

WORK-RELATED CARDIOVASCULAR DISEASES: POLICIES FOR PREVENTION, RETURN TO WORK AND RETENTION AT WORK

Background

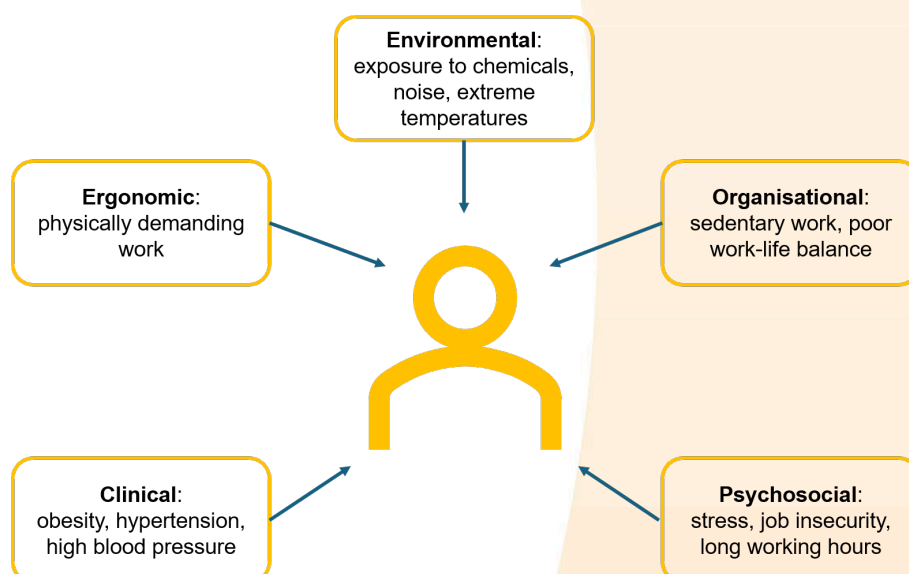
This policy brief examines key recent European and selected international initiatives to prevent work-related cardiovascular diseases (WR-CVDs) and promote return-to-work (RTW) and retention-at-work (RAW) measures. It is based on a comprehensive research project commissioned by the European Agency for Safety and Health at Work (EU-OSHA), which aimed to gain insight into how recent initiatives to reduce WR-CVD risk factors have been implemented and to assess their effectiveness. Drawing on extensive desk analysis, survey data and targeted interviews, the project provides an overview of policy and regulatory efforts and identifies trends and relevant examples within (and beyond) the European Union (EU) across occupational health and other related policy areas. In addition, this policy brief highlights several policy measures that can contribute to the effective prevention of WR-CVDs and the promotion of RTW and RAW.

As a result of this work, five case studies and a final report were produced, each published as a standalone document.

Key findings

CVDs are a significant global health burden, given that they represent one of the leading causes of mortality worldwide and the second-largest cause of work-related deaths in the EU (European Commission [EC], 2021). According to the World Health Organization (WHO), an estimated 19.8 million people died from CVDs in 2022, which represented 32 % of all deaths worldwide (WHO, 2025). Growing evidence points to the significant contribution of occupational exposures to the development and progression of CVDs. As shown in [Figure 1](#), occupational risk factors can be grouped into five categories, which may interact with behavioural and clinical risk factors, as well as socioeconomic determinants such as income, education and access to healthcare, thereby highlighting the multifactorial nature of CVDs.

Figure 1: CVD risk factors



Growing recognition of WR-CVD risk factors in the EU is reflected in initiatives such as the Strategic Framework on Health and Safety at Work 2021-2027 (EC, 2021) and the EU's Healthier Together initiative (EC, 2022), with the Council of the EU calling for stronger preventive measures in December 2024 (Council of the EU, 2024).

