Global Heart Hub

Global Heart Hub Response:

EU Call for Evidence on health checks for cardiovascular diseases

May 2026

Contents

Introduction and Global Heart Hub Unique Value Proposition

Cardiovascular diseases (CVDs) remain the leading cause of death and disability in the European Union (EU), with 1.7 million lives lost each year (one in three of all deaths) and affecting 62 million people, leading to an estimated €282 billion in economic impact[1].

CVD affects the heart and blood vessels, including those supplying the heart muscle and brain. They encompass both genetically inherited and congenital conditions and conditions that develop during an individual's lifetime, such as heart failure, atherosclerosis, heart attack and stroke.[2] CVDs are shaped by a combination of both modifiable and non-modifiable risk factors, and its burden is often amplified by metabolic diseases which are closely interconnected with cardiovascular pathology and account for around two-thirds of CVD-related disabilities.[1] These interrelated conditions are associated with worse outcomes,[3] as people living with multiple conditions are more likely to have poorer health, poorer quality of life and a higher risk of dying[4]. Despite this burden, many individuals are diagnosed only after serious complications have developed, reflecting persistent gaps and inconsistencies in screening and risk assessment across clinical specialties. The absence of proactive, multidisciplinary and integrated approaches to early detection - including person-centred pathways and combined health checks that link cardiovascular and interconnected conditions - delays timely intervention, exacerbates strain on healthcare systems, and ultimately leads to **poorer patient outcomes**[3].

Following the European Commission's launch of a **Call for Evidence on Cardiovascular Disease Health Checks** under the Safe Hearts Plan[5], Global Heart Hub (GHH) welcomes the opportunity to contribute a patient-led perspective. Patient organisations played an important role in shaping the Safe Hearts Plan, enabling the inclusion of evidence-based recommendations that reflect the needs and priorities of those most affected: people living with, at risk of, or affected by CVD. It is therefore essential that their contribution is equally visible in implementation, through **meaningful patient involvement** and the systematic co-design and co-creation of cardiovascular health check programmes, embedded in the development, governance and rollout of measures at national level.

GHH is the **international patient alliance** established to provide a voice for those living with, or affected by, cardiovascular disease, uniting over **160 patient organisations across 44 countries**. As a **patient-centred and patient-driven organisation**, we work to ensure that people living with heart conditions are equal stakeholders in shaping cardiovascular policy, care and innovation. GHH offers a perspective that complements but is distinct from clinical, institutional and research-driven stakeholders – **anchoring cardiovascular policy in the realities of those it impacts most.**

GHH stands ready to contribute to the design, implementation and monitoring of the Safe Hearts Plan and cardiovascular health checks at EU and national levels.

Our Affiliate community in the EU brings together 71 CVD patient organisations:

