



CO-CAPTAIN

Cancer prevention among individuals with mental ill-health: CO-adapting and implementing patient navigation for primary cancer prevention

D5.2. EVIDENCE-BASED POLICY RECOMMENDATIONS

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WP5 – Blueprint for the transformation of the cancer prevention for individuals with mental ill health integrating the Patient Navigation and delivery of primary cancer prevention programs across health and care systems in EU

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LIST OF ACRONYMS

- EU - European Union
- ECIR - European Cancer Inequalities Registry
- WHO - World Health Organization
- IFIC - International Foundation for Integrated Care
- WP5 - Work Package 5
- NGO - Non-Governmental Organisation
- UN - United Nations
- CRPD - Convention on the Rights of Persons with Disabilities
- IT - Information Technology

EXECUTIVE SUMMARY

This deliverable presents policy recommendations to support the development, adaptation and scale-up of integrated cancer prevention and care pathways for people living with mental ill health across European health and care systems. It responds to persistent inequalities affecting prevention, screening, early detection, diagnosis, treatment and follow-up, particularly where cancer care, mental health, primary care, public health, social care and community services remain fragmented.

The recommendations are grounded in evidence generated through the CO-CAPTAIN project, including the systematic review, Delphi consensus process, country mapping exercises and multi-stakeholder workshops conducted in Austria, Greece, Poland and Spain. Across these activities, stakeholders consistently identified weak coordination, limited continuity, insufficient referral mechanisms, stigma, diagnostic overshadowing, digital fragmentation and limited navigation support as key barriers to equitable cancer prevention and care.

Seven strategic recommendations are proposed: formalise integrated cancer prevention and care pathways; implement and fund patient navigation as an embedded prevention and coordination role; strengthen workforce training; develop adapted health literacy, communication and supported decision-making tools; improve digital infrastructure and information-sharing; embed psychosocial, social and caregiver support; and use phased implementation building on existing structures. These recommendations are also informed by the implementation and evaluation of the CO-CAPTAIN Patient Navigation Model, which demonstrated feasibility and adaptability across diverse settings, showed promising improvements in psychosocial wellbeing and health literacy outcomes, and highlighted the need for sustainable funding, workforce capacity, supervision and quality assurance to support long-term scale-up.

The findings show that the main challenge is not the absence of cancer, primary care, mental health or community services, but the limited integration between them. Patient navigation emerged as a central implementation mechanism to improve prevention engagement, screening participation, referral completion, continuity and psychosocial

support, particularly for people facing complex mental health, social and communication barriers.

The deliverable highlights strong policy relevance at European, national and regional levels. It supports current priorities on cancer prevention, mental health, health inequalities, integrated care and rights-based healthcare delivery. It also emphasises that future scale-up should be phased, context-sensitive and embedded within existing systems rather than creating parallel pathways.

Section 1. Introduction

1.1 Context and policy relevance

The expansion of inclusive primary cancer prevention is a vital priority for modern European public health. The objectives of the CO-CAPTAIN project align directly with Europe's Beating Cancer Plan and the strategic mandates of the EU Mission on Cancer (of which CO-CAPTAIN is an active part). Both frameworks call for a decisive reduction in the health equity gaps that characterise cancer outcomes across different population groups

Addressing these challenges is critical now due to the scaling public health crisis occurring at the intersection of cancer care and mental health care:

Currently, more than **84 million individuals** in the European Union (EU) are living with a diagnosed mental health condition (European Parliament, 2023). Concurrently, the EU faces a profound cancer care challenge with approximately **2.7 million new cases per year** (European Cancer Inequalities Register -ECIR-, 2023).