Some European countries have recently renewed their national strategies by establishing objectives to make workplaces safer and healthier. These include Spain, which published its Occupational Safety and Health Strategy 2023-2027 (Instituto Nacional de Seguridad y Salud en el Trabajo [INSST], 2023), and Belgium, which launched its national action plan to improve the well-being of workers in the performance of their work for 2022-2027 (Federal Public Service Employment, Labour and Social Dialogue, 2022). In addition, several EU Member States (MSs) have recently intensified their efforts to address cardiovascular risks strategically, including Poland, which published the National Cardiovascular Disease Programme for 2022-2032 (Structural Heart Disease Coalition, 2023), and Germany, which published the Healthy Heart Act (Bundesministerium für Gesundheit, 2024).

Through a review of the latest European regulations, directives and strategic framework policies within occupational health and related policy areas, three main policy trends were identified:

1. a shift towards an integrated and collaborative approach that recognises the complexity of health challenges and calls for collaboration across professions and borders,
2. increased attention to climate change-related occupational risks such as pollution and extreme heat,
3. a focus on CVD prevention through lifestyle interventions, often referred to as workplace health promotion (WHP) interventions, such as those that seek to reduce tobacco and alcohol consumption.

Although these trends are clearly reflected in recent European regulatory and policy developments, there is still a need for further effective translation into concrete actions at national level.

A comparative analysis of relevant initiatives, policies, strategies and programmes at EU, national and sectoral level that aimed to prevent WR-CVDs and support RTW and RAW among workers with chronic CVDs revealed a scarcity of interventions directly focused on reducing exposure to occupational risk factors. The key themes identified are shown in Table 1.

Table 1: Key themes identified through a comparative analysis of the identified initiatives

Key themes	Description
Objectives and scope	The most common objective across the different types of initiatives was to raise health awareness in the workplace, followed by initiatives aimed at preventing CVDs and those supporting RTW and RAW processes.
Target groups and geographical coverage	The majority of interventions targeted workers regardless of occupation, worker group or sociodemographic characteristics, and therefore did not offer tailored support to address specific occupational risk exposures. More than half of the initiatives were delivered at national level.
Tools used	Successful interventions employed a range of engagement tools. One-to-one support, such as personalised coaching, and workplace adjustments, such as ergonomic changes and reduced working hours, proved particularly effective in promoting behavioural change and reducing CVD risk factors. Health screenings and digital tools, such as text messages with behavioural nudges, were most effective when combined with one-to-one support.
Impact assessment	Many interventions included rigorous evaluations that compared intervention and control groups through self-reported surveys and clinical measures collected at baseline and after the intervention. However, evaluations were often limited to short-term pilot studies, which provided more intensive support than long-term, large-scale initiatives, where sustained monitoring to assess measurable health outcomes was often lacking.
Success factors	▪ securing commitment from all stakeholders from the outset, ▪ embedding cross-collaboration across disciplines, sectors and stakeholders, ▪ offering tailored, holistic support to workers, ▪ tailoring initiatives to socioeconomic, cultural and organisational factors, ▪ having clear objectives and measurable outcomes, ▪ involving dedicated health professionals, ▪ supporting companies, especially SMEs, in implementing the initiatives.
Transferability	The transferability of the initiatives was assessed based on several factors, including the strength of the evidence base, adaptability to different contexts and target groups, scalability without reliance on resources that may not be available elsewhere, and the presence of a robust monitoring and evaluation framework. Highly transferable initiatives included the Austrian fit2work programme, ¹ which can be adapted to different European contexts to support RTW, and the Irish Farmers Have Hearts programme, ² which uses a cost-effective approach to engaging hard-to-reach worker groups.

Source: *Work-related cardiovascular disease prevention: regulations, policies, strategies and initiatives* report, available at: <https://osha.europa.eu/en/publications/work-related-cardiovascular-disease-prevention-regulations-policies-strategies-and-initiatives>

¹ <https://osha.europa.eu/en/publications/fit2work-austria-supporting-return-work-after-illness>

² <https://osha.europa.eu/en/publications/cardiovascular-disease-prevention-farmers-through-workplace-health-checks>

Gaps and related needs

Despite significant progress and ambitious efforts, the literature review and fieldwork research revealed gaps and related needs that should be addressed in European occupational safety and health (OSH) policies. CVDs remain a critical public health and OSH concern, and thus require an approach that is integrated into both policy and practice. At policy level, the following gaps were identified:

1. Limited consideration of occupational risk factors in cardiovascular disease prevention and management

There is currently a lack of detailed guidance on how occupational exposures can exacerbate existing health conditions and increase cardiovascular risk. A more holistic approach should be adopted to address occupational risk factors, such as heavy workloads, exposure to noise and psychosocial stressors, during coaching sessions, while also exploring workplace adjustments to reduce these exposures.