- Meine Herzklappe, Austria;
- IDF Europe, Belgium;
- Ligue Cardiologique Belge, Belgium;
- HCM Patient Foundation, Bulgaria;
- Nicosia Heart Patients' Association, Cyprus;
- Estonian Stroke Patients Society, Estonia;
- MTÜ Siirdatud Süda (NGO Transplanted Heart), Estonia;
- Anhet.f, France;
- Association Vie Et Coeur, France;
- Alliance du Coeur, France;
- La Ligue contre la Cardiomyopathie, France;
- SCADinfo, France;
- Herzsschwäche Deutschland, Germany;
- ICD Deutschland, Germany;
- ARVC-Selbsthilfe e.V., Germany;
- Initiative Herzklappe, Germany;
- Selbsthilfegruppe LipidHilfe-Lp(a), Germany;
- Selbsthilfegruppe "Herzlich Willkommen", Germany;
- Epioni, Greek Carer's Network, Greece;
- Panhellenic Heart Disease Association, Greece;
- Association of Heart Disease Sufferers among Naval Officers, Coast Guard Officers, and Friends, Greece;
- SzivSN Territorial Patient Society, Hungary;
- Diabetes Ireland, Ireland;
- European Coalition for People living with Obesity, Ireland;
- Irish Coalition for People Living with Obesity, Ireland;
- Sligo Heart Failure Group, Ireland;
- Croí, Ireland;
- The Heartbeat Trust, Ireland;
- Heart & Stroke Voice Ireland, Ireland;
- Cuore Nostro, Italy;
- AICARM, Italy;
- Italian Society for Cardiovascular Prevention, Italy;
- Associazione Italiana Scompensati Cardiaci, Italy;
- Italian Heart Transplant Association, Rome Section, APS, Italy;
- Patient Organization "ParSirdi.lv", Latvia;
- Lithuanian Heart Association, Lithuania;
- Lithuanian Heart Failure Association, Lithuania;
- SVEIKA ŠIRDIS "The Healthy Heart", Lithuania;
- Cardiomyopathy Research The Netherlands, Netherlands;
- Hartpatiënten Nederland, Netherlands;
- Stichting VrouwenHart, Netherlands;
- LMNA Cardiac Foundation, Netherlands;
- FH Europe Foundation, Netherlands;
- SCAD Nederland, Netherlands;
- Het Vrouwenhart Spreekt, Netherlands;
- EcoSerce Association' National Association of Patients with Heart & Vascular Conditions, Poland;
- Polish Heart Failure Patients Association, Poland;
- ICDefibrylatorzy, Poland;
- Stowarzyszenie Metalowych Serc w Przemyślu, Poland;
- Polish Diabetes Association, Poland;
- Fundacja Diabeciaki, Poland;
- Serce na Banacha, Poland;
- Protective Association of Diabetics of Portugal, Portugal;
- Association to Support Patients with Heart Failure, Portugal;
- Portuguese Heart Foundation, Portugal;
- Da, si eu pot!, Romania;
- Asociația CardioGen, Romania;
- Solidarity for Health, Romania;
- Slovenian Heart Foundation, Slovenia;
- Coronary Club of Ljubljana, Slovenia;
- Asociación de Enfermedades Cardiovasculares Corazón sin Fronteras, Spain;
- AEPOVAC, Spain;
- Síndromes arrítmicos relacionados con la muerte súbita (SAMS), Spain;
- Patient Forum of the Spanish Heart Foundation, Spain;
- Cardioalianza, Spain;
- Spanish Federation of Diabetes, Spain;
- Asociación Española de Miocardiopatía Hipertrófica, Spain;
- Más Visibles, Spain;
- National Association of People Living with Obesity (ANPO), Spain;
- Hypertrofisk Kardiomyopatis Svenska Sällskap, Sweden;
- FOKUS Patient, Sweden.

Summary of our Position on Health Checks

GHH advocates that the Council Recommendation on cardiovascular health checks should at minimum include the following elements:

- **Systematic recognition and formal, adequately resourced involvement of patients and patient organisations** in the co-design, governance, implementation and evaluation of cardiovascular health check programmes, to ensure relevance, accessibility, equity and responsiveness to real-world needs.
- **Systematic inclusion of family history of CVD as a core component of health checks**, to support early identification of inherited or high-risk profiles and enable targeted prevention strategies. Family history should be routinely captured in primary care to support early diagnosis, cascade screening and targeted follow-up. A Family Cardiovascular Risk Passport should be piloted as a patient-held tool to support early diagnosis and personalised risk assessment.
- **Clearly defined sex- and gender-specific touchpoints for women across the life-course**, including age at menarche, pregnancy and its complications, menopause and later life. This approach should be coupled with proactive outreach to other high-risk groups, including older people, underserved communities and individuals living with comorbidities.
- **A structured, life-course approach to cardiovascular health checks**, integrating cardiovascular, renal and metabolic risk assessment into a single, coordinated prevention framework rather than addressing these conditions in isolation. These should be integrated into routine and opportunistic primary care and include ‘red flag’ symptoms such as oedema and breathlessness.
- **Integrate mental health screening** as a routine component of cardiovascular and multimorbidity risk assessments, recognising the psychological burden of chronic illness.

