British Heart Foundation
NORTHERN IRELAND

CVD STATISTICS – BHF NORTHERN IRELAND FACTSHEET

ABOUT THE BRITISH HEART FOUNDATION (BHF)

Our mission is to win the fight against heart and circulatory disease.

Our vision is a world in which people do not die prematurely or suffer from heart and circulatory disease.

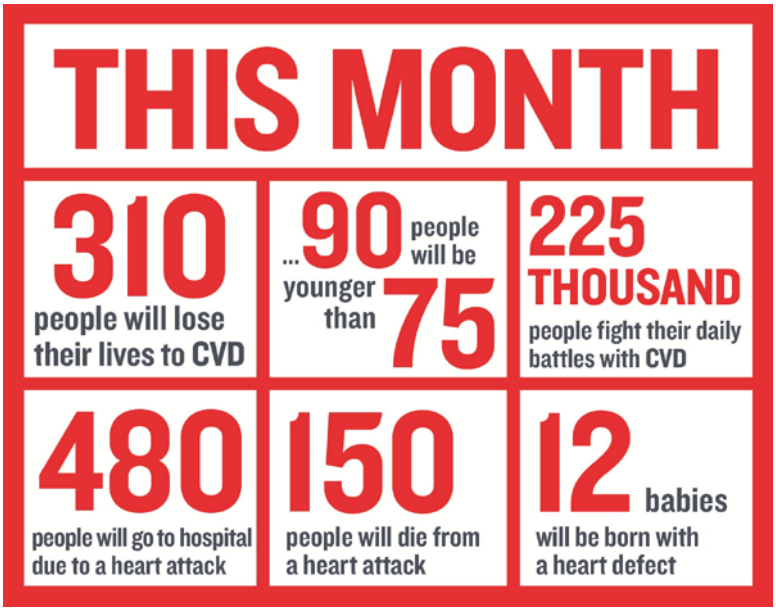
For over 50 years we've pioneered research that has transformed the lives of millions of people living with heart disease. We are the biggest independent funder of cardiovascular research in Northern Ireland.
Our work has been central to the discoveries of vital treatments that are leading the fight against heart disease.

But **heart and circulatory disease still kills one in four people in Northern Ireland**, stealing them away from their families and loved ones. From babies born with life-threatening heart problems, to the many mums, dads and grandparents who survive a heart attack or endure their daily battles with heart failure.

BHF HEART STATISTICS

Statistics are very important to the BHF. They give our staff, volunteers and supporters a sense of the scale of heart and circulatory disease's burden and the challenges we face as we fight for every heartbeat. We compile the most comprehensive statistics on the effects, prevention, treatment, costs and causes of heart disease in Northern Ireland and the UK. bhf.org.uk/statistics

For examples of how we are making a difference, look for the BHF sections throughout this factsheet.



QUICK LINKS – Cardiovascular Disease (CVD) - Coronary Heart Disease (CHD) - Heart Attack - Heart Failure - Atrial Fibrillation - Stroke - Cardiac Arrest - Congenital - Inherited - NCDs - Risk Factors - References - About Us - About REF

Cardiovascular Disease (CVD; Heart and Circulatory Disease)

Cardiovascular disease (CVD) is an umbrella term that describes all diseases of the heart and circulation. It includes everything from conditions that are diagnosed at birth, or inherited, to developed conditions such as coronary heart disease, atrial fibrillation, heart failure, and stroke.

- Cardiovascular (heart and circulatory) disease causes a quarter of all deaths in Northern Ireland, or over **3,700 deaths** each year – that's an average of 10 people each day.
- Since the 1960s, CVD death rates in Northern Ireland have fallen by three-quarters.
- Death rates have fallen more quickly than the actual number of deaths because people in Northern Ireland are now living longer lives.
- Around **1,050 people** under the age of 75 in Northern Ireland die from CVD each year.

