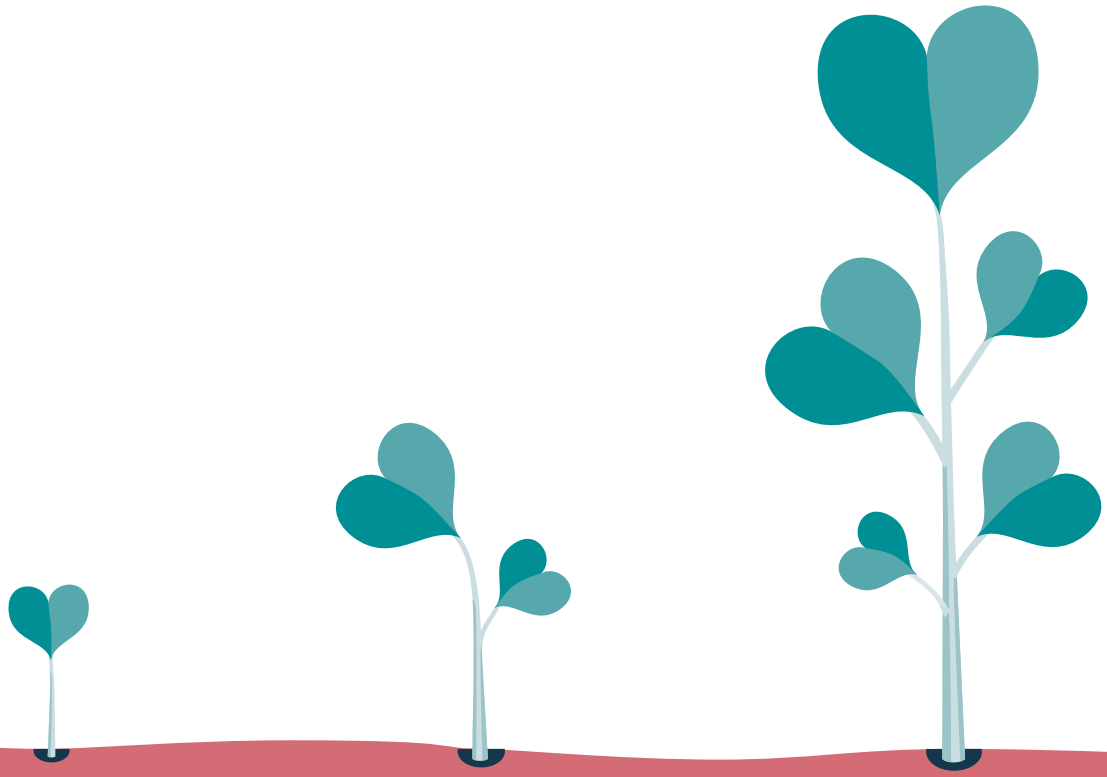
# Making the case for political urgency in cardiovascular disease

THOUGHT LEADERSHIP FORUM ON CARDIOVASCULAR DISEASE

DISCUSSION PAPER



The Health Policy Partnership

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## About the Thought Leadership Forum on Cardiovascular Disease

The Health Policy Partnership (HPP) is working to establish a Thought Leadership Forum on Cardiovascular Disease, with the aim of stimulating new strategic debates and perspectives in the societal interest. The forum will equip advocates at both the national and the international level to make an impactful argument for change, and will ultimately accelerate policy leadership and transformation in cardiovascular disease (CVD). This is a topic that is both timely and critical to major societal goals.

In support of this aim, the forum will initiate original desk research and expert interviews, discussion events and external publications. It will also seek to develop a deeper strategic awareness of the evolving CVD landscape as well as opportunities to catalyse debate and engagement with decision-makers. We are working to gather a group of senior stakeholders with whom to consult, co-produce key outputs and collaborate on policy engagement efforts.

To find out more and register your interest, please contact the HPP team at CVDTLF@hpolicy.com.

