A European Cardiovascular Health Plan: The Roadmap

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each
European Alliance for Cardiovascular Health

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With thanks to Nicola Bedlington for writing the first EACH policy document ‘A European Cardiovascular Health Plan: The Need and the Ambition’ which contributed to the prioritization of CVH in Europe.

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1. EXECUTIVE SUMMARY

EACH welcomes the commitment of the EU institutions to our call for the EU Cardiovascular Health (CVH) plan. Strong leadership has been expressed through the vision and Mission Letters of Commission President von der Leyen, the many Members of the European Parliament who amplified the stakeholder call on CVH including the MEP Cardiovascular Health Group, the support of Commissioner Olivér Várhelyi from the moment of his nomination, and the dedication of the Ministries of Health of the EU27 in December 2024 to take action at home and collectively in Europe.

EACH believes the vision for the EU Cardiovascular Health (CVH) plan should be:

By 2030, premature and preventable deaths in Europe from cardiovascular disease (CVD) related causes will be reduced by one third, in line with the Sustainable Development Goal Target 3.4. Every person living in Europe will have access to high quality cardiovascular risk assessments throughout the life course, and all those affected by CVD will have access to a care pathway that focuses on their needs and goals.

A European CVH plan should focus on:

- **primordial prevention[1] to inhibit the emergence of risk factors** including the deployment of environment and product legislation.
- **primary prevention[2] to decrease premature mortality and morbidity at population level** by helping people at high risk to reduce and manage their risk factors. Primary prevention is also necessary to identify the most effective policies and measures to reach out and manage individuals at high risk of developing CVD.
- **secondary prevention** through timely screening, early detection, and precision diagnosis, creating a **European Cardiovascular Health Check** and preventing repeated CVD crises.
- **early intervention, access to quality, personalised healthcare** including awareness of signs and symptoms of CVD, innovative and precision care solutions building on evidence from basic and translational CV research to better understand the molecular causes and mechanisms of CVD.
- **rehabilitation** by establishing **a network of experts** to agree a common definition, identifying barriers and opportunities for the **uptake of cardiac and stroke rehabilitation** building on the Stroke Action Plan for Europe, supported by digital health solutions.
- **quality of life and other psychosocial outcomes** across the spectrum of cardiovascular diseases by creating a **European patient-relevant standardised instrument, measuring quality of life and other data sources including registries and PROMS** related to it, reinforcing the role of **patient organisations** in quality of life and long-term care, and addressing **survivors' and their families' long-term unmet needs** through minimum standards.

[1] primordial prevention focuses on preventing the emergence of risk factors by addressing the underlying social, economic, and environmental conditions that promote disease, targeting populations and often implemented through policies and societal changes (WHO definition of Primordial Prevention)

[2] Matthias Wilhelm et al., Sept 2021, EAPC Core Curriculum for Preventive Cardiology, https://www.escardio.org/Sub-specialty-communities/European-Association-of-Preventive-Cardiology-(EAPC)/News/eapc-core-curriculum-for-preventive-cardiology, accessed 9th April 2025

Dedicated flagship actions should be included in and across each of these pillars. Key actions should comprise:

A European CVH plan should focus on:

- **a European CVH Knowledge Centre** to address the current fragmentation and significant gaps in reliable data and ensure connectivity across the spectrum of CVD and related conditions and cross border collaboration.
- **a European Cardiovascular Health Observatory** to capture important developments in cardiovascular policies, highlighting beacons of excellence, and how these could be replicated and scaled across Europe.
- **EU action on prevention** with measures to reduce the enormous burden of the majority of CVDs that are preventable.
- **National CVH Action Plans** to reflect the national context and culture and provide an essential framework for national implementation of a European CVH Plan with appropriate emphasis, investment and targets on primary, secondary and tertiary prevention.
- **an incubator and progressive policy environment for digital transformation in CVH** to help facilitate innovation, trust and equitable uptake of digital health solutions across the CVH community across Europe.
- **a European Cardiovascular Health Check** to drive a prevention-based approach in a meaningful way for citizens.
- **a CVH Research Agenda** should be established, spearheading research and innovation. Basic and translational cardiovascular research is crucial to improving understanding of the molecular causes and mechanisms of CVD to develop high-performance diagnostic tools, implementation research, targeted strategies for personalising treatment and management, and to develop new medicines. A dedicated CVH Research Agenda will facilitate an enabling environment for CVH Clinical Trials and deeper collaboration across the CVH multistakeholder community.

By 2030, premature and preventable deaths in Europe from cardiovascular disease (CVD) related causes will be reduced by one third, in line with the Sustainable Development Goal Target 3.4.

Several important considerations for the architecture of the Plan are proposed, including a life course perspective, inclusive governance, synergies with other relevant EU instruments and initiatives, agile and innovative Public Private Partnerships, timely patient access to medicines and medical technologies, institutional collaboration in the context of the wider Europe, and global advances on cardiovascular health.

The success and impact of the European CVH Plan will be shaped not only by what is achieved over the next few years, but also by how it is achieved, leaving no-one and no country behind. The Plan must address societal barriers, underserved populations, discrimination on all grounds, and fundamental inequalities pervading health systems across Europe.

We believe that the EU CVH plan is a crucial investment for the EU's 'fitness to operate' in today's turbulent world. It can drive a new era of reducing healthcare costs, catalysing European academic and industrial innovation in CVH, effective regulation that is conducive to innovation, and improving productivity through improved public health. The plan can profoundly contribute to a healthier European population fit for whatever challenges may come our way.

EACH partners are committed to working together with policy makers and stakeholders to deliver this ambition, and to support the European Union in playing its vital role in addressing the burden of CVD and the biggest health challenge facing its people and health systems across Europe.

EACH Roadmap for the EU Cardiovascular Health Plan

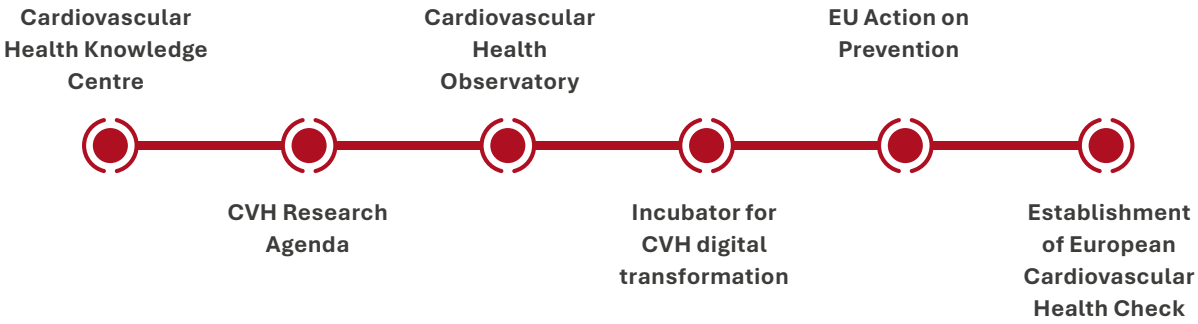
Principles:

- Meaningful stakeholder consultation and partnership and inclusive governance
- Identifying opportunities to implement measures on EU and national legislation (alcohol, tobacco, food and drink, smoke free environments etc) to reduce preventable CVDs
- Supporting member state health systems to reduce all inequalities
- Bolstering EU economic competitiveness and geopolitical strength through improvement of CVH

Preparatory and Legislative Actions from the European Commission

- Communication setting out the EU CVH Plan
- Proposal for a Council Recommendation on CVH National Action Plans
- Set up framework for systematic oversight and management
- Prepare sustainable and diverse funding streams for the actions through the current and next Multiannual Financial Framework

Horizontal/EU led Actions



Vertical/Member State led Actions with EU coordination

National Action Plans including:

- Primordial, primary, secondary and tertiary prevention
- Early intervention and access to optimal treatment
- Rehabilitation
- Quality of life and psychosocial aspects
- A life-course approach to CVH and tackling inequalities

European Cardiovascular Health Check implementation

2. INTRODUCTION AND CONTEXT: TRANSFORMING THE NARRATIVE FROM DISEASE TO HEALTH, FOR PATIENTS AND PEOPLE

In 2022 the European Alliance for Cardiovascular Health (EACH) called for a major prioritisation of cardiovascular health (CVH) by the EU institutions and member states. We published a document outlining a framework for an EU CVH plan. The positive responses from EU institutions, political parties, and national governments to our call have been encouraging. We collectively agree that the burden of cardiovascular disease (CVD) is too high, and that cooperative action can help to move the needle.