Cardiovascular disease causes a quarter of all deaths in Northern Ireland

DEATHS FROM CVD AND NUMBERS LIVING WITH CARDIOVASCULAR DISEASE (CVD)

Nation	Number of People Dying from CVD (Latest Year)	Number of People Under 75 Years Old Dying from CVD (Latest Year)	Estimated Number of People Living with CVD
Northern Ireland (2015)	3,773	1,087	225,000

Deaths BHF/Oxford from latest official statistics (NISRA 2015 data)
Living with CVD estimates based on latest UK health surveys with CVD fieldwork and GP patient data

- There are an estimated **225,000 people** living with cardiovascular disease in Northern Ireland.
- An ageing and growing population and improved survival rates from cardiovascular events could see these numbers rise still further.
- For more information about CVD, visit our website at

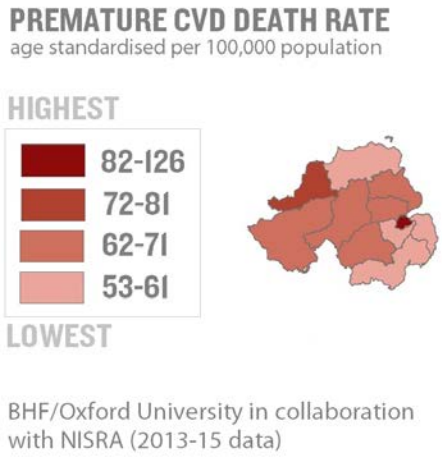
AROUND 225,000 people in Northern Ireland are living with cardiovascular disease

BHF Thanks to research we funded, the use of statins to help prevent CVD is now routine, saving lives every year in Northern Ireland. Read the REF case study to find out more.

BHF A groundbreaking study, co-funded by the BHF, investigated the effect of social inequalities on health. This research has helped shape public health policy across the UK and around the world. Read the REF case study to find out more. Subsequently, addressing health inequalities has become a key component in all innovation programmes that the BHF has piloted to improve services for people living with or at risk of CVD.

- Premature death rates from CVD (before the age of 75) in Northern Ireland are broadly similar to those for England.
- 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 country.
- The highest premature CVD death rate by Northern Ireland council area (2013-15) was for Belfast City.

NORTHERN IRELAND PREMATURE CVD DEATH RATES 2013-15 – (NI AVERAGE = 68)		
Local Council	Death Rate per 100,000 Population	Annual Number of CVD Deaths Under 75 Years Old
Belfast	90.1	235
Derry & Strabane	71.6	88
Mid & East Antrim	68.6	89
Fermanagh & Omagh	66.2	66
Mid Ulster	65.8	72
Armagh, Banbridge & Craigavon	65.4	112
Antrim & Newtonabbey	65.0	79
North Down & Ards	61.1	100
Causeway Coast & Glens	60.9	80
Newry, Mourne & Down	60.2	86
Lisburn & Castlereagh	57.0	71



Our vision is a world where people do not die prematurely from cardiovascular disease (CVD).

People living in the poorest areas of the country are, on average, more likely to die early from CVD than those living in the richest.

- The premature (under 75) death rate for CVD in Belfast is 60 per cent higher than for Lisburn & Castlereagh (57 per 100,000).
- Regional and local statistics and rankings for CVD deaths can be found on our website at bhf.org.uk/statistics
- Total NHS expenditure on CVD in Northern Ireland in 2014/15 was £412 million.

BHF A clinical trial, funded by us as part of a wider collaboration, showed that the benefits of treating high blood pressure in very elderly people outweighed the risk of side effects, allowing elderly people to receive the care they require. Read the REF case study to find out more.

BHF We have funded House of Care, an innovative programme designed to enable clinicians to empower patients to make informed decisions about their care, based on what is important to them, and provide support to patients to manage their own conditions from day to day. bhf.org.uk/houseofcare

Coronary Heart Disease (CHD; Ischaemic Heart Disease)

Coronary heart disease (CHD) is the most common type of cardiovascular 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).

- Coronary heart disease (CHD) is Northern Ireland's single biggest killer. It is also **the leading cause of death worldwide**.
- CHD is responsible for nearly **1,800 deaths** in Northern Ireland each year, an average of 5 deaths each day.
- In Northern Ireland, more than 1 in 7 men and nearly 1 in 10 women die from coronary heart disease.
- Since the 1960s, CHD death rates in Northern Ireland have fallen by three-quarters.

