Addressing Psychosocial and Lifestyle Risk Factors to Promote Primary Cancer Prevention: an integrated platform to promote behavioural change (IBeCHANGE)

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D8.11 – Annual Policy Recommendations of the Prevention Cluster

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List of Abbreviations

Abbreviation	Explanation
AI	Artificial Intelligence
BC	Behaviour Change
CERTH	Centre for Research & Technology Hellas
Cluster	Prevention & early detection (behavioural change) cluster
DMP	Data management plan
EAB	External Advisory Board
EAC	Ethics Advisory Committee
EAPM	European Alliance for Personalized Medicine
EBCP	Europe's Beating Cancer Plan
EHMA	European Health Management Association
EM	Emotional Management
EU	European Union
GDPR	General Data Protection Regulation (EU) 2016/679
HUA	Harokopio University of Athens
i~HD	European Institute for Innovation through Health Data
IEAB	Independent Ethical Advisory Board
IEO	European Institute of Oncology
IOCN	Institutul Oncologic Prof Dr Ion Chiricuta Cluj-Napoca
PBY	PredictBy
SPAB	European Stakeholder and Policy Advisory Board
VCIs	Virtual Coach interventions
WP	Work Package
SWOT Analysis	Analysis of Strengths, Weaknesses, Opportunities, and Threats
ISGF	Swiss Research Institute for Public Health and Addiction
ECAC	European Code Against Cancer
LMIC	Low- and Middle-Income Countries
ENVI	Committee on the Environment, Public Health and Food Safety
SANT	Subcommittee on Public Health

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1. Executive Summary

This deliverable presents the first version of policy recommendations developed by the Prevention and Early Detection (Behavioural Change) cluster. Established under the European Union's Horizon Europe Research and Innovation Programme, this cluster unites three key projects—iBeChange, MELIORA, and SUNRISE— that focus on innovative strategies for cancer prevention and early detection. As an initial iteration, this report outlines the policy recommendations proposed by each project, details the processes that informed their development, identifies shared overarching themes, and evaluates their potential impact. Recognising the evolving nature of this work, the recommendations will be continuously refined and enhanced based on ongoing research and collaboration within the cluster.

2. Introduction

Cancer poses a significant societal challenge on a European and a global scale, and the burden is only expected to increase in upcoming years. In the European Union, new cancer cases increased by 2.3%, and cancer deaths increased by 2.4% between 2020 and 2022[1] . With an estimated 380,000 cases, breast cancer is the most frequently diagnosed cancer in the European Union, followed by colorectal cancer with 356,000 cases, prostate cancer with 330,000 cases, and lung cancer with 319,000 cases [2] . Although the risk of developing cancer can be reduced through the adoption of healthy behaviours such as regular physical exercise, a balanced diet, reducing alcohol consumption, avoiding smoking, and using sun protection, the importance of early detection cannot be overlooked. Undergoing regular tests and screenings that are specific to each type of cancer allows for the detection of the disease at an early stage when the chances of successful treatment and recovery are higher [3]. Prevention and early detection remain two of the most powerful tools in the fight against cancer, which means that promoting the adoption of healthy lifestyle changes and enhancing public awareness are essential to reduce the risk of cancer incidence and improve survival rates[3]. According to the European Cancer Information System, each year 2,7 million people are diagnosed with cancer and 1,3 million lose their lives due to this disease in Europe. If no further action is taken, the number of people newly diagnosed is predicted to increase to more than 3,24 million by 2040[4].

However, inequalities in these domains persist- such as gaps in screening programmes, workforce shortages, inconsistent policy implementation, and disparities in health literacy levels- which can serve to contribute to the burden of cancer. MELIORA, iBeChange, and SUNRISE are three projects within the Prevention and Early Detection (Behavioural Change) cluster that aim to enhance primary cancer prevention through sustainable behavioural change under the 2023 EU Cancer Mission projects. They seek to ameliorate these inequalities by developing strategies and good practices that promote health literacy, address health risk factors, and ensure high standards in cancer care[5]. Furthermore, these projects emphasise the use of new technologies and digital solutions to move towards patient-centred cancer prevention and care, resulting in the development of targeted interventions and inclusive design practices to overcome the barriers that currently impede sustainable behavioural change.

[1] Joint Research Centre. (2023). Cancer cases and deaths on the rise in the EU. https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/cancer-cases-and-deaths-rise-eu-2023-10-02_en#:~:text=New%20cancer%20cases%20rose%20by,Cancer%20Information%20System%20(ECIS.

[2]European Commission. (2023). 2022 New Cancer Cases and Cancer Deaths On The Rise In The EU.https://ecis.jrc.ec.europa.eu/sites/default/files/2024-01/jrc_CancerEstimates2022_factsheet.pdf

[3] Mourouti, N., Karaglani, E., Gavrieli, A., Manios, Y., Pelekanou, C., Segal, L., Dietrich, N., Folkvord, F., Van der Feen, J., Roca-Umbert Würth, A., Triantafyllidis, A., Masiero, M., Pravettoni, G., Dorangricchia, P., Tomezzoli, E., Miale, G., Lea, N., Horgam, D., De Las Heras, A., Martone, G., Mathey, L., Civitcanin, D., Olson, A. (2024). D2.2 Common work plan for scientific collaboration under the 'Prevention & early detection (behavioural change)" cluster.

[4] European Commission. (n.d). EU Mission: Cancer. https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-mission-cancer_en

[5] Pravettoni, G., Masiero, M., Miale, G., Tomezzoli, E., Dorangricchia, P. (2024). D1.6- Report of the Annual Meeting of the Prevention Cluster.

As a result of the interconnection between these EU projects, a set of policy recommendations has been developed, which aim to take a comprehensive and scientifically grounded approach to enhancing cancer prevention efforts on European, national, and local levels. These recommendations will not only contribute to the reduction of cancer related risks which pose a significant threat to public health but will also contribute to reaching the goals of the European Union's Mission on Cancer. By joining efforts across Europe with citizens, stakeholders and Member States, these policy recommendations will allow for earlier diagnosis, optimisation of treatment, and will improve cancer patients' quality of life during and beyond their cancer treatment.

