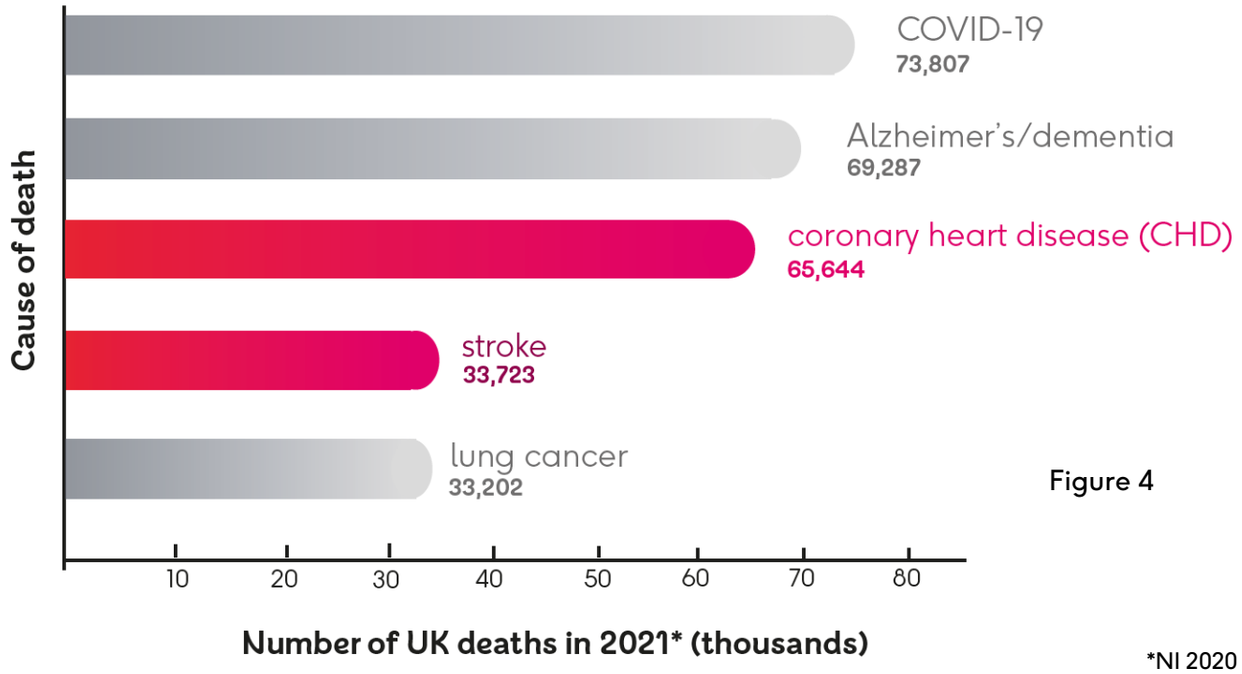


Figure 4

*NI 2020

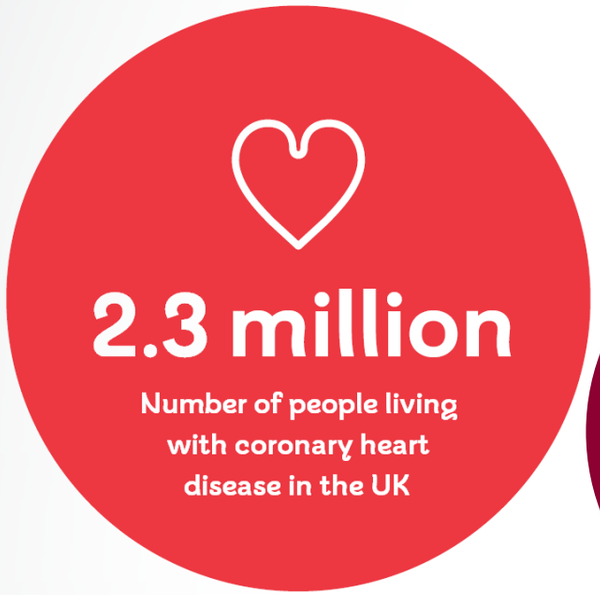
For the top 10 causes of deaths worldwide (2019), see our Global Factsheet

Key Facts

- Around **25,000** people under the age of 75 in the UK die from CHD each year.
- CHD death rates are highest in Scotland and the north of England.
- Since the BHF was established the annual number of CHD deaths in the UK has **fallen by more than half.**
- There are **2.3 million** people in the UK living with CHD – around 1.5 million men and 830,000 women.

Linked conditions

- People with coronary heart disease, or who have had a heart attack, are **twice as likely** to have a **stroke**.



