Global Spotlights

A Manifesto from Global Heart Hub for early detection and diagnosis of cardiovascular disease

Fausto J. Pinto [1]*, Ed Harding[2], and Olive Fenton[3]

[1]Department of Cardiology, Santa Maria University Hospital, ULSSM, CAML, CCUL@RISE, Faculty of Medicine, University of Lisbon, Av Professor Egas Moniz, 1649-028 Lisbon, Portugal; [2]The Health Policy Partnership, 68–69 St Martin's Lane, London WC2N 4JS, UK; and [3]Global Heart Hub, Galway, Ireland

Over the past 30 years, the global prevalence of cardiovascular disease (CVD) has nearly doubled,[1] and annual CVD-related deaths are projected to rise by more than 60% between 2020 and 2050.[2] Despite these alarming trends, political commitment has been disappointing.[3] Leading stakeholders report a lack of formal policy plans, continued misunderstanding among decision-makers as to the true cost of CVD, and noticeable disparities in commitment and investment in CVD compared with other major diseases.[3,4]

Widespread delays and missed detection and diagnosis of CVD epitomize an unsustainable health system response to the growing prevalence of chronic diseases, severely impacting populations. Missed opportunities in detecting common cardiovascular risk factors—such as high cholesterol, high blood pressure, and atrial fibrillation,[5] as well as structural conditions such as heart failure[6] or heart valve disease[7]—prevent timely deployment of protective therapies and disease management models. This can lead to an avoidable progression to more advanced stages, including increased risk of heart attack, stroke and other life-threatening events, or death.[8,9]

The manifesto: a unique and timely patient-led initiative to transform cardiovascular disease detection and diagnosis

A united cardiovascular patient community would present a powerful political movement to support governments to act on early detection and diagnosis of CVD. Yet no organization has consolidated a patient-led global position on this issue. Global Heart Hub (GHH) set out to change this with its first patient-led manifesto to engage decision-makers—Achieving early detection and diagnosis of cardiovascular disease: A manifesto for change.

The methodology underpinning the manifesto was centred on direct patient and caregiver involvement. It also included close collaboration with a diverse group of stakeholders, including clinical and policy experts. The process was enriched by a targeted literature review, individual stakeholder consultations, and multi-sectoral workshops during the 2023 GHH Unite Summit in Barcelona. Through this framework, GHH ensured that the manifesto was not only grounded in real-world patient experiences and priorities but also aligned with the latest clinical guidance and evidence, reinforcing its relevance and potential impact on health systems worldwide.

The eight actions that are critical to success

The methodology described above successfully facilitated a consensus among over 40 leading patient advocacy organizations for a new manifesto for action on early detection and diagnosis of CVD. The actions are as follows:

ACTION 1: Run public campaigns on the risk factors and symptoms of CVD. Launch long-term campaigns to improve understanding of CVD among the general public. These should be tailored to different cultural groups and use diverse media for widespread reach, focusing on empowering individuals to monitor their cardiovascular health and seek timely medical advice.

ACTION 2: Implement targeted early detection programmes for CVD, at different stages of life. Develop programmes to identify individuals and groups at high risk of CVD, using biomarker testing, clinical support tools and considering risk factors including those related to genetics, metabolism and lifestyle. Collaboration with

patient organisations, medical societies and health authorities will help to ensure effective local adaptation of such programmes.

ACTION 3: Adapt clinical processes to enhance early detection and diagnosis of CVD. Increase access to rapid, on-site point-of-care testing in primary care and community settings. Redesign patient care pathways to ensure potential cardiac symptoms, underlying causes and early indications of CVD are thoroughly and swiftly investigated.

ACTION 4: Leverage digital technologies to increase access to early detection and diagnosis of CVD. Encourage the use of mobile health interventions, wearable sensors and other tools to monitor risk and support early detection of CVD. Integrate these technologies into clinical practice and train patients and healthcare professionals in their effective use to support early detection and diagnosis.

ACTION 5: Optimise workforce training and capacity for early detection and diagnosis of CVD. Implement comprehensive multidisciplinary training programmes for primary care physicians and other healthcare professionals to recognise people at high risk of CVD, interpret cardiac symptoms confidently and activate rapid referral pathways. Diversify the skillset of the healthcare workforce to facilitate nurse- or pharmacist-led care, and redesign roles, including the creation of data management and analysis positions.