While traditional public health infrastructures have successfully expanded population-wide screening, prevention and lifestyle modification strategies, these frameworks consistently fail to reach people experiencing mental health challenges. Consequently, standard universal prevention mechanisms have exhausted their potential to reduce the remaining cancer burden, unless underserved population groups are explicitly supported through tailored, proactive interventions

This unaddressed gap is verified by extensive clinical evidence. A comprehensive meta-analysis examining data from over 4.5 million individuals confirmed that despite the expansion of national cancer screening campaigns, individuals with mental health problems experience severe disparities and significantly lower screening rates across all major cancer types—including breast, cervical, colorectal, and prostate (Solmi et al., 2020). The findings explicitly demonstrate that rigid, universal "one-size-fits-all" public health strategies fail to reach people facing complex mental health issues and social barriers, leaving a deep equity gap.

The rationale that universal prevention strategies yield diminishing returns unless they pivot to highly targeted, personalised health track is a foundational principle of the European Union's current cancer care strategy. ECIR data demonstrates that while overall EU cancer mortality has decreased due to general prevention policies, the equity gap between populations that are marginalised and/or are in vulnerable situations and the general public has widened. The European Commission's policy guidelines explicitly mandate a shift from *generalised* population messaging to *tailored, personalised interventions*. This is because the remaining unaddressed cancer burden is increasingly concentrated in hard-to-reach, high-risk populations who face unique structural hurdles.

This complex public health challenge is driven by the intersection of three core systemic factors: inequalities, cancer burden and system fragmentation.

1. **Severe health inequalities:** Individuals living with mental health problems often face greater challenges in maintaining their physical well-being. Available evidence indicates that this group experiences a higher prevalence of preventable cancer risk factors, including tobacco use, nutritional imbalances and physical inactivity. These challenges are shaped not only by individual circumstances, but also by socio-economic barriers, poverty and social exclusion.
2. **A disproportionate cancer burden:** Current healthcare systems do not always reach people with mental health problems effectively, contributing to disparities in cancer prevention, early detection and outcomes. Evidence suggests that cancer mortality among people with mental health problems can be up to twice as high as in the general population. This gap is avoidable: improving timely diagnosis, inclusive prevention, accessible primary care and continuity of support can help reduce inequities across the cancer pathway.
3. **System fragmentation and diagnostic overshadowing:** Healthcare systems across Europe often remain organised through separate pathways for physical health, cancer care, mental health, community services and social support. This fragmentation can weaken continuity of care and make it more difficult for people with mental health problems to access timely prevention, screening and follow-up. These barriers may be compounded by diagnostic overshadowing,

where physical symptoms are misattributed to a person's pre-existing mental health condition. As a result, early warning signs may be under-recognised or addressed late, contributing to delays in health checks, routine screening and preventive support.

The WHO establishes that the 10-to-20-year reduction in life expectancy faced by individuals with severe mental health conditions is primarily driven by preventable physical health conditions, including cancer (WHO, 2018). Standard public health frameworks fail because they rely on the person to independently navigate complex, separated medical networks. Because mental distress can impair a person's ability to easily recognise physical symptoms or manage administrative appointment tracking, universal screening initiatives face a structural bottleneck unless they use **customized outreach and hands-on approaches like patient navigation to bridge the gap**.

These notions are further supported by the European Commission's [Communication on a Comprehensive Approach to Mental Health](#) (2023), which calls for physical and mental health to be put on equal footing and to be addressed jointly by health systems and explicitly recognises that a one-size-fits-all approach does not work for communities facing social exclusion. It calls for targeted actions to support those most in need through early detection and screening in welcoming, community-based settings. model that proactively reaches people with mental health problems within their existing care and community environments. The model aims to reduce inequities in cancer prevention and care by improving access to prevention and screening, supporting earlier recognition of cancer-related risks and symptoms, and facilitating tailored support, referral and continuity across health and care services.

