Why addressing heart failure is vital for an impactful European Cardiovascular Health Plan

The Heart Failure Policy Network

Endorsed by

Working Group on Heart Failure

Contents

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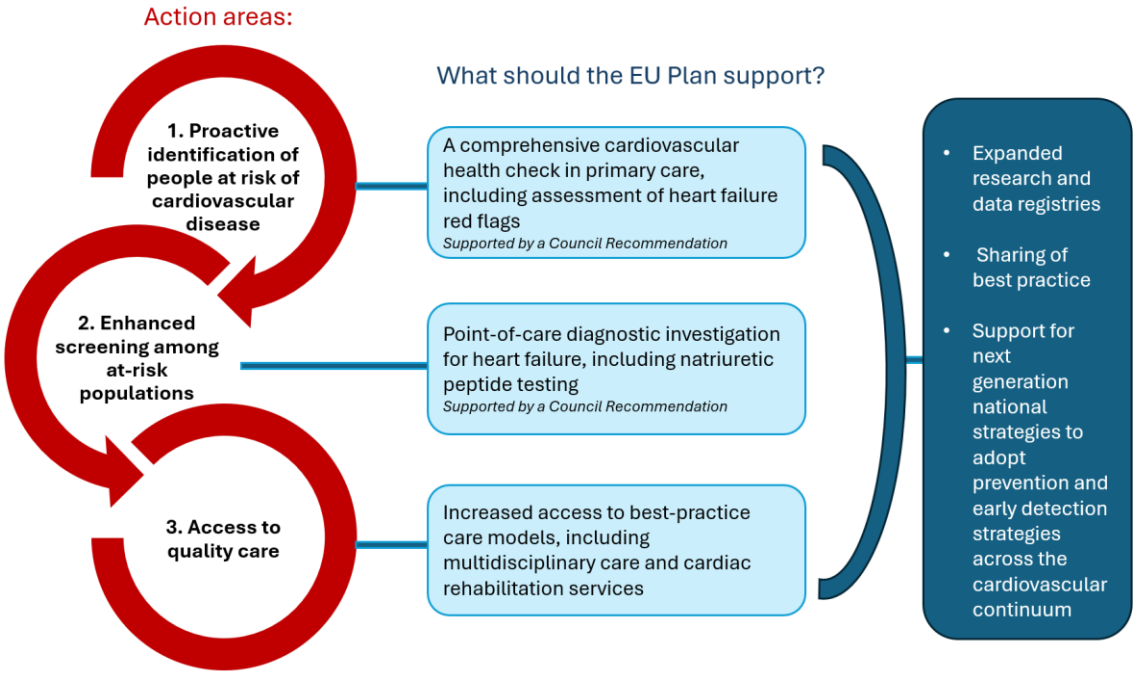
Overview

Europe will benefit significantly from improvements in preventing heart failure, detecting it early and managing it better. The forthcoming EU Cardiovascular Health Plan is a unique opportunity to assist Member States in improving the lives of their citizens, reducing healthcare costs and preparing for a sustainable future in light of an ageing population.



Heart failure targets in the EU Cardiovascular Health Plan could include:

- increasing the proportion of people who receive a cardiovascular health check that includes assessment of red-flag symptoms for heart failure (e.g. breathlessness, swollen ankles, extreme fatigue)
- increasing the proportion of people identified as being at high risk of developing heart failure who receive enhanced screening, including natriuretic peptide testing
- reducing preventable hospitalisations due to heart failure
- reducing the proportion of people with heart failure readmitted to hospital within 30 days of discharge
- increasing the proportion of people with heart failure who receive timely access to cardiac rehabilitation.

1. Context

Heart failure: a pressing concern for European health systems

Heart failure is a devastating syndrome that costs health systems across the European Union (EU) billions of euros each year. The condition means the heart cannot pump enough blood around the body; symptoms (including breathlessness and intense fatigue) can substantially limit people's daily life – including participation in work and communities[1] – and can contribute to anxiety or depression.[2 3] This can affect quality of life and potentially add lost productivity and unpaid caring responsibilities to the cost of the syndrome.[4] Heart failure accounts for 2% of all health system spending in the region.[5] Up to 87% of this expenditure is on hospitalisation and inpatient care,[6] with heart failure being the leading cause of hospitalisations among people over 65 (*Appendix*).[7] The median length of a hospital stay is more than eight days[8] – and many of these hospitalisations are preventable.[9 10]