2.3 million

Number of people living with coronary heart disease in the UK

For more information please visit:

- *Regional and local statistics*
- *Coronary Heart Disease*

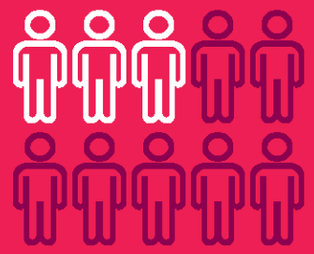
UK premature CHD death rate by local authority 2018-20

Figure 5

Heart Attack (Myocardial Infarction, MI)

- In the UK as many as 100,000 hospital admissions each year are due to heart attacks; that's 260 admissions each day or **1 every 5 minutes**.
- In the 1960s more than 7 out of 10 heart attacks in the UK were fatal. Today at least **7 out of 10 people survive.**
- It is estimated that **around 1.4 million** people alive in the UK today have survived a heart attack – around 1 million men and 380,000 women.

Every 5 minutes
someone is admitted to a UK hospital due to a heart attack



7 out of 10
Survival rate for heart attacks in the UK today

For more info please visit:

- *Heart Attacks*
- *Atrial Fibrillation*

Atrial Fibrillation (AF)

Atrial fibrillation is one of the most common forms of abnormal heart rhythm (arrhythmia) and a major cause of stroke.

- Around 1.5 million people in the UK have been diagnosed with atrial fibrillation – at least 1 in 8 are not treated effectively.
- It is estimated that there are at least 270,000 people aged over 65 with undiagnosed (or silent) atrial fibrillation in the UK.

Linked conditions

- People with AF are five times more likely to have a stroke
- AF is a contributing factor to one in five strokes

Heart Failure

Heart failure occurs when the heart is not pumping blood around the body as well as it should, most commonly when the heart muscle has been damaged – for example, after a heart attack.

- Around 650,000 people in the UK are on their GP's heart failure register.
- Around 80 per cent of heart failure diagnoses in England are made in hospital, despite 40 per cent of patients having symptoms that should have triggered an earlier assessment.
- In total it's estimated that as many as 920,000 people are living with heart failure in the UK.
- There are around 200,000 new diagnoses of heart failure every year in the UK.

People with heart failure are 2-3 times more likely to have a stroke

Stroke (Cerebrovascular Disease; CBVD)

A stroke occurs when the blood supply to part of the brain is cut off, causing brain cells to become damaged. A transient ischaemic attack (TIA) is also known as a "mini-stroke" and is caused by a temporary disruption in the blood supply to part of the brain.

- Stroke is one of the **biggest killers** in the UK, causing around **34,000 deaths** each year.
- There are more than **100,000 strokes** in the UK each year. That's a stroke at least every 5 minutes.
- Around **1.3 million** people living in the UK have survived a stroke or transient ischaemic attack (TIA).
- Around 1 in 4 strokes in the UK occur in people of working age.
- Stroke is the single biggest cause of **severe disability** in the UK.

Linked conditions

- People with heart failure are 2-3 times more likely to have a stroke.
- People with diabetes are twice as likely to have a stroke.

For more info please visit:

- *Heart Failure*
- *Stroke*

Vascular Dementia

Vascular dementia happens when there's a problem with the blood supply to an area of your brain. The cells in the affected area of your brain don't get enough oxygen or nutrients and start to die. This leads to symptoms such as concentration problems and personality changes.

- Vascular dementia causes **more than 13,000 deaths** each year in the UK – numbers could be higher as it can be difficult to diagnose the different types of dementia.
- Vascular dementia is the second most common type of dementia, seen in up to 1 in 5 cases.
- Vascular dementia is estimated to affect at least **150,000** people in the UK.
- By 2050 it's predicted that there could be **350,000** people in the UK living with vascular dementia.

Linked conditions

- People with a family history of coronary heart disease are **significantly more likely** to develop vascular dementia
- Vascular dementia accounts for **three quarters** of dementia cases in stroke survivors
- People with diabetes are **2-3 times** more likely to develop vascular dementia