1.2 Conceptual framework

1.2.1. Integrated care

Integrated care refers to coordinated and person-centred approaches that aim to overcome fragmentation between healthcare, mental health, public health, social care and community services. Lennox-Chhugani describes integrated care as a response to fragmentation and as an approach that depends on coordination, continuity, population health, prevention and co-productive partnerships (Lennox-Chhugani, 2021). The IFIC

Nine Pillars of Integrated Care further frames integrated care as a system-level meta-framework to support implementation at scale, emphasising the interdependence of values and vision, population health, people as partners, resilient communities, governance, workforce, finance, information and technology, and continuous improvement (International Foundation for Integrated Care, 2026). Rather than organising services in silos around specific diseases or institutions, integrated care seeks to improve continuity, accessibility, communication and collaboration across sectors and providers in order to better respond to people living with complex and multidimensional needs. Within the context of cancer prevention and care for people with mental health problems, integrated care is particularly relevant because effective prevention, screening, diagnosis, treatment and follow-up often require coordinated action across cancer care, mental health, primary care and social support systems.

1.2.2. Patient navigation

Patient navigation is a person-centred coordination approach designed to help individuals overcome organisational, practical, psychosocial and communication barriers throughout the healthcare pathway. In cancer care, patient navigation has been described as a strategy to reduce disparities by guiding people across complex systems, supporting timely access to prevention, screening, diagnosis and treatment, and addressing barriers at patient, provider and system levels (Chan et al., 2023). Navigation may include proactive outreach, appointment coordination, referral support, health education, accompaniment, follow-up and facilitation of communication between services. Evidence from the CANCERLESS project further supports this approach, showing that navigation-based models can combine health education, social support and system guidance to improve access to cancer prevention and screening for structurally excluded groups, including people experiencing homelessness (Carmichael et al., 2023; Gil-Salmerón et al., 2025). For people living with mental health problems, patient navigation is especially important because it can support engagement with cancer prevention and screening programmes, strengthen continuity during transitions across services, and reduce the impact of stigma, diagnostic overshadowing, social vulnerability and system complexity on access to care.

1.2.3. Why these are central to the recommendations

Integrated care and patient navigation constitute the conceptual foundation of the recommendations presented in this report because the evidence generated through the CO-CAPTAIN project consistently identified fragmentation, weak continuity and insufficient coordination as major barriers affecting equitable cancer prevention and care for people with mental ill health. Across the four participating countries, stakeholders highlighted the need for stronger coordination mechanisms, clearer referral pathways, improved communication between services, and more proactive support for populations in vulnerable situations. These findings align with broader integrated care literature, which emphasises coordination, continuity, multidisciplinary collaboration and person-centred approaches as essential components for addressing complex and multidimensional needs across sectors and services (Lennox-Chhugani, 2021; Busetto et al., 2018). Similarly, evidence on patient navigation demonstrates its potential to improve continuity, reduce organisational barriers, strengthen engagement with prevention and screening services, and support populations in vulnerable situations experiencing psychosocial and structural disadvantages (Chan et al., 2023; Carmichael et al., 2023). The recommendations therefore focus on strengthening integrated and coordinated approaches that connect healthcare services, including cancer care, mental health services and primary care, with social care and community-based support. These connections should be enabled through practical organisational, governance and patient navigation mechanisms, and guided by a public health approach that prioritises prevention, equity, early detection and continuity of care.

1.3 Objective of the deliverable

This report provides policy recommendations to support the development, adaptation and scale-up of integrated cancer prevention and care pathways for people living with mental health problems across European health and care systems. The recommendations are grounded in the evidence generated throughout the CO-CAPTAIN project, including the systematic review, Delphi consensus process, country mapping

exercise and multi-stakeholder workshops conducted across Austria, Greece, Poland and Spain.

The deliverable aims to translate this evidence into actionable organisational, governance and policy recommendations capable of strengthening coordination, continuity, accessibility and person-centredness across cancer care, mental health, primary care, public health and community services. In addition to presenting cross-country implementation insights, the report identifies shared barriers, enabling factors and priority actions required to support more equitable, human-rights compliant and integrated cancer prevention and care for people living with mental ill health.

1.4 Link to WP5

This deliverable forms part of Work Package 5 (WP5) of the CO-CAPTAIN project, which focuses on developing a blueprint for transforming cancer prevention and cancer care for people with mental health problems through integrated care and patient navigation approaches. WP5 combined evidence synthesis, consensus development, implementation mapping and stakeholder co-creation activities to identify practical strategies for strengthening coordination across cancer care, mental health, primary care and social support systems.

