



**British Heart
Foundation**

UK Factsheet

January 2020

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

Key Statistics

Today in the UK

<p>460 people will die from a heart or circulatory disease</p>	<p>...more than 120 people will be younger than 75</p>	<p>7.4m people are living with a heart or circulatory disease</p>
<p>280 hosp. admissions will be due to a heart attack</p>	<p>180 people will die from coronary heart disease</p>	<p>13 babes will be diagnosed with a heart defect</p>

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 that describes 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 are develop later such as coronary heart disease, atrial fibrillation, heart failure, stroke and vascular dementia.

- There are around 7.4 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 twice as many people are living with heart and circulatory diseases than with cancer and Alzheimer's disease combined.
- Heart and circulatory diseases cause more than a quarter (**27 per cent**) of all deaths in the UK; that's nearly 170,000 deaths each year - an average of **460 people each day** or one death every three minutes.
- Around 44,000 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).



7.4 million

people are living with heart and circulatory diseases in the UK

Linked conditions

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

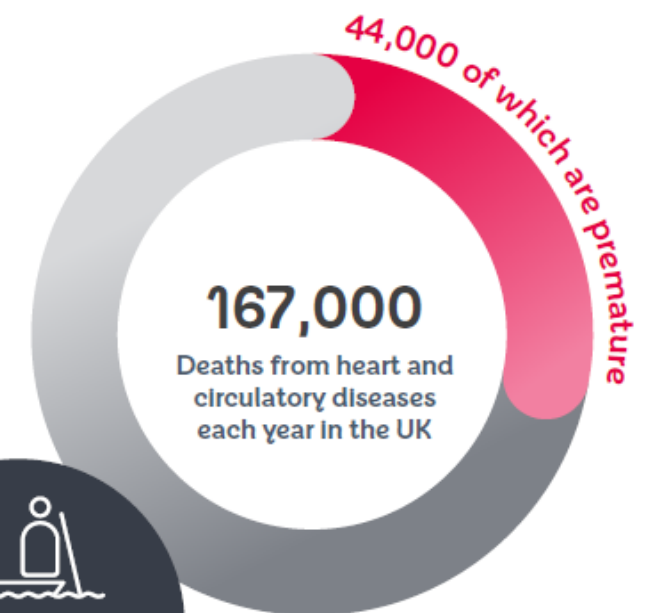
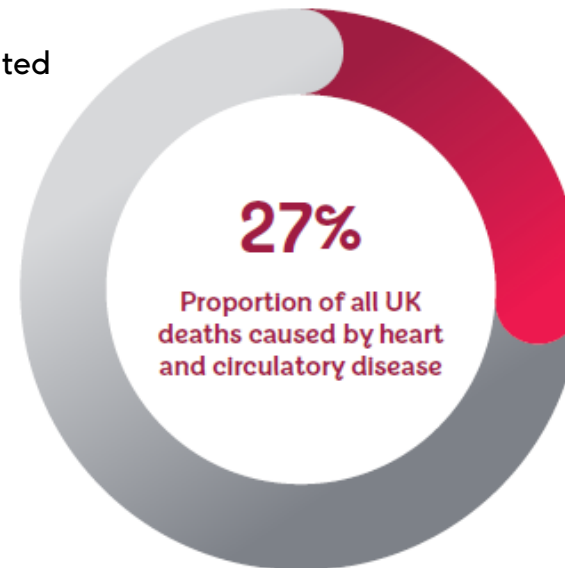


Figure 1

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

Nation	No. of People Dying from CVD (2018)	No. of People Under 75 Years Old Dying from CVD (2018)	Estimated Number of People Living with CVD (latest estimate)
England	136,317	35,581	6.15 million
Scotland	17,002	4,675	720,000
Wales	9,376	2,607	340,000
Northern Ireland	3,938	1,085	225,000
United Kingdom	167,116	44,261	7.4 million

Deaths - BHF analysis of latest official statistics (ONS/NISRA/NRS); UK total includes non-residents (ONS 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 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) death rate for Glasgow City (144 per 100,000) is nearly 4 times higher than that for Hart in Hampshire (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 2017