Heart failure is common and rising in prevalence, but there is much we can do to mitigate it. Data from a major 2024 Portuguese study of the general population indicated that more than 16% of people over 50 are living with heart failure.[11] However, 90% of those diagnosed in the study had been unaware of their condition (*Box 1*) – some were in the late stages of the syndrome, where irreversible damage to the heart has already occured.[11] Notably, in 2008 more than 15 million people in Europe were living with heart failure,[12] but that number is projected to rise as the population ages, more people develop chronic conditions, and innovative treatments support increased life expectancy.[13]

Addressing gender-based disparities in heart failure is essential to ensure equitable cardiovascular care across Member States. Women face distinct challenges in heart failure diagnosis and care, particularly those living with heart failure with preserved ejection fraction (HFpEF). This form of heart failure is more prevalent among older women yet has fewer therapeutic options compared with heart failure with reduced ejection fraction (HFrEF).[14 15]

Box 1. Heart failure as endemic syndrome in the European population: evidence from Portugal[11]

The Portuguese Heart Failure Prevalence Observational Study (PORTHOS) was a population-based cross-sectional study conducted with people aged over 50 years living in the community between 2022 and 2023. The study was nationwide and included 6,189 participants. Diagnosis of heart failure was confirmed through a process that included N-terminal pro b-type natriuretic peptide (NTproBNP) testing, echocardiography and symptom assessment.

The study aimed to identify all three types of heart failure: heart failure with reduced ejection fraction (HFrEF), with mildly reduced ejection fraction (HFmrEF), and with preserved ejection fraction (HFpEF). It included all symptomatic stages of heart failure within the diagnostic criteria, making it more inclusive than previous prevalence studies.

The study found that:

- more than 16% of people over 50 years old in the general population had heart failure (an equivalent of one in six); this number rose to more than 30% in people aged over 70
- the condition was more common in women (21%) than men (10%) – with prevalence among women being 2.3 times higher than for men
- a substantial portion of people diagnosed with heart failure also had diabetes (over 22%) or hypertension (over 75%)
- 90% of people diagnosed with heart failure were previously unaware of having the condition.

Across Europe, heart failure must be detected far earlier. Despite the presence of clear symptoms, heart failure is often diagnosed late, in the acute setting, only after irreversible damage has occurred.[16] [17] This is due to a variety of factors, including: limited awareness of heart failure, its risk factors and its red-flag symptoms among the general public, primary care providers and policymakers;[18] [19] misdiagnosis and delayed referral pathways to specialist assessment and care;[17] and limited access to echocardiography, which is required for a formal diagnosis of heart failure.

Enhanced vigilance of the progression to heart failure is needed, particularly for high-risk groups. Heart failure typically develops after years of exposure to chronic cardio-renal-metabolic risk factors, meaning there are many opportunities for prevention and early detection. People are at heightened risk of heart failure: if they have conditions such as diabetes, hypertension, high cholesterol or coronary artery disease; if they have previously had a heart attack; or due to lifestyle factors including smoking and low levels of physical activity.[20] Additionally, people receiving cancer treatment are three times more likely to develop heart failure as those who have never been diagnosed with cancer;[21] this is linked to the cardiotoxicity of some cancer treatments.[22] The proven and extensive interplay of cardio-renal-metabolic conditions brings urgency, but also complexity, in risk reduction and management of comorbidities such as heart failure.[23]

More advanced strategies are often needed to prevent the onset of heart failure. While tackling lifestyle risk factors such as smoking, lack of exercise, unhealthy diet and alcohol consumption is vital to improving cardiovascular health at all ages,[24] more structured and targeted prevention measures are needed for the substantial populations with elevated risk of progression to heart failure.[20] Personalised prevention strategies can significantly reduce the development of heart failure and the risk of hospitalisation.[25] Comprehensive cardiovascular health checks therefore provide an ideal opportunity to identify people at risk of heart failure in primary care

and community settings, initiate further diagnostic testing if needed, and inform individualised preventive strategies.[26 27] Once triaged by risk of heart failure, people must be actively linked to further diagnostics and care for underlying risk factors and conditions.[13 27]