The work undertaken within WP5 included:

- a systematic review of integrated cancer and mental health care interventions;
- a modified Delphi process to develop and validate the CO-CAPTAIN integrated care standards;
- country-level mapping exercises assessing implementation readiness and system organisation across participating countries;
- and national multi-stakeholder workshops involving professionals, policymakers, NGOs, patient representatives and people with lived experience.

The recommendations presented in this report are therefore grounded in a robust multi-method and participatory process combining scientific evidence, implementation analysis and stakeholder validation. This strengthens the credibility, contextual relevance and practical applicability of the proposed recommendations across different European health system contexts.

Section 2. Policy Recommendations

2.1 Overview of Recommendations

Across the three national workshops conducted in each pilot country, a clear convergence emerged around seven evidence-informed policy recommendations. These recommendations were repeatedly prioritised by stakeholders, aligned with the CO-CAPTAIN integrated care standards, and validated against pilot experience, mapping findings and local implementation realities.

Table 1. Overview of the CO-CAPTAIN policy recommendations

No.	Recommendation	Main level of action	Key actors	Indicative timeframe
1	Formalise integrated cancer prevention and care pathways between cancer care, mental health, primary care and social support.	National / regional / organisational	Health ministries, regional health authorities, cancer care services, mental health services, primary care, social care	Medium term
2	Implement and fund patient navigation as an embedded prevention coordination path and role	Regional / organisational	Health and social care authorities, hospitals, primary care, NGOs, community services	Short to medium term
3	Strengthen workforce training and capacity building	National / regional / organisational	Training bodies, universities, professional societies, health providers, social care organisations	Short term

4	Develop tailored health literacy, supported communication, and shared decision-making tools	Organisational / service level	Oncology teams, mental health professionals, patient organisations, NGOs, communication specialists, experts by experience	Short term
5	Improve digital infrastructure and information-sharing	National / regional	Digital health authorities, health ministries, data protection bodies, providers, IT teams	Medium to long term
6	Embed psychosocial, social and caregiver support into cancer prevention pathways	Regional / organisational / community	Social care services, NGOs, mental health teams, cancer care services, caregiver organisations	Short to medium term
7	Use phased implementation and build on existing structures	All levels	Policymakers, regional authorities, provider organisations, project partners, civil society	Immediate and ongoing

2.2 Detailed recommendations

Recommendation 1. Formalise integrated cancer prevention and care pathways between cancer care, mental health, primary care and social support.

Recommendation: Establish formal integrated care pathways that connect healthcare services, including primary care, oncology care and mental health services, with social care and community support services for people living with mental health problems. These pathways should be guided by a public health approach that prioritises prevention, equity, early detection and continuity of care. These pathways should define referral mechanisms, shared responsibilities, communication channels, follow-up procedures and continuity arrangements across the cancer prevention and care continuum.

Rationale: Across the CO-CAPTAIN workshops, fragmentation between cancer care, mental health, primary care and social support was consistently identified as one of the main barriers to equitable cancer prevention and care. Existing resources are available in all participating countries, but they often operate in parallel rather than as part of a coordinated pathway.

Implementation considerations: Start by strengthening existing coordination points rather than creating parallel structures. Develop referral and follow-up protocols, named contact points, shared care planning mechanisms, structured handovers and multidisciplinary coordination routines. Implementation should be phased, beginning with minimum local protocols and progressing towards system-wide integrated pathways.

Recommendation 2. Implement and fund patient navigation as an embedded prevention and coordination role

Recommendation: Implement patient navigation as a formal, funded and embedded coordination function within cancer prevention and care pathways for people with mental health problems, with a strong focus on improving access to prevention, screening, early detection and follow-up, as well as maintaining engagement over time.