2.1 Projects in the Prevention & Early Detection-Behavioral Change Cluster

The projects iBeChange, MELIORA, and SUNRISE work toward improving health literacy, reducing behaviours associated with cancer risk, and maintaining high standards of care, all while addressing disparities in healthcare through telemedicine and remote monitoring, especially in rural and remote EU areas. Emphasising the role of technology and innovation, they aim to advance patient-centred cancer prevention, using data and digital tools to enhance prevention efforts. Through targeted interventions and inclusive design, these projects focus on overcoming barriers to sustainable behaviour change, contributing meaningfully to cancer prevention and overall public health improvement across Europe.

2.1.1 iBeChange

The iBeChange project addresses psychosocial and lifestyle risk factors to promote primary cancer prevention. This initiative designs, develops and tests an integrated platform that fosters behaviour change (BC) and emotional management (EM) in individuals to achieve healthy and sustainable behaviours and emotions. The platform will specifically target European citizens at risk for lung, breast, and colorectal cancer, encouraging them to make lifestyle adjustments – such as improving their diet, increasing physical activity, reducing alcohol consumption, and quitting smoking – that can lower their cancer risk, by also addressing emotional well-being. Through Artificial intelligence (AI) the iBeChange system observes dynamically, learns about user behaviours, and delivers tailored and effective health interventions in a dynamic learning process tackling healthcare access disparities by providing remote expert guidance regardless of geographical location. Through the collaboration of clinical and technical professionals, as well as the integration of inputs from literature reviews, retrospective and public data, the iBeChange platform will be designed to align with the goals of the European Beating Cancer Plan and the European Code Against Cancer by improving long-term primary cancer prevention through information, support, and empowerment of EU citizens.

2.1.2 MELIORA

MELIORA Consortium (Multimodal Engagement and sustainable Lifestyle Interventions Optimizing breast cancer Risk reduction supported by Artificial intelligence) will jointly work with local actors at different levels for the realisation of eight (8) in total tailor-made lifestyle interventions and behavioural modification studies, including Artificial intelligence and digital tools, to promote sustainable behavioural changes among three target populations: i) healthy women at risk of developing breast cancer, ii) breast cancer patients and iii) breast cancer survivors. The MELIORA Virtual Coach interventions (VCIs) will take place across 4 different European countries (Greece, Sweden, Spain and Lithuania) and 6 piloting centress targeting 2000 women in urban and rural areas including participants throughout the socioeconomic spectrum. Primary health care centres, hospitals or patients'/survivors' organisations will be used as entry points to the community. The goal of the MELIORA VCIs is to evaluate the effect of multiple individual and contextual factors on the uptake and sustainability of behavioural changes. At the same time, specific bottlenecks and barriers that prevent the uptake of sustainable behavioural change will be identified to support the development of optimal approaches for reaching and involving disadvantaged socio-economic population groups and people living in rural areas and will provide best practices for the wider intervention's uptake and scale-up. Based on the effectiveness, health economic evaluation and budget impact analysis of the MELIORA VCIs, national and European stakeholders will be invited to co-creation workshops aiming to evaluate the potential for adoption of the MELIORA VCIs in other regions or countries in Europe.

2.1.3 SUNRISE

The SUNRISE project aims to co-create, implement and evaluate an innovative digitally enhanced life-skills programme for primary prevention of cancer through sustainable health behaviour change in adolescents. Primary prevention of cancer through behaviour changes in adolescence, a critical period in which many risk behaviours are initiated, is a significant health and societal challenge in Europe. To tackle the health and societal challenge of primary prevention of cancer in Europe, SUNRISE will combine an established, evidence-based digital solution for smoking prevention, with novel intervention approaches such as peer social media campaigns, advertising literacy training, educational games, and social robot platforms, to take cancer prevention approaches for adolescents in the EU to the next level. The digitally enhanced programme will be developed through co-creation with schools-as-living-labs methods involving multiple societal actors such as educators, adolescents, parents, public health experts, and policy-makers. The

programme will be implemented and evaluated at large scale across 154 schools and 7500 students in urban and rural regions of 8 European countries, including socially disadvantaged groups and ethnic minorities. Overall, the SUNRISE project aims to revolutionise primary cancer prevention in Europe by fostering sustainable, large-scale behavioural change in adolescents through an inclusive, digitally enhanced and evidence-based approach.

These three key projects are central to the Cluster and work collectively to tackle the challenges associated with cancer prevention. Together, these projects harness cutting-edge technologies and data-driven approaches to drive patient-centred cancer prevention, creating a more equitable and effective system across the EU.

3. Policy recommendations

The aim of this chapter is to present initial policy recommendations that have resulted from various activities and research during the first project year of the Prevention and Early Detection Cluster. The recommendations presented here build upon the groundwork that has been laid by current policy frameworks on an EU and Member State level. Europe's Beating Cancer Plan is one such framework, and is a key pillar of a strong European Health Union. Implemented by the European Commission in 2021, the plan serves as a political commitment to take action against cancer and outlines a holistic approach to cancer prevention, treatment and care and seeks to support, coordinate, and complement the efforts of Member States6. Together with the EU4Health programme and other EU instruments, Europe's Beating Cancer Plan provides substantial financial support to Member States to better address cancer care in national healthcare systems. It includes many flagship initiatives, such as a Knowledge Centre on Cancer, an European Initiative to Understand Cancer, and an EU network of National Comprehensive Cancer Centres.

The aims of Europe's Beating Cancer Plan to tackle the entire disease pathway are structured around four key areas: (1) prevention; (2) early detection; (3) diagnosis and treatment; and (4) quality of life of cancer patients and survivors. Preventative measures prioritise reducing infection-related cancers and promoting healthy lifestyle behaviours. Examples include supporting Member States' efforts to extend routine vaccination against human papillomaviruses (HPV) to eliminate cervical cancer and other cancers caused by HPV, improving health literacy on cancer risk, and addressing unhealthy diets, obesity and physical inactivity. Additionally, the EU has set ambitious goals to improve early detection of cancer through screening and has put forward various measures to achieve them. These measures include a cancer screening information campaign, a new EU approach to cancer screening[7], as well as the set-up of the European Cancer Inequalities registry (ECIR) which displays inequalities and disparities in cancer prevention and care between Member States[8]. The European Commission Initiative on Breast Cancer (ECIBC) is another critical component of the EU's cancer-specific measures[9]. This initiative provides healthcare providers and women with clear, evidence-based guidance on screening and treatment to ensure high-quality, accessible breast cancer care across Europe.