This is set in the context of a new Europe in health terms. We saw clear evidence of how patients living with, and people at risk of CVD, have been disproportionately affected by COVID-19. We see the ravages of war in Ukraine with huge, immediate health implications within the country, the influx of people, mainly women and children seeking refuge, and the many long-term health unknowns linked to this tragedy.

The EU is supporting the security and building of military capacity with its member states, trying to improve the overall economic competitiveness of the region, and all while trying to guarantee social provisions to citizens. Within this complex picture one thing is clear; Europe's fitness to operate cannot be guaranteed without an improvement in prevention and management of our biggest killer which is CVD.[3]

The CVH world is changing too with recognition that it is everybody's business - it can affect anyone, at any age. Not all cardiovascular diseases are the same and require different approaches, however, we are moving from looking at the condition to the person – from cardiovascular disease to cardiovascular health, for patients and people, through primordial, primary, secondary and tertiary prevention.[4] This is an important shift and is the bedrock for our call for a European CVH Plan.

Every person living in Europe will have access to high quality cardiovascular risk assessments throughout the life course, and all those affected by CVD will have access to a care pathway that focuses on their needs and goals.

[3] ESC Atlas of Cardiology – EU 27 cardiovascular realities 2025, https://www.escardio.org/Research/ESC-Atlas-of-cardiology accessed 9th April 2025

[4] WHO Europe, essential public health operation : Disease prevention, including early detection of illness

The evidence is clear – the unbearable burden of cardiovascular disease for patients, people, health systems and society in Europe will only increase if we do not channel enormous political will, leadership, expertise, investment and imagination to create a new landscape for CVH in Europe. We are delighted that EU policy makers are with us on this journey. With this Roadmap EACH demonstrates how we can work together to deliver meaningful policies with long-lasting benefit and the possibility to reduce costs and burden on health and social systems. This Roadmap sets out proposals for the main pillars of the EU CVH Plan and how they might be crafted to deliver best value to European citizens.

"Not all cardiovascular diseases are the same and require different approaches, however, we are moving from looking at the condition to the person – from cardiovascular disease to cardiovascular health, for patients and people, through primordial, primary, secondary and tertiary prevention."

3. THE BURDEN OF CARDIOVASCULAR DISEASE IN EUROPE

CVD is a group of disorders, all related to the heart and circulatory (vascular) system.[5] Despite some improvements, cardiovascular events (mainly heart attacks and strokes) remain by far the **leading cause of death** in the European Union. The figures are startling and make clear the need for action:

- **34%** of deaths in the EU are caused by CVD (37% in women, 31% in men)
- More than **1 in every 3 deaths**
- CVD remains the number 1 killer in the EU, accounting for almost **5000 deaths** every day
- **62 million people** across the EU are living with CVD[6]

Cardiovascular disease is not limited to older people. Quite to the contrary, it heavily **impacts people of all age groups**. Around **20% of all premature deaths** (before the age of 65) in the EU are caused by CVD. The fundamental misperception of CVD is a major challenge.

Around 20% of all premature deaths (before the age of 65) in the EU are caused by CVD.

The majority of CVD can be prevented and population-based interventions offer the best chance to do so. It is seen as a "lifestyle" disease only whereas, given the scale of the disease, it would be more appropriate to refer to CVD as a societal disease. Frequently it is even a familial or genetic disease. While major efforts are needed on prevention, we also need bold actions to target all age groups at risk. Many conditions, such as Familial hypercholesterolaemia (FH),[7] cardiomyopathies or channelopathies are inherited and are related to non-modifiable risk factors[8] and some conditions may not manifest themselves until adulthood.

Elevated Lipoprotein(a) – often referred to as Lp(a) affects one in five people worldwide and is a significant risk factor contributing to CVD. People can also be born with heart disease. The prevalence of congenital heart disease is predicted to increase in the next 20 years.[9] While this is concerning news; it does mean that with a proactive public health approach on genetic diseases an improvement can be delivered.

[5] Cardiovascular disease (CVD) has many forms, and they include ischemic heart disease (also known as coronary heart disease), different types of stroke, peripheral artery disease, heart rhythm disturbances (e.g. atrial fibrillation), heart failure, congenital heart diseases, inherited (genetic) conditions, valvular heart disease and vascular dementia.

[6] ESC Atlas of Cardiology – EU 27 cardiovascular realities 2025, https://www.escardio.org/Research/ESC-Atlas-of-cardiology, accessed 9th April 2025

[7] Marina Cuchel et al., 2021, Familial hypercholesterolaemia: too many lost opportunities, LANCET, DOI: https://doi.org/10.1016/S0140-6736(21)01372-6, accessed 9th April 2025

[8] Examples include certain cardiomyopathies and cardiac arrhythmias, some forms of inherited high cholesterol, and monogenetic diseases associated with strokes. Eurostat, 2017, http://ec.europa.eu/eurostat/statistics-explained/index.php?title=People_in_the_EU_-_population_projections, accessed 9th April 2025

[9] Nordestgaard BG et al., 2013, Familial hypercholesterolaemia is underdiagnosed and undertreated in the general population: guidance for clinicians to prevent coronary heart disease: consensus statement of the European Atherosclerosis Society., Eur Heart J. 2013; 34 (390a): 3478

There is a mischaracterisation of the risk of CVD to women as being low whereas, for example, more women die of heart attacks than men.[10] This belief is dangerous and must be addressed. It is pervasive even among healthcare systems and some healthcare professionals and 'bakes in' inequalities in CVH for women.

The risk and prevalence of CVD increases even further with age and unpreventable functional decline. This is of utmost relevance in view of **Europe's ageing population**. In 2040, 155 million Europeans will be over 65.[11] Without decisive action starting today, the number of citizens suffering from CVD and the burden of dealing with the disease will increase dramatically.

For example, the number of people living with stroke is projected to increase by 35% to 12 million people in 2040. Up to 50% of survivors are chronically disabled.[12] [13]

People who have experienced a CVD event, such as stroke, or heart attack, remain at high risk of another CVD related event, and need timely, on-going quality care and long- term support. The far-reaching personal, psycho-social impacts for them and their families are enormous.

CVD is often triggered by other chronic conditions or their therapies,[14] including but not limited to, diabetes, hypertension, obesity, chronic kidney disease, pulmonary disease, and cancer. Timely identification and appropriate management of **comorbidities** are essential to combat CVD and to reduce healthcare costs.

[10] World Heart Federation data, https://world-heart-federation.org/what-we-do/women-cvd/, accessed 9th April 2025

[11] Eurostat, 2017, op. cit

[12] SAFE, The Economic Impact Of Stroke In Europe, 2020

[13] Donkor E. S. (2018). Stroke in the 21st Century: A Snapshot of the Burden, Epidemiology, and Quality of Life. Stroke Research and Treatment, 2018, 3238165. https://doi.org/10.1155/2018/3238165, accessed 9th April 2025

[14] Risks Associated with CVD, Appendix 2, European Society of Cardiology - European Heart Network, Fighting cardiovascular disease – a blueprint for EU action

Reducing inequalities is at the heart of EU action on health, but this is far from being achieved in the context of CVD. There are many unmet needs and underserved communities. **Huge inequalities** in the access to appropriate cardiovascular care, often due to social and economic disparities, persist within and between EU countries.

There are significant disparities in access to detection, treatment and care of CVDs.

