



**British Heart  
Foundation  
Cymru**

# **Wales Factsheet**

September 2024

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

# This month in Wales

**800**  
people will die  
from a heart or  
circulatory disease ...

... around  
**230** of them  
will be  
younger  
than **75**

**340k**  
people are living  
with a heart or  
circulatory disease

**420**  
hospital admissions  
will be due to a  
heart attack

**330**  
people will die  
from coronary  
heart disease

**16**  
babies will be  
diagnosed with  
a heart defect

## Quick Links

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

# 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.

- Heart and circulatory diseases cause more than **one in four** (27 per cent) of all deaths in Wales, or around **9,600 deaths each year** - that's an average of 26 people each day.
- Heart and circulatory diseases kill 5,200 men and 4,400 women in Wales each year.
- Since the BHF was established the annual number of heart and circulatory deaths in Wales has fallen by half.
- Since 1961 the Welsh death rate from heart and circulatory diseases has **declined by three quarters**. Death rates have fallen more quickly than the actual number of deaths because people in Wales are now living longer.
- **Around 2,700 people** under the age of 75 in Wales die from heart and circulatory diseases (CVD) each year.
- There are around **340,000 people living** with heart and circulatory diseases in Wales - an ageing and growing population and improved survival rates from heart and circulatory events could see these numbers rise still further in the future.



Around  
**340,000**  
people are living with heart and circulatory diseases in Wales

## Linked conditions

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

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

Nation	No. of People Dying from CVD (latest)	No. of People Under 75 Years Old Dying from CVD (latest)	Estimated Number of People Living with CVD (latest estimate)
WALES (2022)	9,565	2,734	340,000
England (2022)	142,638	39,112	6.4 million
Scotland (2023)	17,787	5,313	730,000
Northern Ireland (2022)	4,079	1,131	225,000
UK total (latest)	174,594	48,662	7.6 million +

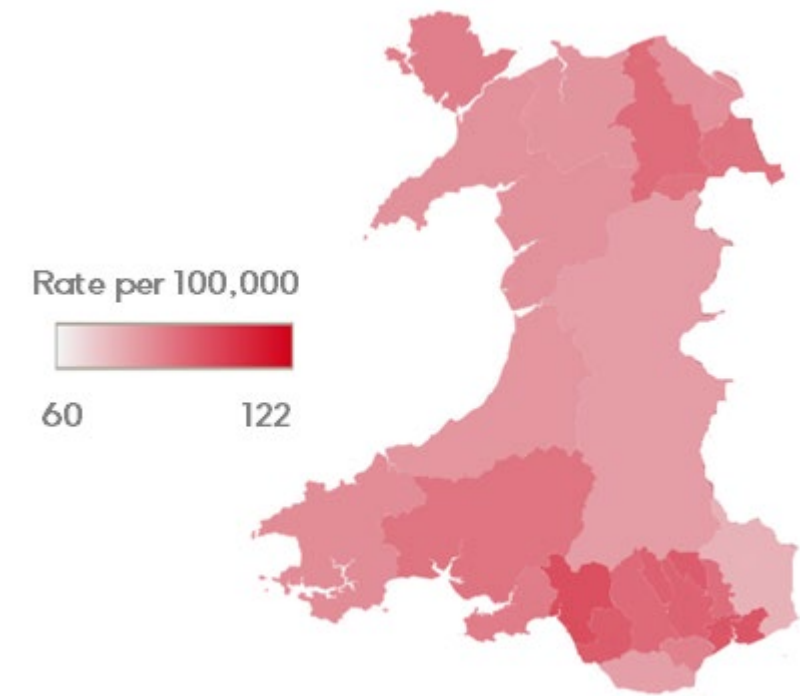
Deaths - BHF analysis of latest official statistics (ONS/NISRA/NRS); UK total includes non-residents (ONS data); ICD-10 codes I00-99, F01,Q20-8, C38.0, P29, G45  
Living with CVD estimates based on latest health surveys with CVD fieldwork and GP patient data

- Premature death rates from heart and circulatory diseases (before the age of 75) are higher than in England.
- Death rates take the age structure (demography) of local areas into account to reveal the real differences in statistics. This is especially important when there are big variations in the age profile of communities across the country.
- The highest premature heart and circulatory death rates in Wales by local authority (2020-22) were for Merthyr Tydfil and Blaenau Gwent.
- The latest premature (under 75) death rate for Blaenau Gwent (122 per 100,000 people) is twice as high as for Monmouthshire (Sir Fynwy) (61).
- Regional and local statistics and rankings for heart and circulatory deaths can be found in the compendium on [our website](#)