Despite all it can achieve, prevention alone is not enough; more effective and timely care is needed to support people living with heart failure lead better quality lives. This could include optimising cardiovascular risk factor management, lifestyle changes and initiating or intensifying evidence-based therapies.[28]

2. Actions

Delivering a meaningful cardiovascular health plan

To meet the needs of the EU population, the Cardiovascular Health Plan must address:

1. Proactive identification: a comprehensive cardiovascular health check at primary-care level, including heart failure red-flag assessment
2. Early detection: enhanced screening for heart failure among at-risk populations, including through natriuretic peptide testing
3. Access to quality care: developing best-practice care models to enable effective and equitable heart failure management and improve quality of life

Priority 1.
Proactive identification: a comprehensive cardiovascular health check at primary-care level, including heart failure red-flag assessment

People at risk of heart failure can be first identified in primary care, through assessment of their existing health status. The main risk factors for heart failure include hypertension, obesity, cholesterol, type 2 diabetes, smoking, alcohol consumption and existing cardiovascular conditions (e.g. atrial fibrillation, prior heart attack or stroke).[20] For example, there is substantial evidence that people with diabetes are at heightened risk of cardiovascular disease overall[29] and that people

living with type 2 diabetes are twice as likely as people without diabetes to develop heart failure.[30]

Key red-flag symptoms of heart failure are straightforward to assess and can be easily incorporated into cardiovascular health checks. This should include, at minimum, assessment of any unusual breathlessness, extreme fatigue and swollen ankles.[31] When such factors are a focus for structured cardiovascular screening programmes, time to diagnosis of heart failure decreases substantially (*Box 2*). However, primary care providers and the public must also be made more aware of basic heart failure symptoms and the importance of timely detection.

The implementation of cardiovascular health checks therefore represents a huge and unmissable opportunity to identify high-risk groups and detect undiagnosed heart failure early. The high prevalence of undiagnosed heart failure (*Box 1*) suggests many people presenting for health checks across Europe will not be aware of their risk or of the relevance of established symptoms. It will therefore be vital for cardiovascular health checks to specifically include the red-flag symptoms of heart failure (e.g. breathlessness, extreme fatigue, swollen ankles). These checks must be integrated into community-based clinics, and be supported by rapid referral processes or new diagnostic pathways to support timely and person-centred diagnosis.

Box 2. Screening for breathlessness leads to more rapid identification of heart failure

Screening studies have found that almost 16% of people aged 65 or over who present to primary care with breathlessness have heart failure.[32 33]

In 2014, the National Health Service (NHS) in the UK launched a series of specialist-led diagnostic breathlessness clinics. The clinics were part of a national pilot programme to facilitate the diagnosis of heart failure via referral from primary care.[34]

Time to diagnosis was reduced from 16 weeks to 5 weeks, allowing treatment to start earlier. The clinics supported improved patient experience and self-care, and reduced healthcare costs.[34]

How can the EU Cardiovascular Health Plan support this?

Implementing cardiovascular health checks

The EU Cardiovascular Health Plan should call for a comprehensive cardiovascular health check, which must include basic assessment of heart failure red flags and seek to identify populations at elevated risk of the syndrome. The Commission can then support implementation of the health checks across Member States through:

- the development of dedicated council recommendations that outline a standard framework for the contents and requirements of a cardiovascular health check, including providing criteria for who should be assessed and when (as outlined below)

- advice on which funding mechanisms Member States can use to support implementation of the cardiovascular health checks
- support for initiatives that provide education and training programmes for healthcare professionals. These should focus on increasing awareness and understanding of risk factors, red-flag signs and symptoms, comorbid conditions and disease progression. Focusing such education on primary care could help optimise early detection, coordinated and integrated care with other conditions (diabetes, hypertension etc.), and efficient referral to specialist care when needed
- support for initiatives to develop shared-learning platforms. There, Member States can discuss effective strategies for the implementation of health checks, including the establishment of referral pathways, and raising awareness among healthcare professionals.

Who should receive a cardiovascular health check?

An initial cardiovascular health check should be conducted for populations where there is a higher prevalence of cardiovascular disease. This includes:

- people who have, or are at risk of developing, conditions which put them at elevated risk of cardiovascular disease, including heart failure – such as diabetes, kidney disease, hypertension, atrial fibrillation and obesity
- people over a certain age (e.g. over 40 or over 50), with further data needed to confirm the cost-effectiveness threshold
- people with a family history of cardiovascular disease, a history of smoking or low activity levels.