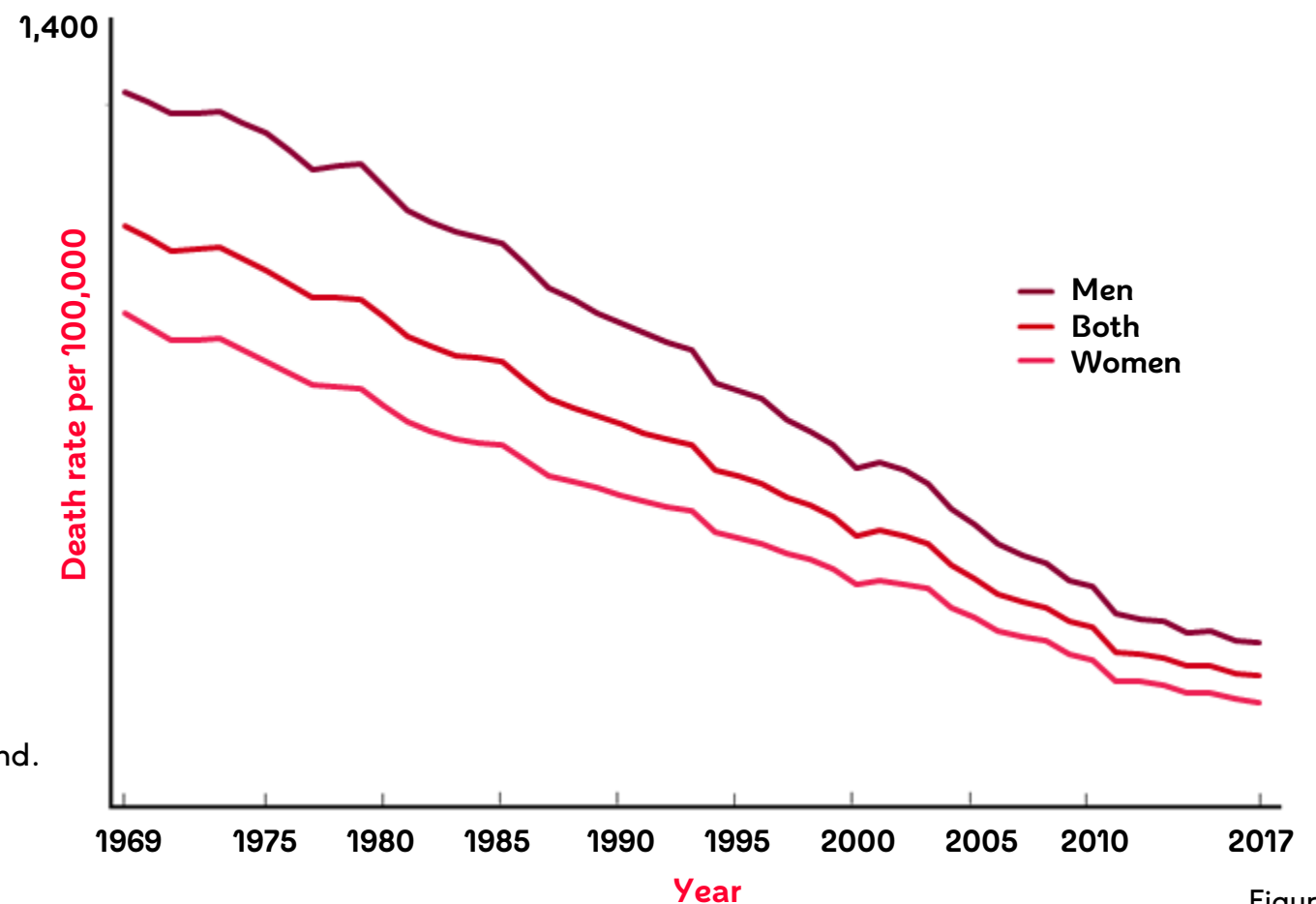


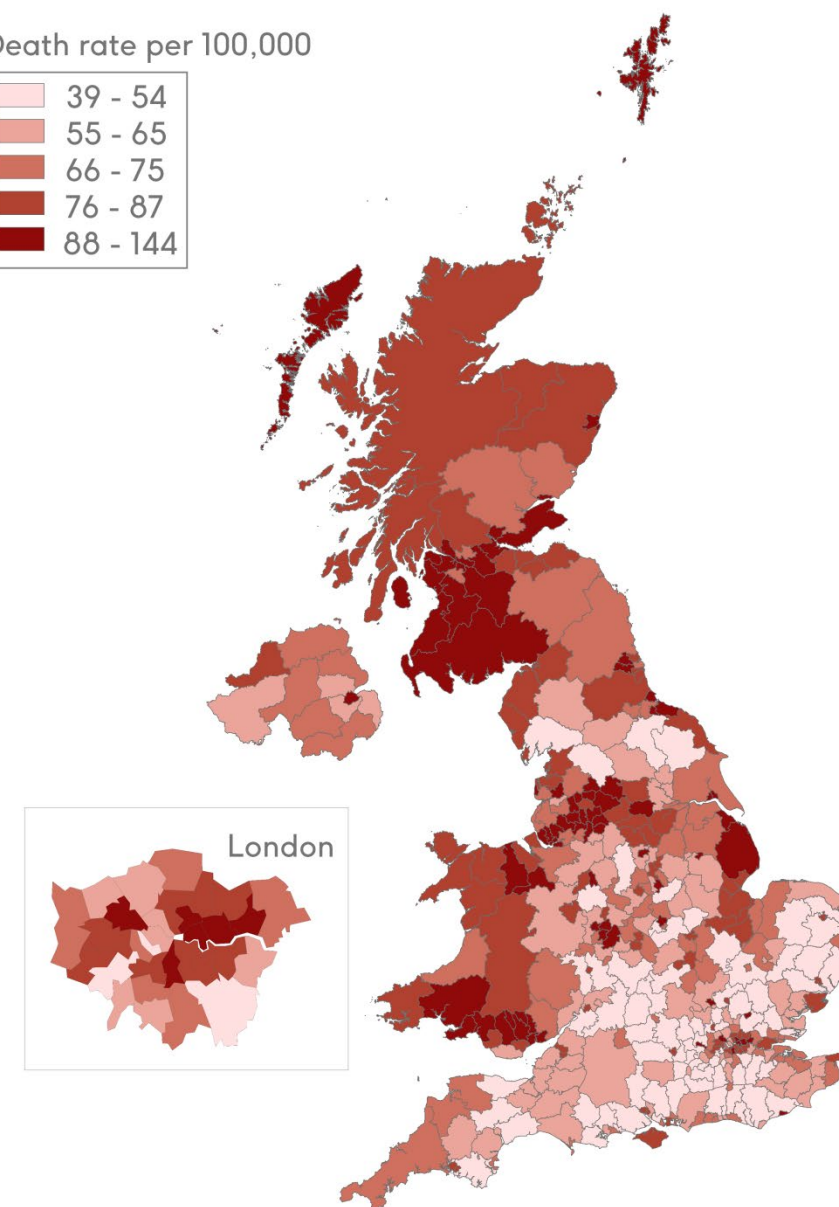
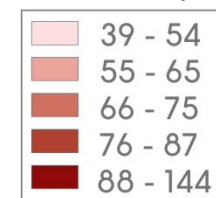
Figure 2

