

Cardiovascular Disease in Europe

A Call to Action

2019–2024

- Diseases of the heart and circulatory system are the leading cause of death in Europe and a major cause of disability. They can impact people of all ages.¹
- The risk of getting a cardiovascular disease, which includes heart failure, atrial fibrillation-related stroke, heart valve disease or coronary heart disease, increases with age.² In 2040, 155 million Europeans will be over 65.³ As Europe's population continues ageing, incidence of cardiovascular diseases (CVDs) is set to increase dramatically.
- The COVID-19 pandemic has significant implications on the cardiovascular care of patients.⁴ Those living with pre-existing cardiovascular diseases who contract COVID-19 have an increased risk of health deterioration and death.⁵
- Prevention, diagnosis and treatment services for cardiovascular diseases have been severely disrupted since the COVID-19 pandemic began.⁶
- Preventing, detecting and diagnosing CVD early – and managing them efficiently when they occur – is essential to keeping workers, and citizens of all ages, out of hospital and in good health, while making efficient use of healthcare resources. This is regardless of gender, income or country.^{7,17}



CVD is the #1 killer globally, and in the EU alone accounts for 1.8 million deaths every year or 36% of all deaths.¹



Over 60 million people are living with CVD in the EU, according to recent estimates.²²



Deaths from CVD exceed fatalities from cancer (1.3 million every year in Europe; 26% of all deaths).⁸



CVD costs the EU 210 billion EUR per year, due to healthcare costs, productivity loss, and informal care by caregivers.⁹



CVD is still hugely linked to health inequalities: more women than men die from pre-CVD-conditions, and more people in middle-income than in high-income countries; and pronounced declines in coronary mortality occur in countries with the most advanced contemporary care.¹⁰



95% of all COVID-19 deaths with information available had at least one underlying condition, with cardiovascular disease being the leading comorbidity (65%).¹¹ As a result of COVID-19, people with cardiovascular symptoms have been reluctant to call an ambulance or go to the hospital. The pandemic has seen a 50% decrease in the number of people presenting at hospitals and other health care facilities with symptoms of heart attacks or stroke.⁶

What can the EU do?

Whilst Member States are responsible for the delivery of health and social care to patients, they face common challenges and would benefit from coordinated action at EU-level.

With a new EU institutional framework lasting until 2024, the EU has a unique opportunity to tackle CVD as a policy priority.

This will help to ensure that people can live longer, healthier lives – regardless of where they are born in the EU – and can continue to contribute to society. Putting emphasis on detecting and treating CVD early will improve the resilience of healthcare systems at times of public health threats such as COVID-19.

The European Commission's EU4Health programme, which aims to address cross-border health threats and strengthen health systems, is an opportunity to further tackle non-communicable diseases such as CVD by improving diagnosis, prevention and care. It can only be successful if adequate levels of funding are guaranteed and specific measures are put forward to deal with the burden of CVD. Furthermore, key areas of CVD research should be recognised as priorities under Horizon Europe, the EU's next research and innovation framework programme.

Decision-makers can seize the 2019-2024 EU strategic agenda, the EU4Health Programme and Horizon Europe by immediately tackling the burden of CVD from four key angles:



Better understand the impact and burden of CVD on society:

Create and maintain a European database mapping CVD across the EU. This will help governments and payers to make informed decisions, ensuring better value and care for patients, and foster the evolution of healthcare systems in a sustainable way. Most CVDs have better prognosis, higher treatment success, and lower social cost, if diagnosed and treated early. Facilitating access to comprehensive and regular checks can help to achieve this. Recent data from methodologically robust studies are needed to understand both the current epidemiology and the cost burdens of CVD for Europe and individual European countries, including in the context of global pandemics.



Improve patients' quality of life and increase efficiency in both primary and tertiary care, through fast yet secure access to innovation:

Facilitate pilots to have efficient access to innovation in a secure manner, such as through Early Feasibility Studies in the framework of the new EU Medical Devices Regulations. Also, ensure ongoing education for healthcare professionals and patients, addressing uncertainties regarding technologies' effectiveness and value within the specific health care setting. This will in turn lead to adoption of innovation and inclusion in the reimbursement system. Reward technologies for their impact on reducing CVD progression and CVD management costs.



Reward technologies for the clinical and economic value, including outcomes, they bring to patients, hospitals and the healthcare system:

Promote and incentivize Innovative Payment Schemes, such as Coverage with Evidence Development, to foster early coverage of innovation, and help subsequent evaluation by relevant payers and authorities.