What should a cardiovascular health check include?

A cardiovascular health check must not be an isolated or 'tick box' exercise – it must be prepared for, be comprehensive of key signs and symptoms, and be linked to onward diagnostic testing and care. A cardiovascular health check should begin with preparatory communication to advise participants to bring all relevant information, including factors such as family history of cardiovascular disease, breathlessness, prior cancer treatment and excessive alcohol use.

The check itself must include a thorough medical history and an assessment of key cardiovascular metrics and symptoms, such as:

- red-flag signs and symptoms that often indicate underlying cardiac involvement, including heart failure (e.g. unusual breathlessness, extreme fatigue, swollen ankles)
- low-density lipoprotein cholesterol
- HbA1c (glycated haemoglobin)

- creatinine
- pulse (rate and regularity)
- blood pressure
- BMI (body mass index)
- smoking status.

A health check should be followed by further risk-driven investigation, where appropriate. For example, if any heart failure red flags are identified, NTproBNP testing, auscultation and electrocardiogram should follow without delay to support timely escalation of diagnosis – ideally in the same visit. Clear criteria are therefore needed as part of cardiovascular health checks to assess severity of symptoms and risk factors, and to dictate the urgency for onward referral. This will help ensure that the identification of a person at risk of any cardio-renal-metabolic condition is promptly acted on, with appropriate personalised prevention or management strategies.

Examples of good practice from Member States

From symptoms to diagnosis in a single visit – establishing a heart failure health check: BEAT HF Campaign, UK

The BEAT HF project is a national public awareness campaign led by a heart failure charity, the Pumping Marvellous Foundation.[31] The initiative aims to improve the early detection and diagnosis of heart failure by educating the public and healthcare professionals about its key symptoms: breathlessness, exhaustion and ankle swelling. The campaign included awareness raising in locations around the UK; podcasts; and a series of heart health check screening days. Material from the campaign has been viewed over 100 million times.[31]

One specific action was the establishment of a one-stop community breathlessness diagnostic hub at Everton Football Club. Clinicians at the diagnostic hub were a GP, a heart failure specialist nurse, a respiratory specialist nurse, a psychologist and a social prescriber, supported with specialist oversight from an HF consultant and chest physicians. The hub assessed the presence of breathlessness, exhaustion and ankle swelling, and then conducted point-of-care NTproBNP tests, AI echocardiography and AI spirometry. Over 1,000 people attended over the course of the year, with walk-in options available; overall, 33% were found to have either HF or combined HF and COPD. Those requiring care were linked to services immediately, for timely initiation of guideline-directed therapy.[35]

BEAT HF has now been adopted by the NHS Health Innovation Network as part of its Heart Failure Workstream.[36]

Integrated, structured chronic disease management strategies: Ireland's primary care Chronic Disease Management Programme[37]

Ireland's Chronic Disease Management Programme, overseen by the Health Service Executive, provides structured care to adults living with long-term illnesses, including heart failure, type 2 diabetes, asthma and chronic obstructive pulmonary disease. As part of the programme, people with these conditions receive twice-yearly check-ups from both a GP and a practice nurse. These reviews focus on the early identification of deteriorating conditions, the development of personalised care plans, and patient education aimed at empowering self-management. The care is available at no cost to medical card and GP visit cardholders aged 18 and over. Moreover, data collection performed as part of the programme facilitates the identification of persistent gaps and allows for continuous improvement.

Priority 2.
Early detection: enhanced screening for heart failure among at-risk populations, including through natriuretic peptide testing

The EU Cardiovascular Health Plan presents a major opportunity to support enhanced heart failure screening of at-risk populations. With advances in treatment – including recent updates to guideline-recommended treatment for HFpEF[38] – there is now even more opportunity for effective management when the syndrome is identified early. This could help improve quality of life and reduce hospitalisations. People identified as being at high risk of heart failure should receive enhanced screening, and where clear indications of heart failure are detected, receive rapid onward referral to advanced diagnostics such as echocardiography, where relevant – all leading to initiation of management programmes or therapeutic intervention. For example, the European Society of Cardiology's guidelines recommend for all people with diabetes to be assessed for heart failure signs and symptoms at each clinical encounter.[39] If heart failure is suspected, such as when there are high NTproBNP test scores, people should be referred for advanced diagnostics such as echocardiography – leading ultimately to prompt initiation of management programmes and therapeutic intervention, following diagnosis.