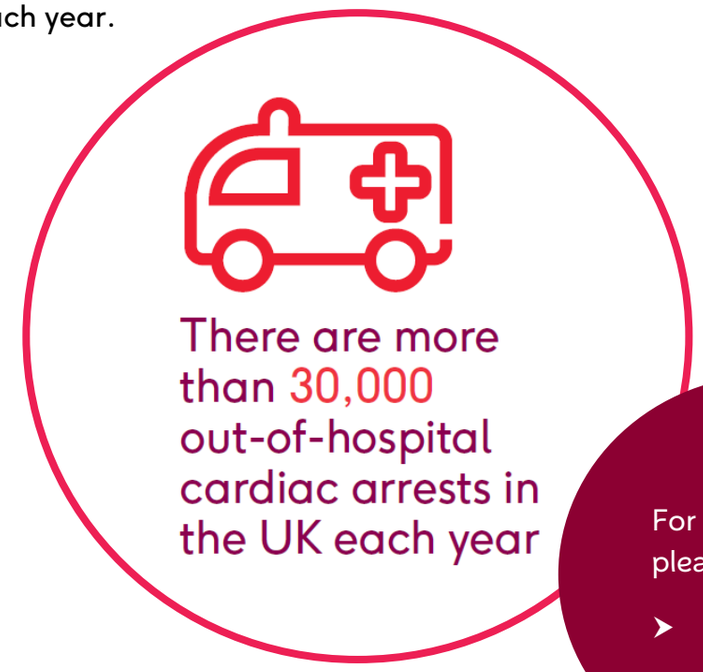
For more info please visit:

➤ *Vascular dementia*

Out-of-Hospital Cardiac Arrest (OHCA)

Cardiac arrest is a critical medical emergency, where the heart stops pumping blood around the body. Unless treated immediately, it leads to death within minutes.

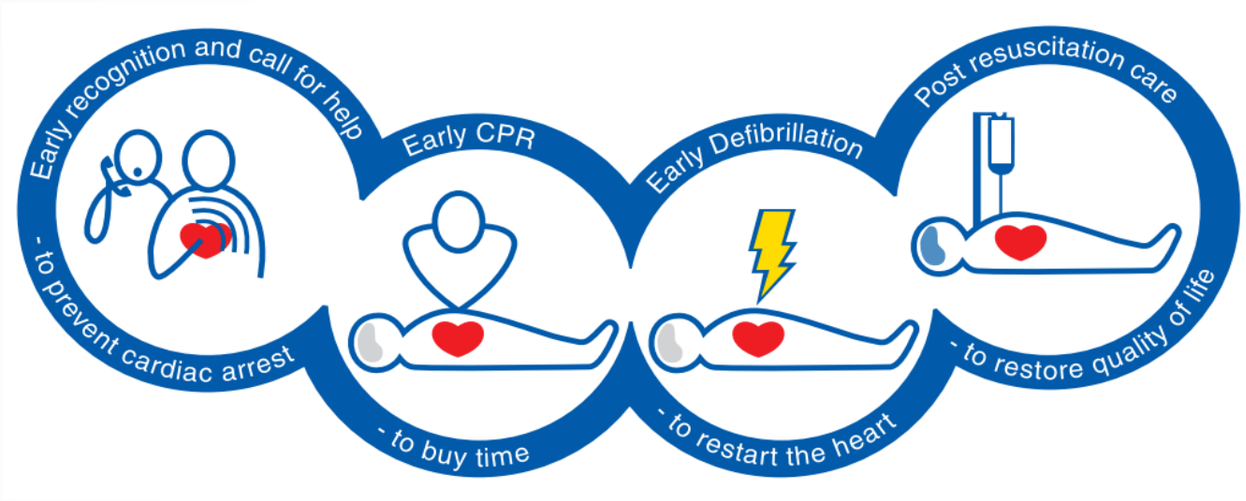
- There are **more than 30,000** out-of-hospital cardiac arrests (OHCAs) in the UK each year.
- The overall survival rate in the UK is **less than 1 in 10.**
- Every minute without cardiopulmonary resuscitation (CPR) and defibrillation reduces the chance of survival by up to 10 per cent.
- Performing CPR can **more than double** the chances of survival in some cases (ventricular fibrillation).
- It's estimated that public-access defibrillators (PADs) are used in less than 10 per cent of OHCAs.
- The Chain of Survival (below) is a sequence of steps that together maximise the chance of survival following cardiac arrest.



There are more than 30,000 out-of-hospital cardiac arrests in the UK each year

For more info please visit:

➤ *Cardiac arrest*



Congenital Heart Disease

Congenital heart disease is a heart condition or defect that develops in the womb before a baby is born.

- Heart defects are diagnosed in at least 1 in 150 births – that's an average of **13 babies** each day in the UK – with more diagnoses later in life. Estimates suggest that in total as many as 1-2 per cent of the population may be affected.
- Heart defects are the most common congenital anomaly in babies born in the UK.
- Heart disease is the biggest cause of perinatal and infant mortality from congenital anomalies.
- Before the BHF existed, the majority of babies diagnosed with a severe heart defect in the UK did not survive to their first birthday. Today, thanks to research, more than **8 out of 10 survive** to adulthood.