Death rates from CVD are higher in Central and Eastern Europe than in other parts of Europe. For example, the age-standardised death rate for heart disease is 13-fold higher in women in Lithuania than in France, and 9-fold higher in men. For stroke, the age-standardised death rate is 7-fold higher in women in Bulgaria than in France, and 8-fold higher in men.[15] These inequalities, resulting in major differences in access, awareness, and outcomes should be urgently addressed. Limb amputation is an indicator of severe and poorly managed CVDs. Targeting a reduction can serve as a target for equality of diagnosis and treatment.

Cardiovascular disease costs the EU **EUR 282 billion** per year, due to direct healthcare costs, productivity loss, and informal care by caregivers. This is equal to **20% of all healthcare expenditure** in the EU.[16] Certain CVDs (e.g. heart failure) are a major cause of hospitalisation and place significant pressure on fragile health systems.[17] The **COVID-19 pandemic** added to this challenge due to the significant impact on CVD patients, in terms of access to, and delivery of care, as well as of heart health and cardiovascular complications.[18]

60 million

In the EU, CVD accounts for 36% of all deaths and impacts the lives of some 60 million people who are living with CVD.

[15] Ibid

[16] ESC Atlas of Cardiology – EU 27 cardiovascular realities 2025, https://www.escardio.org/Research/ESC-Atlas-of-cardiology, accessed 9th April 2025

[17] Cowie MR, et al. 2014. Improving care for patients with acute heart failure: before, during and after hospitalization. ESC Heart Failure, https://onlinelibrary.wiley.com/doi/10.1002/ehf2.12021, accessed 9th April 2025

[18] European Society of Cardiology, , 2020, The collateral damage of COVID-19: cardiovascular disease, the next pandemic wave. https://www.escardio.org/static-file/Escardio/Advocacy/Documents/ESC%20statement%20on%20COVID-19%20&%20CVD.pdf, accessed 9th April 2025

[19] While primary prevention is about treating risk factors to prevent cardiovascular disease, primordial prevention refers to avoiding the development of risk factors in the first place, Primordial Prevention of Cardiovascular Disease, https://pmc.ncbi.nlm.nih.gov/articles/PMC4349501/

[20] Matthias Wilhelm et al., Sept 2021, EAPC Core Curriculum for Preventive Cardiology, op. cit.

4. EACH'S AMBITION FOR CARDIOVASCULAR HEALTH IN EUROPE

The Beating Cancer Plan demonstrates the huge impact of a singular, highly focussed approach and is an important precedent both in terms of this approach, and in terms of budget.

EACH believes the overall vision for a future CVH plan should be:

By 2030, premature and preventable deaths in Europe from CVD related causes, will be reduced by one third, in line with the Sustainable Development Goal Target 3.4. Every person living in Europe will have access to high quality cardiovascular risk assessment throughout the life course, and all CVD patients will have access to a care pathway that focuses on their needs and goals.

A European CVH plan should therefore focus on:

- primordial prevention to reduce the impact of risk factors.[19]
- primary prevention[20] to decrease premature mortality and morbidity at population level.
- secondary prevention through timely screening, early detection, diagnosis, adherence and monitoring, and avoiding recurrence of CVD crises.
- early intervention, access to quality health care, including innovative and precision medicine. Early intervention approaches should be based on findings from basic and translational CV research aimed at better understanding the molecular causes and mechanisms of CVD rehabilitation, referral, and long-term care.
- quality of life and other psychosocial outcomes across the spectrum of cardiovascular diseases.

Dedicated flagship actions in and across each of these pillars should be included in the Plan and are detailed within this Roadmap.

5. DEVELOPING THE EUROPEAN CVH PLAN IN THE SHORT-TERM

Given the strong and welcome commitment of the EU institutions we propose that the European Commission:

- ensures the widest possible geographic representation and commitment by involving all stakeholders, including the member states, regional governments, healthcare professionals and providers, civil society, insurance organisations, patient and citizens' organisations, researchers and industry in the planning, implementation, governance, and evaluation mechanisms of a European CVH plan.

- prioritises action and policy instruments in each of the pillars of the European CVH Plan, building on experience learned from the Beating Cancer Plan and existing best practice, such as Swedeheart,[21] young50[22] and ERA-CVD,[23] joint actions JACarDi and from JA Prevent.

- allocates funding to preparatory initiatives, with a top -down, bottom-up approach. EU4Health can support co-ordinated EU actions.

- proposes horizontal EU policy flagships while encouraging and supporting member states to develop their own National Action Plans based upon best practice.

- develops and includes in legislative proposals measures addressing the burdens imposed by the well-known risk factors such as smoking, unhealthy diets, alcohol consumption, air quality and physical inactivity. Relevant legislation and approaches include tobacco taxation and alcohol duties, product law including vapes and other nicotine products, marketing and advertising (especially those aimed at children), smoke free policies, affordable and sustainable food systems, products with high fat sugar and salt, labelling and reduction of subsidies for harmful products. Encouraging the uptake of physical activity and mobility for all ages is a crucial prevention-focussed priority.

- holds a public consultation, complemented by a European public awareness/ education campaign on CVH, and 'citizen juries' at national level, to craft the CVH plan, grounded in grass-roots needs and experience, in understandable and relatable language. We recommend the setting up of equivalent partnerships to EACH at national level such as the Belgian Alliance for Cardiovascular Health (BACH).

War in Europe and the risk of further conflict will negatively affect population health while straining budgets for delivery of health and social care. A dedicated taskforce should be created to seek to understand the implications for a European Cardiovascular Plan moving forward.

282 billion

Cardiovascular disease costs the EU EUR 282 billion per year, due to direct healthcare costs, productivity loss, and informal care by caregivers.

[21] Maria Bäck et al., 2021, The SWEDEHEART secondary prevention and cardiac rehabilitation registry (SWEDEHEART CR registry), European Heart Journal - Quality of Care and Clinical Outcomes, Volume 7, Issue 5, November 2021, Pages 431–437, https://doi.org/10.1093/ehjqcco/qcab039

[22] Young 50, #Stay Healthy - Cardiovascular Risk Prevention https://www.lih.lu/en/young-50/

[23] The ERA-CVD Strategic Research Agenda (SRA-CVD), 2019, Challenges and Opportunities for Cardiovascular Research, www.era-cvd.eu, accessed 9th April 2025

EACH partners firmly believe that the CVH Plan can contribute to EU competitiveness through the following mechanisms:

- Health is wealth: prevention and early intervention mean that more citizens can remain productive in the economy for longer and will reduce the health and socio-economic costs of frequent hospitalizations, time off work and early retirement.
- Spending on management of disease in the end stages can be replaced by more effective earlier intervention.
- Enhancing our use of data and sharing of best practice on policies can allow health and social care spending to be more targeted and spent on interventions that work.
- Bolstering Europe's research capacity on CVH in the coming years should stimulate the development of new diagnostics and treatments in the EU. However, access to those new technologies should be delivered faster to patients when they are available.
- Streamlined regulatory systems for medicines, medical devices and diagnostics are needed with adequate rewards for commercializing products and launching them in Europe with a strong IP system (including Regulatory Data Protection) and timely pathways towards reimbursement with sufficient funding made available; especially for diagnostics.
- Make the EU an environment conducive to scientific innovation in both academic and commercial domains. Support entrepreneurs to scale-up their activities which is an identified weakness of the EU by Mario Draghi. Take action on bottlenecks in running clinical trials in the EU.

6. KEY COMPONENTS OF A FUTURE CVH PLAN: HORIZONTAL, CROSS-CUTTING ACTIONS

A European Cardiovascular Health Knowledge Centre

Echoing developments in the framework of the European Health Data Space (EHDS), EACH calls for the creation of a 'European Cardiovascular Health Knowledge Centre' to ensure appropriate data infrastructure, interoperability, data protection, security and stewardship. It should bring together existing registries, electronic health record platforms, patient and citizen generated data and related initiatives in CVD in one large-scale action.

The European CVH Knowledge Centre can deliver a critical foundation of reliable data to enhance scientific progress. It will be the source and reference point of reliable and trusted, state of the art, community-focussed, evidence-based information on CVD and comorbid conditions, thus challenging existing low quality, non-curated, possibly misleading information.