Another relevant pillar of a strong European Health Union with significant relevance to the cluster projects is the European Health Data Space (EHDS) which is expected to be up and running by 2028[10]. In the Spring of 2024, a political agreement was reached on a Commission proposal for

[6]European Commission. (2021). Europe's Beating Cancer Plan. Communication from the commission to the European Parliament and the Council. (SWD(2021) 13). https://health.ec.europa.eu/document/download/26fc415a-1f28-4f5b-9bfa-54ea8bc32a3a_en?filename=eu_cancer-plan_en_0.pdf

[7]European Union. (2022). Europe's Beating Cancer Plan. A new EU approach to cancer screening. European Commission.https://cancer-screening.campaign.europa.eu/system/files/2023-01/Cancer%20screening%20factsheet_en_0.pdf

[8]European Commission. (n.d.) ECIR – European Cancer Inequalities Registry. https://cancer-inequalities.jrc.ec.europa.eu/country-cancer-profiles

[9]European Commission. (n.d.) European Commission Initiative on Breast Cancer. https://cancer-screening-and-care.jrc.ec.europa.eu/en/ecibc

[10]European Commission. (2024). From dream to reality – the European Health Data Space. https://ec.europa.eu/newsroom/sante/items/826353/en#:~:text=With%20the%20longer%20transition%20periods%2C%20we%20expect%20the,EHDS%20to%20be%20up%20and%20running%20in%202028.

the EHDS by the European Parliament and the Council[11]. The EHDS is a health-focused framework that encompasses rules, common standards, practices, infrastructure, and governance to achieve the following goals: empower individuals through better digital access to their personal health data; support free movement by ensuring that health data follows people; and establish strict rules for the use of anonymised, or pseudonymised health data for research, innovation and policy making. By facilitating the secure and effective use of health data, the EHDS framework strengthens the foundations for research, policy development, and innovation in cancer prevention and care.

Together, these EU policy frameworks reflect a coordinated and comprehensive strategy for reducing the cancer burden across Europe. By addressing prevention, early detection, and equity in cancer care, the EU seeks to enhance public health outcomes, align Member State efforts, and advance the overarching goals of Mission Cancer, which aspires to improve the lives of millions affected by cancer by 2030.

Although the efforts of the European Union and EU Member States are undoubtedly extensive, the Prevention and Early Detection Cluster seeks to complement these efforts by identifying policy gaps or inequalities which may impact cancer prevention and the implementation of effective early detection strategies. These gaps and their proposed mitigation measures are outlined for each project in the subsequent sections.

3.1 SUNRISE

3.1.1 Identified gaps and recommendations development

The SUNRISE recommendations are the result of a comprehensive research and validation process aimed at identifying and addressing critical gaps and inequalities in cancer prevention and early detection strategies. Extensive desk research provided the foundation for this analysis, highlighting key challenges that impact effective intervention. These findings were subsequently validated through a structured process, including dedicated discussions at the 1st Annual Prevention and Early Detection Cluster Meeting and a more in-depth analysis will be resumed using targeted surveys addressed to policy makers form the eight countries of the Consortium. The following section details this methodology and presents the key gaps identified throughout the process.

Recommendations

- Develop a policy strategy that effectively communicates the project's research outcomes, their impact, and regulatory relevance to policymakers at both the EU and national levels.
- Raise awareness about the project among a broader audience, including policymakers (EU institutions, national legislators), patient and healthcare professional organisations, academia, national health authorities, industry, and civil society.
- Enable policy dialogue between research partners and policymakers (EU institutions, national legislators) to inform and drive policy change.
- Targeted Communication by producing policy briefs and reports summarising research outcomes and their implications, and ensure materials are available in multiple EU languages to increase reach.

[11]European Commission. (n.d.). European Health Data Space. https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space_en

- Focus on Socioeconomic Inequalities to prioritise support for disadvantaged populations by improving accessibility and inclusivity in healthcare services.
- Advocate for harmonisation of preventive healthcare policies across regions to create a unified framework.
- Include mental health as a core component in cancer prevention strategies.
- Public Health Campaigns to expand efforts to promote lifestyle changes through large-scale, multilingual public health campaigns.
- Build synergies with existing EU initiatives and encourage multi stakeholder collaboration to enhance research and innovation in cancer prevention.
- Brussels Events - organise key events at the EU Parliament/Commission to introduce projects and discuss progress and challenges, fostering policymaker engagement.

Key gaps identified

- Accessibility and Inclusivity: significant disparities exist in access to preventive healthcare, particularly for socioeconomically disadvantaged populations in remote and underserved areas of the EU.
- Fragmented Policies: inconsistent preventive healthcare policies across EU regions hinder effective implementation and integration.
- Funding and Reimbursement: a lack of structured reimbursement models limits the prioritisation of preventive services, maintaining a reactive rather than preventive healthcare approach.
- Mental Health Integration: insufficient integration of mental health into cancer prevention frameworks prevents a holistic approach to care.
- Data Privacy and Security: as digital health expands, concerns around data privacy and cybersecurity remain unaddressed.
- Public Awareness: limited public health campaigns fail to adequately promote lifestyle changes that reduce cancer risks.

To achieve these goals, it is essential to establish engagement with relevant policymakers. This includes identifying key figures at both the EU and national levels to collaboratively define the most efficient means of communicating the policy implications of the research outcomes. Relevant stakeholders include European Parliament Members (MEPs from the ENVI/SANT committee), the EU Commission (cabinet and directorate general levels), Member States (health ministries and health authorities), and the EU Council (health attachés from upcoming presidencies such as Poland, Denmark, Cyprus, etc.).

From a practical standpoint, strategies to translate research outcomes into meaningful policy data include the production of policy brochures and reports that incorporate relevant research outcomes tailored for policymakers, as well as creating synergies with existing and ongoing legislative and non-legislative acts and initiatives. Additionally, it is recommended that all policy materials include recommendations aimed at suggesting feasible ways to apply the research outcomes in policy development. To reach a larger audience and raise awareness about the project and its policy impact at the national level, the projects should consider translating materials into multiple EU languages.

In summary, the primary aim of researchers in establishing contact with relevant policymakers is to open a dialogue with them from the very start of project implementation. Involving all project partners in evidence-based discussions, workshops, and consultations with policymakers could be beneficial, as well as organising periodic meetings and online calls to discuss the progress of research activities and their expected results. It is also fundamental to organise events and utilise social media to engage stakeholders. The SUNRISE project suggests organising at least two one-day events in Brussels within the EU Parliament/Commission: one aimed at introducing the project and its policy implications, and the other focused on discussing implementation progress and the challenges encountered along the way.