## Wales premature (under 75 years) heart & circulatory diseases (CVD) death rates 2020-22

Unitary Authority – Top Five	Under 75 Death Rate per 100,000 people	Under 75 Annual Number of CVD Deaths
Blaenau Gwent	121.8	79
Merthyr Tydfil / Merthyr Tudful	115.8	62
Neath Port Talbot / Castell-nedd Port Talbot	107.6	148
Newport / Casnewydd	106.3	140
Swansea / Abertawe	104.8	229

## Premature heart & circulatory disease (CVD) death rate by local authority 2020-22



## Cost of Heart and Circulatory Diseases

- Total NHS expenditure on heart and circulatory diseases (CVD) in Wales each year is estimated at £770 million.
- CVD's overall cost to the Welsh economy (including premature death, long-term care, disability and informal costs) is estimated to be £1.6 billion each year.

# Coronary Heart Disease (CHD; Ischaemic Heart Disease)

Coronary heart disease (CHD) is the most commonly diagnosed type of heart 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).

- More than 110,000 people are living with CHD in Wales
- Coronary heart disease (CHD) is the single biggest killer in Wales. It is also the leading causes of death worldwide.
- CHD is responsible for around 3,900 deaths in Wales each year; that's an average of 11 deaths each day, or one death every 130 minutes.
- CHD kills 2,600 men and 1,300 women in Wales each year.
- Since the BHF was established the annual number of CHD deaths in Wales has fallen by more than half.
- In 1961, 9,082 deaths in Wales were attributed to CHD – over a quarter of all deaths that year.
- Since 1961 the age-standardised death rate from CHD has declined by more than three quarters.
- CHD kills more than twice as many women as breast cancer in Wales; it even kills more women prematurely (before the age of 75).
- Around 1,500 people under the age of 75 in Wales die from CHD each year.
- Coronary heart disease is the leading cause of heart attacks.

## Linked conditions

- Individuals with coronary heart disease, or who have had a heart attack, are **twice as likely** to have a **stroke** as those who haven't.

For more info please visit:

➤ *Coronary Heart Disease*



More than  
**110,000**  
people are living with  
coronary heart  
disease in Wales

## Heart Attack (Myocardial Infarction, MI)

- In Wales around **5,000 hospital admissions** each year are for heart attacks: that's an average of 14 each day or one around every 100 minutes.
- In the 1960s more than seven out of ten heart attacks in the UK were fatal. Today more than **seven out of ten people survive**.



**Every 100 minutes** someone in Wales is admitted to hospital due to a heart attack

## Atrial Fibrillation (AF)

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

- More than 80,000 people in Wales have been diagnosed with atrial fibrillation.
- It is estimated that there are at least 15,000 people aged over 65 with undiagnosed (or silent) atrial fibrillation in Wales.

### Linked conditions

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

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 42,000 people in Wales have been diagnosed with heart failure by their GP.
- Estimates which include diagnoses at hospital suggest that there are thousands more people living with the condition across the country.



More than **42,000** people in Wales have been diagnosed with heart failure by their GP

# Stroke (Cerebrovascular Disease)

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 causes around 1,700 deaths in Wales each year.
- In Wales around 7,000 hospital admissions are due to stroke each year.
- Over 70,000 people living in Wales have survived a stroke or transient ischaemic attack (TIA).
- More than half of stroke survivors in Wales are under the age of 75.

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 as people without diabetes

# 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 hundreds of deaths each year in Wales – 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 **180,000** people in the UK.