The EHDS should enhance individuals' access to and control over their personal electronic health data, while also enabling certain data to be reused for public interest, policy support, and scientific research purposes.[24] These aspects contribute to improving the understanding and management of CVH while engaging individuals in stewarding their own health. The European CVH Knowledge Centre should have a strong connection with EHDS as the home for EU knowledge on CVH and link with the European Reference Network for rare heart diseases (ERN GUARD-Heart).[25]

The goal is comprehensive and standardised data to support strengthening the health system, innovation, research, person-centred value-based decision-making, investment in cardiovascular prevention, risk stratification, personalised prevention and treatment, making better use of Real World Evidence including patient generated data.

The development of integrated data-driven care pathways focussed on the needs and goals of the patient should be the goal. This is a tremendous opportunity to work closely with patient organizations working in CVH to co-design a framework harnessing data to better suit patient needs (rather than assuming what they are) and improve equitable access to diagnosis and care.

To bridge gaps in primary prevention the Knowledge Centre should integrate data on societal risk factors (such as smoking, alcohol, diet, physical inactivity, climate change, air pollution, and socioeconomic disparities) and facilitate targeted interventions in vulnerable populations. The Knowledge Centre can quantify effective interventions and provide a compelling case for investing in a new era of prevention-focussed health policies. Preventing the onset of a disease is the most important component of maintaining good cardiovascular health for the population at large. When prevention is not possible, treating disease based on data collected in a systematic way helps to reduce further development of the disease or even may reverse the burden once it's begun. Data must underpin this positive transition.

The Knowledge Centre could monitor patients' access to quality care across the entire patient pathway, including long-term care, and would enable country level comparison, scorecards, and advocacy work to address inequities. It will help to address the huge gap observed between clinical trial outcomes and real-life outcomes for patients with CVD and facilitate a drive towards real world evidence (RWE) generation. Further potential benefits include developing AI solutions based on the collected data, and meeting the need to set up dedicated inequalities registries focussing on gender inequalities.

[24] European Health Data Space, https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space-regulation-ehds_en, accessed 9th April 2025

[25] https://guardheart.ern-net.eu

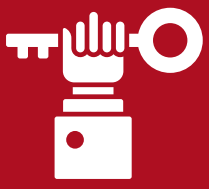
This Action will be a critical accelerator for all pillars of a CVH plan. The Centre should include organizations like EACH in its governance to provide input on patient and medical needs and support effective progress towards our common goals.

Policy Maker Guide to the CVH Knowledge Centre

The need:
Comprehensive and standardised data to strengthen the health system, innovation, research, person-centred value-based and gender responsive decision-making, investment in cardiovascular primary and secondary prevention, risk stratification, personalised prevention and treatment, and integrated data-driven care pathways focussed on the needs and goals of the patient.

Stakeholders to use the output:
- National healthcare systems
- EU and national policy makers
- Companies involved in the development of new diagnostics, medicines and digital solutions
- Patient and medical organizations including EACH partners

Stakeholders to input data:
- Patient and medical organizations including EACH partners
- Civil society and advocacy organizations
- Academic researchers
- Individual citizens via their electronic health records and granting of permission



Key success factors in management:
- The Knowledge Centre should not just be a repository for all data. It should be the go-to source for quality data. As such an expert oversight or peer review system will be needed
- There are significant hurdles in the cross-fertilisation of data sets that were created for different purposes that will need to be overcome
- EHDS will provide a significant springboard for the Knowledge Centre
- A truly patient and citizen focussed approach with the support of EACH and its member organizations

A European Cardiovascular Health Observatory

EACH proposes the establishment of a European Cardiovascular Health Observatory to capture important policy developments across the spectrum of cardiovascular health in Europe, highlighting beacons of excellence, good practices, and specific methodology on how these could be replicated and scaled, and integrated into member state CVH action plans.

The Observatory will act as a centralised hub to map best practices in policy across the EU and provide structured guidelines on how to implement national cardiovascular health plans effectively, ensuring standardization and scalability at a local level. The intention is not to judge member state health systems but rather to support them to save time and money in implementing plans for improvement including CVH National Action Plans.

This action responds to a universal concern that much is happening in isolation, there is duplication and wasted opportunity to 'leapfrog', and 'key enablers' are needed for good practices to be implemented and adopted elsewhere.

The Observatory would enlarge and deepen the work undertaken in the framework of 'Healthier Together' on good practice exchange and JAPrevent on prevention of cancer and other NCDs.

The Observatory should oversee a process whereby member state experts can provide peer reviewed input on national CVH Action Plans. Analogous to the EU Semester process, such a role for the Observatory will allow expert input into the elaboration and refinement of national CVH Action Plans and health system readiness.

A 'hub and spoke' methodology and approach of the European Reference Networks in Rare Diseases should be explored in establishing this Observatory, including rare CVDs. Synergies at global level should be found with current data observation activities. Conclusions from the Joint Action on CARdiovascular diseases and DIabetes in Europe (JACARDI) should be included.

Policy Makers Guide to the Cardiovascular Health Observatory

The need:
To capture important policy developments in all areas of cardiovascular health in Europe, highlighting beacons of excellence, and how these could be replicated and scaled across Europe. This action responds to a universal concern that too much is happening in isolation, there is duplication and wasted opportunity to 'leapfrog', and 'key enablers' are needed for good practices to be implemented and adopted elsewhere.

Stakeholders to use the output:
- Professionals working in national healthcare systems and responsible for implementing of policies
- EU and national policy makers
- National level patient and medical organizations
- DG Santé

Stakeholders to input policy best practice:
- Professionals working in national healthcare systems and responsible for implementing of policies
- Patient and medical organizations including EACH partners
- Civil society and advocacy organizations

Key success factors in management:
- To overcome language barriers the Observatory should integrate multilingual resources and provide automatic translation tools to support national-level implementation
- Ensuring that member states see the value of a CVH Observatory for use in developing their own national policies, and that it is constructive in practice rather than "marking of their homework by Brussels". Rather it should be a peer-to-peer relationship to help each other improve
- A truly patient and citizen focussed approach with the support of EACH and its member organizations
- A 'health in all policies approach'

EU action on prevention

The EU has significant power to take measures to reduce the enormous burden of the majority of CVDs that are preventable. It can support member states to improve their own prevention initiatives, make healthcare savings and make a meaningful difference to EU citizens in tackling Europe's biggest killer.

It can be based around:

a) The EU's legislative power on the environment and products (tobacco, alcohol, food and drink) to positively impact primordial prevention.
b) Awareness and education of the public, policy makers and HCPs.
c) Coordination of the Cardiovascular Health Check.
d) Funding of worthwhile stakeholder proposed initiatives through EU4Health and other relevant funding streams.

The key principles of prevention to be addressed are:

Primordial prevention to inhibit the emergence of risk factors

Primordial prevention[26] consists of measures that inhibit the emergence of risk factors in the form of environmental, economic, social and behavioural conditions and cultural patterns of living.[27] It is clearly within the gift of policy makers to put in place legislation that improves the conditions in which we live.

Air pollution is clearly recognised as a risk factor[28] to CVH in addition to the classic risk factors like malnutrition, physical inactivity, alcohol consumption and smoking.

The European Environment Agency states that "reducing pollution and adapting to climate change can significantly reduce the number of cases of cardiovascular disease and resulting deaths".[29] While regulation on air quality and management of harmful chemicals in our environment is not primarily put in place by health policy makers, it is a major driver of their motivation and can be considered as part of a 'health in all policies' approach to improving CVH.

Primary prevention[30] to decrease premature mortality and morbidity at population level

Focussing on population-based prevention of CVD is the most important measure to reduce the heavy burden of NCDs in Europe, both in terms of morbidity and mortality. The majority of CVDs can be prevented, many of them by population-based interventions. Many people are already disabled by ill-health before they reach retirement age. Reduction in exposure to the main behavioural risk factors – tobacco, unhealthy diet, physical inactivity, alcohol would increase the number of healthy life years. Effective population-wide interventions to prevent CVD have the potential to provide both human and economic benefit with considerable return on investment but are not currently exploited[31] including strong regulation on tobacco and alcohol.