3.1.2 Annual policy recommendations

Strengthening accessibility and inclusivity in preventive healthcare

To strengthen accessibility and inclusivity in preventive healthcare, it is essential to support socioeconomically disadvantaged populations, especially in remote and underserved EU regions. The iBeChange, MELIORA, and SUNRISE projects emphasise making preventive tools accessible through subsidised AI-driven and telehealth solutions that maintain privacy standards while catering to diverse demographics. Digital literacy programs should be region-specific, ensuring that all communities, including vulnerable groups, can engage with these health technologies effectively. By incorporating feedback from the projects' citizen engagement activities, these initiatives can remain user-centred, accommodating the needs and challenges of various populations. Additionally, preventive health communications and digital tools must be tailored to respect linguistic and cultural differences across regions. This approach builds on SUNRISE's focus on engaging adolescents and families in different cultural contexts, fostering higher acceptance and engagement.

Harmonising preventive policy measures across regions

Harmonising preventive policies across regions to avoid fragmented healthcare approaches is crucial to ensure effective implementation. Member States need further support to adapt EU-wide policy frameworks to their national healthcare systems while fostering standard preventive practices. This approach mirrors the collaborative framework within the Prevention and Early Detection Cluster, which establishes cross-national work plans for cohesive cancer prevention and behavioural change efforts. Furthermore, cross-national data-sharing agreements should promote secure and ethical data exchanges, supporting preventive healthcare research. These protocols must comply with GDPR and align with the objectives of the upcoming European Health Data Space (EHDS). Transparency is key to uphold patient trust, in line with the Cluster’s data management and security practices.

Incentivising preventive care over reactive care

Structured reimbursement models that prioritise preventive services are important pillars that could shift healthcare models from reactive to preventive care. These frameworks should align with the preventive approach championed by the Cluster, making early detection and behavioural change interventions financially viable for healthcare providers. Investment in prevention research and technologies, particularly digital solutions like MELIORA's Virtual Coach, should be incentivised. This will ensure that companies and academic/research institutions can focus on developing tools that facilitate behavioural change, especially for at-risk groups, thereby advancing patient-centred care.

Integrating mental health in prevention frameworks

Integrating mental health into prevention frameworks is essential to provide a holistic approach to healthcare, recognising that mental well-being significantly influences physical health. Mental health support should be integrated within cancer prevention programs at national level, as highlighted in the initiatives of the SUNRISE project. By including psychological services in preventive health packages, healthcare providers can better support high-risk populations, especially cancer survivors and those navigating the emotional challenges associated with cancer or cancer stigma. The Cluster's projects underscore the importance of engaging users in co-creation activities and workshops, which allows for mental health services and preventive measures to be shaped by real user experiences, making them more relevant and adaptable.

Addressing data privacy and cybersecurity concerns

Addressing data privacy and cybersecurity is paramount as digital health initiatives and data-sharing practices expand. Stringent data security policies should be enacted to protect sensitive patient information, echoing the Prevention Cluster's data management framework. Clear, user-centred consent mechanisms that inform individuals about data collection, usage, and sharing practices can foster patient trust. This aligns with the Cluster's shared data governance protocols, which prioritise ethical data practices and transparency.

Expanding public health campaigns to prevent health risks

Expanding public health campaigns to promote lifestyle changes that can prevent health risk is essential to raise awareness and encourage healthier behaviours. Drawing on insights from iBeChange's and MELIORA's citizen engagement workshops, there is a need for campaigns at the national level to educate the public about modifiable risk factors, such as lifestyle choices affecting cancer risk, while supporting the EU Cancer Mission's overarching goals. Local initiatives targeting high-risk groups should be encouraged by employing SUNRISE's model of community engagement to promote behavioural change at the community level. This approach not only resonates with the needs of diverse population groups, but also leverages local partnerships to ensure sustainable lifestyle changes.

Supporting research and innovation through collaborative frameworks

Research and innovation play a central role in the effectiveness and sustainability of preventive measures. Supporting cross-project research funding and shared resources aligns with the goals of the collaborative framework of the Prevention and Early Detection Cluster, allowing for optimised resource use and impactful research outcomes. Policies that encourage patient and citizen involvement in research ensure that interventions reflect real-world needs. The iBeChange and SUNRISE projects emphasise citizen engagement, which enables the development of interventions tailored to the lived experiences and preferences of those they serve, enhancing the scientific and societal relevance of preventive strategies.

Fostering multi stakeholder collaboration to drive the policy change

Fostering multi stakeholder collaboration is essential for driving effective policy change in cancer prevention, as it unites diverse perspectives and resources towards a common goal. Engaging stakeholders—including healthcare professionals, policymakers, researchers, patient advocacy groups, and community organisations—ensures that varied expertise and experiences inform the development and implementation of comprehensive prevention strategies. By creating platforms for dialogue and partnership, stakeholders can identify barriers to effective cancer prevention, share best practices, and advocate for evidence-based policies that prioritise public health. Such collaborative efforts not only enhance the legitimacy and acceptance of policy initiatives but also

mobilise broader community support, ultimately leading to sustained improvements in cancer prevention outcomes.

These policy recommendations, tailored to align with the Cluster's objectives and the EU Cancer Mission, reinforce the collaborative model pursued by iBeChange, MELIORA, and SUNRISE. Through integrated policies, accessible tools, and citizen-driven research, these initiatives aim to reduce cancer incidence and foster healthier lifestyles across Europe.

Table 1. Key policy actions for advancing preventive healthcare initiatives.

Policy area	Key actions
Accessibility and inclusivity	Subsidised AI and telehealth solutions; region-specific digital literacy programs
Harmonising policies	EU-wide adaptable frameworks; secure cross-national data-sharing agreements
Incentivising preventive care	Reimbursement models for preventive services; investment incentives for prevention research and technologies
Integrating mental health	Integrating psychological services in prevention packages; co-creation with user input
Data privacy and cybersecurity	Stringent data protection policies; user-friendly consent mechanisms
Public health campaigns	Campaigns on modifiable risk factors; community initiatives targeting high-risk groups
Supporting research and innovation	Cross-project funding; policies co-created with patients and the general public
Fostering multi stakeholder collaboration to drive the policy change	Engaging diverse stakeholders; creating platforms for dialogue and partnership

3.2 MELIORA

3.2.1 Identified gaps and recommendations development

The recommendations developed by MELIORA reflect extensive desk research to identify gaps and inequalities which impact cancer prevention and early detection strategies. These gaps and their proposed mitigation measures were then verified through co-creation workshops, consultations with advisory board members, surveys, and dedicated sessions at the 1st annual meeting of the

Prevention and Early Detection Cluster. The following section outlines the process that was carried out as well as the gaps that were identified as a result.