13 babies a day are diagnosed with a congenital heart defect in the UK

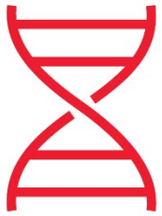
For more info please visit:

- *Congenital heart disease*
- *Inherited heart conditions*

Inherited (Genetic) Conditions

These are conditions which can be passed on through families, affect people of any age and may be life-threatening.

- An estimated 340,000 people in the UK have an inherited heart condition - these include hypertrophic cardiomyopathy (HCM; 1 in 500 people), dilated cardiomyopathy (DCM) and arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/ARVC).
- There are other conditions which can affect the heart and circulatory system, with an unusually high risk of developing heart disease or dying suddenly at a young age, including familial hypercholesterolaemia (FH; 1 in 250, or 270,000 people).
- Every week in the UK at least 12 young people (aged under 35) die from an undiagnosed heart condition.
- Using high-intensity statins can reduce cholesterol levels by half. For many people with FH this will be reduced to a safe level, lowering their risk of death from heart disease.



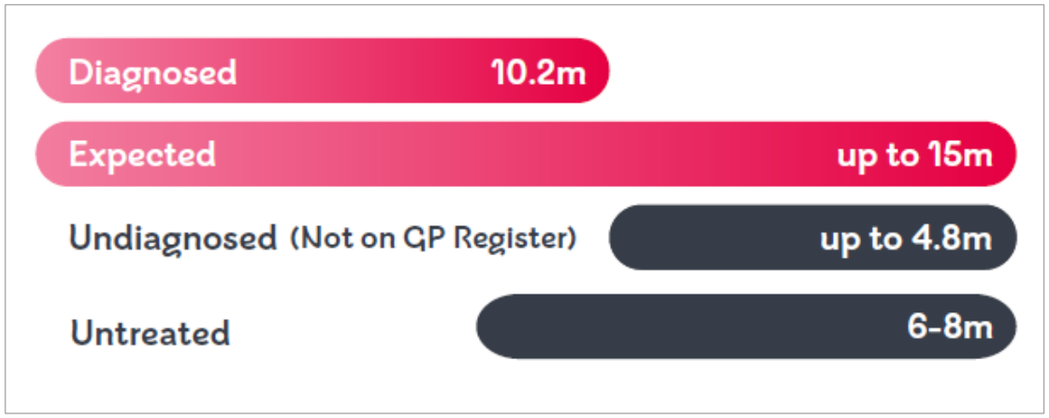
Around 620,000 people in the UK have a faulty gene that can cause an inherited heart-related condition

Risk Factors

Many different risk factors increase your likelihood of developing heart and circulatory diseases (CVD).

High Blood Pressure (Hypertension)

- High blood pressure is the leading modifiable risk factor for heart and circulatory disease in the UK
- An estimated 28 **per cent of adults** in the UK have high blood pressure – that's around **15 million** adults – at least half of them are not receiving effective treatment.
- **More than 10 million** people in the UK have been diagnosed with high blood pressure by their GP – this means up to **4.8 million** adults could be undiagnosed.
- In the UK, it's estimated that **6-8 million** people are living with undiagnosed or uncontrolled high blood pressure.

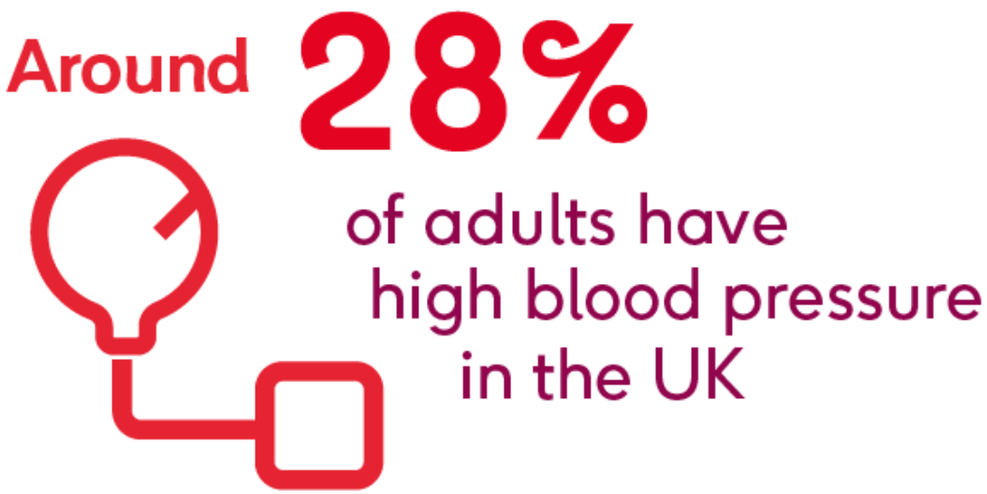


Linked conditions

- Around **50 per cent** of heart attacks and strokes are associated with high blood pressure in the UK