Rationale: Stakeholders consistently identified patient navigation as a key mechanism for improving access, continuity, communication, prevention engagement, screening participation and treatment adherence. Navigation was seen as particularly valuable for supporting people who may face difficulties understanding invitations, attending screening appointments, navigating referrals, recognising symptoms, or maintaining contact with services. Implementation learning from the CO-CAPTAIN pilot further showed that initial recruitment is only one part of the challenge: sustained engagement requires trust-based relationships, flexible delivery, proactive follow-up and continuous alignment between the intervention, participant expectations and individual capacity to engage. Patient navigation should therefore not operate as an isolated or temporary project role, but as part of multidisciplinary care teams connected to cancer care, mental health, primary care, public health and social support services.

Implementation considerations: Define the navigator's role, competencies, training needs, supervision arrangements and links with cancer care, mental health, primary care, public health and social support services. The role should include prevention-oriented functions such as proactive outreach, support with screening participation, follow-up after missed appointments, health education, referral coordination, accompaniment where needed, and ongoing engagement support. Navigators should be equipped to build trusting relationships, adapt communication and pacing to participants' readiness, and respond flexibly to changing mental health, social and practical circumstances. Funding should be stable and, where relevant, shared across health and social care sectors. Countries may adapt the role according to local workforce structures, but the coordination, prevention-support and engagement-maintenance functions should be clearly recognised.

Recommendation 3. Strengthen workforce training and capacity building

Recommendation: Develop structured training programmes for professionals involved in cancer prevention and care, including cancer care, mental health, primary care, nursing, social care, patient navigation and community services.

Rationale: Workshops identified gaps in workforce capacity, role clarity and confidence when supporting people with both cancer-related and mental health needs. Stigma, diagnostic overshadowing, poor communication and limited awareness of available services were recurrent concerns.

Implementation considerations: Training should cover mental health awareness, cancer prevention, diagnostic overshadowing, stigma reduction, adapted communication, shared decision-making, social vulnerability, referral processes and the role of patient navigation. Training should be integrated into existing professional development systems rather than delivered only as isolated project-based activities.

Recommendation 4. Develop tailored prevention education and shared decision-making tools

Recommendation: Develop accessible, tailored and user-centred education and shared decision-making tools for people with mental health problems across cancer prevention, screening, early detection, diagnosis, treatment and follow-up.

Rationale: Stakeholders highlighted that people experiencing mental health issues may face barriers related to health literacy, anxiety, cognitive difficulties, stigma, distrust, loneliness and communication challenges. Standard prevention messages, screening invitations and information materials may not be sufficient to support engagement. Tailored tools are therefore needed to help people understand cancer risk factors, screening programmes, symptoms requiring medical attention, available support services and treatment options. The CO-CAPTAIN evaluation found promising improvements in health literacy, self-efficacy and self-rated health, suggesting that tailored communication, education and navigation support may help create the enabling conditions for later behavioural change, even where short-term changes in lifestyle indicators are more difficult to achieve.

Implementation considerations: Materials should use clear language, be culturally and linguistically adapted, and be co-created with end users, including people with lived experience. Tools should support understanding of prevention behaviours, screening participation, symptom awareness, referral processes, treatment options and follow-up. They should be available in both digital and non-digital formats and supported by

professionals or patient navigators where needed. Particular attention should be paid to people who may experience digital exclusion, social isolation or difficulties engaging with standard written information. Tools should also be designed to strengthen confidence, self-efficacy and supported decision-making, rather than simply providing information.

Recommendation 5. Improve digital infrastructure and information-sharing

Recommendation: Strengthen digital infrastructure and information-sharing mechanisms to support coordinated cancer prevention and care for people with mental health problems.

Rationale: Fragmented information systems were repeatedly identified as a barrier to referral tracking, shared care planning, follow-up, continuity and equity monitoring. Digital systems often fail to connect cancer care, mental health, primary care and social care.

Implementation considerations: Develop interoperable systems, referral tracking tools, digital reminders, shared care plans and mechanisms for secure exchange of relevant clinical and social information. Implementation must address confidentiality, consent, data protection, digital exclusion and usability. Digital tools should support, not replace, human accompaniment.