[26] While primary prevention is about treating risk factors to prevent cardiovascular disease, primordial prevention refers to avoiding the development of risk factors in the first place, Primordial Prevention of Cardiovascular Disease, https://pmc.ncbi.nlm.nih.gov/articles/PMC4349501/

[27] https://www.ump.edu.pl/files/8_483_epidemiology_and_prevention.pdf, accessed 9th April 2025

[28] Air pollution: a new risk factor in cardiovascular disease, https://www.escardio.org/Journals/E-Journal-of-Cardiology-Practice/Volume-22/air-pollution-a-new-risk-factor-for-cardiovascular-disease, accessed 9th April 2025

[29] Beating cardiovascular disease – the role of Europe's environment, https://www.eea.europa.eu/publications/beating-cardiovascular-disease, accessed 9th April 2025

[30] Prevention encompasses the entire spectrum of cardiovascular disease prevention at the individual and population levels and at all stages of life. It includes the promotion of cardiovascular health (CV), the management of individuals at risk for developing cardiovascular disease through primary prevention, and the management of patients with established cardiovascular disease through interdisciplinary care in different settings through secondary prevention. The distinction between primary and secondary prevention, although firmly established, may be artificial in certain cases. While people with subclinical disease (e.g, with evidence of advanced atherosclerosis by imaging but not yet with clinically manifest cardiovascular disease) would formally belong to "primary prevention," they are often eligible for "secondary prevention" interventions. European Journal of Preventive Cardiology, doi:10.1093/eurjpc/zwab017 , Oxford University Press on behalf of the European Society of Cardiology, 2021.

[31] The Lancet: Latest global disease estimates reveal perfect storm of rising chronic diseases and public health failures fuelling COVID-19 pandemic, 2020, https://www.oecd-ilibrary.org/social-issues-migration-health/investing-in-medication-adherence-improves-health-outcomes-and-health-system, accessed 9th April 2025

Efforts to ensure that people both adopt and adhere to such interventions are also important to ensure strong impact of these actions. These population-based interventions require a harmonised legislative approach at EU level. A life-course approach to immunization is proven as an effective mode of primary prevention. The Covid-19 pandemic demonstrated the vulnerability of those with underlying CVDs.

Primary prevention in genetic diseases (cardiomyopathies, FH, Lp(a) etc) means early detection of family members at risk via family screening to prevent disease onset and reduce fatal outcomes. Since these preventable cases of sudden cardiac death are mostly in young people the socio-economic impact is high. There is a crucial role of primary care in risk stratification.

Close collaboration will take place with the 'Healthier Together' Initiative and the Beating Cancer Plan and its key stakeholders to identify the most effective policies and measures to reach out and manage individuals at high risk of developing CVD and pilot these specifically as part of the CVH National Action Plans, in partnership with countries where explicit policies and programmes are currently absent. Based on these pilots, dedicated programmes will be developed with direct involvement of the target groups themselves.

Secondary prevention through screening for early detection and precision diagnosis including the European Cardiovascular Health Check

A life course approach must be adopted for screening for metabolic and inherited risk-factors, detection, and precision diagnosis, at birth, throughout childhood and specific junctures in adulthood and later life, under the 'European Cardiovascular Health Check' and incorporated into member states' national CVH action plans. This would include a strong health literacy, behavioural component, including, where needed, genetic counselling, and herald a shift towards 'personalised prevention'.

This will apply to emerging diagnostics and data-driven health technology, as they hold the promise to move care from a point-in-time, intervention-only focus to a more holistic 'whole patient' view by enhancing use of laboratory medicine, improved accuracy of diagnosis, directing appropriate interventions as required, and evidence-based post-procedural care. Medical technologies make a strong contribution to secondary prevention.

CVD remains the number 1 killer in the EU, accounting for almost 5000 deaths every day.

The genomics and AI revolutions are already opening doors to more accurate and personalised diagnosis and treatment course. The foundations should be put in place to offer advanced diagnostic technologies as part of the life course approach to CVH. It is crucial that data input avoids biases otherwise we will simply compound and amplify existing biases. Both public and private laboratories will need to significantly upgrade in the coming years, and they should be supported to do so to offer the public equitable access to genomics (including whole exome and whole genome sequencing) and AI-led diagnosis. At the current time IVD tests for biomarkers should be the standard of care including for example the presence of elevated Lp(a). Determined genetically, this is a risk factor for heart attack, stroke and aortic stenosis.[32] Early detection by Microalbuminuria is insufficiently implemented in many countries. Early dialogue with ADx developers on what is required for approval of new diagnostics is forward looking and beneficial to all.

To achieve this ambitious action current gaps will be addressed, through developing guidelines by medical societies and health authorities on who should be screened, and when; and awareness raising campaigns targeted at health care professionals and the wider public. Member state governments can already make use of the expertise of the European medical societies involved in EACH in their disease Guidelines which cover recommendations for the diagnostics that should be implemented in the care pathway.

This Action will create a framework for early detection through training programmes on regular screening and precision diagnosis, to train healthcare professionals, especially within primary care and specialist nursing settings and lead to a better understanding of risk factors to practice intervention in early screening detection and diagnosis.

Secondary prevention also means understanding the cause of the first CVD crisis (e.g. stroke) and providing interventions to reduce the chance of recurrent ones. Establishing medical and diagnostic follow-up with family members after cardiac arrest and after sudden cardiac death to prevent further fatal events is of high value.

EACH partners were greatly encouraged by the call from the 27 EU member states in their Council Conclusions of December 2024 to implement European Cardiovascular Health Checks[33]:

“scaling up secondary prevention through evidence-based cardiovascular health checks that incorporate timely screening, early detection and precision diagnostics tailored to diverse population needs, including the assessment of kidney function”;

“include evidence-based examples and recommendations of health checks in the actions on CVH in order to promote primary and secondary prevention”.

We stand ready to support policy makers across Europe in building the evidence base to support their roll-out of the Cardiovascular Health Checks. Cardiovascular health checks can be a major driver in improving CVH and will make a meaningful difference that all EU citizens can benefit from in a manner that is an affordable investment for healthcare systems under strain. Policies should align with the latest scientific advances and clinical guidelines and consider the full range of risk factors including family history and genetic conditions like familial hypercholesterolemia and Lp(a).

[32] NIH, https://www.nhlbi.nih.gov/news/2024/lipoproteina-what-know-about-elevated-levels, accessed 9th April 2025

[33] Council Conclusions on the improvement of cardiovascular health in the European Union, https://data.consilium.europa.eu/doc/document/ST-15315-2024-INIT/en/pdf

A CVH Research Agenda – comprising a new research and innovation agenda, in the framework of HORIZON EUROPE and FP10.

Investment in research is the foundation for progress in diagnosis, prevention and treatment including precision medicine. Innovative research tools allow us not only to decipher disease causes and pathways, but also to track the trajectory of diseased cells and the impact of individual environment and comorbidity on disease progression. Research in CVH powers innovation.

Strategic research efforts at EU level through a CVH Research Agenda should address fragmentation, exploit, and expand existing research capacity and bring investment to respond to unmet needs. There have been investments in CVH through EU research programs in the past, but the launch of an EU CVH Plan provides the opportunity to take a more joined-up approach across different funding streams.

The genomics revolution is already starting to open doors for innovations in diagnosis and care. The march is on towards more specialised and eventually personalised risk stratification and care. Molecular investigations in cell regeneration and gene therapies are re-emerging, offering highly specific treatment options for even rare CVDs. While we see these exciting achievements in research, the translation of these new findings into useful technologies and their ultimate implementation into clinical care is inadequate. A fundamental element to effectively addressing CVD is financial investment in basic and translational CV research. A strong IP system that rewards companies for undergoing the necessary clinical trials for launching in Europe is needed to have more investment in R&D. We should work towards an ecosystem that encourages innovators to bring early clinical evidence to Europe and incentivizes member states to invest in improving CVH.