Coronary heart disease is Northern Ireland's single biggest killer

BHF Our researchers have developed a scoring system to assess the risk of heart attack or death for patients with acute coronary syndrome (unstable angina or heart attack). The GRACE scoring system is now a reference standard, resulting in guideline changes in over 55 countries, leading to improved management of heart patients around the world.

bhf.org.uk/ heartattackhistory

BHF A trial that we funded has led the way in demonstrating that MRI – a non-invasive imaging technique – is more effective than a CT scan in identifying people at high risk of death or heart attack following chest pain suspected to be angina. These findings are important as MRI does not expose people to radiation.

bhf.org.uk/MRIscans_highrisk

- Regional and local statistics and rankings for CHD deaths can be found on our website at bhf.org.uk/statistics
- CHD kills more than twice as many women as breast cancer in Northern Ireland.
- **Over 600 people** under the age of 75 in Northern Ireland die from CHD each year.
- **75,000 people** are living with CHD in Northern Ireland; over 60 per cent are estimated to be men.
- Most deaths from coronary heart disease are caused by a heart attack.
- For more information about CHD, visit our website at bhf.org.uk/heart-health/conditions/coronary-heart-disease

Coronary heart disease kills more than twice as many women as breast cancer in Northern Ireland

There are **75,000** people living with coronary heart disease in Northern Ireland

Heart Attack (Myocardial Infarction, MI)

- Most deaths from coronary heart disease are caused by a heart attack.
- There are **5,700 hospital visits** attributed to heart attack in Northern Ireland each year: that's 1 every 90 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**.
- More than 29,000 people alive in Northern Ireland today (20,400 men and 8,900 women) have survived an MI.
- For more information on heart attacks visit our website at bhf.org.uk/heart-health/conditions/heart-attack

BHF Professor Michael Davies was one of the first scientists to clearly demonstrate that blood clots in the heart's coronary arteries cause heart attacks. This breakthrough in the 1970s paved the way for scientists around the world to investigate how to prevent and treat blood clots. This has led to the development of life saving, clot-busting drugs.
bhf.org.uk/ heartattackhistory

BHF Large-scale studies, part-funded by us, showed that combined treatment with aspirin and a clot buster drug significantly increases survival rates after heart attacks. BHF Research - Heart Attack

BHF Research that we funded has shown that a new high-sensitivity blood test for troponin – a protein released from the heart during a heart attack – results in improved diagnosis of heart attack, particularly in women.
bhf.org.uk/heartattacktest

Atrial Fibrillation (AF)

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

- Nearly **31,000 people** in Northern Ireland have been diagnosed with atrial fibrillation.
- It is estimated that there are thousands more living with undiagnosed AF.
- For more on atrial fibrillation, visit bhf.org.uk/heart-health/conditions/atrial-fibrillation

BHF We have funded arrhythmia care coordinator (ACC) posts to improve outcomes for people with arrhythmias. The programme is already preventing thousands of hospital admissions and has been adopted as a NICE Quality, Innovation and Productivity case study.
bhf.org.uk/bestpractice

Heart Failure (HF)

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.

- **Over 15,100 people** in Northern Ireland have been diagnosed with heart failure.
- For more information on heart failure, visit our website at bhf.org.uk/heart-health/conditions/heart-failure

BHF Our researchers helped to show that angiotensin converting enzyme (ACE) inhibitors – drugs that lower blood pressure – increase survival and improve quality of life in patients with heart failure.
bhf.org.uk/treatmentsresearch

BHF Our work has shown that heart failure specialist nurses (HFSNs) provide great benefit and comfort for heart patients and their carers. The use of HFSNs has been widely adopted across the country.
Managing HF in the Community

BHF We funded an innovative pilot delivering intravenous diuretics at home, leading to improved quality of life for heart failure patients. Patients preferred this over hospital-based treatment and the model has been replicated across the country.
bhf.org.uk/communityivd

Stroke (Cerebrovascular Disease)

A stroke occurs when the blood supply to part of the brain is cut off, causing brain cells to become damaged.

- Strokes cause around **1,000 deaths** in Northern Ireland each year.
- **Over 35,000 people** living in Northern Ireland today have survived a stroke or transient ischaemic attack (TIA).
- Over half of stroke survivors in Northern Ireland are under the age of 75.
- Regional and local statistics and rankings for stroke deaths can be found on our website at bhf.org.uk/statistics
- For more health information on strokes visit our website at bhf.org.uk/heart-health/conditions/stroke

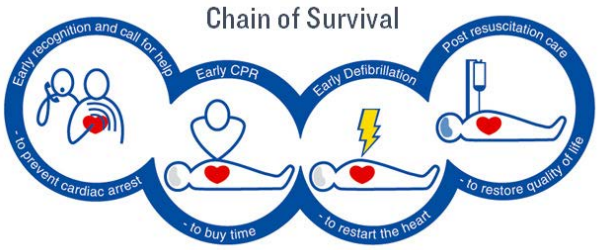
Out-of-Hospital Cardiac Arrest (OHCA)