## Linked conditions

- People with a history of heart diseases are at least **twice as 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*





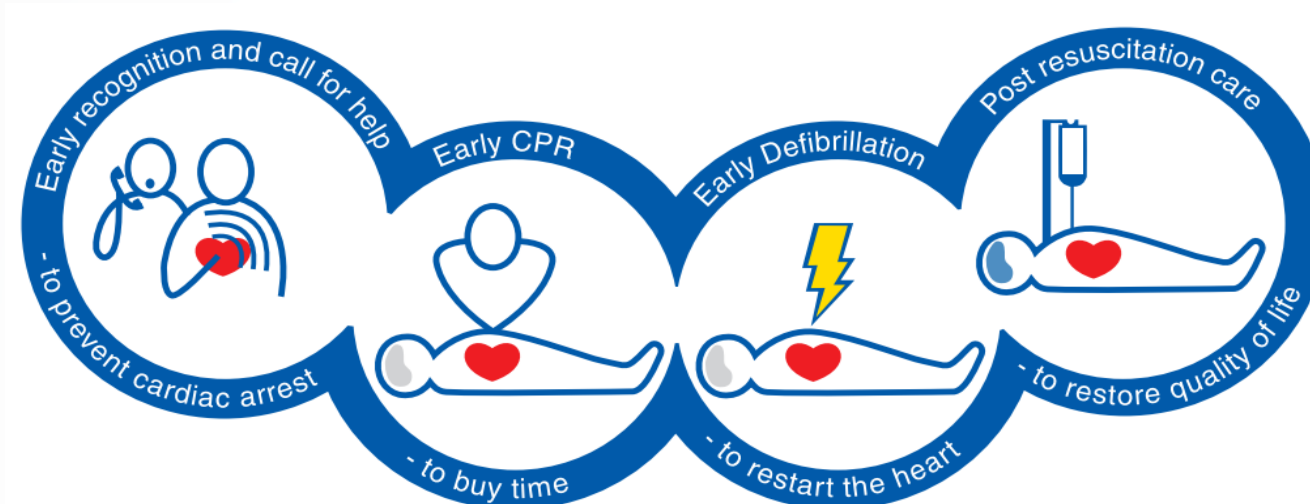
# Out-of-Hospital Cardiac Arrest (OHCA)

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.

- Just 1 in 20 survive an out-of-hospital cardiac arrest (OHCA) in Wales.
- There are around 2,800 out-of-hospital cardiac arrests in Wales each year.
- Every minute without cardiopulmonary resuscitation (CPR) and defibrillation reduces the chance of survival by up to 10 per cent.
- Early CPR and defibrillation can **more than double** the chances of survival.
- It's estimated that public-access defibrillators (PADs) are used in less than 10 per cent of OHCA's in the UK.
- The Chain of Survival (below) is a sequence of steps that together maximise the chance of survival following cardiac arrest.



There are around **2,800** out-of-hospital cardiac arrests in Wales 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 around 1 in 150 births - that's an average of **16 babies each month** in Wales - with more diagnoses later in life.
- Estimates suggest that in total as many as 1-2 per cent of the population may be affected.
- 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 **eight out of ten survive** to adulthood.

# Inherited (Genetic) Conditions

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

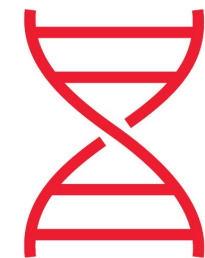
- An estimated 16,000 people in Wales have an inherited heart condition - these include hypertrophic cardiomyopathy (HCM; 1 in 500 people), dilated cardiomyopathy (DCM) and arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/ARVC).
- There are other conditions which can affect the heart and 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 13,000 people).
- Each 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 **16 babies** a month are diagnosed with a congenital heart defect in Wales

For more info please visit:

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



Around **30,000** people in Wales have a faulty gene that can cause an inherited heart-related condition

## Risk Factors

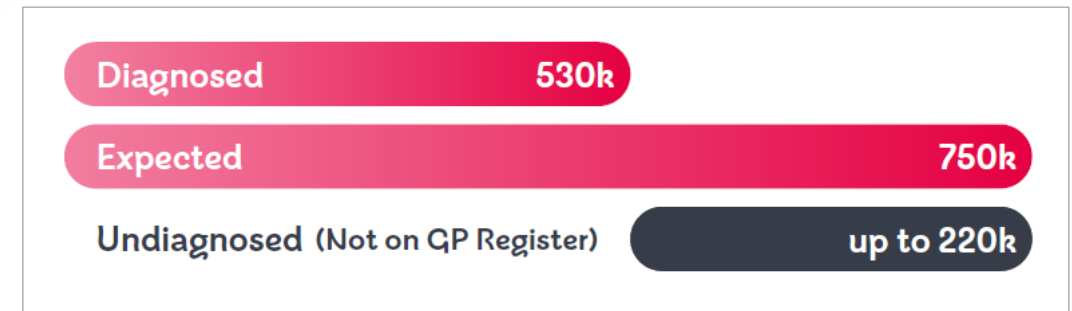
Many different risk factors increase your likelihood of developing heart and circulatory diseases.