In at-risk populations, a simple blood test has been shown to be cost-effective in guiding heart failure screening strategies. The hormone B-type NP is released when the heart is under strain, and a high NTproBNP test score suggests underlying progression to heart failure. NTproBNP testing can be used to rule out heart failure, when interpreted in the context of other blood tests and personal health information;

studies to date show promise of cost effectiveness when used in at-risk populations (*Table 1*).[34 40 41]

The benefits of NTproBNP testing go beyond diagnostic triage – it can also guide prevention strategies and support rapid disease management. The discovery of high levels of NTproBNP can help guide immediate management strategies and should be followed by echocardiography as promptly as possible, to confirm a heart failure diagnosis and expedite treatment initiation. Meanwhile, where tests results are not indicative of heart failure, they could still indicate risk and inform proactive steps to prevent progression to heart failure, with personalised risk prevention strategies (as shown in STOP-HF, *Table 1*). Such efforts should consider sex-specific risk factors and clinical presentations, particularly for women.[42]

Table 1. Selected evidence supporting risk-based screening for heart failure

Focus	Exploratory study and evidence of value
Targeted screening of people with type 2 diabetes.	A series of studies in the Netherlands evaluated the cost effectiveness of heart failure screening strategies for people with type 2 diabetes mellitus. People were identified using a combination of tools, including electronic health records, symptom assessment, natriuretic peptide testing and echocardiography. The studies showed that screening for HFpEF in people aged 60 or over with type 2 diabetes increased life expectancy in a cost-effective way.[41 43 44]
Multiple risk factors considered. People over 40 who had at least one cardiovascular risk factor – such as hypertension, diabetes, vascular disease, obesity, dyslipidaemia, arrhythmia or valvular disease – but no symptomatic heart failure at baseline.[45]	Between 2005 and 2009, the STOP-HF screening study in primary care in Ireland helped determine the value of testing for BNP among people who had not yet progressed to heart failure, but were at high risk. People were randomly assigned to receive primary care or to have NTproBNP testing. Among patients at risk of heart failure, BNP-based screening and collaborative care reduced the combined rates of progression to left ventricular systolic dysfunction, diastolic dysfunction and heart failure. A cost-effectiveness analysis found that this approach had a high probability of being cost-effective at a willingness-to-pay threshold of €30,000.[45]

However, access to diagnostics for heart failure varies substantially across Europe. Specifically, the use of NTproBNP testing is not standardised, particularly in emergency departments,[8] and there are delays in accessing echocardiography – a vital follow-up to high NTproBNP values. Barriers include variable reimbursement

protocols, limited awareness among healthcare professionals, and infrastructure restrictions.[46] These barriers delay the initiation of management plans or therapeutic intervention, which can worsen heart failure outcomes.

Current and future innovations present an opportunity to increase access. For example, point-of-care NTproBNP testing could reduce capacity demand on hospitals,[47] and enable such testing to be used more regularly to guide management and strategies. Numerous studies have shown the feasibility of using AI-aided echocardiography,[35 48 49] which can reduce demand on healthcare professionals and ensure easier access to the diagnostic. Proactive steps must be taken to overcome existing barriers and support the integration of these innovations.

How can the EU Cardiovascular Health Plan support this?

Implementing enhanced heart failure screening for at-risk groups

The EU Cardiovascular Health Plan should call for the development of a dedicated Council Recommendation on screening for cardiovascular disease, which presents a standard framework for the contents and requirements of a cardiovascular health check integrated with rapid follow-up screening for people at enhanced risk of heart failure. The recommendations should also include criteria for who should be assessed and when (as outlined below) and how onward referrals should be managed. The plan should also support:

- initiatives to increase the availability of point-of-care diagnostics, such as AI echocardiography and NTproBNP testing
- the sharing of best practice among Member States – specifically, practices that increase equitable access to, and delivery of, advanced screening processes and diagnostics.

Who should be included as a priority in enhanced screening for heart failure?