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

- There are **1,400** out-of-hospital cardiac arrests in Northern Ireland each year.
- **Less than 1 in 10** people survive.
- The Chain of Survival (below) is a sequence of steps that together maximise the chance of survival following cardiac arrest.
- Every minute without cardiopulmonary resuscitation (CPR) and defibrillation reduces the chance of survival by up to 10 per cent.
- Performing **CPR can double the chances of survival** in some cases (ventricular fibrillation).
- For more on cardiac arrest visit bhf.org.uk/heart-health/conditions/cardiac-arrest

BHF By providing access to and innovative resources for cardiopulmonary resuscitation (CPR) training we aim to give people the skills and confidence to act when they witness a cardiac arrest and improve survival rates, thereby building a nation of lifesavers. Thousands of adults and schoolchildren in Northern Ireland have participated in our CPR training schemes and now have life saving skills.

BHF We have also helped fund and place thousands of public access defibrillators (PADs) in communities across the country. We are making further investments to increase defibrillator awareness for emergency medical services and the public to ensure that PADs can be accessed quickly in an emergency.
bhf.org.uk/survival



There are around 1,400 out-of-hospital cardiac arrests in Northern Ireland each year

Congenital Heart Disease

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

- **1 in 180 babies** are diagnosed with a heart defect at birth – that's an average of **12 each month** in Northern Ireland - with more diagnoses later in life.
- Estimates suggest that as many as **1-2 per cent** of the population may be affected.
- 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.
- For more information, visit bhf.org.uk/heart-health/conditions/congenital-heart-disease

BHF Professor Sir Magdi Yacoub developed surgical techniques to treat a complex congenital heart defect. The switch procedure which he pioneered is now used routinely, worldwide, to treat babies born with abnormally connected blood vessels.

BHF With our support, researchers at the Institute of Child Health mapped out the details of heart defects. This knowledge, combined with advances in imaging technology, helps to identify and treat abnormalities as early as possible, meaning babies have the best chance of survival bhf.org.uk/congenhistory

12 babies a month are diagnosed with a congenital heart defect in Northern Ireland

Inherited (Genetic) Conditions

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

- They include hypertrophic cardiomyopathy (HCM; estimated to affect 1 in 500) and familial hypercholesterolaemia (FH; 1 in 250).
- It's estimated that around **17,500 people** in Northern Ireland could be living with a faulty gene putting them at 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.
- For more information, visit our website:-
  bhf.org.uk/heart-health/conditions/inherited-heart-conditions
  bhf.org.uk/heart-health/conditions/familial-hypercholesterolaemia

Around 17,500 people in Northern Ireland have a faulty gene that can cause an inherited heart condition

BHF Professor Steve Humphries and his team have pioneered the development of genetic tests for familial hypercholesterolaemia (FH), an inherited condition which results in exceptionally high levels of cholesterol in the blood. Left untreated, this can greatly increase the risk of developing heart disease at an early age. Read the REF case study to find out more. Based on this research, the BHF has piloted FH cascade screening programmes across the UK since 2010, ensuring access to genetic testing, and resulting in thousands being diagnosed and getting the treatment they need.

BHF Professor Hugh Watkins and his team have led in the identification of the faulty genes that cause hypertrophic cardiomyopathy (HCM) – a dangerous condition that can lead to sudden death. Through the Miles Frost Fund, the BHF will pilot a programme to help ensure access to genetic testing for immediate family members of those diagnosed with HCM.
bhf.org.uk/HCMresearch

Non-Communicable Diseases (NCDs)

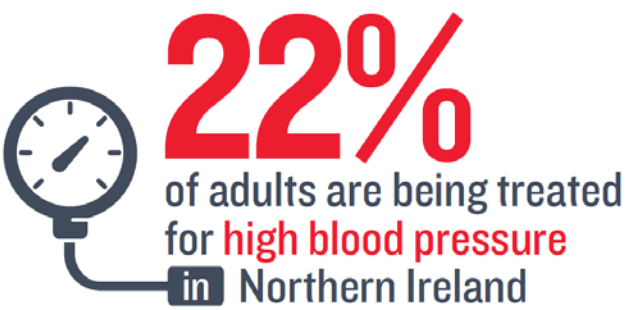
CVD is a non-communicable (non-infectious or non-transmissible) disease.
Other NCDs include cancer, diabetes, chronic respiratory disease, digestive and mental health conditions.

- NCDs kill 13,000 people each year in Northern Ireland; that's 87 per cent of all deaths.
- NCDs cause 4,600 premature deaths each year in Northern Ireland; 86 per cent of all deaths before the age of 75.