Showcase CVD as a key opportunity to strengthen healthcare systems, during the post-COVID 19 recovery and 'new normal' phases.

COVID-19 has created a significant backlog of patients with serious health conditions who need diagnosis, treatment and support. As health systems rebuild, unprecedented collaboration between health systems and industry is needed to ensure that immediate and longer-term challenges can be addressed. In addition, as age is a significant risk factor of CVD, keeping the growing ageing population healthy will relieve pressure on healthcare systems during public health threats such as the COVID-19 pandemic. CVDs have to be addressed as a key component of an ambitious pandemic preparedness programme in Europe in order to increase the resilience of healthcare systems for future public health crises. Innovative ways to allow remote monitoring of CVD patients need to be developed and encouraged.

Did you know?

In Europe, 1 in 3 people will be over 65 years old in 2050.¹²

192.000 people younger than 65 die of CVD every year.¹³ Most of the factors contributing of CVD could be avoided. Shared knowledge and information can help to develop comprehensive responses.

In the UK, natriuretic peptides testing in primary care following NICE guidelines can reduce the number of echocardiograms and referrals by 50% and this could save NHS £3.8 million.¹⁶

In the US, the introduction of Early Feasibility Studies has increased access for patients to potentially beneficial technologies and to support device innovation.¹⁴

Recent studies, addressing the treatment of atrial fibrillation found that the use of innovative technologies had a 10x impact on disease progression reduction versus conventional treatments.¹⁵

Cardiovascular mortality today is about half the level in 1995, but improvements have slowed significantly since 2010. Cardiovascular disease made the largest contribution to gains in life expectancy both before and after 2010, but its contribution to life expectancy gains in some OECD countries fell after 2010.⁷

Who we are

The Cardiovascular Medical Technology Industry provides solutions to the burden of CVD on individuals, families and the wider economy. These innovations, which span the full spectrum of patient care from diagnosis to cure, save lives and add tremendous value to European society.

Our technologies are central to Europe's fight against CVDs and can be found everywhere: the blood tests that identify patients with high cholesterol, high risk of heart attack and heart failure, the modern imaging devices that detect narrowing of the arteries, the small cardiac implants such as pacemakers, defibrillators and trans-catheter technologies, and the minimally-invasive heart valve and stent procedures that improve clinical, procedural and patient outcomes, and reduce associated costs and recurrence.

We are a responsible industry committed to delivering solutions, but we believe the EU could leverage so much more benefit from medical technologies to tackle the burden of CVD. Through constructive, collaborative partnerships with patients, governments and payers, we can together go even further to help alleviate Europe's CVD burdens once and for all, for our fellow citizens and for society as a whole.

Our view on key challenges around CVD



Although CVD is the Number 1 killer in Europe, **understanding, awareness and attention to the causes and treatment of CVD** are lagging behind that of other diseases. Much information is already available, but this is not always connected, making it more difficult to have a thorough understanding of the disease pathway, the causes of individual CVDs, the population at risk, key comorbidities, and the appropriate responses required.



Many **citizens** rely on medical technologies to save their life or help them manage their disease, but they often lack the access that can provide the most benefit to them personally. Due to complex regulatory approval procedures, it can take several years before innovative and beneficial life-changing technologies become **lawfully available and effectively used in the products**. People suffering from CVD have a key role to play in treatment management decisions, guided by a multidisciplinary healthcare team approach, for informed decision-making and better outcomes than those derived from isolated pillars of care delivery.



Funding and reimbursement processes have grown increasingly complex and are under systemic pressure. With increasing demand for care, and ever-evolving technologies, authorities across Europe agree that technologies should be rewarded for the value and outcomes they bring. However, uptake of **common tools and a defined process to enable this is still lacking in many parts of the EU**.

*For more information please visit
<https://www.medtecheurope.org/cardiovascular/>*