2. A lack of occupation-specific interventions

Most of the interventions did not target a specific worker group, occupation or sector, but rather focused on employees of specific companies. Although this generic approach is easy to implement, it probably limits the impact of interventions by overlooking the occupational exposures that workers face in their day-to-day work. Sector-specific interventions are needed to guide and inform a holistic framework that views the workplace as a modifiable factor, where WR-CVDs are adequately prevented and managed, in line with the EU OSH Framework Directive (Council of the European Communities, 1989), rather than simply as a setting for interventions. Particular attention should be paid to the impact of different occupational exposures on the likelihood of developing CVDs, particularly in high-risk sectors such as construction and among workers subject to specific working conditions such as night or irregular shifts and prolonged exposure to noise and chemicals.

3. A lack of sustained and dedicated funding for workplace health interventions

There is currently a lack of consistent, sustainable funding mechanisms that European countries can draw on to apply WHP initiatives, which hinders the continuity of interventions and the measurement of long-term health outcomes. Financial frameworks must be integrated into national OSH budgets to ensure the continuity of initiatives for the prevention of WR-CVDs. This should include public and private partnerships that emphasise the potential benefits of these interventions for both workers and organisations. The business case for workplace interventions should be strengthened by highlighting their potential to reduce sickness absence costs and improve well-being, which ultimately increases productivity and supports RAW.

4. A lack of integration of socioeconomic determinants of health in occupational safety and health policies

Current policies do not place sufficient emphasis on how socioeconomic determinants influence workers' ability to adopt and maintain a healthy lifestyle, or their likelihood of exposure to certain risk factors. It is essential to consider the complex context in which workers operate, together with their sociodemographic and clinical characteristics, working conditions and the impact of these factors on their lifestyle. A holistic approach is therefore necessary to understand the underlying causes of CVD risk and to design successful interventions that are relevant, feasible and capable of achieving sustainable behavioural change and addressing occupational factors, including work-related psychosocial and organisational risks, as well as environmental and wider socioeconomic determinants.

Policy pointers

This section outlines key takeaways for policymakers based on a comprehensive review of policy and literature on recent European and international initiatives to prevent WR-CVD risk factors and promote RTW and RAW processes, the identification of success factors across European initiatives and complementary fieldwork research.

▪ *Policy pointer 1. Recommend the introduction and implementation of sector-specific risk assessment protocols that address work-related cardiovascular risks*

Given the proven link between specific occupational exposures and increased CVD risk, there is a need for sector-specific guidance and risk assessment protocols to ensure that these risks are identified and

eliminated or reduced where possible. These protocols should be worker-focused, support RTW and RAW, and consider vulnerabilities and specific working conditions, while outlining how productivity can be maintained without compromising workers' health. Where cardiovascular risks cannot be eliminated, organisations should be incentivised to implement appropriate control measures to reduce exposure, with priority given to occupations and sectors with strong evidence of increased CVD risk, such as night-shift and construction workers.

- ***Policy pointer 2. Foster multidisciplinary collaboration and workers' involvement in the creation of occupational safety and health initiatives to ensure holistic support***

Since OSH cuts across ergonomic, psychosocial, environmental, socioeconomic and organisational factors, dialogue among different stakeholders should form the foundation for the design of successful initiatives. Involving researchers, workers and their representatives, health and safety officers, occupational health experts and employers is essential to facilitate implementation and ensure that risks are identified from multiple perspectives, thereby providing workers with holistic support.