People identified as being at high risk of heart failure include:

- people who present with symptoms of heart failure: worsening breathlessness, swollen ankles, extreme fatigue
- people with relevant chronic conditions, including atrial fibrillation, coronary artery disease, diabetes, long-term uncontrolled high cholesterol or hypertension
- people who have undergone cancer treatment
- people who have previously had a cardiac event, such as a heart attack.

What should enhanced screening include?

At the same time as conducting a general cardiovascular health check, or immediately afterward, people identified as being at high risk of heart failure should be given:

- basic further diagnostics such as NTproBNP testing, other blood tests, and ECG
- additional diagnostics, such as venous jugular pressure or ankle checks for swelling
- auscultation (for heart rhythm, valve murmurs and fluid on the lungs)
- a deeper investigation of patient history, such as worsening fatigue and breathlessness (including difficulty breathing when sleeping or lying down).

Results from these tests must be used to support ongoing monitoring and prevention, or prompt confirmation of diagnosis and initiation of treatment.

Examples of good practice from Member States

Raising awareness to support the implementation of natriuretic peptide (NP) testing in emergency departments: Peptide for Life (initiative focusing on central and south-eastern Europe)[50]

The Peptide for Life (P4L) initiative, led by the Heart Failure Association of the European Society of Cardiology, aims to enhance NP testing utilisation for the early diagnosis of heart failure. The study examined NP adoption before and after implementing an education campaign in emergency departments across ten medical centres in five countries: Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia and Serbia.

A train-the-trainer programme was implemented to enhance awareness of NP testing in the emergency department, and centres without access received point-of-care instruments. The use of NP testing increased significantly – by 24.4% – between the pre-training and post-training phases. The use of echocardiography was also found to significantly increase, and subsequently the use of prescription diuretics and guideline-directed therapy also increased. The study indicates that by increasing awareness and providing resources, the utilisation of NPs increased in the emergency departments, leading to improved diagnostic accuracy and enhanced patient care.

Innovative diagnostic tools to support early diagnosis of heart failure in the community: OPERA study (UK and Spain)[40 51]

Echocardiogram is required to achieve a comprehensive diagnosis of heart failure; however, access to this diagnostic tool has historically been restricted to hospitals. But limited infrastructure has historically led to long wait times and delays in diagnosis.

A point-of-care hand-held transthoracic echocardiogram can support the early diagnosis of heart failure with reduced ejection fraction (HFrEF) by producing images and analysing them with AI. The hand-held echocardiogram is accompanied by a clinical dashboard that presents information on the treatment needed. Its use was trialled as part of a pilot project in Glasgow, leading to a reduction in wait times for echocardiogram from 12 months to six weeks. It also reduced hospitalisations and led to an improvement in quality of life – and it was cost-effective. The programme is now being extended to Spain.

Priority 3.
Access to quality care: developing best-practice care models to enable effective and equitable heart failure management and improve quality of life

Effective management of heart failure is essential for people to maintain their quality of life. There are four key medications that can help improve outcomes for people living with HFrEF,[52] of which two – SGLT2 inhibitors[38] and MRA[53] – can also be used to manage HFpEF. Evidence from the STRONG-HF trial indicates that the rapid initiation of treatment, followed by gradual adjustment, resulted in a 33% lower risk of death or hospitalisation within six months compared with standard gradual up-titration approaches.[54] The trial also demonstrated improved quality of life for people with heart failure. While this trial is not yet incorporated into guidelines, it has prompted the development of a Heart Failure Rapid Titration Service at Barts Health NHS Trust (UK),[55] and is an indication that further research to improve heart failure management is needed.

However, access to optimal management is inequitable. In many cases, despite the demonstrable benefits, people with heart failure cannot reliably access guideline-recommended treatments and care, which can negatively impact outcomes.[56] Additionally, access to comprehensive and holistic care is also often limited.

Without the provision of optimal care, heart failure is often characterised by repeated hospital visits, many of which are preventable. Readmission rates range from 20% to 60% within one year (*Appendix*),[57-61] but with effective management and appropriate rehabilitation, we have an opportunity to prevent this. For example, data from Portugal indicate that 57% of hospital admissions for heart failure are preventable.[9]

Expanded workforce capacity and innovations in care improve care provision while reducing costs. Across Europe, heart failure specialist nurses can play a key role in delivering optimal care,[35 62-66] while integration of virtual monitoring and telehealth platforms can reduce hospitalisations and lower costs.[62-65 67 68]

How can the EU Cardiovascular Health Plan support this?