Recommendation 6. Embed psychosocial, social and caregiver support into cancer pathways

Recommendation: Integrate psychosocial, social and caregiver support into cancer prevention and care pathways for people with mental health problems.

Rationale: Workshops highlighted that loneliness, social vulnerability, caregiver burden, unstable living conditions, poverty and limited support networks affect engagement with prevention, screening, treatment and follow-up. Cancer pathways often insufficiently address these non-clinical but essential determinants of access, continuity and outcomes.

Implementation considerations: Cancer pathways should include social needs assessment, caregiver support, links with NGOs and community resources, psychosocial support, accompaniment and practical help with appointments and administrative procedures. Support should be available throughout prevention, diagnosis, treatment, survivorship and palliative care.

Recommendation 7. Use phased implementation and build on existing structures

Recommendation: Scale up integrated cancer prevention and care progressively by building on existing screening programmes, primary care services, cancer care pathways, mental health services, social care structures, NGOs and community resources, rather than creating parallel systems.

Rationale: Across countries, stakeholders agreed that many relevant services already exist, including cancer screening programmes, primary care, cancer care services, psycho-oncology, mental health centres, social care, NGOs and community resources. The main challenge is not service absence, but lack of integration and adaptation for people with mental health problems. Implementation learning from CO-CAPTAIN showed that the Patient Navigation Model is feasible and adaptable across diverse organisational contexts, but also that successful scale-up depends on sustained operational effort, formal integration within existing systems, workforce capacity, stable financing, supervision and quality assurance. A phased approach is therefore needed to connect existing structures, protect the core functions of navigation, and allow adaptation to local service ecosystems.

Implementation considerations: Begin with feasible minimum actions such as referral protocols between mental health, primary care and screening programmes, named contact points, adapted prevention communication, follow-up after missed screening invitations, and basic workforce training. Progress towards more mature models involving formal navigation roles, shared care plans, multidisciplinary forums, interoperable digital systems, sustainable funding and integrated governance arrangements. Scale-up should include protected coordination time, clear role definitions, training and supervision systems, quality assurance processes, and

mechanisms to monitor fidelity, adaptation and participant engagement. Implementation should balance standardisation and flexibility: core navigation functions should be preserved across settings, while delivery models, workforce profiles, communication approaches and service links should be adapted to the local context, resources and population needs. Pilot testing, evaluation and phased scale-up should guide implementation, ensuring that early actions focus on prevention and access while longer-term reforms strengthen continuity across the full cancer pathway.

SECTION 3. Foundations underpinning the recommendations

3.1 Integrated care and Integrated cancer care standards for people with pre-existing mental health problems

Integrated care refers to coordinated and person-centred approaches designed to overcome fragmentation between healthcare, mental health, primary care, public health, social care and community services. Within the context of cancer prevention and care for people living with mental health problems, integrated care is particularly important because effective prevention, screening, diagnosis, treatment and follow-up often require coordinated action across multiple sectors and providers. The CO-CAPTAIN integrated cancer care standards, developed and validated in Deliverable 5.1, provided a structured organisational framework for identifying the key components required to support integrated, equitable and person-centred cancer prevention and care pathways for people with mental health problems.

The standards highlighted the importance of coordinated pathways, navigation functions, continuity mechanisms, workforce support, adapted communication, psychosocial support and system-level implementation enablers. The recommendations presented in this deliverable build directly upon these domains and translate them into practical policy and implementation priorities identified through the national workshops conducted across Austria, Greece, Poland and Spain.

Table 2. Alignment between the strategic recommendations and the CO-CAPTAIN standards domains

Recommendation	Related CO-CAPTAIN standards domain
Integrated care pathways	Care coordination and team-based delivery
Patient navigation	Care coordination and team-based delivery
Workforce training	Implementation enablers
Health literacy and supported communication	Person-centred communication and support
Digital infrastructure	Implementation enablers
Psychosocial/social/caregiver support	Person-centred communication and support
Phased implementation	System support and governance

3.2 Cross-country gaps requiring policy action

The CO-CAPTAIN mapping exercise and stakeholder workshops identified a consistent pattern of fragmentation across cancer care, mental health, primary care, public health and social support systems. Although all participating countries possess established cancer prevention and cancer care infrastructures, these services remain insufficiently integrated for people with mental health problems.