- ***Policy pointer 3. Increase efforts to promote awareness and training on work-related cardiovascular disease risk factors within organisations***

Workers and employers need greater awareness of how specific occupational exposures contribute to the onset of CVDs. While the workplace is widely recognised as a determinant of other health outcomes, such as musculoskeletal disorders (MSDs), its active role in both contributing to and protecting against CVDs is often overlooked. Strengthening awareness of this link is crucial, as it can drive greater commitment to health initiatives and build momentum for interventions that address one of the most pressing public health concerns.

- ***Policy pointer 4. Evaluate the efficacy of occupational health practitioners in supporting return-to-work and retention-at-work processes***

Occupational health practitioners in countries such as the Netherlands and Germany play a critical role in supporting RTW and RAW processes after CVD events, as well as in translating health recommendations into workplace adaptations. To inform policy and practice at European level, further research is needed to rigorously assess the effectiveness of integrating occupational health practitioners into workplace programmes, the resources required to establish such roles and their overall cost-effectiveness across different national and sectoral contexts.

- ***Policy pointer 5. Encourage sustainable funding mechanisms to implement workplace health prevention initiatives***

Policies should provide financial mechanisms, such as grants and tax breaks, to encourage enterprises to go beyond minimum regulatory standards and actively promote good OSH practices. Additionally, non-financial mechanisms, such as certification and award programmes for companies that exceed regulatory requirements and implement good OSH practices, could also be considered.

References

- Bundesministerium für Gesundheit. (2024). *Gesundes-Herz-Gesetz* [Healthy Heart Act]. <https://www.bundesgesundheitsministerium.de/service/gesetze-und-verordnungen/detail/ghg.html>
- Council of the European Communities. (1989). *Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work*. Official Journal of the European Communities, L 183, 1–8. <https://eur-lex.europa.eu/eli/dir/1989/391/oj>
- Council of the European Union. (2024, December 3). *Cardiovascular health: Council calls for more robust efforts to help prevent cardiovascular diseases* [Press release]. <https://www.consilium.europa.eu/en/press/press-releases/2024/12/03/cardiovascular-health-council-calls-for-more-robust-efforts-to-help-prevent-cardiovascular-diseases/>

- European Commission. (2021). *EU Strategic Framework on Health and Safety at Work 2021-2027 (COM/2021/323 final)*. Publications Office of the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0323>
- European Commission. (2022). *Healthier together – EU non-communicable diseases initiative*. https://health.ec.europa.eu/non-communicable-diseases/healthier-together-eu-non-communicable-diseases-initiative_en
- Federal Public Service – Employment, Labour and Social Dialogue. (2022). *National action plan to improve the well-being of workers in the performance of their work 2022-2027*. https://werk.belgie.be/sites/default/files/content/publications/National_Action_Plan_Angl.pdf#page=13.17
- Instituto Nacional de Seguridad y Salud en el Trabajo. (2023). *Spanish Occupational Safety and Health Strategy, 2023-2027: Executive summary*. <https://www.insst.es/documents/d/portal-insst/spanish-occupational-safety-and-health-strategy-2023-2027-executive-summary>
- Structural Heart Disease Coalition. (2023, February 16). 'New Polish cardiovascular plan: Leading by example'. <https://structuralheartdiseasecoalition.eu/new-polish-cardiovascular-plan-leading-by-example/>
- World Health Organization. (2025). *Cardiovascular diseases (CVDs)*. [https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-\(cvds\)](https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds))

Authors: Alessia Cottone (PredictBy), Maeve Berry (PredictBy), Martin Clarke (Panteia), Marina Rodes Sánchez (PredictBy).

Project management: Kate Palmer, Marine Cavet, Ami Matsushima, Emmanuelle Brun – European Agency for Safety and Health at Work (EU-OSHA).

This policy brief was commissioned by the European Agency for Safety and Health at Work (EU-OSHA). Its contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect the views of EU-OSHA.

Neither the European Agency for Safety and Health at Work nor any person acting on behalf of the agency is responsible for the use that might be made of the following information.

© European Agency for Safety and Health at Work, 2026

Reproduction is authorised provided the source is acknowledged.

For any use or reproduction of photos or other material that is not under the copyright of the European Agency for Safety and Health at Work, permission must be sought directly from the copyright holders.