Top five UK premature heart & circulatory disease (CVD) death rates 2015-17

Local Authority	Location	Under 75 Death Rate per 100,000 Population	Under 75 Annual Number of CVD Deaths
Glasgow City	Scotland	143.7	620
Manchester	North West England	132.8	368
Blackpool	North West England	120.7	466
West Dunbartonshire	Scotland	119.3	289
Dundee City	Scotland	118.5	422

UK premature heart & circulatory disease (CVD) death rate by local authority 2015-17

Death rate per 100,000



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](#)

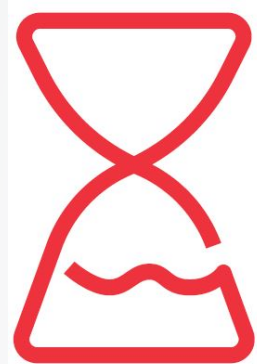
Figure 3

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 is also the **leading cause of death worldwide**.
- CHD is responsible for **around 64,000 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 seven men and one in twelve women** die from coronary heart disease.
- CHD kills more than twice as many women in the UK as breast cancer.



**Every
8 minutes**
someone in the UK
dies from coronary
heart disease

Top 10 global causes of death

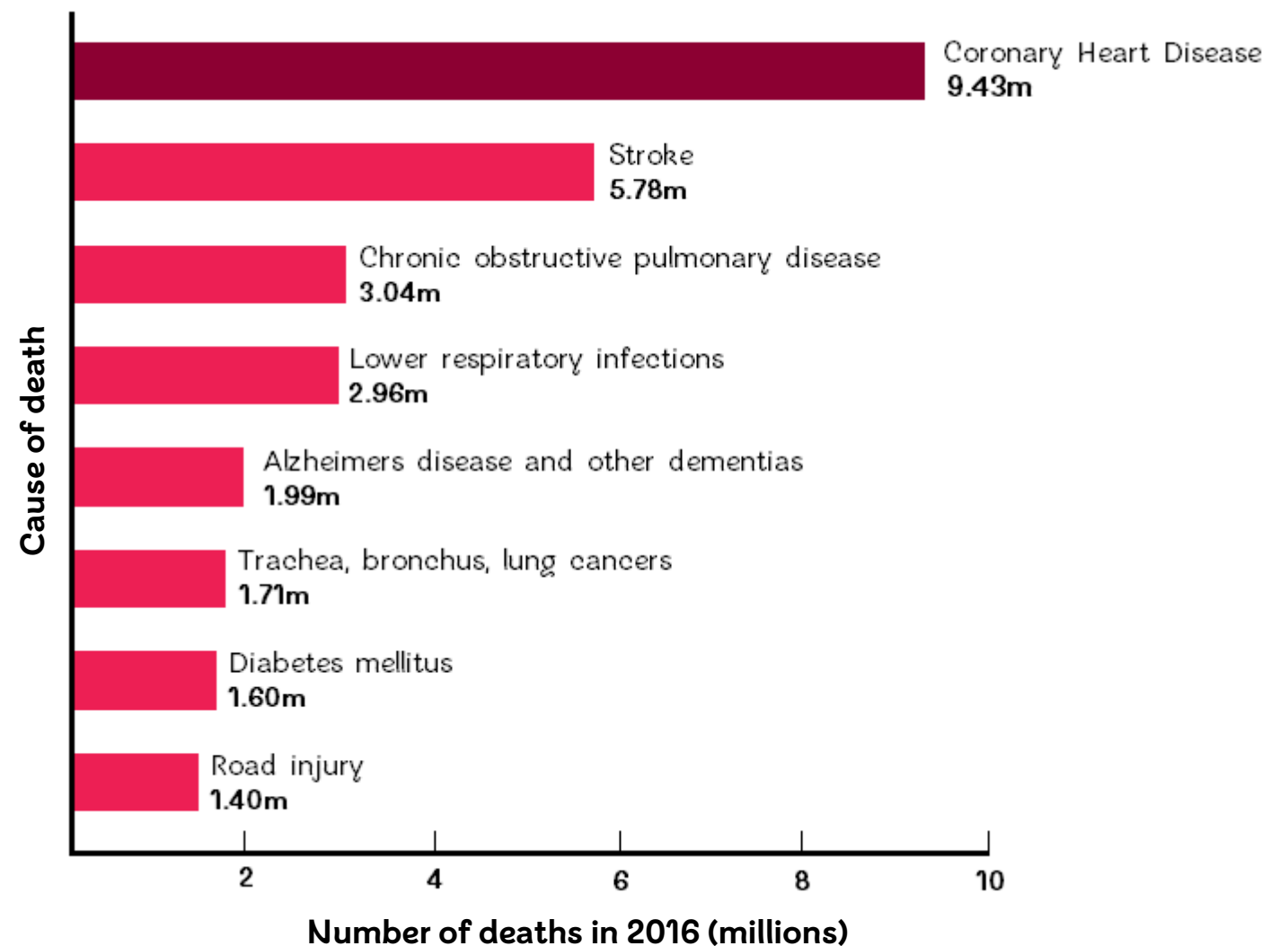


Figure 4

Key Facts

- Around **23,000** 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

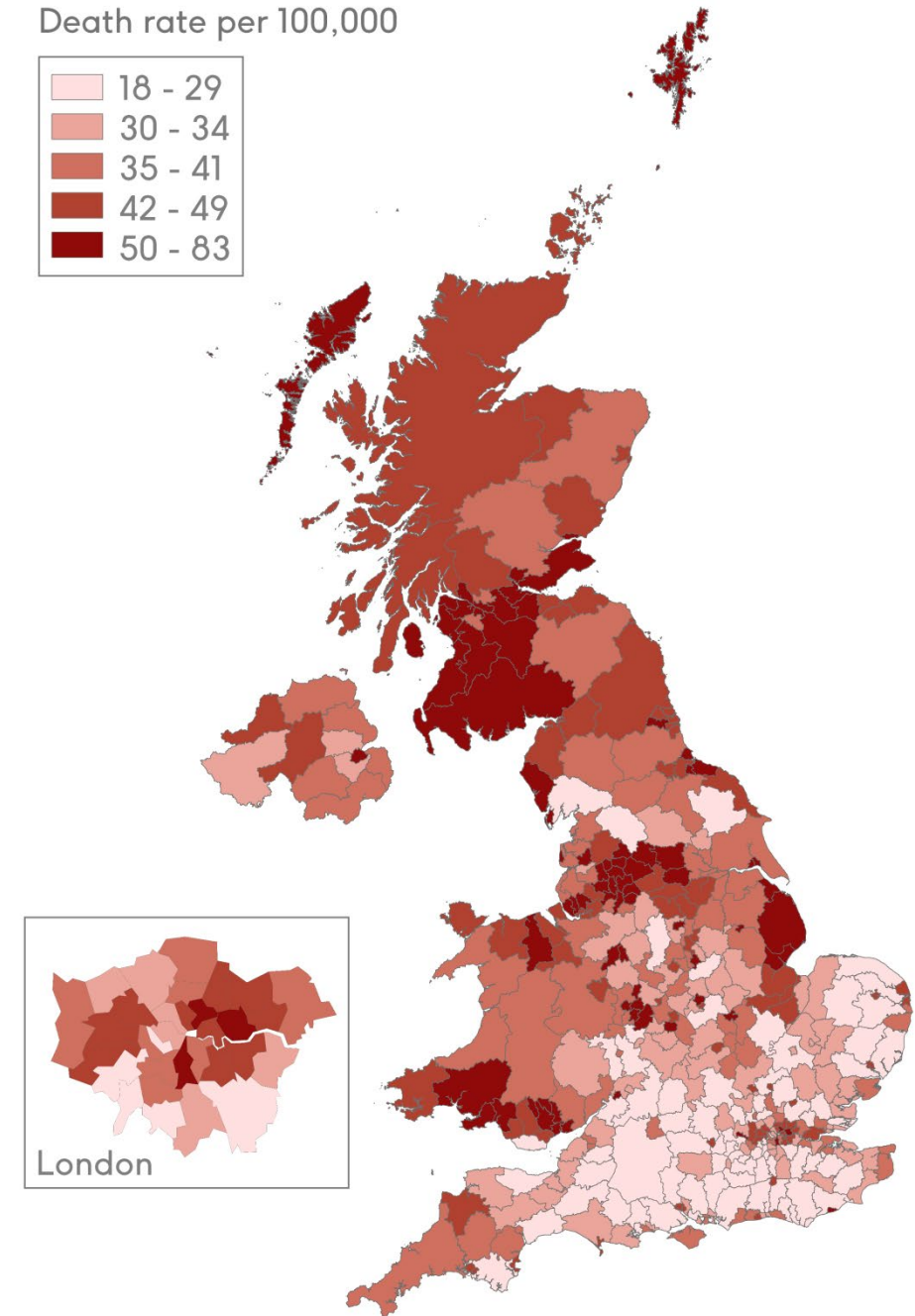
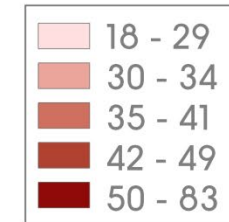
Number of people living
with coronary heart
disease in the UK