Active Involvement of Patient Organisations in Health Checks

Cardiovascular health check programmes must be co-designed and continuously reviewed with **patient organisations** and people living with CVD, to ensure that pathways, tools and communication are acceptable, person-centred, culturally appropriate and feasible in real-world settings. **The patient voice should be integrated at every stage** – from design and decision-making to delivery and evaluation. This could be done, for example, through **inclusion in national steering groups, technical working groups and monitoring committees**. This reflects emerging evidence and WHO frameworks[6] demonstrating that the meaningful involvement and co-design of programmes with people living with NCDs improves their relevance, adoption and equity.

Patient organisations play a key role in **the co-design and delivery of community-based prevention and screening programmes** in trusted and accessible settings, e.g. via point-of-care testing, including workplaces, community centres and sports clubs, to support equitable reach and sustained engagement[7]. Their role further extends to the **co-design of culturally appropriate and accessible health communications** in partnership with communities and delivered through trusted community voices and messengers, in order to improve relevance, trust and uptake[7].

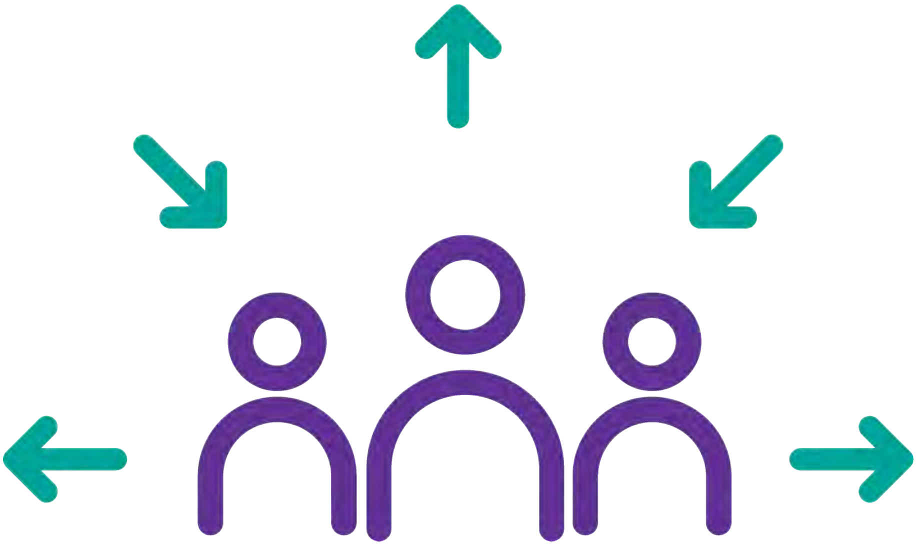
Recognising the importance of early detection and diagnosis of CVD and the key role that patient organisations can play, in 2023, Global Heart Hub published "*Achieving early detection and diagnosis of cardiovascular disease: A manifesto for change*" as the main output of GHH's 3rd Unite Annual Summit. Via the use of different co-creation methods with multiple stakeholders, including over 40 patient organisation representatives, GHH identified **eight tangible actions** that patient organisations can actively conduct jointly with policymakers and other stakeholders to achieve early detection and diagnosis[8]:

- Run public campaigns on the risk factors and symptoms of CVD;
- Implement targeted early detection community-based programmes for CVD, at different stages of life;
- Adapt clinical processes to enhance early detection and diagnosis of CVD;
- Leverage digital technologies to increase access to early detection and diagnosis of CVD;
- Optimise workforce training and capacity for early detection and diagnosis of CVD;
- Increase investment in research into early detection and diagnosis of CVD;
- Advance policy development and international partnerships for early detection and diagnosis of CVD;
- Promote equitable access to early detection and diagnosis of CVD.