## About this discussion paper

This discussion paper is intended to develop the context and rationale for this work, to provide a public statement of intent, and to encourage stakeholder participation and interest in the work. The paper aims to clarify the scale of opportunity for society via an exploration of the linkages between four key cardiovascular conditions, highlighting their common needs and shared strategic priorities, and identifying potential opportunities for joint policy action.

## Authorship and Secretariat

This document was authored by Aditi Karnad, Ed Harding, Joe Farrington-Douglas and Matt Handcock at HPP.

HPP will act as Secretariat to the Thought Leadership Forum on Cardiovascular Disease, providing research, lead authorship and editorial oversight of all outputs, including this discussion paper. Editorial comments on this paper were received from both sponsors and selected external experts. Under the project's terms of reference, HPP works to ensure that this programme and all outputs are independent, non-promotional and free from commercial influence or bias, representing a broad societal and expert-based consensus for the consideration of policymakers.

HPP has long-standing experience in policy issues in CVD, including acting as Secretariat to the **Heart Failure Policy Network**. We have worked on numerous projects in CVD, including **heart valve disease**, **atrial fibrillation (AF) and AF-related stroke**, and **secondary prevention of heart attack and stroke**. For more about our work and to see the details of these projects, please visit our website at **healthpolicypartnership.com**.

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1.

# Introduction and rationale for this work

Over the past 50 years, European countries have seen significant transformation in life expectancy, largely due to major improvements in cardiovascular disease (CVD).[1] Recent decades have seen bold legislation in public health, such as smoking bans, greater investment in life-saving care and improvements in basic medications, all of which have brought major societal benefits. Overall, there has been a decline in the age-adjusted mortality rates from coronary heart disease and stroke in high-income Western countries, where the rates in 2000 were about one third of those in the 1960s.[2]

**But progress in CVD has stalled in terms of premature deaths, life expectancy and innovation.**[1 3] Countries now face the uncomfortable reality that the number of people dying from CVD is steadily rising, and that life expectancy gains are slowing down or even reversing.[4 5] This is a serious concern for the future of our societies and health systems, which urgently require a path to equity and sustainability. Moreover, there is a pressing need for policymakers to focus on implementing guideline-based care and cost-effective interventions if the world is to meet target 3.4 of the United Nations' (UN) Sustainable Development Goals and achieve at least a 30% reduction in premature mortality due to non-communicable diseases (NCDs) by 2030.[6]

**There are welcome signs, however, that political leadership in CVD is once again gathering pace.** We have observed growing momentum from multiple stakeholders, including governments and health systems, towards public–private partnerships in CVD.[7] This could not be timelier as the stakes are high, and the challenges ahead considerable.[7] There is also political urgency – exacerbated by the COVID-19 pandemic – for sustainable, resilient health systems, which has major implications for people living with CVD and for CVD care pathways.[8 9]

**We believe it is time for a new generation of strategic leadership in CVD.** Securing better outcomes for people with CVD in a resource-constrained health system will require a stronger policy framework with a long-term view, a whole-system approach, and the support of a range of stakeholders including policymakers, healthcare professionals, academics and the private sector. No matter how national health systems are configured, governmental leadership can drive substantial change and have considerable impact, in terms of the delivery of consistent and equitable health outcomes.

**A historical complacency around CVD is widely noted by leading commentators,**[1] **and governments now have the opportunity to showcase stronger strategic ambition.** At present, many formal national CVD plans and strategies are outdated or may lack concrete investment and implementation measures.[10 11] The difficult truth behind this appears to be that much of healthcare, particularly for CVD, is treated by governments as a burden rather than an investment in the future.[1 12]

**It is essential that the conversation be reframed to consider cardiovascular health as an asset.** Experience in cancer shows that strong political will can result in policy action and investment at both the European and national levels.[10] If CVD were to benefit from the equivalent level of political commitment, governments could address system deficits, unleash innovation, and improve economic and health outcomes.[13] For this to become a reality, however, CVD must become an integral concern to political leaders.