For more information
please visit:

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

UK premature CHD death rate by local authority 2015-17

Death rate per 100,000



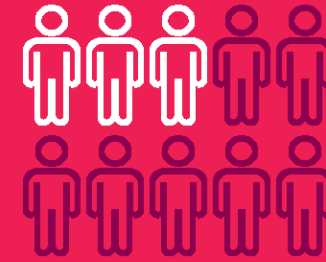
Heart Attack (Myocardial Infarction, MI)

- In the UK more than 100,000 hospital admissions each year are due to heart attacks; that's 280 admissions each day or **1 every 5 minutes**.
- More than 200,000 UK hospital visits each year are due to heart attacks.
- 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

Atrial Fibrillation (AF)

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

- Around 1.4 million people in the UK have been diagnosed with atrial fibrillation – around 1 in 6 people are not treated effectively.
- It is estimated that there are more than 200,000 people living with undiagnosed AF 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

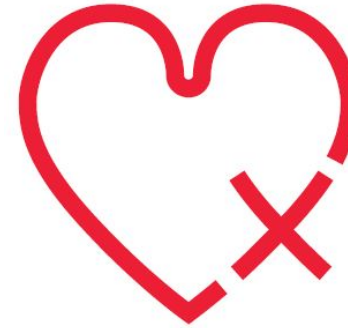
For more info
please visit:

- *Heart Attacks*
- *Atrial Fibrillation*

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.

- More than 650,000 people in the UK are on their GP's heart failure register.
- Around 80 per cent of heart failure diagnoses 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 the **fourth biggest killer** in the UK and second most common cause of death across the world.
- Strokes cause around **36,000 deaths** in the UK each year.
- There are more than **100,000 strokes** in the UK each year. That's a stroke at least every 5 minutes.
- Stroke is the single biggest cause of **severe disability** in the UK.
- Around **1.3 million** people living in the UK have survived a stroke or transient ischaemic attack (TIA).



For more info please visit:

- *Heart Failure*
- *Stroke*

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.

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 15,000 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 around 1 in 4 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)

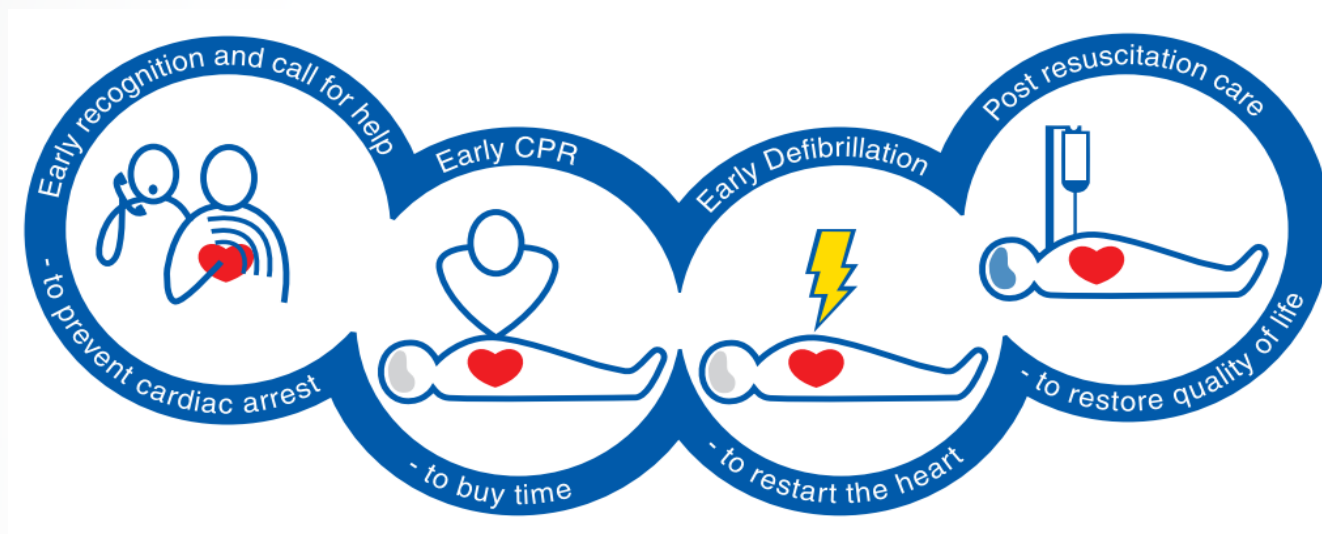
Cardiac arrest is a critical medical emergency, where the heart stops pumping blood around the body. Unless treated immediately, it leads to death within minutes.

- 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 just 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 five 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 born in the UK with a heart defect did not survive to their first birthday. Today, thanks to research, around **8 out of 10 survive** to adulthood.



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

Inherited (Genetic) Conditions

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

- They include hypertrophic cardiomyopathy (HCM; estimated 1 in 500 people) and familial hypercholesterolaemia (FH; 1 in 250).
- It's estimated that around **620,000 people** in the UK have a faulty gene which puts them at an unusually high risk of developing heart disease or dying suddenly at a young age.
- In the UK it is estimated that at least 12 young people (aged under 35) die every week 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.