'Implementation science' research should be funded given its importance for patients and civil society. Quality of life research is of high importance for patients. Understanding the patient perspective is a key component of tackling CVD (what do patients comprehend about their condition, what are their expectations, preferences, barriers to treatment etc). The cost of non-adherence to medical therapy for example, is enormous.[34] Therapeutic non-adherence significantly impacts CVD outcomes, contributing to up to 200,000 deaths annually and €80–125 billion in losses. The EU CVH plan should implement a Therapeutic Adherence Initiative with measures including: funding for Patient Therapeutic Education (PTE), digital tools, professional training, EU-wide adherence metrics, and research on objective adherence measurements to support monitoring and intervention strategies.[35]

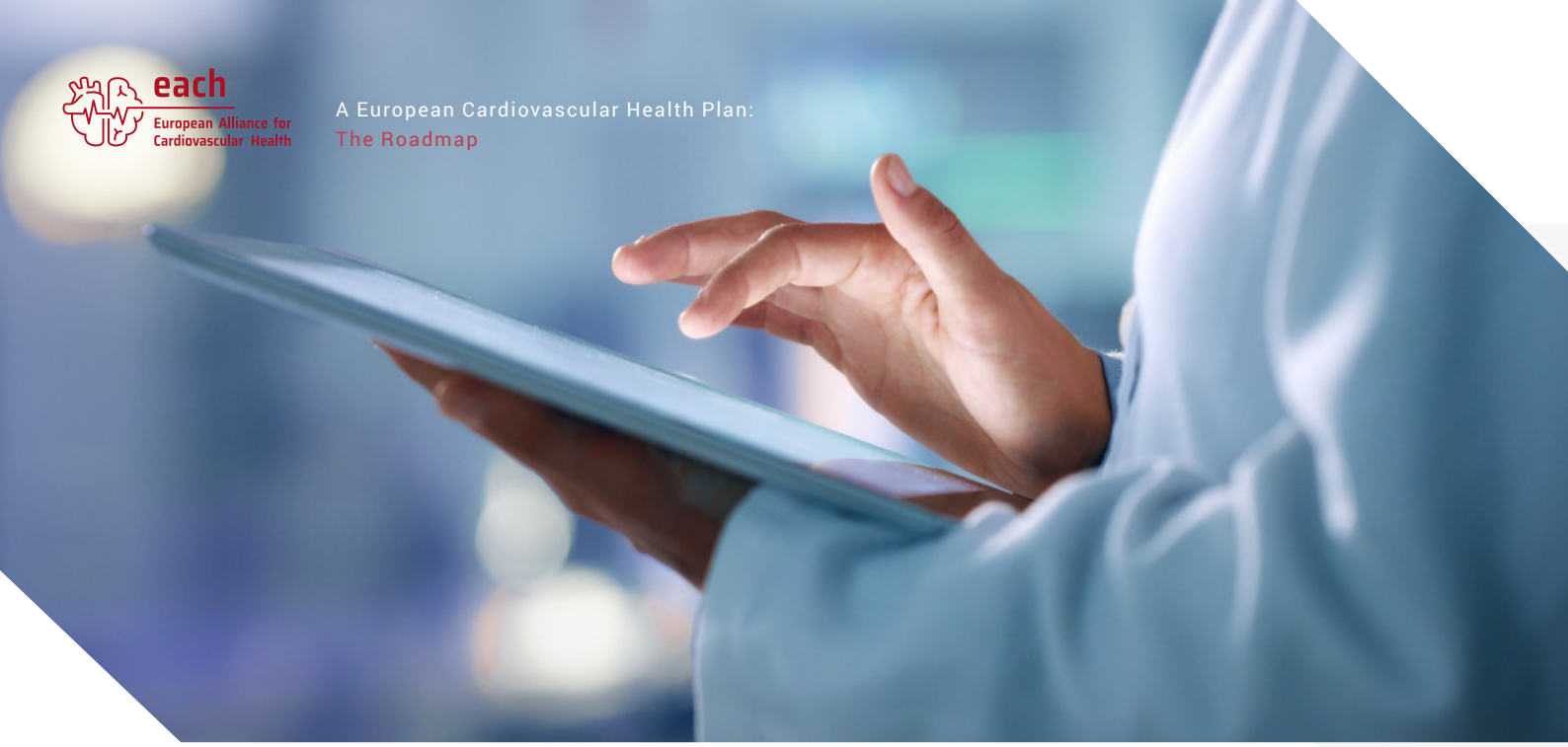
Patient-centred clinical trials design or models for delivering improved quality of life (including independence and rehabilitation) after a CVD event are other examples of research that can go beyond the medical sciences to meet citizen needs.

The EU Framework Program for Research enables the formation of trans-national research consortia by bringing together the most renowned scientists from all member states to pool their experience and capacity on the greatest challenges in research, development, application and transformation of clinical care and to address unresolved issues such as improved precision of CV medicine, causal therapies, regenerative therapies, high-resolution molecular and clinical phenotyping, to name a few.

Therapeutic non-adherence significantly impacts CVD outcomes, contributing to up to 200,000 deaths annually and €80–125 billion in losses.

[34] Economic impact of medication non-adherence by disease groups: a systematic review, BMJ Open. 2018 Jan 21;8(1):e016982. doi: 10.1136/bmjopen-2017-016982, Culver et al

[35] Uppsala University research, https://www.uu.se/en/department/pharmacy/research/pharmacoepidemiology/our-research/medication-adherence, accessed 9th April 2025



There are several sources of EU research funding that could be utilised to construct the CVH Research Agenda in a joined-up fashion:

Horizon Europe / FP10	The EU's key funding programme for research and innovation. There are pillars for basic science and development towards commercialisation.
EU4Health	Public health program funding.
European Innovation Council	Supports start-ups and scale-ups based on breakthrough technologies
European Research Council	Grants to fund research excellence for basic research
Innovative Health Initiative	Public private partnership to develop diagnostics, medicines, digital technologies and health system innovations
Marie Skłodowska-Curie Actions	Research fellowships, doctoral networks and post-doctoral fellowships to develop the next generation of CVH experts

The CVH Research Agenda would encourage more structured collaboration between academia, CROs, patients, regulators (EMA and national competent authorities), and industry to modernise the International Council of Harmonisation Good Clinical Practice Guidelines, through a dedicated funding programme. It would also explore EU methodology for Early Feasibility Studies in accordance with the Medical Devices Regulation to improve patient access in CVH and tackle clinical trial bottlenecks in Europe. Translational research capacity through the biotech sector should be enhanced, through, for example, incentivising SME development.

Well-conducted randomised clinical trials are the bedrock of safe and effective, evidence-based treatment of CVD. However, the cost and complexity of clinical trials in cardiovascular disease have increased disproportionately in Europe leading to bottlenecks. This means that many potential new treatments are abandoned before their efficacy has been thoroughly evaluated.[36] A dedicated CVH Research Agenda would help to address this through learnings from other disease areas and pre-competitive collaboration. It can facilitate the creation of an enabling environment for clinical trials and deeper collaboration across the CVH stakeholder community.

[36] Reducing bureaucracy in clinical trials now is the time! Joint statement by medical societies and patient advocates, May 2021, https://ehaweb.org/assets/Coalition-statement-Reducing-bureaucracy-in-clinical-trials-270521.pdf, accessed 9th April 2025

Creating an incubator and progressive policy environment for digital transformation in CVH

Much is happening in this fast-moving area, and this action will help to create a progressive policy environment and facilitate innovation, trust and uptake of digital health solutions across the CVH community across Europe and minimise the digital divide in Europe.

EACH envisages spearheading the digital transformation of cardiovascular health through user-led needs assessments and gap analyses, co-development of relevant digital tools and resources, enhancing the digital skills of healthcare professionals, digital health literacy programmes for the public, drawing on EU level instruments and project results in the area of digital health, and creating a European Pact on the regulatory environment, incentives, and value-based reimbursement of digital health solutions for CVH, with roll out at national level.