For more info, visit:

➤ *High BP*

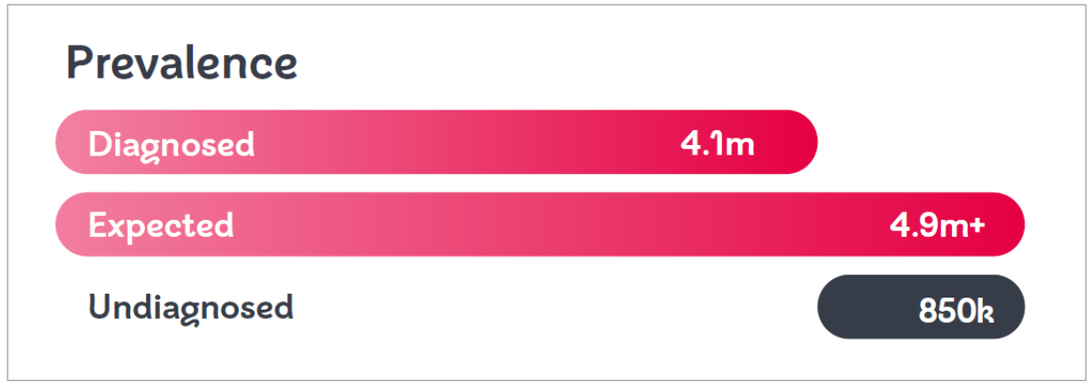


Diabetes

Diabetes is a condition in which blood sugar levels are elevated over a prolonged period of time. This results in damage to the inner lining of blood vessels. Consequently, diabetes is a significant risk factor for heart and circulatory diseases (CVD).

Key Facts

- **Around 4.1 million** adults in the UK have been diagnosed with diabetes
- **More than 4.9 million people** have diabetes in the UK
- It's estimated that around 850,**000** people in the UK have undiagnosed type 2 diabetes.
- Around 90 per cent of those diagnosed are living with type 2 diabetes and 10 per cent have either type 1 or rarer types.



Nation	Adults diagnosed with diabetes
England	3.5 million
Scotland	300,000
Wales	204,000
Northern Ireland	108,000
UK	**4.1 million**

In the UK one third of adults with diabetes die from a heart or circulatory disease

Linked conditions

- Adults with diabetes are **2-3 times** more likely to develop heart and circulatory diseases, and are **nearly twice as likely** to die from heart disease or stroke as those without diabetes
- In the UK, **one third** of adults with diabetes die from a heart or circulatory disease

For more info, visit our website:

➤ *Diabetes*

High Cholesterol

High blood cholesterol is a significant risk factor for developing heart and circulatory diseases.

- High LDL ("bad") cholesterol is associated with 1 in 4 heart and circulatory disease deaths in the UK
- It's estimated that close to half of adults in the UK are living with cholesterol levels above national guidelines total cholesterol (greater than 5mmol/L)
- People living with heart and circulatory diseases may have an even lower target cholesterol level
- Around 7-8 million adults in the UK are currently taking lipid-lowering drugs such as statins

For more info, visit our website:

➤ *High Cholesterol*

Air Pollution

- Poor air quality has a significant impact on heart and circulatory health.
  It's estimated that up to **11,000 heart and circulatory disease deaths** in the UK are attributable to particulate matter pollution each year.

Smoking

- **At least 1 in 8** adults smoke cigarettes in the UK – that's between 6 and 8 million adults.
- In the UK it's estimated that at least **80,000** deaths each year can be attributed to smoking-related causes.
- It's estimated that **at least 15,000 deaths** in the UK each year from heart and circulatory diseases can be attributed to smoking.

At least

1 in 8

adults smoke in the UK

Overweight/Obesity

- Around **28 per cent** of adults in the UK have obesity and in addition more than a third (36 per cent) have a body-mass index (BMI) defined as overweight.
- It's estimated that **30 per cent** of children in the UK have a BMI defined as overweight or obese.
- In the UK around 1 in 6 heart and circulatory disease deaths are associated with a high body-mass index.

Around

28%

of adults in the UK have obesity

Diet and Exercise

- Only **around a quarter** of adults consume the recommended minimum five portions of fruit and vegetables per day.
- Around **a quarter of adults** in the UK exceed national guidelines for weekly alcohol intake; no level of use is without risk.
- **More than one in three** (35 per cent) of adults in the UK do not achieve recommended levels of physical activity (150 minutes each week).