**This is not a political proposal in isolation.** Given the number of shared risk factors and the rise in comorbidities, learnings in CVD policy and improvements in CVD care will have benefits for other disease areas. Progressive care models with a person-centred, preventive, early intervention approach would maintain people's health and independence, sustain their active economic participation, and make more efficient use of healthcare resources.

2.

# Scale and impact of CVD

**CVD is the number one cause of death in Europe, claiming approximately four million lives in 2017 and accounting for 45% of all deaths.**[4 14] It is also the leading cause of premature death (defined as death before the age of 65).[4] A large proportion of these deaths are preventable: 40–72% are attributable to modifiable risk factors such as smoking, high blood pressure and high cholesterol levels, while 23–55% are directly associated with lack of access to acute care and secondary prevention.[4]

**CVD has significant implications for economic sustainability.** The global economic burden of CVD is greater than that of other leading NCDs, excluding mental illness, largely due to the significant need for hospitalisation.[15] In 2015, the most recent year for which data are available, CVD cost EU economies €210 billion.[14] The majority of direct costs (€111 billion) arose from hospitalisation. There were also high indirect costs, with €54 billion in lost economic productivity and €45 billion in informal care costs.[14]

**Underachievement in CVD has cumulative consequences for major societal goals, including deceleration of improvements in life expectancy.** Despite advances in CVD management, the data available for Europe suggest that the rate of decline in cardiovascular mortality among people aged 65 and under is plateauing.[4] Some countries, and some demographic groups within them, have even experienced increases in mortality and morbidity rates, with severe implications for overall life expectancy and healthy life expectancy. There are several components underpinning this trend, including the increasing prevalence of CVD risk factors such as diabetes, obesity and population ageing.[4]

**Addressing CVD is fundamental if we are to tackle worsening patterns of inequalities in health.** CVD accounts for almost half of the excess mortality rates in lower socioeconomic groups in most European countries.[1 4] In the UK, it is one of the largest contributors to socioeconomic inequalities in life expectancy:[2] people in the most deprived 10% of the population are almost twice as likely to die from CVD than those in the least deprived 10% of the population.[16]

**The challenges associated with CVD have been exacerbated by COVID-19.** CVD has been identified as one of the main risk factors for severe COVID-19 infection, hospitalisation and death; a person with CVD is three times more likely to develop severe symptoms or die from COVID-19 infection than a person without CVD.[17] Furthermore, disruptions to the delivery of healthcare services, and delays in people seeking care as a result of the pandemic, are having a dramatic impact on health outcomes for people living with CVD.[18] A huge amount is therefore at stake for people living with CVD and their loved ones, and for the ability of health systems to cope with rising demand.

3.

# The role of CVD in health and social policy

There is a clear case for greater investment in CVD, to not only address persistent gaps in care and improve patient outcomes, but also achieve wider societal and economic goals. For example:

- **Addressing CVD is vital for achieving the UN's NCD reduction targets.** CVD accounts for the greatest number of NCD deaths.[19] Therefore, tackling CVD is crucial for meeting target 3.4 of the UN's Sustainable Development Goals.
- **CVD plays an important role in planning for major and permanent demographic shifts.** It will be an essential element in realising the ambitions of 'healthy ageing' policies. Age is a non-modifiable risk factor for CVD: as populations age, CVD rates increase. This has significant implications not only for healthcare budgets but also for economic productivity; if working life extends faster than cardiovascular health, an increasing proportion of the working-age population are likely to be directly affected, and many more will be affected as carers.[20]
- **CVD is responsible for large social inequalities as its prevalence and mortality are higher in more disadvantaged population groups.** This is mainly due to biological and behavioural factors being influenced by wider determinants of health, such as socioeconomic position and environmental conditions.[2]