Summary of horizontal, cross-cutting actions

7. KEY COMPONENTS OF A FUTURE CVH PLAN: VERTICAL ACTIONS

The Co-Creation of National CVH Action Plans

In addition to the EU level CVH Action Plan, there should be co-creation of national CVH action plans by government, regional authorities and CVH stakeholders in every Member State. Each national CVH action plan will reflect the national context and culture and provide an essential springboard for national implementation of a European CVH Plan with appropriate emphasis, investment and targets on primary, secondary and tertiary prevention. The plans should complement existing national plans (stroke, kidney etc) where these exist and build on KPIs in national CVH plans that are already in place while ensuring alignment in new plans as they evolve.

The EU governance structure should focus on monitoring, evaluation and sharing of best practice.

Without deliberate commitment to act at national level, our vision for CVH in Europe will falter. The incidence of CVD remains high despite the significant opportunity to prevent them. Each pillar of the European CVH Plan, as it evolves, should therefore include a specific section on how this will be implemented in a national context and related performance indicators.

The following are important principles for the development of CVH policy to incorporate into National Action Plans:

Action on prevention:

- **primordial prevention[37] to inhibit the emergence of risk factors**, including the deployment of environment and product legislation.
- **primary prevention[38] to decrease premature mortality and morbidity at population level**, by helping people at high risk to reduce and manage their risk factors. Primary prevention is also necessary to identify the most effective policies and measures to reach out and manage individuals at high risk of developing CVD.
- **secondary prevention** through timely screening, early detection, and precision diagnosis, rolling out the **European Cardiovascular Health Check across Europe** and preventing repeated CVD crises.

Further information on effective prevention is found earlier in this Roadmap under the heading ‘EU action on prevention’.

> “Each pillar of the European CVH Plan, as it evolves, should therefore include a specific section on how this will be implemented in a national context and related performance indicators.”

[37] primordial prevention focuses on preventing the emergence of risk factors by addressing the underlying social, economic, and environmental conditions that promote disease, targeting populations and often implemented through policies and societal changes (WHO definition of Primordial Prevention)

[38] Matthias Wilhelm et al., Sept 2021, EAPC Core Curriculum for Preventive Cardiology, https://www.escardio.org/Sub-specialty-communities/European-Association-of-Preventive-Cardiology-(EAPC)/News/eapc-core-curriculum-for-preventive-cardiology, accessed 9th April 2025

Early intervention, access to care and optimal treatment

A European network should be created to encompass recognised comprehensive CVH centres in every Member State, facilitating diagnosis, referral and treatment, as well as rehabilitation and long-term care and effective management including adherence to medicines and medical advice. The centres should adopt comprehensive approaches to recognizing the potential presence of comorbid conditions like diabetes, obesity and chronic kidney disease in many patients with CVD.

This network would build on existing efforts such as accredited stroke units. Cross-border collaboration, drawing on the experience of the European Reference Networks, will improve patients' access to a personalised care pathway and management according to the latest clinical guidelines, including access to innovative treatments and patient adherence, and medical technologies that reduce the burden on hospitals and healthcare systems.

Emphasis will be placed on shifting the burden from hospital care: focussing on primary care/ community care and home care, and self-management, supported by digital health solutions. A specific role of this Network will be to monitor the return on investment of prescribed therapies and other innovations.

A second critical action will focus on gaps in CV health in the workforce across Europe, with a strategy to create incentives for CV healthcare professionals across the spectrum of care.
A major component will focus on continuous professional development needs. Emphasis will be placed on patient empowerment, psycho-social support and shared decision-making. This action will also reflect the importance of structured, specialist multidisciplinary teams for those at highest CVD and sudden cardiac death risk.
A dedicated large-scale study should explore person-centred, value-based healthcare through the lens of CVH, and specific impacts in terms of patient outcomes. It will also examine the effective and consistent implementation of guidelines, the role of integrated care units, and structural weaknesses in health systems to improve the care pathway. It will also seek to tackle economic and social disparities in access to diagnosis and treatment, plus misconceptions about lower risk of CVD in women that lead to gender inequalities.

An additional important factor in early intervention is the issue of resuscitation. The following aspects should be taken into account in health systems:

- Maximisation of the crucial minutes after a heart attack, cardiac arrest or stroke at home or in public in terms of managing ambulance availability for dispatch and paramedic and hospital procedures for rapid care delivery.
- Training of the public and employees in CPR/ first aid.
- Improving public awareness in recognising symptoms. An awareness campaign could be considered as an important 'vertical action' in National Action Plans.
- Availability of Automated External Defibrillators (AED) in public spaces and training of employees to use them.
- Support of volunteer first responder teams assisted by apps such as the EHRA First Responder App.[39]

Air pollution is clearly recognised as a risk factor to CVH in addition to the classic risk factors like malnutrition, physical inactivity, alcohol consumption and smoking.

[39] EHRA First Responder App, https://www.escardio.org/Sub-specialty-communities/European-Heart-Rhythm-Association-(EHRA)/Advocacy/ehra-first-responder-app, accessed 9th April 2025

Rehabilitation

Across the European Union, millions of patients live with the after-effects of heart attacks and strokes. A crucial part of the treatment is rehabilitation including counselling, medical treatment and psychological support. Cardiac and stroke rehabilitation programmes help prevent recurrence, improve functional capacity, recovery and psychological well-being. They allow patients to work towards an optimal quality of life.[40] Rehabilitation is essential in enabling people with functional limitations to actively remain, return, and participate in their life, work, and education.

Rehabilitation includes occupational, physical, speech and language therapy with input from psychologists and social workers as necessary. It should involve a multidisciplinary approach and a clear plan for discharge with documented responsibility for continuing rehabilitation needs in the community.

Access to rehabilitation varies greatly across Europe.[41] National CVH Action Plans clearly offer an opportunity for a more equitable access to such services that play a major role in long term health outcomes including avoiding recurrence and the improved likelihood to return to work.[42] Mental health is also a crucial and underserved aspect of rehabilitation with patients and families often left to their own devices.

This action would adopt a European definition of cardiac and stroke rehabilitation and support the implementation of good practice in rehabilitation as proposed, for example in the Stroke Action Plan for Europe.[43] This is framed around the UN Convention on the Rights of People with Disabilities (UNCPDR) and the right to rehabilitation.

[40] Martin J O'Donell, et al., 2016, Global and regional effects of potentially modifiable risk factors associated with acute stroke in 32 countries (INTERSTROKE): a case-control study. 388: 761-75, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)30506-2/fulltext

[41] SAFE, The Burden of Stroke in Europe, https://www.safestroke.eu/burden-of-stroke/, accessed 9th April 2025

[42] The role of cardiac rehabilitation in improving cardiovascular outcomes, https://www.nature.com/articles/s41569-021-00611-7, accessed 9th April 2025

[43] ESO-SAFE, Stroke Action Plan Europe, 2018-2030,

Quality of life and other psychosocial outcomes across the spectrum of cardiovascular diseases

There is considerable evidence that psychosocial factors contribute to the etiology and prognosis of cardiac illness.[44] Factors include low socio-economic status, lack of social support, stress at work and in family life, hostility, depression, anxiety. Anxiety, depression, and stress are among the most important psychological risk factors related to heart disease and are predictive of mortality and/or of a decreasing quality of life. Psychosocial risk factors are also linked to treatment adherence, type of lifestyle and the promotion of health in patients and populations.

Quality of life relates to the many psychosocial outcomes which are impacted following a CVD event. CVD patients have a higher risk for anxiety, depression and post-traumatic stress disorder. There are issues with social inclusion, relationships, and finances that a person faces in recovery. Those living with or recovering from a CV condition require access to ongoing CV health maintenance, structured programmes, peer to peer support from patient organizations, psychological and community-based support (nursing and care, medical adherence programmes, remote monitoring). The goal for all stakeholders should be improving patient experiences, outcomes, and value throughout the care continuum. It is widely acknowledged that new technology could play a major role in improving quality of life.

Patient organisations play a key role in responding to patient, user, and carers needs after a CV event and should become a formal part of a support network and resourced accordingly.

This action would create a standardised instrument measuring quality of life and other PROMS related to it, of people living with CVD and their families across the member states, to contribute to a greater understanding and awareness of CVH and quality of life in Europe and where additional investment is needed.