### High Blood Pressure (Hypertension)

- High blood pressure is the leading modifiable risk factor for heart and circulatory diseases in Wales.
- It's estimated that around 750,000 adults in Wales have high blood pressure.
- Around 530,000 people in Wales are on their GP's hypertension register, suggesting that as many as 220,000 could be undiagnosed.

#### Linked conditions

- More than **half** of heart attacks and strokes in Wales are associated with high blood pressure



More than **50%** of heart attacks and strokes are associated with high blood pressure in Wales

## 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 an important risk factor for CVD.

- More than 220,000 adults in Wales have been diagnosed with 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.
- It's estimated that thousands more people across Wales are likely to have undiagnosed type 2 diabetes.

## High Cholesterol

- High blood cholesterol is a significant risk factor for developing heart and circulatory diseases.
- It's estimated that **1 in 5 deaths** from heart and circulatory diseases in Wales are associated with high LDL (low-density lipoprotein) cholesterol.

### 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 as those without diabetes
- In the UK, **one third** of adults with diabetes die from a heart or circulatory disease



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

For more information, visit our website:

- *High Blood Pressure (Hypertension)*
- *High Cholesterol*
- *Diabetes*

## Smoking

- **At least one in eight** (13 per cent) of adults in Wales smoke cigarettes - that's more than 320,000 adults.
- Around **5,000** people in Wales die from smoking-related causes each year.
- Nearly **900 Welsh** deaths from heart and circulatory diseases can be attributed to smoking each year.
- Over **26,000 hospital admissions** for adults over 35 are attributable to smoking each year.



At least  
**13%**  
of adults in  
Wales smoke



Around  
**26%**  
of adults in Wales  
have obesity

## Overweight/Obesity

- In Wales around 1 in 9 heart and circulatory disease deaths are associated with a high body-mass index.
- Over a quarter (26 per cent) of adults in Wales have obesity and in addition more than a third (35 per cent) have a body-mass index (BMI) defined as overweight.
- Around a quarter (25 per cent) of children in reception year across Wales have a BMI defined as overweight or obese.

## Diet and Exercise

- An estimated **45 per cent** of adults in Wales do not meet current physical activity recommendations (at least 150 minutes per week).
- **Only around 29 per cent** of adults in Wales consume the recommended five portions of fruit and veg per day.
- More than **one in six** adults (17 per cent) drink more than the weekly guideline amount of alcohol – but no level of consumption is without risk.

Around  
**45%**



of adults in Wales do not meet  
physical activity recommendations

## Other Risk Factors

- Poor air quality has a significant impact on heart and circulatory health. Each year at least 760 deaths in Wales are attributable to particulate matter pollution.
- Other risk factors can significantly increase your risk of developing heart and circulatory diseases, including impaired kidney function (renal failure), age, gender, family history and ethnicity.

## About the British Heart Foundation (BHF)

One in four of us in the UK and nearly 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 Wales.

Find out more at [bhf.org.uk](https://bhf.org.uk)

## More BHF Health Statistics

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

This factsheet is compiled by the British Heart Foundation.  
Last reviewed and updated September 2024.

Statistics are the latest available from Welsh and UK health and statistical agencies.

Other factsheets - Global, UK, Scotland, England, Northern Ireland.



Rydym yn ariannu **MWY** o waith ymchwil i glefydau'r galon a chylchrediad y gwaed na'r un corff annibynnol arall yng Nghymru



We are the **BIGGEST** independent funder of heart and circulatory disease research in Wales

For any queries please contact [healthinsights@bhf.org.uk](mailto:healthinsights@bhf.org.uk) and we will do our best to help