**Despite this, it appears that CVD continues to be under-prioritised in policy at the national level across Europe.** For decades, we have observed system weakness in healthcare delivery in terms of chronic disease management, marked by low investment in CVD, a lag in research and innovation compared with other diseases, and a lack of policies. Previous research by The Health Policy Partnership (HPP) identified that out of 11 countries analysed in Europe, fewer than half had a dedicated strategy in place for heart attack and stroke;[10] another piece of HPP research found only three countries with formal plans on heart failure.[11] Where strategies did exist, they were often outdated. CVD often falls under the umbrella of broader NCDs and behavioural/environmental determinants. For example, European health policy initiatives have been found to incorporate strategies for CVD prevention and care within generic plans to improve management of chronic diseases. This lack of dedicated plans for CVD signals its low priority compared with cancer, where both the European Commission and the European Parliament have shown significant political commitment.[10]

4.

# Opportunities for joint policy action across four CVD populations

CVD encompasses a range of conditions, and this paper focuses on four of them: atherosclerotic CVD (ASCVD), atrial fibrillation (AF), heart failure (HF) and heart valve disease (HVD). While there are important differences between these conditions – and the packages of care required as part of their management (see **Appendix**) – they face many common policy barriers. The following are compelling examples, which have emerged from HPP's previous research and discussion, of the opportunities for joint policy action across these four CVD populations.

## Approaches to primary prevention and risk factor management

**There is a significant opportunity to improve outcomes by prioritising far greater efforts to address risk factors as part of CVD prevention.** The need for vigilance in terms of the management of risk factors such as smoking, high blood pressure, elevated cholesterol, physical inactivity and obesity is consistent across all CVD populations. These risk factors also follow a social gradient (with the most disadvantaged groups facing the highest risk), and in some cases their prevalence is increasing. Rising trends in so-called 'behavioural' risk factors, such as unhealthy diet and physical inactivity, are projected to offset the progress made in reducing smoking rates.[4] For instance, policy progress in tobacco reduction has not yet been replicated for diet and physical activity.[4] There is a further risk that growth in the prevalence of these risk factors may counter the progress seen in increased life expectancy.

**Policies focusing on CVD prevention and risk factor management are rare.**[10] There is often a silo mentality, with specific CVD risk factors taking limited turns in the policy spotlight. AF is typically severely underrepresented in policy, and very few countries in Europe have national plans addressing the prevention of AF-related stroke.[21] Similarly, elevated cholesterol, the leading risk factor for ASCVD, is still hugely under-prioritised in policy. In the World Health Organization's *Global Action Plan for the Prevention and Control of NCDs 2013–2020*, cholesterol was considered only a supplementary indicator, and it is not well integrated into the EU chronic disease agenda.[22] [23]

## Delays in detection and diagnosis

**Accurate and timely diagnosis of any type of CVD is fundamental to improving patient outcomes, yet it remains a major challenge across all four conditions.** Delays to diagnosis of HF and HVD are widely reported both in the literature and by national experts; this is partly due to low public awareness and the misinterpretation of symptoms as signs of ageing.[11 24] The sometimes asymptomatic or indistinct nature of major conditions such as AF or early HF means that, in too many instances, diagnosis takes place only after a cardiovascular event (such as a heart attack or stroke) has happened and severe damage has already occurred.[11 25-28] For example, as many as one in four people with AF are diagnosed only after experiencing a stroke.[29]

**The inconsistent use of diagnostics in CVD is a major barrier to achieving guideline-based care.** This may be driven by shortages of diagnostic equipment such as echocardiogram machines, or limited access to testing due to a lack of reimbursement in some settings.[11 24] A good example of this is the inconsistent funding of relatively affordable natriuretic peptide (NP) testing across care settings (e.g. in primary care) despite its provision in these settings offering great promise for the diagnosis of HF.[11] In AF, although primary care physicians may have access to electrocardiogram (ECG) machines, they are not always confident in reading the results, leading to unnecessary referrals to secondary care and causing further delays in diagnosis.[30] Looking across the four conditions, it is clear that investment and improvement in the early detection and diagnosis of CVD are essential to addressing its burden.