For more info please visit:

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



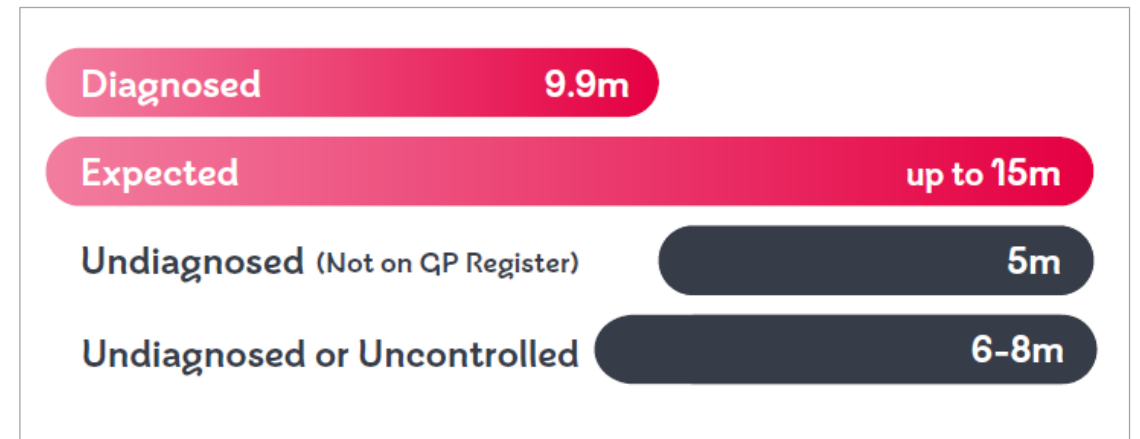
Around 620,000 people in the UK have a faulty gene that can cause an inherited heart-related condition

Medical 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 risk factor for heart and circulatory disease in the UK
- An estimated 28% of adults in the UK have high blood pressure – that's around 15 million adults - more than half of them are not receiving effective treatment.
- Nearly 10 million people in the UK have been diagnosed with high blood pressure by their GP – this means as many as 5 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% of heart attacks and strokes are associated with high blood pressure

For more info, visit:

> [High BP](#)

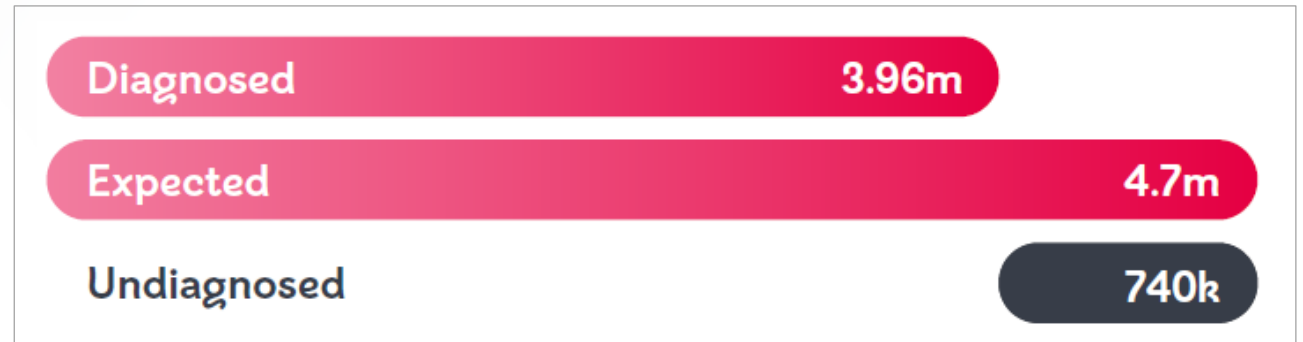
Around **50%** of heart attacks and strokes are associated with high blood pressure

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

- More than 3.9 million adults in the UK have been diagnosed with diabetes
- Around 4.7 million people are living with diabetes in the UK
- It's estimated that as many as 740,000 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	3.34 million
Scotland	320,000
Wales	200,000
Northern Ireland	100,000
UK	3.96 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 Blood Cholesterol

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

- 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



Air Pollution

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

Other Risk Factors

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

- Age
- Gender
- Mental health
- Family history
- Ethnicity

Lifestyle Risk Factors

Modifiable risk factors (e.g. cigarette smoking, physical inactivity and poor diet) contribute significantly to the risk of CVD.

Smoking

- At least 1 in 7 adults smoke cigarettes in the UK – that's around 8 million adults.
- Nearly 100,000 smokers in the UK die from smoking-related causes each year.
- It's estimated that up to 20,000 deaths in the UK each year from heart and circulatory diseases can be attributed to smoking.



At least
1 in 7
adults smoke
in the UK



27%
of adults in the
UK are obese

Overweight/Obesity

- Around 27 per cent of adults in the UK are obese (BMI over 30) and in addition more than a third (35%) are overweight (BMI 25-30)
- It's estimated that 29 per cent of children in the UK are defined as overweight or obese (using BMI).

Diet and Exercise

- Only around a quarter of UK adults and one in six children in England and Scotland 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 a third of adults in the UK (37 per cent) do not achieve recommended levels of physical activity (150 minutes each week).