# References

STATISTIC	REFERENCE
<b>HEART AND CIRCULATORY DISEASES (CARDIOVASCULAR DISEASE; CVD)</b>	
CVD deaths (Wales) [ICD-10 codes I00-I99, C38.0, F01, G45, P29, Q20-Q28]	Nomis - Office for National Statistics (ONS; 2022) - Deaths registered by cause, gender and age, 2022 <a href="http://www.nomisweb.co.uk/datasets/mortsa">www.nomisweb.co.uk/datasets/mortsa</a>
CVD deaths/year (UK)	BHF analysis of latest UK mortality statistics: ONS/NRS/NISRA (2022 & 2023 data)
CVD prevalence (UK)	BHF estimate based on latest Quality & Outcomes Framework prevalence data; NHS England/Public Health Scotland/StatsWales/DH Northern Ireland and health surveys with CVD fieldwork; NHS England/Scottish Government/ StatsWales/ DH Northern Ireland
CVD death rates (Wales)	BHF analysis of Office for Nation Statistics (ONS) (2020-22) Nomis data; map created in Tableau (NB local data ICD-10 I00-99 only)
340k living with CVD in Wales	BHF estimate National Survey for Wales 2019/20 data (adults); includes congenital heart disease in children (newer surveys incomplete) <a href="https://gov.wales/adult-general-health-and-illness-national-survey-wales-april-2019-march-2020">https://gov.wales/adult-general-health-and-illness-national-survey-wales-april-2019-march-2020</a>
CVD healthcare cost ~ total (economic) cost / year	Shah (2024) Economic Burden of Cardiovascular Disease in the UK 2021/22 estimates (LSE dissertation; BHF placement) NB Public Health Wales publish annual estimates of CVD healthcare costs, with a narrower definition of conditions
<i>Linked conditions:</i> 81% people with CVD have one other 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. <a href="https://doi.org/10.1371/journal.pmed.1002513">doi.org/10.1371/journal.pmed.1002513</a> PMID: 29509757
<b>CORONARY HEART DISEASE (CHD; ISCHAEMIC HEART DISEASE)</b>	
CHD deaths, #1 in Wales, vs breast cancer ~ worldwide	Nomis - Office for National Statistics (ONS; 2022) - Deaths registered by cause, gender and age, 2022 <a href="http://www.nomisweb.co.uk/datasets/mortsa">www.nomisweb.co.uk/datasets/mortsa</a> ~ World Health Organization (WHO) and Global Burden of Disease (GBD) – 2021 global estimates
CVD death rates (Wales)	BHF analysis of Office for Nation Statistics (ONS) (2020-22) Nomis data
110k+ living with CHD	Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a>
<b>HEART ATTACK (MYOCARDIAL INFARCTION, MI)</b>	
Heart attack hospital admissions	Digital Health & Care Wales. PEDW hospital activity data; via correspondence – annual average
More than 7/10 people survive heart attack ~ 1960s estimate	Myocardial infarction total case fatality rates - spatial analysis of linked hospitalisation and mortality data (England only) <a href="http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(22)00108-6/fulltext">www.thelancet.com/journals/lanpub/article/PIIS2468-2667(22)00108-6/fulltext</a> ~ Goldacre's 2003 paper on myocardial infarction (Oxon)
<b>ATRIAL FIBRILLATION (AF)</b>	
diagnosed with AF	Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a>
x5 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. <a href="http://www.ncbi.nlm.nih.gov/pubmed/15879330">www.ncbi.nlm.nih.gov/pubmed/15879330</a>
Contributor to 1 in 5 strokes in Wales	Royal College of Physicians Sentinel Stroke National Audit Programme (SSNAP) stroke audit – select annual data [Welsh hospitals at far right of list] National clinical audit annual results portfolio <a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>