Implementing these proactive measures as a patient-centred EU strategy with the **collaboration of patient organisations**, policymakers and other stakeholders can help to identify early-stage symptoms of CVD and enhance patient outcomes, particularly for chronic progressive conditions, while being grounded in equity, access and shared learning between countries.

Therefore, the Council Recommendation should emphasise the **meaningful involvement of patients and patient organisations**, recognising that people with lived experience provide essential real-world insight into access barriers and treatment adherence. **Their involvement should be formalised, and adequately** resourced as it is critical to ensuring that cardiovascular pathways, tools and communications are **person-centred, feasible and effective in real-world practice**.

> *"A strong cardiovascular health check programme is built through partnership. Patient organisations should be involved from the outset in co-design and co-creation, and remain engaged in implementation, governance and evaluation, so that the programme is grounded in real-world needs, supports equity, and delivers outcomes that matter to patients."*
> - Prof David Wood, Emeritus Professor of Cardiology, Imperial College London, UK; Emeritus Professor of Cardiology, University of Galway, Ireland; Member of Global Heart Hub's Clinical and Specialist Advisory Panel.



Considering Family CVD History as Part of Health Checks

Many CVDs are related to inherited cardiovascular conditions such as cardiomyopathy, familial hypercholesterolaemia or elevated lipoprotein(a). In particular, studies demonstrate that genetic factors are the cause of 25% of family history of heart disease, while 34% is the result of a combination of genetic and clinical factors[1,9,10]. Therefore, **family history is critical**.

For individuals with a known family history of **sudden cardiac death or heart failure**, early diagnosis can save lives – not only for the individual but for relatives who may also be at risk. Yet too often, these conditions are only diagnosed after an acute event. Incorporating family history reviews and red-flag prompts into routine cardiovascular health checks would support earlier recognition and targeted follow-up.

The Council Recommendation should emphasise that family history should be **routinely captured in primary care to support early diagnosis, cascade screening and targeted follow-up**, to help identify individuals at risk of inherited cardiovascular conditions such as cardiomyopathy, elevated lipoprotein(a) [Lp(a)] or familial hypercholesterolaemia.

GHH Flagship Proposal: Family Cardiovascular Risk Passport

One of GHH's core policy priorities is the Family Cardiovascular Risk Passport – a simple, patient-held tool to systematically record and share family history of cardiovascular conditions such as heart failure, cardiomyopathy, familial hypercholesterolaemia and elevated lipoprotein(a).

This passport would empower patients to actively participate in their risk management, support clinicians in identifying inherited risk earlier, and enable more targeted follow-up through personalised risk assessment and family-wide prevention strategies – especially in primary care settings. Piloting the passport through national programmes or EU-funded initiatives (e.g. under EU4Health) could drive earlier detection, improve outcomes for families at risk, and enhance equity by addressing silent, inherited drivers of cardiovascular disease that are often missed in routine screening.

> *"I was born with a congenital heart valve defect which to date has seen me undergo two open heart surgeries. Because of my heart history I have ensured that my two daughters have been checked for the same condition. Unfortunately, my Grandmother passed away at age 64 from a defective heart valve – she had never been checked for the condition even after my own diagnosis."*
> - David Kelly, Patient Advocate, Heart & Stroke Voice Ireland

Specific Touch Points for Women During their Life Course

Currently, healthcare systems **lack integration of women's life course cardiovascular risk into screening and prevention**, including menstrual and hormonal factors, pregnancy and postpartum complications, and perimenopausal and menopausal risk transitions[7].

In early adulthood (18–35 years), cardiovascular health checks for women should include specific checkpoints such as:

- **Age at menarche**, recognising that both early and late onset of menstruation are linked to a higher risk of adverse cardiovascular outcomes and can function as a simple indicator to identify women at increased long-term risk.[11]
- **History of pregnancy complications,** including gestational diabetes and preeclampsia, which are associated with elevated lifetime risk of type 2 diabetes, hypertension and cardiovascular disease, and therefore require closer follow-up and proactive prevention [12].