Medical Risk Factors

Many different risk factors increase your likelihood of developing cardiovascular disease.

- An estimated **22 per cent** of adults in Northern Ireland are being treated for **high blood pressure**.
- **High blood cholesterol** is a significant risk factor for cardiovascular disease.
- Having diabetes can **double the risk** of developing cardiovascular disease.
- Around **85,000 adults** in Northern Ireland have been diagnosed with **diabetes**.
- Around 10 per cent of those diagnosed are living with Type 1 diabetes and 90 per cent have Type 2.
- It's estimated that thousands more people in Northern Ireland will be living with undiagnosed Type 2 diabetes.



For more information, visit our website:-

High Blood Pressure (Hypertension)
bhf.org.uk/heart-health/risk-factors/high-blood-pressure

High Cholesterol
bhf.org.uk/heart-health/risk-factors/high-cholesterol

Diabetes
bhf.org.uk/heart-health/risk-factors/diabetes

Lifestyle Risk Factors

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

- An estimated 22 per cent of adults smoke in Northern Ireland - that's over 310,000 adults.
- Around 3,000 smokers in Northern Ireland die from smoking-related causes each year.
- Around **16,800 hospital admissions** are attributed to smoking each year.

- An estimated 26 per cent of adults in Northern Ireland are obese and in addition more than a third are overweight.
- One quarter of children in Northern Ireland are overweight or obese.
- Nearly half of adults in Northern Ireland do not achieve recommended levels of physical activity.
- Nearly two-thirds (63 per cent) of adults in Northern Ireland do not eat the recommended five portions of fruit and vegetables per day.
- More than one in five adults in Northern Ireland regularly exceed national guidelines for weekly alcohol intake; no level of use is without risk.

Other Risk Factors

- Outdoor **air pollution** has an effect equivalent to tens of thousands of premature deaths in the UK each year, with a significant impact on cardiovascular health.
- Other risk factors which can significantly increase the risk of developing cardiovascular disease include age, gender, family history and ethnicity.

BHF Groundbreaking studies by our researchers have greatly advanced our understanding of how maternal nutrition and lifestyle during pregnancy can affect a child's long-term health. Read the REF case study to find out more.

BHF Our research has provided evidence of a causal relationship between air pollutants and cardiovascular disease. The researchers have also shown that fitting particle traps to diesel engine exhausts helps to prevent the damaging effects of some types of pollution. Some European countries have already started to adopt this simple intervention to limit the detrimental effects of pollution on health. Visit our website to find out more.