37%
of adults in the UK do not meet
physical activity recommendations

You can reduce your risk of developing heart and circulatory disease by as much as 35% by being more active

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, treatment and cure. 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 CVD Statistics

Including exclusive content, local statistics and maps
Visit [our website](https://bhf.org.uk)

This factsheet is compiled by the British Heart Foundation.
Last reviewed and updated January 2020.

Statistics are the latest available from the UK's health and statistical agencies.
For any queries, please [contact us](#) and we will do our best to help.

Factsheets are also available for England, Scotland, Wales and Northern Ireland.

bhf.org.uk/donate



BIGGEST
independent funder
of heart and circulatory
disease research in the UK

References

STATISTIC	REFERENCE
HEART AND CIRCULATORY DISEASES (CARDIOVASCULAR DISEASE; CVD)	
CVD deaths, men/women - Figure 1: CVD deaths	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2018 data)
CVD ASDRs (death rates)	BHF/University of Birmingham calculated rates in partnership with UK statistical agencies: ONS/NRS/NISRA (2015-17 data)
Numbers living with CVD	BHF estimate based on latest Quality & Outcomes Framework prevalence data; NHS Digital/ISD Scotland/StatsWales/DH Northern Ireland and health surveys with CVD fieldwork; NHS Digital/Scottish Government/ StatsWales/ DH Northern Ireland
Figure 2: CVD death rates	BHF/University of Birmingham calculated rates in partnership with UK statistical agencies: ONS/NRS/NISRA (2015-17 data)
Figure 3: UK premature CVD death rates by LA	BHF/University of Birmingham calculated rates in partnership with UK statistical agencies: ONS/NRS/NISRA (2015-17 data)
£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)
<i>Linked conditions:</i> 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. <i>PLoS Med.</i> 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, biggest killer worldwide	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2018 data) World Health Organization, <i>The Top 10 Causes of Death 2016</i>
Figure 4: Top 10 global causes of death	World Health Organization, 2018, http://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death
CHD ASDRs (death rates)	BHF/University of Birmingham calculated rates in partnership with UK statistical agencies: ONS/NRS/NISRA (2015-17 data)
2.3m living with CHD	Quality & Outcomes Framework prevalence data 2018/19; NHS Digital/ISD Scotland/StatsWales/DH Northern Ireland
HEART ATTACK (MYOCARDIAL INFARCTION, MI)	
100k heart attack hospital admissions, 200k visits	UK hospital statistics, 2018-19; NHS Digital/ISD Scotland/NHS Wales/DH Northern Ireland
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)	
1.4m UK diagnosed with AF ~ undiagnosed	Quality & Outcomes Framework prevalence data 2018-19; NHS Digital/ISD Scotland/StatsWales/DH Northern Ireland ~ [undiagnosed] BHF analysis of PHE prevalence estimates (2019) and diagnosed data (QOF 2018/19)
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. https://www.ncbi.nlm.nih.gov/pubmed/15879330
Contributor to 1 in 5 strokes	Royal College of Physicians Sentinel Stroke National Audit Programme (SSNAP). National clinical audit annual results portfolio March 2016-April 2017. Available: http://bit.ly/1NHylqH

STATISTIC	REFERENCE
HEART FAILURE (HF)	
600k+ diagnosed by GP	Quality & Outcomes Framework prevalence data 2018-19; NHS Digital/ISD Scotland/StatsWales/DH Northern Ireland
Higher estimate including hospital diagnoses, 200k diagnoses	Conrad, N; Judge, A, Tran, J et al. Temporal trends and patterns in heart failure incidence: a population-based study of 4 million individuals, <i>The Lancet</i> , 2018; 391, 10120 http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32520-5/fulltext?elsca1=tlpr
80% diagnoses in hospital	Bottle et al (2018) Routes to diagnosis of heart failure (England). <i>Heart</i> . https://heart.bmj.com/content/104/7/600
STROKE (CEREBROVASCULAR DISEASE, CBVD)	
36k UK stroke deaths, UK #4, worldwide #2	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2018 data); World Health Organization, <i>The Top 10 Causes of Death</i> (see Fig 4)
100k+ strokes/ year	Stroke Association estimate for UK based on SSNAP audit data
#1 severe disability	Stroke Association (2018) State of the nation: Stroke statistics. https://www.stroke.org.uk/system/files/sotn_2018.pdf
1.3m UK stroke/TIA survivors	Quality & Outcomes Framework prevalence data 2018-19; NHS Digital/ISD Scotland/StatsWales/DH Northern
<i>Linked conditions:</i> CHD or heart attack more than twice as likely to have a stroke	http://stroke.ahajournals.org/content/22/8/983
<i>Linked conditions:</i> People with heart failure are 2-3 times more likely to have a stroke.	http://stroke.ahajournals.org/content/42/10/2977
<i>Linked conditions:</i> People with diabetes are twice as likely to have a stroke as people without diabetes	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5298897/
VASCULAR DEMENTIA	
15k+ UK deaths; underestimate/diagnoses	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2018 data) Alzheimer's Society https://www.alzheimers.org.uk/about-dementia/types-dementia/diagnosis-vascular-dementia
dementia types	Alzheimer's Society https://www.alzheimers.org.uk/about-us/policy-and-influencing/what-we-think/demography
150k prevalence	Alzheimer's Society https://www.alzheimers.org.uk/sites/default/files/pdf/factsheet_what_is_vascular_dementia.pdf
350k forecast	Alzheimer's Society https://www.alzheimers.org.uk/news/2018-04-12/third-all-stroke-survivors-could-develop-dementia-within-five-years
<i>Linked conditions:</i> People with family history of coronary heart disease (atherosclerosis)	[for heart attack] https://www.ahajournals.org/doi/full/10.1161/circulationaha.117.029127 [for atherosclerosis] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2924456/
<i>Linked conditions:</i> ¾ cases in stroke survivors	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3235558/
<i>Linked conditions:</i> People with diabetes are 2-3 times more likely to develop vascular dementia	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2174783/
CONGENITAL HEART DISEASE	
1:150 babies diagnosed; ranking #1, mortality	BHF UK estimates based on Public Health England (2019) NCARDRS congenital anomaly statistics: 2017 data www.gov.uk/government/publications/ncardrs-congenital-anomaly-annual-data
survival comparison (pre-BHF/today)	MacMahon BMJ (http://heart.bmj.com/content/heartjnl/15/2/121.full.pdf) and Wren & O'Sullivan, BMJ http://heart.bmj.com/content/85/4/438.long)
1-2% prevalence	various estimates including Hoffman & Kaplan, <i>JACC</i> –19 per 1,000 includes BAVs which will eventually need cardiologic care (www.sciencedirect.com/science/article/pii/S0735109702018867)