Enhancing access to quality heart failure care

The EU Cardiovascular Health Plan should reinforce the vital role of guideline-directed management of heart failure to Member States, including the provision of multidisciplinary care and cardiac rehabilitation:

- **Coordinated multidisciplinary care** is essential for the delivery of heart failure care.[2 28] There are clear roles for primary care and multidisciplinary teams in detection, diagnosis and management of the condition. However, primary care providers may not always have the resources needed to follow best-practice recommendations or ensure that treatment is provided in line with the latest guidelines.[69] Additionally, data-sharing between primary care and other settings is often restricted due to lack of interoperability between healthcare record systems, particularly for telehealth programmes.[70 71]
- **Exercise-based cardiac rehabilitation** is a guideline-based intervention in heart failure as well as post-heart attack and post-stroke, and has been shown to reduce the risk of hospitalisation and improve health-related quality of life among people with heart failure.[28 72 73] Despite this, coverage is often poor and people with heart failure are not consistently included in cardiac rehabilitation programmes, with disparities particularly affecting women, ethnic minorities and older people.[74 75] A pan-European study found that only 4% of people receiving cardiac rehabilitation had been referred due to heart failure.[76] Recognising these challenges, the Romanian Cardiovascular Plan specifically aims to increase uptake of cardiac rehabilitation.[77]

How should efforts be supported?

The plan should support the development and implementation of best-practice care models for heart failure through:

- support for initiatives to develop cardiovascular centres of excellence across Europe, with heart failure diagnosis and care included as a core competency for these centres to deliver against
- funding research into best-practice care for heart failure and routes for its implementation, including prospective and retrospective studies. Where relevant, this would build on the data available through the European Health Data Space.

Examples of good practice from Member States

a) Supporting multidisciplinary care and collaboration

Iterative care improvement taking a collaborative systems approach: DeltaPlan Heart Failure, the Netherlands

DeltaPlan Heart Failure is a leading national initiative that was developed in response to the increasing burden of heart failure in the Netherlands.[78] It aims to improve patients' quality of life and improve heart failure care through collaboration among patients, healthcare professionals from different backgrounds, researchers and policymakers. There are specific targets to improve public awareness, promote earlier detection, optimise treatment and strengthen palliative care while actively driving research and innovation.[78] DeltaPlan set up the Heart Failure Platform, where data are gathered to identify gaps and opportunities to advance heart failure care across the health system.[79]

Building effective integrated care models to reduce the burden on specialist services: nurse-led integrated care model in Barcelona[62-64]

Between 2005 and 2007, healthcare professionals from the Hospital del Mar Heart Failure Unit in Barcelona, with support from the Catalan Health Service, introduced an integrated nurse-led management programme for people living with heart failure, involving telemedicine. The programme aimed to improve quality of life and reduce hospital readmissions and mortality. It focused on transitions of care, particularly between hospital and community settings.

Between 2008 and 2011, the programme reduced the risk of hospital readmission with heart failure by 18%, and the risk of mortality by 12%.[63] The use of remote monitoring devices and video consultations reduced healthcare costs by more than €3,546 per person over the course of six months.[64]

Supporting multispecialty involvement to enable holistic care: virtual multidisciplinary heart failure meeting in Liverpool

In 2019, Liverpool introduced a monthly virtual multispecialty multimorbidity heart failure meeting.[67] These meetings integrated primary care, community heart failure teams, heart failure specialists (consultants, fellows, specialist nurses, pharmacists) and consultants in diabetes, renal medicine, geriatrics, palliative care, pharmacology and chest medicine in holistic management of multiple long-term conditions for people with heart failure. The model showed a significant reduction in heart failure hospitalisations, with over 1,500 fewer

hospital bed-days over an 18-month period, and total cost saving to the health system of over €750,000.

b) Strengthening provision of best-practice care

Development of accredited heart failure centres of excellence: Spain[80]

A scientific committee created by the Spanish Society of Cardiology established criteria for the delivery of heart failure care to different standards in a range of care settings, to ensure the consistency and quality of care delivery. The committee defined three types of heart failure units (community, specialised and advanced), depending on the characteristics of the hospital and its portfolio of services and equipment, as well as the quality standards required for the accreditation of excellence. The units were required to submit a document to the Spanish Society of Cardiology certifying compliance with the requirements and quality standards. Once verified, the unit received an accreditation of excellence from the Spanish Society of Cardiology.