The foundation of MELIORA's recommendations is a report entitled ''Situation Analysis Feasibility Study''[12]. This report involved conducting an extensive literature review of existing health legislation, policies, regulations, guidelines, and other regulatory, social and ethical issues that affect healthy eating and active living in Lithuania, Greece, and Sweden as well as on an EU level[13]. The research featured in this report identified disparities in access to cancer care and screenings based on geographical, educational and socioeconomic factors. The report also identified dietary, physical activity, tobacco and alcohol consumption, exposure to air pollution, and health literacy differences across the EU, which pointed to disparities in levels of breast cancer development risk.

To supplement this desk research, MELIORA also carried out a European co-creation workshop in September of 2024. The workshop took place online, and involved breast cancer survivors, breast cancer patients, researchers, patient advocacy organisations, and members of the MELIORA consortium to gain an understanding of what barriers and facilitators may exist in various EU countries to contribute to the aforementioned disparities. This workshop revealed several gaps, including the availability of valid information, the need for personalised approaches to care, the need for public funding to promote certain healthy activities, and the need for policy changes to enhance the accessibility of medical exams. To gain further insight into and validate identified policy gaps related to breast cancer prevention and early detection, MELIORA also consulted our Stakeholder and Policy Advisory Board (SPAB) in October of 2024, and hosted a policy debate with experts in the medical field as well as several MEPs in November of 2024.

As a result of these processes, the following gaps were identified and subsequently organised by level:

EU Level

- Disparities in bc prevention programmes: SPAB members were asked to rate the quality of current BC prevention programmes on the EU level. The average response was 6.5 among the four respondents.
- Age: Healthy behaviours are "taught" from a young age, so there should be a focus on younger women.
- Post-mammogram assessments: The time from screening to biopsy to surgery, the most important performance index, should be monitored.
- *Demographic differences*: Attention should be paid to the differences between rural and urban areas.
- *Social advertising*: There should be a focus on the creation of Breast centres that meet the quality requirements.
- *Education*: There should be a focus on making education as accessible as possible.

[12]Luszczynska, A., Boberska, M., Wietrzykowska, D., Kuzminska, J., Zalewska-Lunkiewicz, K., Kulis, E., Karaglani, E., Mouruti, N., Van der Feen, J., Roca-Umbert, A., Krooupa, A., Mathey, L., Cviticanin, D., Olson, A., Palascha, K., Papapanagiotou, V., Ioakeimidis, I., Engström, L., Kaliniene, G., Pinto Carbó, M., Molina Barcelo, A., Gandia Prats, M., Miralles Marco, A., Hernando, C., & Alabadí, B. (2024). D3.1 Situation Analysis and Feasibility Study.

[13] The results of this report are sensitive and are therefore not described in-depth in this document.

- *Adopt and expand the EU recommendations for screening programmes*: MEP Kountoura highlighted the importance for all Member States to fully adopt the EU recommendations for breast cancer screening programmes and include ages below 45 and over 60. Women can have high risk factors of developing breast cancer at an earlier age due to e.g., genetic predispositions.
- *Redeployments of the EU health budget*: MEP Nicolae Stefanuta advocates against the redeployments of the EU's health budget which jeopardise the goals of Mission Cancer and the sustainable success of the EU's Beating Cancer Plan.
- *Breast cancer screening*: All but 3 of the EU27+2 countries have population-based BC screening programmes.
- *Budget allocations*: Only 5.1% of total health spending was dedicated to prevention on average in the EU27 in 2021.
- *Tackling inequalities*: MEP and breast cancer prevention advocate Elena Kountoura stressed the importance of addressing inequalities in breast cancer prevention, early detection and care. Particularly for women from low socioeconomic backgrounds and those living in rural areas and on islands.

National Level

- Providing holistic and personalised care: Cancer survivors often lack holistic and personalised care as they often face long-term health issues related to their cancer treatment, including mental health issues.
- Stigma and discrimination: Cancer survivors often suffer from stigma and discrimination in many areas, such as their working lives, insurance services, or trying to acquire bank loans.

Local Level

- Attention to risk factors: Local, regional, or country-level BC prevention programmes should pay more attention to risk factors (for example, they should be named rather than be referred to as having an unhealthy lifestyle).
- Quality control: Lack of quality control of services provided by facilities (private and public) that perform breast imaging, screening, or diagnostic examinations, and a lack of organised education and licensing.
- Research and education: Especially targeted towards vulnerable populations.
- Physical activity: Integration of physical activity programmes in healthcare.
- Awareness campaigns: Some campaigns have not paid enough attention to changes in communication levels.
- Disparities in quality of bc prevention programmes: SPAB members were asked to rate the quality of current BC prevention programmes on local, regional, or country levels on a scale from 1 to 10. The average score was 5.25 among the four respondents from Belgium, Croatia, Greece, and Portugal.

Many of the gaps that were frequently mentioned during these events- such as differences in access to cancer care in rural versus urban areas, the need for awareness campaigns that are tailored to different communication levels, ensuring the accessibility of education and information (particularly to vulnerable populations)- were expected after having conducted the situation analysis. The emphasis of MEP Kountoura on addressing inequalities in breast cancer prevention and early detection, particularly as a result of socioeconomic differences, was also mentioned frequently and further validated MELIORA's focus on enhancing the accessibility, affordability, and inclusivity of breast cancer prevention and early detection programmes. Other aspects, such as the discrimination that breast cancer patients and survivors face, which was mentioned both in the co-creation workshop and the policy debate, was surprising, and resulted in tailoring MELIORA's recommendations to address this urgent priority. MEP Stefanuta's emphasis on the risks that redeployments of the EU health budget, as well as the small percentage of EU health spending pose to breast cancer prevention, also resulted in refining the recommendations to focus on these aspects.

The recommendations that have resulted from the iterative processes outlined in this section are presented below.

3.2.2 Annual policy recommendations

Based on the research and processes that have been outlined above, MELIORA has developed the following recommendations:

Healthcare Coverage and funding

EU level

- *Budget allocation to prevention efforts*: Increase budget allocations to breast cancer prevention efforts and ensure that Member States dedicate a specific portion of health spending on prevention efforts every year.
- *Counteract redeployments of the EU health budget*: To further deliver on the EU's Beating Cancer Plan, sufficient and dedicated funding needs to stay available. Additionally, enough health programmes need to be launched by the European Commission to ensure no available budget remains unspent.