STATISTIC	REFERENCE
<b>HEART FAILURE (HF)</b>	
diagnosed with heart failure by GP	Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a>
<b>STROKE (CEREBROVASCULAR DISEASE)</b>	
stroke deaths	Nomis - Office for National Statistics (ONS; 2022) - Deaths registered by cause, gender and age, 2022 <a href="http://www.nomisweb.co.uk/datasets/mortsa">www.nomisweb.co.uk/datasets/mortsa</a>
stroke hospital admissions	Digital Health & Care Wales. PEDW hospital activity data; via correspondence – annual average
stroke/TIA survivors	Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a>
u75 stroke survivors	BHF analysis of The Health Intelligence Network (THIN) prevalence data, IQVIA/IMRD 2018
<i>Linked conditions:</i> CHD or heart attack more than twice as likely to have a stroke	<a href="http://stroke.ahajournals.org/content/22/8/983">http://stroke.ahajournals.org/content/22/8/983</a>
<i>Linked conditions:</i> People with heart failure are 2-3 times more likely to have a stroke.	<a href="http://stroke.ahajournals.org/content/42/10/2977">http://stroke.ahajournals.org/content/42/10/2977</a>
<i>Linked conditions:</i> People with diabetes are twice as likely to have a stroke as people without diabetes	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5298897/">www.ncbi.nlm.nih.gov/pmc/articles/PMC5298897/</a>
<b>VASCULAR DEMENTIA</b>	
deaths; underestimate/diagnoses	Nomis - Office for National Statistics (ONS; 2022) - Deaths registered by cause, gender and age, 2022. Alzheimer's Society <a href="http://www.alzheimers.org.uk/about-dementia/types-dementia/diagnosis-vascular-dementia">www.alzheimers.org.uk/about-dementia/types-dementia/diagnosis-vascular-dementia</a>
dementia types; up to 1 in 5 cases are vascular	Alzheimer's Society <a href="http://www.alzheimers.org.uk/about-us/policy-and-influencing/what-we-think/demography">www.alzheimers.org.uk/about-us/policy-and-influencing/what-we-think/demography</a>
180k prevalence (UK)	NHS England website <a href="http://www.nhs.uk/conditions/vascular-dementia">www.nhs.uk/conditions/vascular-dementia</a>
<i>Linked conditions:</i> heart disease & vascular dementia	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2924456/">www.ncbi.nlm.nih.gov/pmc/articles/PMC2924456/</a>
<i>Linked conditions:</i> ¾ cases in stroke survivors	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3235558/">www.ncbi.nlm.nih.gov/pmc/articles/PMC3235558/</a>
<i>Linked conditions:</i> People with diabetes are 2-3 times more likely to develop vascular dementia	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2174783/">www.ncbi.nlm.nih.gov/pmc/articles/PMC2174783/</a>
<b>OUT-OF-HOSPITAL CARDIAC ARREST (OHCA)</b>	
Wales 4.6% survival rate; OHCA volumes [definitions and full details not known]	Welsh Government (2021) Press release <a href="https://gov.wales/lifesaving-programme-given-cash-boost-keep-going-welsh-government">https://gov.wales/lifesaving-programme-given-cash-boost-keep-going-welsh-government</a> Welsh Government (2017) Out of Hospital Cardiac Arrest Plan <a href="https://gov.wales/out-hospital-cardiac-arrest-plan">https://gov.wales/out-hospital-cardiac-arrest-plan</a>
Every min & CPR doubles survival	Resuscitation Council (2021) Resuscitation Guidelines 2021 <a href="http://www.resus.org.uk/library/2021-resuscitation-guidelines">www.resus.org.uk/library/2021-resuscitation-guidelines</a>