REFERENCES

STATISTIC	REFERENCE
CARDIOVASCULAR DISEASE (CVD; HEART & CIRCULATORY DISEASE)	
CVD deaths/year [also NCDs]	BHF analysis of NISRA mortality statistics (2015)
CVD ASDRs (death rates)	BHF/Oxford University in collaboration with NISRA (2013-15 data)
225k living with CVD	BHF estimate based on latest Quality & Outcomes Framework prevalence data
£412m CVD cost	Hospital Information Branch, DHNI 2014/15
CORONARY HEART DISEASE (CHD; ISCHAEMIC HEART DISEASE)	
CHD deaths, v breast cancer	BHF analysis of NISRA mortality statistics (2015)
CHD ASDRs (death rates)	BHF/Oxford University in collaboration with NISRA
CHD biggest killer worldwide	World Health Organization, The Top 10 Causes of Death, 2012
75k living with CHD ~ gender split	DHNI, Quality & Outcomes Framework prevalence data, 2015/16 ~ BHF analysis of 2013 CPRD prevalence data
HEART ATTACK (MYOCARDIAL INFARCTION, MI)	
5.7k heart attack hospital visits	Hospital Information Branch. Northern Ireland Episode Based Acute Inpatient and Day Case Activity, 2015/16
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)
29k survived MI	BHF calculation based on 2013 CPRD prevalence data and ONS population estimates
ATRIAL FIBRILLATION (AF)	
33k diagnosed with AF ~ undiagnosed	DHNI, Quality & Outcomes Framework prevalence data, 2015/16 ~ Atrial Fibrillation Association
HEART FAILURE (HF)	
15.7k living with heart failure ~ gender split	DHNI, Quality & Outcomes Framework prevalence data, 2015/16 ~ BHF analysis of 2013 CPRD prevalence data
STROKE (CEREBROVASCULAR DISEASE)	
1k stroke deaths	BHF analysis of NISRA mortality statistics (2015)
36k stroke/TIA survivors	DHNI, Quality & Outcomes Framework prevalence data, 2015/16
U75 stroke survivors	BHF analysis of 2013 CPRD prevalence data
CONGENITAL HEART DISEASE	
1:180 babies diagnosed	BHF/Oxford University analysis of EUROCAT congenital anomaly registers 2010-14 (NB cases exclude BAV - bicuspid aortic valve)
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 NHS website
INHERITED (GENETIC) CONDITIONS	
17.5k living with faulty gene	BHF estimate for NI based on prevalence rates in PHG Foundation's *Heart to Heart: inherited cardiovascular conditions services* (2009); and revised FH prevalence estimates (see below) and DCM from Hershberger et al 2013 (www.nature.com/nrcardio/journal/v10/n9/full/nrcardio.2013.105.html)
1:250 living with familial hypercholesterolaemia (FH)	Benn, Watts et al. J Clin Endocrinol Metab Aug 2012 (www.ncbi.nlm.nih.gov/pubmed/22893714) – with erratum Dec 2014; also in Eur Heart J Aug 2013, Nordestgaard et al (eurheartj.oxfordjournals.org/content/early/2013/08/15/eurheartj.eht273)
1:500 living with hypertrophic cardiomyopathy (HCM)	Priori et al, Task Force on Sudden Cardiac Death ESC (eurheartj.oxfordjournals.org/content/ehj/22/16/1374.full.pdf)
UK 12 cardiac deaths/week under-35s	Cardiac Risk in the Young (www.c-r-y.org.uk/sads-statistics)
OUT-OF-HOSPITAL CARDIAC ARREST (OHCA)	
1,400 OHCAs/survival less than 1 in 10	DHNI, Community Resuscitation Strategy Northern Ireland, 2014 (www.health-ni.gov.uk/publications/community-resuscitation-strategy-and-reports)
Every min & CPR doubles survival	European Resuscitation Council, Guidelines for Resuscitation 2015 (www.cprguidelines.eu)
RISK FACTORS	
88k adults diagnosed with diabetes ~ undiagnosed	DHNI, Quality & Outcomes Framework prevalence data, 2015/16 ~ Diabetes UK, Diabetes: Facts and Stats 2015
adults high BP	DHNI, results from 2013/14 Health Survey Northern Ireland
adults 22% smoke ~ 310k	DHNI, Health Survey Northern Ireland 2015/16 ~ BHF calculation (survey/ONS population estimates)
3k smoker deaths/year	BHF analysis of HSCIMS (NI Health & Social Care Inequalities Monitoring System) data, 2009-13
16,800 hospital admissions from smoking-related causes	DHNI estimate based on case activity hospital data, 2010/11
Obesity, 5-a-day, alcohol	DHNI, Health Survey Northern Ireland 2015/16
Physical activity	DHNI, Health Survey Northern Ireland 2012/13
Air pollution	COMEAP report (2010) (link) and Royal College of Physicians report (2016) (link)

British Heart Foundation

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About the British Heart Foundation (BHF)

For over 50 years we've pioneered research that has transformed the lives of millions of people living with heart disease. Our work has been central to the discoveries of vital treatments that are leading the fight against heart disease.

But heart and circulatory disease still kills one in four people in Northern Ireland, stealing them away from their families and loved ones. From babies born with life-threatening heart problems, to the many mums, dads and grandparents who survive a heart attack or endure their daily battles with heart failure.

Join our fight for every heartbeat. Every pound raised, minute of your time and donation to our shops will help make a difference to people's lives.

bhf.org.uk/donate

BIGGEST
independent funder of cardiovascular disease research in Northern Ireland

More BHF CVD Statistics

Including exclusive content, local statistics and maps
Visit our website bhf.org.uk/statistics

This factsheet is compiled by the British Heart Foundation.
Last reviewed and updated 27 March 2017.

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 the UK, Scotland and Wales.

REF2014 impact case studies
Research Excellence Framework

The Research Excellence Framework (REF)
impact.ref.ac.uk

REF was launched in 2014 to assess the quality and impact of research in UK higher education institutions. Each institution was required to submit a comprehensive report detailing their key research outputs (e.g. research papers, book chapters); an overview of their research environment (e.g. funds raised, doctorate degrees awarded); and case studies demonstrating the impact of their research (e.g. development of new drugs, changes to clinical guidelines). Many of these impact case studies feature research funded by the BHF.