National level

- *Funding allocation for healthcare systems*: Promote the allocation of sufficient public funds towards healthcare systems to mitigate staff shortages, particularly in oncology, reduce treatment waiting times, and lower out-of-pocket costs for patients.
- *Universal healthcare coverage:* Ensure national level universal healthcare coverage covers the entire population, including vulnerable groups, such as Roma, migrants, and asylum seekers.

Access to Care

EU level

- *Addressing the workforce crisis in cancer care*: Combat workforce shortages and uneven distribution in cancer care across the EU by investing in specialised training, upskilling programmes, and supporting cross-border mobility and retention schemes.

- *Affordability of advanced treatment options*: Ensure accessibility and affordability of effective innovative treatment options in cancer care across EU Member States.
- *Cross border healthcare*: Support cross border healthcare to allow patients to receive treatment in EU countries with specialised cancer care facilities.
- *Enhancing access to digital health services*: Expand access to digital health services, prioritising digital literacy and internet access, especially for population groups like the elderly, with low digital literacy skills.

National level:

- *Improving access to cancer prevention measures for under-served and rural populations*: Allocate resources to expand access to preventive healthcare, particularly screening programs, in underserved populations, addressing key barriers to early prevention and treatment. For example, through targeted information campaigns, screening invitations, or the establishment of mobile screening units.

Health Literacy and Availability of Information

EU level

- *Multilingual and culturally sensitive information*: Ensure awareness and prevention materials are available in all relevant languages and adapted to cultural contexts across EU Member States.
- *Accessible information on prevention and treatment*: Simplify and expand information related to cancer prevention and treatment, ensuring it is accessible, evidence-based, and free from jargon to engage a broad audience.

National level

- *Public education on health literacy*: Strengthen public education efforts around diet, weight control, screening, and treatment to enhance the public's understanding of cancer prevention and care.

Local level

- *Targeted awareness campaigns*: Design awareness campaigns tailored to different educational levels, highlighting screening importance, as screening participation rates vary significantly based on education.
- *Risk-focused information for specific populations*: Direct awareness efforts toward specific risk groups, such as post-menopausal women who are overweight or obese. These awareness efforts should also be expanded to include younger women.
- *Implement awareness campaigns*: Implement awareness campaigns about adopting healthy habits within various public settings such as schools, workplaces, primary care GPs, and

pharmacies. For example, teachers could be trained to provide information to students about various risks to their health, e.g. smoking.

Promoting Healthy Lifestyles

EU level

- *Combating sedentary lifestyles*: Sedentary behaviour is a major breast cancer risk factor, prioritizing initiatives that promote active lifestyles and activities such as active transportation (e.g., cycling, walking) under frameworks like the New European Urban Mobility Framework.
- *Supporting healthy dietary habits:* Promote daily consumption of fruits and vegetables and educate on the benefits of a balanced diet as part of cancer prevention strategies.

National level

- *Funding for healthy behaviour initiatives*: Allocate resources to grassroots and community organisations to support accessible, subsidised physical activities, enabling equitable access to exercise and movement education.

Local level

- *Funding for healthy behaviour initiatives*: Fund initiatives that encourage outdoor activity and healthy living. For example, policies like "car-free Sundays" can encourage individuals in urban areas to walk or take alternative means of transport.
- *Enhance the availability and accessibility of urban green spaces*: Fund initiatives that create safe, green community spaces where individuals can be active. This involves reducing distance barriers, socioeconomic barriers (e.g., if green spaces are in predominantly middle to upper class neighbourhoods) and ensuring that members of the community have a voice in shaping these spaces during the creation or renovation processes.
- *Enhance the availability of information to promote healthy choices*: For example, easy to read labels which highlight how healthy a food product is on an A, B, C scale.

Healthy Environments

EU/national level

- *Addressing air pollution*: Implement policies targeting air pollution, particularly in urban areas, to mitigate its link to increased breast cancer risk due to exposure to particulate matter.

Social Network Support

Local level

- *Integrating social support in cancer care*: Facilitate the involvement of patients' social networks by offering them guidance on supportive practices, information to counter misinformation, and factual resources to alleviate fear.

Addressing Gaps in Screening Programs

EU level

- *Expansion and standardisation of mammography services*: Increase investment in mammography units and equipment, as there is a seven-fold disparity in availability across EU countries.
- *Standardisation of screening procedures*: Harmonise breast cancer screening protocols across EU Member States, covering aspects like screening frequency, target age groups, and procedural practices, guided by the European Commission Initiative on Breast Cancer (ECIBC). Additionally, expand the ECIBC's age range for recommended screening to lower than 45 and over 70.

National level

- *Risk-based screening programs*: Adapt screening programmes to individual risk levels, modifying frequency, age range, and methods to enhance effectiveness, reduce costs, and minimise potential harms.

Research and Data Collection

EU level

- *Data standardisation and collection*: Standardise breast cancer data collection across EU Member States to provide a comprehensive understanding of breast cancer prevalence, survival rates, and treatment outcomes. Currently, countries like Greece lack essential data, which is available in Sweden, Lithuania, and Spain.
- *Development of immunoprevention tactics*: Provide funding for research on and implementation of immunoprevention approaches, such as vaccines for non-viral cancer prevention, as a promising avenue in cancer control.

National level

- *Integration of precision medicine*: Incorporate precision medicine, including whole genome sequencing, to identify targetable mutations for individualised cancer treatments.

Development, Monitoring and Evaluation of Policies
EU level

- *Support for policy standardisation across Member States*: Enhance EU support for the standardisation and monitoring of health policies at both EU and national levels to ensure uniformity in quality and access to cancer prevention and care.
- *Greater alignment and consistency in breast cancer prevention measures*: To ensure greater alignment and consistency across EU Member States in breast cancer prevention and early detection measures the EU should create mandates e.g. to impose a certain level of screening.

EU/national level

- *Cross-sectoral collaboration*: To develop and implement holistic policies stakeholders from across all sectors should collaborate through relevant programmes at both EU and national level.

Stigma and discrimination

- *Right to be forgotten*: The right to be forgotten must be established in all Member States to address long-term stigma and discrimination of cancer survivors.
- *Reforms in European Framework for Workplace Protection*: Patients undergoing cancer treatment should enjoy job security and flexible working conditions.