Being more physically active can reduce the risk of developing heart and circulatory diseases by as much as 35 per cent

Around

35%

of adults in the UK do not meet physical activity recommendations

Other Risk Factors

Other risk factors can significantly increase your risk of developing heart and circulatory diseases, including

- Impaired kidney function (renal failure)
- Old age
- Gender
- Family history
- Ethnicity

About the British Heart Foundation (BHF)

One in four of us in the UK and one in three globally die from heart and circulatory diseases. That's why the British Heart Foundation funds world-leading research into their causes, prevention and treatment. Advances from our research have saved and improved millions of lives, but heart diseases, stroke, vascular dementia and their risk factors such as diabetes still cause heartbreak on every street. With the public's support, our funding will drive the new discoveries to end that heartbreak.

We are **the biggest independent funder** of heart and circulatory disease research in the UK.

Find out more at bhf.org.uk

More BHF Health Statistics

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Visit our website

This factsheet is compiled by the British Heart Foundation.
Last reviewed and updated August 2022.

Statistics are the latest available from the UK's health and statistical agencies.
Other factsheets - Global, England, Scotland, Wales, Northern Ireland and coronavirus.

For any queries, contact us and we will do our best to help - please mark for the attention of the Health Intelligence team.

bhf.org.uk/donate

References

STATISTIC	REFERENCE
HEART AND CIRCULATORY DISEASES (CARDIOVASCULAR DISEASE; CVD)	
CVD deaths, u75/men/women - Figs 1 & 2: CVD deaths [ICD-10 codes I00-I99, C38.0, F01, G45, P29, Q20-Q28]	BHF analysis of ONS Nomis (England & Wales), NRS (Scotland) and NISRA 2020 & 2021 mortality data
Numbers living with CVD	BHF estimate based on latest Quality & Outcomes Framework prevalence data; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland and health surveys with CVD fieldwork; NHS Digital/Scottish Government/ StatsWales/ DH Northern Ireland
CVD lifetime prevalence	BHF (2020) UK estimate based on external patient, health and population data (ONS, GBD, IQVIA and health surveys)
Cancer and Alzheimer's combined prevalence (3.6m)	[cancer c.3m] www.macmillan.org.uk/about-us/what-we-do/evidence/using-cancer-data/calculating-cancer-prevalence.html [Alzheimer's - 60-70% of all dementias = 600k] www.alzheimers.org.uk/about-us/news-and-media/facts-media
CVD ASDRs (premature u75 death rates) Fig 3: UK death rates over time and by LA	BHF analysis of OHID (England) ONS Nomis (Wales), NRS (Scotland) and NISRA 2018-20 mortality data (NB local data ICD-10 I00-99 only); map created in Tableau
£19bn CVD economic cost ~ £9bn healthcare costs	BHF analysis of European Cardiovascular Disease Statistics 2017, EHN (www.ehnheart.org/cvd-statistics/cvd-statistics-2017.html)
Linked conditions: 81% people with CVD have one other health condition	Tran J, Norton R, Conrad N, Rahimian F, Canoy D, Nazarzadeh M, et al. Patterns and temporal trends of comorbidity among adult patients with incident cardiovascular disease in the UK between 2000 and 2014: A population-based cohort study. PLoS Med. 2018; 15(3):e1002513. https://doi.org/10.1371/journal.pmed.1002513 PMID: 29509757
CORONARY HEART DISEASE (CHD; ISCHAEMIC HEART DISEASE)	
CHD deaths, vs breast cancer, prem deaths, Fig 4	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2020 & 2021 data)
#1 killer worldwide (in 2019)	Global Burden of Disease and World Health Organization, 2019 mortality estimates
CHD ASDRs (death rates); Fig 5	BHF analysis of OHID (England) ONS Nomis (Wales), NRS (Scotland) and NISRA 2018-20 mortality data; map created in Tableau
2.3m living with CHD	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland
HEART ATTACK (MYOCARDIAL INFARCTION, MI)	
up to 100k heart attack hospital admissions	UK hospital statistics; NHS Digital/Public Health Scotland/NHS Wales/DH Northern Ireland – NB volumes have reduced during COVID-19 pandemic
7/10 people survive heart attack ~ 1960s estimate	Case fatality rates in Smolina's 2012 BMJ paper on acute MI mortality (www.bmj.com/content/344/bmj.d8059) ~ Goldacre's 2003 paper on myocardial infarction (Oxon)
1.4m have survived MI	BHF analysis of national health survey prevalence data and ONS population estimates
ATRIAL FIBRILLATION (AF)	
1.5m UK diagnosed with AF ~ not treated effectively ~ undiagnosed	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland – QOF achievement data (England/Northern Ireland) – silent/undiagnosed UK 65+ est. based on Biobank data (Barbara Casadei Live & Ticking pres)
5 times more likely to have a stroke	Marini C, De Santis F, Sacco S, Contribution atrial fibrillation to incidence and outcome of ischemic stroke: results from a population-based study. www.ncbi.nlm.nih.gov/pubmed/15879330
Associated with 1 in 5 strokes	Sentinel Stroke National Audit Programme (SSNAP). England, Wales & Northern Ireland National clinical audit annual results portfolio 2020-21. www.strokeaudit.org/results/Clinical-audit/National-Results.aspx [select Annual]