## The need for comprehensive, multidisciplinary care models

**Multidisciplinary care models are recommended in CVD guidelines but are not always available in practice.** Effective disease management requires continuous monitoring and adjustment of treatment, management of comorbidities and risk factors, and patient education and empowerment.[11] Experience in HF suggests that, following diagnosis, the provision of guideline-based care is most likely achieved if driven by a comprehensive, multidisciplinary team led by a specialist nurse, consultant or general physician with an interest in CVD.[11] However, across the four conditions, the absence or underuse of established guidelines is common, for reasons that include limited awareness, complexity of guidelines and lack of incentives.[11 21 24 31] This is further exacerbated by several countries facing a shortfall in the key healthcare professionals required as part of multidisciplinary teams.[11 24] While many centres of excellence have demonstrated the value of multidisciplinary care to reduce costs and improve outcomes, generally, mainstream progress towards comprehensive multidisciplinary care models has been slow.[11]

**Although integrated care models are lacking, digital improvements and investment could help to turn this around.** People living with CVD often have multiple risk factors and chronic conditions. Proactive, integrated CVD care that takes into account other illnesses a person may have is therefore essential, but it remains a missed opportunity.[32] It seems that genuinely collaborative ways of working are still a distant reality in CVD, spurred by a lack of collaborative protocols and interoperability between IT systems.[11] Encouragingly, however, improvements in telemedicine and data sharing as a result of the COVID-19 pandemic[33] could help to unlock efficiencies of scale and drive the much-needed expansion of integrated chronic care programmes. This will need to be combined with further investment in the scale-up of effective multidisciplinary CVD care models and greater policy efforts to ensure a better-resourced healthcare workforce.

## Challenges around ensuring continuity of care following discharge

**The community and outpatient settings are vital for many aspects of guideline-based care in CVD, but provision of care in these settings is often inconsistent.** In HF, the risk of hospital readmission and mortality is high in the three months following a cardiovascular event, so post-discharge planning is important to ensure optimal patient outcomes and continuity of care during the transition to community services.[11] If HF is managed effectively in community settings, a large proportion of readmissions are preventable; however, guideline-recommended treatments for HF, including medications, are not prescribed consistently in the community.[11] For people living with ASCVD and AF, risk factor management and ongoing monitoring are essential components of long-term follow-up and secondary prevention, ensuring adherence to medication and the ability to adjust dosages if required.[21 31] Despite this, around 20% of people with ASCVD in Europe who have elevated cholesterol do not receive regular testing for cholesterol levels as part of their ongoing monitoring after discharge from hospital.[34]

**Cardiac rehabilitation is underused across Europe.** There is growing evidence for the benefits of cardiac rehabilitation, which has been shown to reduce hospitalisations by up to 30% in people recovering from a heart attack or stroke.[35] Yet, across Europe, fewer than half of cardiac patients are referred to cardiac rehabilitation programmes, and fewer than a third attend them.[10] Similarly, cardiac rehabilitation is rarely provided for people living with HF.[11] The ongoing systemic and organisational barriers hindering the effective delivery of post-discharge care is a significant issue across all four conditions, and CVD policies must recognise the role of primary and community health services in the provision of follow-up care.

## Overarching areas for coordinated investment in CVD

**Given the considerable overlapping gaps in prevention, care and management across the four conditions, there are several examples of missed opportunities along the CVD care pathway that should be recognised and prioritised in policy.** Furthermore, there are also some overarching areas for coordinated investment through which greater benefits of scale could be unlocked in CVD. For example:

- **A greater focus on workforce planning across CVD** could help to address the shortages of healthcare professionals needed to provide high-quality CVD care in all settings. This includes specialist nurses and consultants for multidisciplinary teams, physicians and cardiac physiologists to perform echocardiograms, and pharmacists to help lead secondary prevention (in the form of medication reviews, monitoring and other routine elements of care).
- **The expansion of data integration and data monitoring systems** could facilitate a comprehensive understanding of gaps in cardiovascular care. Additionally, the development of national registries spanning multiple conditions and collecting data along the full CVD pathway would help to capture shared risk factors and comorbidities. Such registries would also be able to provide ongoing assessment of health service performance and patient outcomes, with the aim of driving national political oversight of performance against high-level goals and guiding local improvement efforts.
- **Expansion of electronic health records, telemedicine and other eHealth solutions, such as digital care pathways for CVD delivery,** would provide a more conducive platform for remote monitoring, self-management, routine medical review, data sharing, multidisciplinary communication, delivery of cardiac rehabilitation, and population health management. More specifically, the underutilisation of cardiac rehabilitation across all four CVD populations could be addressed by non-traditional models, including home-based programmes, live classes streamed online or telerehabilitation.[11] Digital advances would also allow integration between regions within the same country to increase real-time data collection.
- **The promotion of research and innovation in CVD prevention and management** could help to successfully reduce mortality and morbidity. At present, compared with other disease domains, research funding for CVD at the EU level is disproportionately low in relation to the disease burden.[10] Increased investment in CVD research – such as around earlier detection of CVD, the interaction between CVD and other conditions, and personalised treatment and management of CVD – could lead to a significant positive impact on the lives of people living with CVD.[1]

5.

# Elevating the status of CVD

**How do we elevate the political status of CVD? As highlighted in this paper, given the scale of opportunity for policy action across the four conditions discussed, CVD should be a higher priority for policymakers.** Moreover, as a major contributor to inequalities and a largely avoidable cost for health systems and economies, CVD requires solidarity and political action from stakeholders and departments beyond ministries of health.

## What are CVD advocates asking for?

**We join with CVD advocates pushing for change.** There are several initiatives seeking to advance the political cause of CVD in Europe and globally:

- In June 2020, the European Society of Cardiology and the European Heart Network, along with other organisations, published ***Fighting cardiovascular disease – a blueprint for EU action***, which calls for an end to CVD complacency.[1] The paper outlined specific policy recommendations to be achieved by the 2019–24 EU mandate, including:
    - prioritising prevention of avoidable CVD
    - promoting innovation and modernising research regulations to improve access
    - enhancing patient care through improved diagnosis, treatment and management.
- European organisations are joining forces to shine a spotlight on CVD as part of the European Alliance for Cardiovascular Health (EACH).[7] The **EACH has called for a Joint Action on secondary prevention of CVD** in its submission for the EU4Health 2022 Work Programme.[36]
- During the European Commission's **Stakeholders' Targeted Consultation for the EU4Health 2022 Work Programme**, CVD was acknowledged as the first area within disease prevention where interventions are required.[37]
- In December 2021, the European Commission announced the launch of a new EU-wide initiative called **Healthier Together**, which aims to support Member States to reduce the burden of NCDs. The initiative will focus on five key areas, including CVD.[38]
- The Global Heart Hub, an alliance of heart patient organisations, is seeking to elevate the advocacy base in CVD. It is working on several initiatives, including **Invisible Nation**, which aims to harness the power of the ASCVD community to inspire action and achieve systemic change.[39]
- In February 2022, the World Heart Federation launched the **World Heart Observatory**, an online data hub providing global data on cardiovascular conditions, biological risk factors, social determinants of health, and health system and policy responses.[40]

## Where do we go from here?

**Now is the moment for a new political consensus in CVD.** The landscape leaves us in no doubt that leadership will be vital to ensure continued progress, alongside the coordination of national resources and whole-system approaches.

**To support this new vision, we must have a much clearer idea of the realm of possibility in cardiovascular plans and national strategies, as well as a broader base of societal support**, to ensure longevity of investment in CVD and policy goals. This calls for a new group of stakeholders from many different sectors to come together and lend their expertise in this critical societal endeavour.