STATISTIC	REFERENCE
INHERITED (GENETIC) CONDITIONS	
620k UK with faulty gene	BHF UK estimate derived from PHG Foundation, <i>Heart to Heart: inherited cardiovascular conditions services</i> (2009); updated to reflect revised FH/DCM prevalence estimates
1:250 with familial hypercholesterolaemia (FH)	NB average recent prevalence is 1:250 but our preferred reference reports 1:273 Wald et al, NEJM 2016 (https://www.nejm.org/doi/full/10.1056/NEJMoal602777)
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)
OUT-OF-HOSPITAL CARDIAC ARREST (OHCA)	
30k+ UK OHCA/year, 10% survival	BHF UK estimate - volumes and survival rates are only routinely published for England and Scotland NHS England (2018). Ambulance Quality Indicators (www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/) Scottish 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/docs/dhss/publications/170629cardiac-planen.pdf) DHNI, Community Resuscitation Strategy Northern Ireland, 2014 (www.health-ni.gov.uk/publications/community-resuscitation-strategy-and-reports)
Every min & CPR more than doubles survival Public-Access Defibrillator use	European Resuscitation Council, Guidelines for Resuscitation 2015 (https://cprguidelines.eu/) University of Warwick (2018), Out-of-Hospital Cardiac Arrest Outcomes Registry Epidemiology Report, 2017 https://warwick.ac.uk/fac/sci/med/research/ctu/trials/ohcao/publications/epidemiologyreports/
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
High BP/CVD risk	Vasan et al NEJM 2001 (www.ncbi.nlm.nih.gov/pubmed/11794147/)
<i>Linked conditions:</i> Around 50% of heart attacks and strokes are associated with high blood pressure	Global Burden of Disease (GBD) UK risk burden estimate 2017 (also #1 risk factor)
Diabetes	
3.96m adults diagnosed with diabetes	Quality & Outcomes Framework prevalence data 2018/19; NHS Digital/ StatsWales/DH Northern Ireland (NI 2018/19) and estimates based on Scottish Health Survey 2018 data
4.7million estimated prevalence; undiagnosed estimate	Diabetes UK https://www.diabetes.org.uk/about_us/news/new-stats-people-living-with-diabetes ; BHF estimate
<i>Linked conditions:</i> 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	https://www.ncbi.nlm.nih.gov/pubmed/20609967 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2809299/ https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60484-9/fulltext
<i>Linked conditions:</i> 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
Other Risk Factors	
Raised cholesterol; statins	BHF estimates - analysis of latest UK health surveys (Scottish Government, NHS Digital)
100k/20k smoking attributable CVD deaths	Statistics on Smoking, England – 2019; NHS Digital https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-smoking/statistics-on-smoking-england-2019
Obesity, physical activity, 5-a-day, alcohol	BHF analysis of UK health surveys (NHS Digital/Scottish Government/Welsh Government/DH Northern Ireland/NISRA)
Physical inactivity risk	Public Health England Fingertips https://fingertips.phe.org.uk/profile/physical-activity
11k heart and circulatory disease deaths per year attributable to particulate matter pollution	Global Burden of Disease (GBD) 2017 UK mortality estimate for particulate matter pollution (PM2.5) <i>also</i> COMEAP 2018: contributes to all mortality with equivalent impact = 28-36k deaths https://www.gov.uk/government/collections/comeap-reports
Air pollution deaths global – around half of all global deaths related to outdoor air pollution are caused by a heart or circulatory disease	Global Burden of Disease (GBD) global 2017 estimate, 45% of particulate matter pollution mortality burden is cardiovascular http://ghdx.healthdata.org/gbd-results-tool