STATISTIC	REFERENCE
HEART FAILURE (HF)	
650k diagnosed by GP	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland
920k prevalence estimate, 200k diagnoses/year	Conrad, N; Judge, A, Tran, J et al. Temporal trends and patterns in heart failure incidence: a population-based study of 4 million individuals, The Lancet, 2018; 391, 10120 www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32520-5/
80% diagnoses in hospital	Bottle et al (2018) Routes to diagnosis of heart failure (England). Heart. https://heart.bmj.com/content/104/7/600
STROKE (CEREBROVASCULAR DISEASE, CBVD)	
UK stroke deaths	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2020 & 2021 data)
100k+ strokes/ year	Stroke Association estimate for UK based on SSNAP audit data
1.3m UK stroke/TIA survivors	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland
1 in 4 at working age; #1 severe disability	Stroke Association (2018) State of the nation: Stroke statistics [archive not available] – 2016 edition www.mynewsdesk.com/uk/stroke-association/documents/state-of-the-nation-stroke-statistics-54459
Linked conditions: CHD or heart attack x2 stroke	http://stroke.ahajournals.org/content/22/8/983
Linked conditions: People with heart failure > stroke	http://stroke.ahajournals.org/content/42/10/2977
Linked conditions: People with diabetes are twice as likely to have a stroke as people without diabetes	www.ncbi.nlm.nih.gov/pmc/articles/PMC5298897/
VASCULAR DEMENTIA	
UK deaths; underestimate/diagnoses	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2020 & 2021 data) Alzheimer's Society www.alzheimers.org.uk/about-dementia/types-dementia/diagnosis-vascular-dementia
dementia types; up to 1 in 5 cases are vascular	Alzheimer's Society www.alzheimers.org.uk/about-us/policy-and-influencing/what-we-think/demography
150k prevalence; 350k forecast	Alzheimer's Society www.alzheimers.org.uk/news/2018-04-12/third-all-stroke-survivors-could-develop-dementia-within-five-years
Linked conditions: family history	[heart attack] www.ahajournals.org/doi/full/10.1161/circulationaha.117.029127 [atherosclerosis] www.ncbi.nlm.nih.gov/pmc/articles/PMC2924456/
Linked conditions: ¾ cases in stroke survivors	www.ncbi.nlm.nih.gov/pmc/articles/PMC3235558/
Linked conditions: with diabetes	www.ncbi.nlm.nih.gov/pmc/articles/PMC2174783/
OUT-OF-HOSPITAL CARDIAC ARREST (OHCA)	
30k+ UK OHCAs/year; less than 10% survival	BHF UK estimate - volumes and survival rates are only routinely published for England NHS England (2022) Ambulance Quality Indicators (www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/) Scottish Government (2020) Out-of-Hospital Cardiac Arrest Data Linkage 2018/19 Results (https://news.gov.scot/resources/ohca-report-2018-19) Wales: Welsh Government (2017) Out of Hospital Cardiac Arrest Plan (https://gov.wales/out-hospital-cardiac-arrest-plan) ~ also press release (2021) (https://gov.wales/lifesaving-programme-given-cash-boost-keep-going-welsh-government) DHNI (2014) Community Resuscitation Strategy Northern Ireland (www.health-ni.gov.uk/publications/community-resuscitation-strategy-and-reports)
Every min & CPR more than doubles survival Public-Access Defibrillator use	Resuscitation Council (2021) Resuscitation Guidelines 2021 www.resus.org.uk/library/2021-resuscitation-guidelines see also University of Warwick (2021), Out-of-Hospital Cardiac Arrest Outcomes Registry Epidemiology Report https://warwick.ac.uk/fac/sci/med/research/ctu/trials/ohcao/publications/epidemiologyreports/