**To this end, we will be working to build the Thought Leadership Forum on Cardiovascular Disease in 2022.** This programme has three further key areas of focus:

- **to explore what excellence looks like in national CVD strategies, plans and improvement initiatives**
- **to investigate the evidence base for stronger linkages between CVD and other contemporary political priorities**
- **to publish a manifesto on CVD in 2022.**

To find out more and register your interest, please contact CVDTLF@hpolicy.com.

# Overview of four CVD populations

CVD is the umbrella term used to describe multiple conditions affecting the heart and blood vessels.[41] This appendix provides an overview of the four specific populations from which we have drawn insights throughout this paper.

## Atherosclerotic cardiovascular disease (ASCVD)

**ASCVD is caused by a build-up of fatty deposits leading to blocked arteries.**[39] It is the leading cause of heart attacks and strokes, which account for 85% of all cardiovascular deaths.[39] Although elevated cholesterol levels are the leading risk factor for ASCVD, they are not widely screened for, and health systems consistently fail to identify at-risk populations.[31] Other causes of ASCVD include high blood pressure, smoking, diabetes and familial hypercholesterolemia, an inherited condition.[39]

### What opportunities are offered by best-practice ASCVD care?

- **Each 1 mmol/L reduction in low-density lipoprotein cholesterol (LDL-C) leads to a 21% reduction in the risk of any major cardiovascular event, for example 17% for stroke, 23% for heart attack.**[42]
- **Use of statins following a stroke is estimated to reduce the risk of recurrence by 16% during the first two to three years.**[43]

## Atrial fibrillation (AF)

**AF is characterised by an irregular and often abnormally fast heart rate.**[44] Estimates show that a quarter of middle-aged adults will develop AF in their lifetime.[45] AF is often asymptomatic: up to 40% of people experience no symptoms.[46] This – coupled with the fact that prevalence of AF in Europe was projected to increase by 70% between 2019 and 2030 – means AF places a significant financial burden on health systems.[29]

### What opportunities are offered by best-practice AF care?

- **Anticoagulation treatment in eligible patients can reduce the risk of stroke by 65%.**[47]
- **Analysis conducted in England found that, over three years, approximately 14,000 strokes could be prevented if people with AF received optimal treatment; this could save £240 million.**[48]

## Heart failure (HF)

**HF occurs when the heart becomes too weak or stiff to pump enough blood to meet the body's needs.**[49] It can be caused by other medical conditions such as coronary heart disease, high blood pressure and AF.[49] The signs and symptoms vary depending on age, body weight and the presence of any additional health conditions, and they are often poorly recognised or misinterpreted as signs of ageing. More than 15 million people are estimated to be living with HF in Europe, with the numbers expected to rise significantly due to population ageing and increased survival rates for other cardiovascular conditions.[11] HF is a leading cause of hospital admissions in Europe, and the leading cause of avoidable hospitalisations.[11]

### What opportunities are offered by best-practice HF care?

- **Multidisciplinary care teams in clinical and non-clinical settings reduce HF hospitalisations by 26% and mortality by 25%.**[50]
- **Delaying access to guideline-recommended core medications for HF increases the risk of death by roughly 12% per year.**[51]

## Heart valve disease (HVD)

**HVD occurs when one or more of the heart's valves do not work properly, affecting blood flow and requiring the heart to work harder.**[52] The main risk factors are age (HVD primarily affects those over the age of 65), obesity, high cholesterol and high blood pressure.[24] Up to 2.5% of the general population and 13% of people aged 75 and above are thought to be living with HVD,[53] with the numbers expected to double by 2040 and triple by 2060.[54] Prevalence is likely to be underestimated due to underdiagnosis.[24]

### What opportunities are offered by best-practice HVD care?

- **If HVD is detected early and managed effectively, people with HVD can enjoy a good quality of life.**[24]
- **Data suggest that 94% of people who undergo valve replacement surgery (aortic valve replacement) still have a well-functioning valve 10 years later.**[55]

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