Between 35 and 65 years, health checks should incorporate a structured review of women's reproductive and menopausal history, with particular emphasis on:

- **Peri- and post-menopausal status[13]**, given that the menopause transition is associated with unfavourable changes in lipid and cardiometabolic profiles and a corresponding rise in cardiovascular risk.

For older women (over 65 years), assessments should explicitly take into account the **cumulative cardiovascular impact of earlier reproductive events** – such as gestational diabetes, preeclampsia and age at menopause – and ensure that secondary prevention and management of risk factors are fully optimised.

The Council Recommendation should therefore acknowledge that, throughout the entire life course, **cardiovascular risk in women requires a systematic, structured approach** that explicitly integrates sex-specific biological factors and reproductive events into risk stratification and ongoing follow-up. These women-specific checkpoints should be **co-designed with women living with, or at risk of, CVD and their representative organisations** to ensure that communication, risk assessment and follow-up are responsive to lived experience and do not reinforce gender bias in care. Addressing women's cardiovascular risk across the life course is essential to reducing current gender gaps in CVD diagnosis, treatment and outcomes in the EU.

> *"I was in my early thirties when I started having severe chest pain, shortness of breath and fatigue. I went to my doctors, worried it might be my heart. But because I looked healthy and fit, I was told it was anxiety, stress, hormones – anything but my heart. I went through countless unnecessary tests, but never the one I needed. They kept looking for blockages in my large arteries – because male heart health is still the standard in cardiology. And because my arteries weren't blocked, I was told I was fine. I wasn't. It took 25 years to finally get the right diagnosis. Twenty-five years."*
> - Renate Kaal-Poppelaars, Patient Advocate, Stichting VrouwenHart and FH Europe Foundation, Netherlands. At the age of 54, Renate was finally diagnosed with ANOCA (Angina with No Obstructive Coronary Arteries) and received treatment.

Comprehensive Cardio-Renal-Metabolic Health Checks

As highlighted in the EU Non-Communicable Diseases Initiative[14], there is an urgent need for **integrated health checks and integrated care** to address the shared risk factors, frequent multimorbidity, and fragmented management of major non-communicable diseases, including CVDs.

Health systems are often designed to address single diseases, making them ill-equipped to manage people living with multiple chronic conditions. This leads to poor coordination of medical care, challenges in managing multiple medications and increased healthcare costs[3].

Cardio-renal-metabolic conditions – including heart failure, chronic kidney disease, liver disease, hypertension, dyslipidaemia, diabetes and obesity – are highly interconnected and often coexist, **accelerating one another's progression when risks are not detected and managed early**[15]. When left undetected or poorly managed, they drive substantial morbidity and mortality, with their combined economic burden accounting for **around 520 billion euros annually**[16,17,18,19].

More precisely, cardiovascular diseases are the leading cause of mortality in Europe, accounting for **approximately one-third of all deaths in the European Union** each year[1]. Chronic kidney disease affects **close to 100 million people across Europe**[20], while an estimated **66 million adults (one out of 13 people) aged 20–79 are currently living with diabetes in the European region**[21,1]. Together, these interconnected conditions are driving rising healthcare costs, increasing pressure on European health systems, and widening health inequalities across and within countries.

Therefore, there is a need to develop and implement more **comprehensive risk assessment tools for cardio-renal-metabolic conditions**, as existing tools often have important limitations. In particular, they tend to be biased toward older age groups and emphasise treatments focused on short-term rather than long-term outcomes.[22] It is of extreme importance to implement accurate risk assessment tools that are sensitive to both the magnitude and duration of exposure to CVD risk factors, in order to predict the onset of CVD. These risk assessments can also support closer monitoring and earlier detection of cardiac symptoms that can lead to a slower disease progression and an improvement of the patient and societal outcomes.[8]

Overall, integrated, **person-centred pathways and combined health checks** enable earlier detection, better coordination of prevention and care, and more equitable access, while strengthening health system efficiency and long-term sustainability[23].