STATISTIC	REFERENCE
CONGENITAL HEART DISEASE	
1:150 babies diagnosed; ranking #1, mortality	BHF UK estimates based on Office for Health Improvement & Disparities (OHID) (2021) NCARDRS congenital anomaly statistics: 2019 data http://www.gov.uk/government/publications/ncardrs-congenital-anomaly-annual-data
1-2% prevalence	various estimates including Hoffman & Kaplan, JACC –19 per 1,000 includes BAVs which will eventually need cardiologic care (www.sciencedirect.com/science/article/pii/S0735109702018867)
survival comparison (pre-BHF/today)	MacMahon BMJ (http://heart.bmj.com/content/heartjnl/15/2/121.full.pdf) and British Cardiac Society https://heart.bmj.com/content/88/suppl_1/i1
INHERITED (GENETIC) CONDITIONS	
340k inherited heart conditions; 620k UK with faulty gene	BHF UK estimate derived from PHG Foundation, *Heart to Heart: inherited cardiovascular conditions services* (2009); updated to reflect revised prevalence estimates – see Wald et al (FH - 2016; below) and Tayal & Prasad (DCM - 2017) NB only one third of the burden of dilated cardiomyopathy (DCM) is thought to be inherited – that proportion is included here
1:250 with familial hypercholesterolaemia (FH)	NB average recent prevalence estimate is 1:250 but our preferred reference reports 1:273 Wald et al, NEJM 2016 (www.nejm.org/doi/full/10.1056/NEJMoa1602777)
1:500 with hypertrophic cardiomyopathy (HCM)	Priori et al, Task Force on Sudden Cardiac Death ESC (http://eurheartj.oxfordjournals.org/content/ehj/22/16/1374.full.pdf)
sudden cardiac deaths under-35s	Cardiac Risk in the Young (www.c-r-y.org.uk/statistics)
RISK FACTORS	
High Blood Pressure	
High blood pressure (hypertension)	BHF analysis of UK surveys (NHS Digital/ Scottish Government/StatsWales/DH Northern Ireland) and ONS UK population estimates
Diagnosed hypertension (primary care)	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland
High BP/CVD risk	Vasan et al NEJM 2001 (www.ncbi.nlm.nih.gov/pubmed/11794147/)
Linked conditions: Around 50% of heart attacks and strokes are associated with high blood pressure	Global Burden of Disease (GBD) UK risk burden estimate 2019 (also #1 modifiable risk factor)
Diabetes	
4.1m adults diagnosed with diabetes	BHF analysis of QOF/QAIF/GP prevalence data 2018-19 > 2021/22; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland
4.9m+ estimated prevalence; undiagnosed estimate	Diabetes UK (2021) www.diabetes.org.uk/professionals/position-statements-reports/statistics
Linked conditions: Adults with diabetes are 2-3 times more likely to develop CVD, and are nearly twice as likely to die from heart disease or stroke	www.ncbi.nlm.nih.gov/pubmed/20609967 www.ncbi.nlm.nih.gov/pmc/articles/PMC2809299/ www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60484-9/fulltext see also NDA link below for angina, MI and heart failure risk
Linked conditions: In the UK, one third of adults with diabetes die from a heart or circulatory disease	National Diabetes Audit, Complications and Mortality, Report 2a, 2017-18 https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/report-2--complications-and-mortality-2017-18

STATISTIC	REFERENCE
High Cholesterol	
Raised cholesterol; statins	BHF estimates - analysis of latest UK health surveys (Scottish Government, NHS Digital)
Mortality risk (LDL cholesterol)	Global Burden of Disease, 2019 UK estimates
Air Pollution	
11k heart and circulatory disease deaths per year attributable to particulate matter pollution	WHO (2018) Global Health Observatory – air pollution deaths by country (2016 estimates) – https://apps.who.int/gho/data/node.main.BODAMBIENTAIRDTHS?lang=en *NB* GBD 2019 has a lower estimate for the UK *also* COMEAP 2018: contributes to all mortality with equivalent impact = 28-36k deaths https://www.gov.uk/government/collections/comeap-reports
Other Risk Factors	
80k/15k smoking deaths/CVD	BHF UK estimates based on OHID (PHE) Local Tobacco Profiles plus Scottish Government, NHS Wales & NI Direct sources *NB* Global Burden of Disease (GBD) 2019 has higher estimates for the UK – 125k attributable deaths including 29k from heart and circulatory diseases
Mortality and high body-mass index (BMI)	Global Burden of Disease (GBD) 2019 UK estimates
Obesity, physical activity (PA), 5-a-day, alcohol	BHF analysis of UK health surveys (NHS Digital/Scottish Government/Welsh Government/DH Northern Ireland/NISRA) (PA) England = OHID 2020/21 (based on the Active Lives Adult Survey, Sport England) NB most recent surveys have been carried out with changed methodology because of the COVID-19 pandemic; many of these stats are not cited here Other series have been suspended. Please refer to original sources for more information
Physical inactivity risk	Office for Health Improvement & Disparities (OHID; formerly PHE) Fingertips https://fingertips.phe.org.uk/profile/physical-activity