Between 2017 and October 2021, 78 Spanish heart failure units applied for accreditation, representing 50.6% of Spanish national health system centres with cardiology departments. Accreditation was definitive in 56.4% of the applicant centres and was provided to the remaining 43.6% within six months of the initial evaluation, after deficits were resolved. Of the 78 units, 19 were community units, 44 were specialised, and 15 were advanced.

Telemonitoring and nurse-led care to reduce hospitalisations: demonstrating value and feasibility in the UK

A telehealth-aided virtual heart failure ward was established in Liverpool University Hospitals NHS Foundation Trust, to manage acute heart failure care at home and reduce hospital admissions.[65] The programme used the principle of rapid initiation and optimisation of prognostic medication, with intravenous diuretics also provided. Point-of-care testing and symptom assessment were used to monitor progress, with daily phone calls from a nurse and input from an HF specialist nurse where required. Compared with standard care in-hospital treatment, a retrospective analysis of data found significantly lower incidence of mortality and hospital readmission for the six-month follow-up period.[65] The approach also reduced healthcare costs by more than €1,300 per person.[81]

4. Conclusion

A critical opportunity to drive quality of life and sustainability in Member States

The incorporation of heart failure into an EU Cardiovascular Health Plan is a critical opportunity to substantially improve the lives of the European population. By embedding heart failure fully within a broader cardiovascular strategy, the EU can address one of the most prevalent, under-recognised and costly drivers of morbidity and mortality in Member States. It is essential that the EU champions – via its formal programmes, funding streams and best-practice knowledge exchange – earlier detection, faster diagnosis and equitable access to high-quality heart failure care that would include:

- comprehensive cardiovascular health checks, which include assessment of the basic signs and symptoms of heart failure
- immediate escalation to other key diagnostics in community settings, if heart failure is suspected (e.g. NTproBNP testing, ECG)
- enhanced screening for people at high risk of heart failure (including routine inspection for heart failure red flags as a standard component of care for those living with existing cardiovascular conditions, diabetes and kidney disease)
- effective care and management for people living with heart failure, to improve quality of life and reduce costly re-hospitalisations.

A Cardiovascular Health Plan that includes heart failure in this way will not only improve outcomes, but reduce healthcare costs through earlier diagnosis and better disease management. Importantly, these improvements can be achieved without substantive additional financial burden by leveraging existing infrastructure and aligning efforts and knowledge exchange across national systems.

In doing so, the EU will take a decisive step towards cardiovascular care that is equitable, person centred, high quality and designed for a sustainable future, delivering lasting benefits for Member States' populations.

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Appendix

Heart failure hospital admission data across Europe

Country	Overall number	Duration of admission	Readmission rates	Mortality after admission
France	~165,000 people hospitalised (2014); 1.3 admissions/person (2014)[82]	—	Rate of readmissions >30% (2002–2014)[82]	30-day mortality ~6%; (2002–2015)[83]
Germany	~464,000 admissions (2017)[84] ~246,000 admissions are preventable (2012)[10]	—	—	In-hospital mortality ~9.5% (2005–2016)[85]
Ireland	~5% of emergency medical admissions are due to heart failure; 80% >65[60]	~10.6–15.7 days ALOS estimate range[86] [87]	~16% (30-d), 24% (12-wk), 44% (1-yr) readmissions[88] [86]	—
Italy	~200,000 admissions/year; 88% aged >65[89]	~10 days median LOS (2010)[90]	~59% readmitted within 1 year[57]	~24% mortality within 1 year[57]
Poland	205,000 admissions (2021) 82% were emergency admissions (2012–2018)[75]	—	Depending on the type of admission, 38,700–54,700 had at least two admissions within 1 year (2019)[75]	—
Portugal	~15,500 admissions (2013); ~57% preventable (panel)[9]	—	~20% have ≥1 heart failure readmission within 1 year[59]	~12.5% die during acute heart failure stay (2014)[58]
England and Wales	>65 thousand admissions (2023/24)[91]	Median 8 days[91]	—	~10% in-hospital mortality[91]

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