GHH recommends expanding standard health checks to include **systematic screening for key risk factors** for multiple interconnected chronic conditions such as CVD, stroke, diabetes, chronic kidney disease, liver disease and related conditions.

In particular, the Council Recommendation should include:

- **Structured cardiovascular health checks**, integrated into routine and opportunistic primary care. These should include systematic screening for key risk factors such as obesity, hypertension, dyslipidaemia, diabetes (e.g. HbA1c), and chronic kidney disease.
- **Clear age- and risk-based implementation protocols**, combining non-invasive clinical measures such as lifestyle risk review including family history, pulse assessment with digital risk tools and electronic auscultation of the heart. These protocols should include structured critical pathways for early detection of heart failure and atherosclerotic cardiovascular disease (ASCVD), integrated within primary care[24]. Cascade screening should also be incorporated into national cardiovascular strategies, particularly for inherited conditions, to support earlier identification of at-risk relatives and timely intervention.
- **Assessment of CVD risk profile** of all people diagnosed with stroke prior to hospital discharge, even when first admitted to neurology services[25], recognising the shared risk factors and strong bidirectional links between CVD and stroke[26].

- **Heart auscultation (stethoscope check) at key life stages**[8] to support the early identification of heart valve disease and other cardiac conditions, followed by timely access to high-quality echocardiography, ideally within two weeks of a detected murmur, to enable prompt diagnosis and prevent avoidable progression[27].
- **NT-proBNP testing** as a simple first-line blood test to support the early detection of heart failure and cardiomyopathy, accompanied by EU-level guidance to ensure its availability, accessibility and reimbursement across primary and secondary care in all Member States[24,8].
- **Lipoprotein(a) [Lp(a)] screening** through a once in a lifetime blood test that can be done for all children in the first decade of life[28]. This test will help identify inherited cardiovascular risk[29] and should be combined with genetic and family-based assessment considered where appropriate for inherited conditions such as cardiomyopathy.
- **Digital and AI-enabled tools** should be used within clear ethical and governance frameworks to avoid reinforcing existing inequities, while broadening reach, supporting personalised risk profiling and improving early detection in underserved or remote settings. This should include innovative technologies[27] such as digital communications, digital stethoscopes and portable echocardiography, helping bring diagnostic services closer to people's homes.
- **EU-wide benchmarks and targets** should be established for cardiovascular health checks, including the proportion of eligible adults reached by 2030 and 2035, disaggregated by sex, age, socioeconomic status and geography, to support uptake, track implementation and reduce inequalities. These indicators should align with, and feed into, the monitoring framework of the Safe Hearts Plan and the State of Cardiovascular Health in the EU report series, enabling comparable reporting across Member States.

> *"Even though I went to my GP regularly, she never auscultated my heart in a period of ten years. I remember once she sent me to a cardiologist and he also didn't auscultate my heart. Both of them didn't even consider that there might be something wrong with my aortic valve."*
> - Jens Näumann, CEO, Initiative Herzklappe, Germany. At the age of 42, Jens was finally diagnosed with severe aortic stenosis and received treatment.

> *"At 22, I was misdiagnosed with migraines for six months when I actually had a Cerebral Venous Sinus Thrombosis. My local hospital had no MRI, causing a 12-hour delay that left me in a coma with serious complications, and I was very lucky to have survived. My hope for the future of healthcare across Europe is that all regional hospitals should have access to scanning equipment or be able to transfer patients who urgently need a vital scan to save their life."*
> - Chloe Greene, Patient Advocate and Stroke Survivor, Ireland

Screening for Mental Health Conditions

A growing body of evidence shows that **mental and cardiovascular health are closely interconnected**, requiring more holistic and integrated models of care[30]. Indeed, mental health disorders are associated with a substantially increased risk of CVD, higher CVD-related mortality, and worse clinical outcomes[31]. More precisely, individuals with **mental health disorders face a 50% to twofold greater risk of adverse cardiovascular events** compared with those without such conditions. Moreover, **the association is bidirectional**, as the presence of CVD can also contribute to the development of new mental health disorders[31].