STATISTIC	REFERENCE
<b>CONGENITAL HEART DISEASE</b>	
1:150 babies diagnosed	BHF estimate for Wales based on NHS England (2022) NCARDRS congenital anomaly statistics: 2020 data <a href="https://digital.nhs.uk/data-and-information/publications/statistical/ncardrs-congenital-anomaly-statistics-annual-data/ncardrs-congenital-anomaly-statistics-report-2020">https://digital.nhs.uk/data-and-information/publications/statistical/ncardrs-congenital-anomaly-statistics-annual-data/ncardrs-congenital-anomaly-statistics-report-2020</a>
1-2% prevalence	various estimates including Hoffman & Kaplan, JACC –19 per 1,000 includes “BAVs which will eventually need cardiologic care “ ( <a href="http://www.sciencedirect.com/science/article/pii/S0735109702018867">www.sciencedirect.com/science/article/pii/S0735109702018867</a> )
Survival comparison (pre-BHF/today)	MacMahon BMJ ( <a href="http://heart.bmj.com/content/heartjnl/15/2/121.full.pdf">http://heart.bmj.com/content/heartjnl/15/2/121.full.pdf</a> ) and British Cardiac Society <a href="https://heart.bmj.com/content/88/suppl_1/i1">https://heart.bmj.com/content/88/suppl_1/i1</a>
<b>INHERITED (GENETIC) CONDITIONS</b>	
16k inherited heart conditions; 30k with faulty gene	BHF estimate for Wales derived from PHG Foundation, <i>Heart to Heart: inherited cardiovascular conditions services</i> (2009); updated to reflect revised FH/DCM prevalence estimates 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 is 1:250 but our preferred reference reports 1:273 Wald et al, NEJM 2016 <a href="http://www.nejm.org/doi/full/10.1056/NEJMoa1602777">www.nejm.org/doi/full/10.1056/NEJMoa1602777</a>
1:500 with hypertrophic cardiomyopathy (HCM)	Priori et al, Task Force on Sudden Cardiac Death ESC <a href="http://eurheartj.oxfordjournals.org/content/ehj/22/16/1374.full.pdf">eurheartj.oxfordjournals.org/content/ehj/22/16/1374.full.pdf</a>
UK 12 cardiac deaths/week under-35s	Cardiac Risk in the Young <a href="http://www.c-r-y.org.uk/statistics">www.c-r-y.org.uk/statistics</a>
<b>RISK FACTORS</b>	
<b>Hypertension (High Blood Pressure)</b>	
Adults with HBP ~ numbers diagnosed by GP	BHF Welsh prevalence estimate based on latest UK health surveys (England and Scotland data) Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a>
High BP #1 risk factor ~ CVD risk	Global Burden of Disease (GBD) (2024) estimates for Wales ~ Vasan et al NEJM 2001 <a href="http://www.ncbi.nlm.nih.gov/pubmed/11794147/">www.ncbi.nlm.nih.gov/pubmed/11794147/</a>
<i>Linked conditions:</i> Around 50% of heart attacks and strokes are associated with high blood pressure	Global Burden of Disease (GBD) (2024) risk burden estimates (Wales and UK) 2021
<b>Diabetes</b>	
adults diagnosed with diabetes ~ undiagnosed	Welsh Government (2024) Quality Assurance and Improvement Framework (QAIF) disease registers 2024 <a href="https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract">https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract</a> Diabetes UK <a href="http://www.diabetes.org.uk/professionals/position-statements-reports/statistics">www.diabetes.org.uk/professionals/position-statements-reports/statistics</a>
<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	<a href="http://www.ncbi.nlm.nih.gov/pubmed/20609967">www.ncbi.nlm.nih.gov/pubmed/20609967</a> <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2809299/">www.ncbi.nlm.nih.gov/pmc/articles/PMC2809299/</a> <a href="http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60484-9/fulltext">www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60484-9/fulltext</a>
<i>Linked conditions:</i> In the UK, one third of adults with diabetes die from a heart or circulatory disease	NHS England (2019) National Diabetes Audit, Complications and Mortality, Report 2a, 2017-18 (combined data for England & Wales) <a href="https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/report-2--complications-and-mortality-2017-18">https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/report-2--complications-and-mortality-2017-18</a>

STATISTIC	REFERENCE
<b>Other Risk Factors</b>	
High cholesterol; air pollution, high BMI mortality	Global Burden of Disease (GBD) (2024) Wales mortality estimates 2021
Adults ~ at least 13% smoke ~ 320k+ smokers	National Survey for Wales 2022/23 - <a href="https://gov.wales/adult-lifestyle-national-survey-wales-april-2022-march-2023">https://gov.wales/adult-lifestyle-national-survey-wales-april-2022-march-2023</a> NB this survey has been compiled with a different methodology since 2020 and latest statistics should not be compared with pre-pandemic data BHF estimate based on survey data/ONS population estimates; NB ONS (2022) Annual Population Survey 2021 has 14% of adults (UK-wide survey)
Smoking-related deaths ~ CVD deaths ~ hospital admissions/year	NHS Wales estimate ~ Global Burden of Disease (GBD) (2024) Wales estimate (2021) ~ ASH Wales <a href="https://ash.wales/campaign/hospitals/">https://ash.wales/campaign/hospitals/</a>
Physical activity, adult BMI/obesity, alcohol, 5-a-day	National Survey for Wales 2022/23 - <a href="https://gov.wales/adult-lifestyle-national-survey-wales-april-2022-march-2023">https://gov.wales/adult-lifestyle-national-survey-wales-april-2022-march-2023</a> NB this survey has been compiled with a different methodology since 2020 and latest statistics should not be compared with pre-pandemic data
Children BMI/obesity prevalence	National Child Measurement Programme Wales 2022/23 (reception year only) <a href="https://phw.nhs.wales/services-and-teams/child-measurement-programme/">https://phw.nhs.wales/services-and-teams/child-measurement-programme/</a> [NB final edition of the Welsh Health Survey was the last known all-ages survey of BMI in Welsh children – 2015 fieldwork, published 2016]

For any queries please contact [healthinsights@bhf.org.uk](mailto:healthinsights@bhf.org.uk) and we will do our best to help