3.3 iBeChange

3.3.1 Identified gaps and recommendations development

Tackling healthcare access disparities by providing remote expert guidance regardless of geographical location. Through the collaboration of clinical and technical professionals, as well as the integration of inputs from literature reviews, retrospective and public data, the iBeChange platform will be designed to align with the goals of the European Beating Cancer Plan and the European Code Against Cancer by improving long-term primary cancer prevention through information, support, and empowerment of EU citizens.

- Strengths:
  - Evidence-based interventions: Current prevention strategies are grounded in evidence-based models, ensuring scientific backing and effectiveness.
  - Comprehensive data sharing: There is a strong emphasis on creating data-sharing platforms, facilitating collaboration between healthcare providers and stakeholders.
  - Focus on emotions and mental health: Addressing psychological factors like anxiety and depression is crucial in cancer prevention and other chronic disease management.
  - AI integration: AI-enhanced platforms allow for personalized prevention strategies, adjusting interventions based on user data, risk factors, and engagement.

- Weaknesses:
  - Limited accessibility: AI-driven solutions and personalised interventions may not be accessible to all populations, particularly in low-resource areas.
  - Fragmented policies: The absence of standardised, cross-national policies often leads to inconsistent implementation of prevention strategies across healthcare systems.
  - Data privacy concerns: Sharing patient data raises concerns about data security and patient consent, potentially limiting collaboration.
  - High costs: Many advanced technologies (e.g., AI, telehealth) are expensive to implement, making it difficult for smaller healthcare providers to adopt them.

- Opportunities:

- Expansion of telehealth services: The rise of digital health platforms provides an opportunity to expand prevention services to remote and underserved communities.
- Policy support for mental health integration: Policy initiatives supporting the integration of mental health services into primary care can enhance prevention efforts by addressing both physical and emotional health.
- Global health collaborations: International organisations like WHO and OECD can facilitate broader adoption of successful prevention programmes across regions through policy enablers and funding.
- Public health campaigns: Awareness campaigns focusing on behavioural and lifestyle changes can help populations adopt healthier habits, reducing long-term healthcare costs.

- Threats:
  - Regulatory barriers: Complex regulatory environments may slow down the adoption of AI-based and data-driven prevention tools, especially in data-sensitive regions.
  - Resistance to change: Healthcare providers and patients may be resistant to adopting new technologies or shifting away from traditional models of care.
  - Health disparities: Social, economic, and regional disparities can limit the effectiveness of prevention strategies, particularly in underfunded healthcare systems.
  - Cybersecurity risks: With the increasing reliance on digital data-sharing platforms, there is a growing risk of data breaches and cyberattacks, which could undermine trust in prevention initiatives.

The key gaps and corresponding mitigation strategies were discussed during the SWOT analysis session chaired by Denis Horgan, focusing on addressing challenges in prevention strategies and enhancing policy effectiveness.

3.3.2 Annual Policy Recommendations

The annual policy recommendations have been developed during the session at the annual cluster meeting. Denis Horgan (EAPM/iBeChange) presented a SWOT analysis, which served as a basis for discussion among cluster partners. Their collaborative input informed the recommendations outlined below, addressing key gaps and proposing actionable strategies to advance healthcare prevention efforts.

Accessibility to advanced technology

- Identified gap: AI and telehealth technologies often remain inaccessible in low-resource regions, limiting the reach of advanced prevention strategies.
- Mitigation strategy: Promote the development and implementation of lower-cost or subsidized AI and telehealth platforms tailored for resource-limited settings. This can be facilitated through international aid, public-private partnerships, or targeted policy incentives aimed at expanding access to advanced prevention tools in underserved areas.

Inconsistent policy implementation

- Identified gap: Fragmented policies across regions result in inconsistent implementation of prevention strategies, hindering a cohesive and effective approach to public health.
- Mitigation strategy: Encourage international collaboration to develop standardised prevention policies while ensuring adaptability to diverse healthcare systems. This includes promoting policy alignment through shared frameworks, cross-border partnerships, and collaborative initiatives supported by global health organisations.

Data privacy and security concerns

- Identified gap: Concerns regarding patient data security and privacy can slow down collaborative efforts and limit data-sharing initiatives in healthcare prevention strategies.
- Mitigation strategy: Implement robust security protocols, such as data encryption and multi-layered protection measures, alongside transparent consent mechanisms. These measures should ensure patient data is safeguarded while fostering secure collaboration between healthcare entities and encouraging responsible data sharing.

Cost barriers

- Identified gap: The high costs associated with AI, personalised medicine, and advanced prevention technologies pose a barrier to widespread adoption, particularly for smaller healthcare practices.
- Mitigation strategy: Advocate for healthcare policies that promote the adoption of cost-effective preventive measures. This includes offering financial incentives, grants, and subsidies to support the implementation of advanced technologies, particularly in smaller healthcare settings and resource-limited regions. Encouraging public-private partnerships can further alleviate financial barriers and support equitable access to innovative prevention tools.

To ensure uptake in the healthcare system, the following actions are foreseen under four main objectives:

- Community engagement: Engage communities through education and outreach to increase the public's understanding and trust in preventive healthcare strategies (particularly AI-driven models).
- Training and education: Provide healthcare professionals with comprehensive training on integrating AI and telehealth platforms into their daily practice.
- Incentives for prevention: Develop reimbursement models that incentivise preventive care over reactive care.
- Public-Private partnership: Governments can partner with private tech companies to offer affordable solutions for AI-driven prevention platforms in the public healthcare system.

To facilitate the success of the described action plan and the uptake of prevention, some policy enablers have been identified and described as follows:

- Cross-National data sharing agreement: Foster international collaboration through robust data-sharing agreements that enable iBeChange to expand globally while upholding stringent privacy and security standards. iBeChange contributes by providing a GDPR-compliant platform that facilitates interoperability across healthcare systems. It supports harmonised data-sharing practices, generates anonymized datasets for research, and

employs AI-driven insights to enhance policy development and cancer prevention strategies.

- National digital health strategies: Advocate for national policies that support the adoption of AI and digital platforms in healthcare (particularly preventive care).
- Incentivised preventive care models: Encourage governments to create policies facilitating healthcare interventions that include BC models.
- Telehealth integrations: Leverage policies that promote telehealth as a vehicle for preventive care, integrating iBeChange with broader digital health initiatives at a national level.