Conditions such as **anxiety, depression and trauma** are frequently treated as explanations instead of warning signals, leading to misattribution of symptoms and delayed cardiovascular investigation[7]. Screening for depression, anxiety, and PTSD is therefore advised to be integrated into CV risk assessment[30].

Failing to embed a life course and mental health lens leaves critical prevention opportunities unrealised and fractures continuity of care. This is most evident during perimenopause and menopause – predictable, high-risk transitions that remain among the most consistently missed opportunities for early cardiovascular risk identification and intervention[7].

Considering that in 2022, 27% of Europeans (almost one out of three) over 45 years reported depressive symptoms[1], The Council Recommendation should also highlight the need to **integrate mental health screening as a routine component of cardiovascular and multimorbidity risk assessments**, recognising the psychological burden of chronic illness.

> *“After my stroke, no one needed to tell me that healing isn’t just physical – you carry the weight in your mind long after the body begins to recover. If we truly care for people with cardiovascular disease and multiple conditions, we must stop treating mental health as optional and start screening for it as routinely as blood pressure, because the unseen burden can be just as life-altering.”*
> - Diana Wong Ramos, stroke survivor since 2011, Portugal

Conclusions

Cardiovascular disease remains a leading cause of premature mortality and health inequalities across the European Union, placing a substantial and growing burden on individuals, health systems and societies. Effective prevention and early detection are therefore essential to achieving longer, healthier lives and to ensuring the sustainability of healthcare systems.

Well-designed cardiovascular health checks represent a critical opportunity to shift from late, crisis-driven intervention towards proactive, integrated prevention of cardio-renal-metabolic conditions across the life course. To be effective, however, **these programmes must be designed not only around risk factors and biomarkers, but around the lived realities of people and communities most affected by cardiovascular disease**. Implementation should be phased and adapted to national contexts, with EU support for workforce training, digital infrastructure and patient-organisation capacity to ensure feasibility and sustainability.

Therefore, GHH strongly recommends placing **meaningful involvement of patients** at the core of the forthcoming Council Recommendation on cardiovascular health checks. This means moving beyond consultation towards **structured, resourced co-design and co-governance** with patient organisations and people living with, or at risk of, CVD – in line with international frameworks on meaningful engagement of people living with NCDs[6].

Specifically, cardiovascular health check policies and programmes should:

- **Formally mandate the participation of patient organisations** in the design, governance, implementation and evaluation of national cardiovascular and cardio-renal-metabolic health check strategies, including in advisory groups and monitoring structures.
- **Provide dedicated funding and capacity-building for patient organisations** to engage in co-design, outreach, communication, peer support and evaluation activities, including in underserved and high-risk communities.
- **Ensure that health check pathways, tools and communications are co-created with patients**, including tailored materials for women across the life course, people living with multiple conditions and communities experiencing structural inequities.
- **Embed mechanisms for ongoing feedback and experience-based co-design**, such as patient panels, community advisory boards and structured patient-reported experience and outcome measures, to continuously improve access, quality and person-centredness of health checks.

Alongside this, the Council Recommendation should promote **integrated, life-course cardio-renal-metabolic assessments** to address interconnected risk factors. It should also support the **systematic consideration of family history** of cardiovascular disease to better identify inherited risk. Health checks should also incorporate **specific touchpoints for women across different stages of the life course**, reflecting sex- and gender-specific risks, and include **screening for mental health conditions**, recognising their strong bidirectional relationship with cardiovascular outcomes.

When combined with robust patient involvement, these measures can help deliver **earlier detection, more equitable access, and better outcomes** for people living with, and at risk of, cardiovascular disease – while strengthening the sustainability and resilience of European health systems.

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