Indicators would be based on a large-scale patient study (PROMs and interviews with patients) on how CVD affects patients and their families, how their quality of life could be improved and how the impact of CVD on their daily lives could be minimised.

Life after a CVD event must be included in each national CVD plan to address survivors' and their families' long-term unmet needs and minimum standards set for what every CV survivor should receive regardless of where they live.

[44] Edward Callus et all., 2020, https://www.frontiersin.org/articles/10.3389/fpsyg.2020.02202/full, accessed 9th April 2025

8. IMPORTANT DIMENSIONS OF THE ARCHITECTURE OF A EUROPEAN CVH PLAN

The success and impact of the European CVH Action Plan will be shaped not only by what is achieved over the next few years, but also by how it is achieved, leaving no-one and no country behind. The Plan must address societal barriers, underserved populations, discrimination on all grounds, and fundamental inequalities pervading health systems across Europe.

EACH sees the following areas as critical in building an inclusive, effective Plan.

A life course approach

Recognising that CVD has many facets, is highly complex, and can be inherited, acquired and and/ or acute or chronic, it is crucial that a life course approach[45] is inherent to the European CVH plan, covering all age groups. There are many rare CVDs that affect a large population of EU children and young adults, impacting hugely quality of life and CVD mortality.[46] Young people can be misdiagnosed as CVD is considered an “old people problem”. Awareness and information on CVD impacts on young people should be improved as well as better understanding of symptoms and screening. At 60 +, or the so-called ‘third age’, many age-related conditions can be detected (hypertension, structural heart diseases, atrial fibrillation, heart failure etc) and early intervention can have a great impact.

Awareness and information on CVD impacts on young people should be improved as well as better understanding of symptoms and screening.

[45] World Heart Organisation, Life-course approach https://iris.who.int/bitstream/handle/10665/349932/WHO-EURO-2011-4335-44098-62200-eng.pdf?sequence=1&isAllowed=y#:~:text=Key%20stages%20in%20people's%20lives,reproductive%20health%2C%20and%20Healthy%20ageing., accessed 9th April 2025

[46] JAMA Network, Global Burden of Disease 2019 Cancer Collaboration , 2019, https://jamanetwork.com/journals/jamaoncology/fullarticle/2787350

Inclusive governance

Including CVH stakeholders as equal, active partners in delivering a CVH plan and amplifying its success is fundamental. Inclusive governance is essential to ensure that inequalities are tackled rather than exacerbated.

A dedicated multi-stakeholder advisory board should be established to guide and monitor the CVH Plan, including a representative from the CVH community from every member state, and EACH partners at European level. Representation should also be sought from the citizen juries.

A representative from the sectors EACH represents scientific societies, health care professional bodies, patient organisations, the health industry (medical devices, in vitro diagnostics, pharmaceuticals, app developers etc.) health insurance and public health organisations should sit on any implementation board of the CVH Plan.

Diverse CVH stakeholders should be meaningfully involved in relevant Joint Actions, projects and research to implement the CVH Plan and Research Agenda and be appropriately resourced for this involvement. Calls for Proposals should reflect this explicitly.

A patient and public engagement panel should be created to support the implementation of the CVH Plan and its monitoring and evaluation and to ensure the highest standards of patient and public engagement and meaningful involvement of patients' and citizens' organisations characterise all aspects of the Plan.

"At 60 +, or the so-called 'third age', many age-related conditions can be detected (hypertension, structural heart diseases, atrial fibrillation, heart failure etc) and early intervention can have a great impact."

Other relevant EU Instruments and wider agendas

A European CVH Plan, whilst singular in its vision and goals, cannot be undertaken in isolation. The wider socio-political context described earlier in this Plan is key, and the Plan should relate and contribute, where appropriate and relevant, to other major EU Actions and Initiatives, such as the European Semester Process (an important incentive for member states to invest in prevention and early intervention), health related Country Specific Recommendations, the EU Mission on Cancer, European Reference Networks for Rare Diseases, SMART cities, legislation on the management of chemicals including REACH and within actions on climate change.

There are many rare CVDs that affect a large population of EU children and young adults, impacting hugely quality of life and CVD mortality.

Agile, innovative Partnerships and Funding – Doing things differently

For a European CVH plan of this magnitude to achieve its ambitious vision we must be courageous in doing things differently. There is now a real appetite at European level to advance innovation in all its guises: therapeutic, technological, digital, systems and social innovation, but if we approach this in a traditional conservative way, without embedding innovation in how we work together to ensure the momentous impact that is needed, we will fail. The Innovative Health Initiative is providing fertile ground for this through collaboration, but multi-stakeholder and Public Private Partnerships should address the burden of CVD, overcome treatment bottlenecks, and positively influence population health through prevention programs to a greater extent. Patient and public engagement is also intrinsic to this shift.

It is crucial to channel dedicated EU funding appropriately towards improving CVH for all. There are numerous funding sources through EU4Health, Horizon Europe/FP10 and the Innovative Health Initiative, Digital Europe, ERDERA, the Cohesion Fund, amongst others. Coordination and optimisation across and within these programmes remain problematic, and there should be a consolidated 'one stop shop' for CVH stakeholders interested in contributing to implementing the Plan, to understand prospective partnership opportunities and timelines and how these contribute to the overall vision of the Plan.

A longer-term perspective is needed towards CVH funding to fuel a move from a 'point-in-time' intervention towards a more personalised patient care pathway.

Interinstitutional Collaboration and the Wider Europe

Strong collaboration should take place with WHO-EUROPE, to create synergies with its work on CVH, and to ensure that the CVH plan and outputs provide valuable impetus and resources in EU neighbouring countries, including the UK.

As the Plan progresses, a dedicated chapter should be included in 'The State of Health in the EU' led by the European Commission and supported by OECD and the Observatory on Health Systems and Policies. Appropriate indicators should be included within EUROSTAT.

We firmly believe in our vision – to reduce mortality due to CVD by 30% by 2030.

The Global Dimension

The European CVH Plan and its implementation should be informed by emerging research and good practice from other regions of the world through relevant global agencies and international organisations such as the World Heart Federation.

Progress and lessons learned at EU level could be showcased in global forums, notably High-Level events on NCDs. Efforts should also be well reflected by the EU in reporting at global level (SDGs, WHO). The Plan will also draw on relevant initiatives by OECD[47] on NCDs and CVH specifically.

The European CVH plan should aspire to be "first in class" across the globe, and an inspiring and powerful regional example of a holistic, robust, deliberate gamechanger in saving and improving lives.

CONCLUSIONS

The EACH partners are committed to working together to deliver on this ambition, and to support the EU and member states in playing a vital role in addressing the biggest health burden facing its people. We welcome the commitment of the EU institutions through the vision and Mission Letters of Commission President von der Leyen, the many Members of the European Parliament who amplified the stakeholder call on CVH, the key support of Commissioner Olivér Várhelyi from the moment of his nomination, and the dedication of the Ministries of Health of the EU27 in December 2024 to act at home and in Europe.

We firmly believe in our vision – to reduce mortality due to CVD by 30% by 2030, to give every person living in the EU a Cardiovascular Health Check, and CVD patients' access to quality CV care that meets their needs and goals. This is not only achievable, but critical for the future of Europe, with major implications for the sustainability and resilience of health and social systems in every country, and transformative for Europe's people and patients. We look forward to ongoing dialogue with the EU Institutions to shape the further development and refinement of the proposals included in this document.

[47] Pan American Health Organization and OECD, Applying Modelling to Improve Health and Economic Policy Decisions in the Americas, Sept 2015, https://doi.org/10.1787/9789264243606-en, accessed 9th April 2025

ANNEX 1 - THE METHODOLOGY TO DEVELOP THE EACH ROADMAP

A workshop involving the EACH partnership was held on 4th March 2025. One-on-one discussions were held with members who were not available to participate.

The document 'EACH – The Need and the Ambition' was taken as a basis for drafting the Roadmap.

Partners were given the opportunity to contribute to the draft Roadmap. This final version was approved by the EACH partners in April 2025.

ANNEX 2 - ABOUT EACH


each
European Alliance for
Cardiovascular Health