References

1. Eurostat (2019) Causes and occurrence of deaths in the EU, 16 July 2019: https://ec.europa.eu/eurostat/web/products-eurostat-news/product/-/asset_publisher/VWJkHuaYvLIN/content/DDN-20190716-1
2. European Commission overview of Cardiovascular Diseases: <https://ec.europa.eu/research/health/index.cfm?pg=area&areaname=cardiovascular>
3. Eurostat (2017) People in the EU – population projections, http://ec.europa.eu/eurostat/statistics-explained/index.php?title=People_in_the_EU_-_population_projections
4. Driggin et al (2020) Cardiovascular Considerations for Patients, Health Care Workers, and Health Systems During the COVID-19 Pandemic. <https://doi.org/10.1016/j.jacc.2020.03.031>
5. ESC Guidance for Diagnosis and Management of CVD during the COVID-19 Pandemic
6. <https://www.escardio.org/Education/COVID-19-and-Cardiology/ESC-COVID-19-Guidance>
7. The European Heart Network (2020) <http://www.ehnheart.org/medias/news/1791:the-missing-heart-attacks.html>
8. Is Cardiovascular Disease Slowing Improvements in Life Expectancy? OECD AND THE KING'S FUND WORKSHOP PROCEEDINGS (2020) <https://www.oecd.org/fr/publications/is-cardiovascular-disease-slowing-improvements-in-life-expectancy-47a04a11-en.htm>
9. Eurostat (2019): <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20190716-1>
10. European Heart Network, Cardiovascular Disease Statistics 2017: <http://www.ehnheart.org/cvd-statistics/cvd-statistics-2017.html>
11. European Society of Cardiology, ESC Cardiovascular Realities 2019, p.70: <https://www.flipsnack.com/Escardio/esc-cardiovascular-realities-2019/full-view.html>
12. WHO Europe (2020) <http://www.euro.who.int/fr/health-topics/health-emergencies/coronavirus-covid-19/weekly-surveillance-report>
13. Eurostat Ageing report (2019)
14. European Heart Network (2019), Manifesto for the EU elections <http://www.ehnheart.org/ehn-manifesto-for-the-european-elections-2019.html>
15. FDA EFS Program : <https://www.fda.gov/medical-devices/device-advice-investigational-device-exemption-ide/early-feasibility-studies-efs-program>
16. Aliot E, Breithardt G, Brugada J, Camm J, Lip GY et al. (2010) An international survey of physician and patient understanding, perception, and attitudes to atrial fibrillation and its contribution to cardiovascular disease morbidity and mortality. *Europace* 12 (5): 626-633.
17. British Heart Foundation, Focus on Heart Failure: 10 Recommendations to Improve Care and Transform Lives: <https://www.bhf.org.uk/-/media/files/campaigning/appg-on-heart-disease-focus-on-heart-failure-report.pdf>
18. WHO (2020) Rapid assessment of service delivery for NCDs during the COVID-19 pandemic, 29 May 2020
19. <https://www.who.int/publications/m/item/rapid-assessment-of-service-delivery-for-ncds-during-the-covid-19-pandemic>
20. WHO Statistics on Cardiovascular: <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cardiovascular-diseases/data-and-statistics>
21. *European Heart Journal* (2018) 0, 1–13 (doi:10.1093/eurheartj/ehy677)
22. Global Burden of Disease Collaborative Network (2016) Global Burden of Disease Study 2016: <http://ghdx.healthdata.org/gbd-results-tool>
23. Odotayo A, Wong CX, Hsiao AJ, Hopewell S, Altman DG et al. (2016) Atrial fibrillation and risks of cardiovascular disease, renal disease, and death: systematic review and meta-analysis. *Bmj* 354 i4482
24. Boriani G, Proietti M (2017) Atrial fibrillation prevention: an appraisal of current evidence. *Heart* (0):1–6
25. The Economist Intelligence Unit White Paper, Preventing a Stroke: Uneven Progress, A Global Policy Research Programme, 2017: https://perspectives.eiu.com/sites/default/files/Preventing%20Stroke_Uneven%20Progress.pdf
26. Kuck KH, Lebedev, D., Mikaylov, E., Romanov, A., Geller, L., Kalejs, O., Neumann, T., Davtyan, K., On, Y.K., Popov, S., Ouyang, F. (2019) Catheter ablation delays progression of atrial fibrillation from paroxysmal to persistent atrial fibrillation. ESC Late-breaking Science 2019. Paris, France. August 31, 2019.
27. Biosense Webster (2018), The Burden of Atrial Fibrillation: Understanding the Impact of the New Millennium Epidemic across Europe: https://www.jnjmedicaldevices.com/sites/default/files/user_uploaded_assets/pdf_assets/2018-11/AF_Full_Report_DIGITAL_095102-2509.pdf
28. Yadgir et al. Global Burden of Heart Valves (2020). *Circulation*. 2020;141:1670–1680. DOI: 10.1161/CIRCULATIONAHA.119.043391
29. European Society of Cardiology and European Heart Network (2020), Fighting cardiovascular disease – a blueprint for EU action: https://www.escardio.org/static_file/Escardio/Advocacy/Documents/2020%20ESC-EHN-blueprint_digital%20edition.pdf