ACTION 6: Increase investment in research into early detection and diagnosis of CVD. Boost funding for CVD research and innovation, focusing on developing better personalised risk assessment tools that leverage advanced technologies like artificial intelligence and take into account both magnitude and duration of exposure to CVD risk factors. Involve people living with CVD in the design and conduct of such research, ensuring equitable access among demographic groups.

ACTION 7: Advance policy development and international partnerships for early detection and diagnosis of CVD. Develop national cardiovascular health plans that include robust, goal-driven strategies for the early detection and diagnosis of CVD to reduce preventable mortality and morbidity and improve the efficiency of healthcare delivery. These should help reorientate the design of the health system towards early detection and diagnosis of CVD, including multisectoral collaboration and engagement with patient organisations and people living with cardiac conditions.

ACTION 8: Promote equitable access to early detection and diagnosis of CVD. Implement targeted policies and programmes to improve equitable access to the early detection and diagnosis of CVD. These should aim to reduce inequalities in CVD mortality by addressing social determinants of health as well as gender, socioeconomic, racial and ethnic disparities in early detection and diagnosis of CVD.

Conclusion

This manifesto, if adapted to the needs of populations living with CVD, should not only guide political advocacy but also shape improved health outcomes and foster greater sustainability of health systems. Global Heart Hub will be using the eight actions outlined to advance its mission, working closely with cardiovascular patient organizations and the cardiovascular scientific community across the globe to do so.

National advocates now have a powerful reference point around which to escalate their local policy demands. And decision-makers can use the manifesto as a framework for local or national policy development, with a high degree of confidence in the manifesto's patient-led origins and its comprehensive coverage of the major cardiovascular conditions.

Declarations

Disclosure of Interest

All authors declare no disclosure of interest for this contribution. The manifesto is an initiative of the Global Heart Hub, with support from The Health Policy Partnership in the research and drafting of this report.

References

1. Roth G, Mensah G, Johnson C, Addolorato G, Ammirati E, Baddour LM, *et al.* Global burden of cardiovascular diseases and risk factors, 1990–2019: update from the GBD 2019 study. *J Am Coll Cardiol* 2020;**76**:2982–3021. https://doi.org/10.1016/j.jacc.2020.11.010
2. World Heart Federation. *World Heart Vision 2030: Driving Policy Change.* Geneva: World Heart Federation, 2022
3. Karnad A, Harding E, Farrington-Douglas J, Handcock M. Making the case for political urgency in cardiovascular disease. *Thought Leadership Forum on Cardiovascular Disease Discussion Paper.* London: The Health Policy Partnership, 2022
4. Figtree G, Jennings G, Nicholls S, Graham RM. The Australian Cardiovascular Alliance—towards an integrated whole-of-nation strategy to address our major health burden. *Heart Lung Circ* 2019;**28**:198–203. https://doi.org/10.1016/j.hlc.2018.12.002
5. Public Health England. 2019. Health matters: preventing cardiovascular disease. https://www.gov.uk/government/publications/health-matters-preventing-cardiovascular-disease/health-matters-preventing-cardiovascular-disease (07/05/2024, date last accessed).
6. Bottle A, Kim D, Aylin P, Cowie M, Majeed A, Hayhoe B. Routes to diagnosis of heart failure: observational study using linked data in England. *Heart* 2018;**104**:600–05. https://doi.org/10.1136/heartjnl-2017-312183
7. d'Arcy J, Coffey S, Loudon M, Kennedy A, Pearson-Stuttard J, Birks J, *et al.* Large-scale community echocardiographic screening reveals a major burden of undiagnosed valvular heart disease in older people: the OxVALVE population cohort study. *Eur Heart J* 2016;**37**:3515–22. https://doi.org/10.1093/eurheartj/ehw229
8. Quinn G, Ranum D, Song E, Linets M, Keohane C, Riah H, *et al.* Missed diagnosis of cardiovascular disease in outpatient general medicine: insights from malpractice claims data. *Jt Comm J Qual Patient Saf* 2017;**43**:508–16. https://doi.org/10.1016/j.jcjq.2017.05.001
9. Fleming K, Horton S, Wilson M, Atun R, DeStigter K, Flanigan J, *et al.* The lancet commission on diagnostics: transforming access to diagnostics. *Lancet* 2021;**398**:1997–2050. https://doi.org/10.1016/S0140-6736(21)00673-5