4. Common policy themes

The synergy across the three projects resulted in the awareness that led to the definition of the following recommendations.

Enhancing accessibility and equity in healthcare:

- Expand access to preventive healthcare, particularly for underserved populations, including rural and socioeconomically disadvantaged groups.
- Promote universal healthcare coverage to ensure inclusivity for vulnerable groups, such as migrants and minorities.
- Improve digital literacy and access to digital health tools to reduce inequities.

Promoting health literacy and public awareness:

- Develop community-focused educational programs to enhance public understanding of preventive health measures.
- Tailor health campaigns to diverse demographics, ensuring multilingual, culturally sensitive, and evidence-based materials.
- Conduct awareness campaigns to address modifiable risk factors such as diet, sedentary lifestyles, smoking and alcohol consumption.

Strengthening workforce and training initiatives:

- Invest in specialised training and upskilling programs for healthcare professionals, including the integration of AI and telehealth technologies.
- Address healthcare workforce shortages through retention schemes and cross-border mobility programs.

Prioritizing preventive care and healthy lifestyles:

- Create reimbursement models that incentivise preventive care over reactive treatments.
- Fund initiatives to encourage active lifestyles, healthy dietary habits, and utilisation of urban green spaces.
- Promote risk-based and personalised screening programs for conditions like breast cancer.

Advancing digital and telehealth solutions:

- Integrate telehealth into national healthcare strategies, emphasising preventive care.
- Support AI-driven healthcare tools and digital platforms to improve accessibility and efficiency.
- Address data privacy and cybersecurity concerns to build public trust in digital health solutions.

Fostering multi stakeholder collaboration:

- Facilitate partnerships between governments, private entities, and community organisations to drive innovation and policy reform.

- Encourage cross-national data-sharing agreements to enhance research and health outcomes while ensuring strict privacy standards.

Standardising policies and practices:

- Harmonise healthcare policies and preventive practices across regions to reduce disparities and improve implementation.
- Standardise data collection and healthcare protocols for better monitoring and evaluation.

Integrating mental health into preventive strategies:

- Include mental health support within preventive care frameworks, addressing the psychological aspects of health and well-being.
- Co-create mental health services with user input to ensure relevance and accessibility.

Expanding research and innovation:

- Fund research into precision medicine, immunoprevention, and digital health technologies.
- Support collaborative frameworks that involve citizens and patients in shaping preventive healthcare solutions.

Strengthening public health campaigns:

- Launch national and local campaigns to raise awareness about lifestyle-related risk factors and preventive measures.
- Use community engagement models to promote sustainable behavioural changes.

These recommendations emphasise a holistic approach to preventive healthcare, integrating accessibility, innovation, public awareness, and stakeholder collaboration to create equitable and effective health systems.

5. Assessment of potential impact

These policy recommendations are aimed at transforming healthcare systems into more equitable, efficient, and prevention-focused frameworks. By prioritising **accessibility and equity**, underserved populations such as rural communities and vulnerable groups will benefit from improved healthcare access and outcomes. Universal healthcare coverage and enhanced digital literacy efforts would not only address systemic inequities but also empower individuals to actively participate in their health management, potentially reducing long-term costs and alleviating the strain on reactive care systems.

Promoting health literacy and public awareness is expected to yield substantial benefits by encouraging earlier detection of diseases and healthier lifestyles. Tailored and culturally sensitive educational initiatives can engage diverse communities more effectively, ensuring widespread participation in preventive programs. Awareness campaigns that target modifiable risk factors, like unhealthy diet, sedentary behaviour, alcohol consumption, and smoking could significantly lower the incidence of cancer.

The focus on **workforce development and training initiatives** would address critical shortages and skill gaps in healthcare, especially in high-need areas like oncology and preventive medicine. Upskilling professionals in AI and telehealth technologies would enable the integration of cutting-edge solutions, improving care delivery efficiency and outcomes. Additionally, retention and mobility schemes could ensure a balanced distribution of skilled professionals across regions, minimising disparities in care quality.

Advancing **digital health and telehealth solutions** could revolutionise how healthcare is delivered, especially for remote or underserved populations. Integrating AI and telehealth into national strategies would not only enhance preventive care but also streamline processes and reduce costs. Addressing cybersecurity and privacy concerns is crucial to foster public trust in these technologies, which could see broader adoption and greater impact as trust is established.

Finally, fostering multi stakeholder **collaboration** and **standardising policies and practices** could ensure consistent and scalable healthcare solutions across regions. Collaborative frameworks would align goals among governments, private entities, and community organisations, amplifying the reach and effectiveness of interventions. Standardised data collection and health protocols could improve monitoring, research outcomes, and policy evaluations, creating a feedback loop for continuous improvement.

In essence, these recommendations promise a holistic, transformative impact by addressing immediate healthcare inequities, investing in future-focused technologies, and fostering a cultural shift towards prevention and well-being. The integration of diverse strategies ensures a robust approach, capable of addressing the multifaceted challenges of modern healthcare systems.

6. Conclusions

The recommendations that have been outlined in this document provide a robust framework for addressing gaps in cancer prevention at the individual, national, and EU level with the purpose of informing and supporting effective decision-making. Grounded in current policy frameworks on the EU and Member State level, the projects within the Prevention and Early Detection Cluster present results that have been shaped by iterative research processes, including workshops, surveys, policy debates, advisory board consultations, and annual cluster meetings. In this regard, the collective recommendations not only incorporate the needs of stakeholder groups- including healthcare providers, cancer patients, survivors, advocacy organisations, and policymakers themselves- but they also reflect these diverse perspectives. Each project focuses on a critical aspect, ranging from community education to screening accessibility to best practices for translating research to policy, resulting in a comprehensive, evidence-informed, collaborative and unified front for European, national, and local legislative bodies to carry forward to reduce the burden of cancer and improve quality of life.

Although these recommendations provide a solid starting point, further consultation and collaboration is needed between the projects and among external stakeholders and experts. In this way, the recommendations can continue to be refined in ways that accurately reflect current gaps and legislative updates. A revised version of this document and the recommendations within will be presented after the 2nd annual meeting of the Prevention and Early Detection (behavioural change) cluster, and a final version will be presented after the 4th annual meeting of the cluster. In the meantime, each version of the recommendations will be publicly available to allow for further stakeholder feedback and consultations.

Version history

Version	Description	Date completed
v1.0	First upload	18\12\2024
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