Across countries, stakeholders repeatedly identified weak referral pathways, limited continuity mechanisms, insufficient communication between services, lack of structured navigation functions, fragmented digital systems and unclear coordination responsibilities as major barriers affecting equitable access to prevention, screening, diagnosis, treatment and follow-up. Mental health services were rarely integrated into organised cancer prevention or screening pathways, and people with mental health problems often relied on standard access routes that were not adapted to their psychosocial, communication or support needs.

Stakeholders also highlighted the impact of stigma, diagnostic overshadowing, social isolation, health literacy barriers and socioeconomic vulnerability on engagement with cancer prevention and care. These challenges were particularly evident in relation to

screening participation, early detection, continuity during transitions, and access to psychosocial and supportive care services.

Together, these findings demonstrated the need for policy and organisational responses capable of strengthening coordination, continuity, prevention outreach and person-centred and human-rights-based support across the full cancer continuum.

3.3 Patient Navigation as an implementation mechanism

Patient navigation emerged across the CO-CAPTAIN workshops as a central implementation mechanism for improving continuity, coordination and equity in cancer prevention and care for people living with mental ill health. Alongside other priorities such as referral protocols, workforce training, adapted communication, digital interoperability and psychosocial support, stakeholders consistently described navigation as a practical approach for helping individuals overcome organisational, psychosocial, communication and access barriers across the cancer prevention and care pathway.

Within the CO-CAPTAIN context, navigation was not understood as a stand-alone or isolated intervention, but rather as an embedded coordination function integrated within multidisciplinary care structures. Participants highlighted the potential role of navigation in supporting prevention and screening participation, appointment coordination, referral follow-up, treatment continuity, health education, accompaniment, psychosocial support and communication between services.

Importantly, stakeholders also emphasised that navigation functions should be adapted to local contexts and existing workforce structures. In some settings, navigation functions may be delivered by nurses, social workers, mental health professionals, community workers or NGO-based staff, provided that responsibilities, coordination mechanisms and referral arrangements are clearly defined.

The workshops therefore reinforced patient navigation as a key operational strategy for translating integrated care principles into practice, particularly in contexts characterised by fragmentation, psychosocial vulnerability and complex service pathways.

3.4 CO-CAPTAIN workshop insights and stakeholder priorities

The national workshops conducted across Austria, Greece, Poland and Spain validated the relevance of the CO-CAPTAIN standards and helped translate them into concrete policy and implementation priorities. Despite differences in organisational maturity and health system structures, stakeholders across countries demonstrated strong convergence regarding the main barriers, implementation needs and strategic priorities for improving cancer prevention and care for people living with mental health problems.

Across workshops, participants consistently prioritised:

- stronger integration between cancer care, mental health, primary care and social support systems;
- formal referral and continuity mechanisms;
- implementation of patient navigation and case management functions;
- improved prevention and screening engagement;
- workforce training on stigma, communication and diagnostic overshadowing;
- adapted health literacy, communication and supported decision-making tools;
- psychosocial and caregiver support;
- and improved digital interoperability and information-sharing.

Stakeholders also highlighted the importance of phased implementation approaches that build on existing infrastructures rather than creating parallel systems. Existing screening programmes, cancer care services, mental health centres, NGOs, primary care structures and community resources were widely perceived as important foundations for future scale-up and sustainability.

Overall, the workshops demonstrated that the principal challenge across participating countries is not the absence of cancer prevention or cancer care services, but the limited integration of these services with mental health, social care and community support systems.

SECTION 4. METHODOLOGY

4.1. Overall approach

This deliverable adopted a multi-method and participatory approach to develop evidence-informed policy recommendations for improving integrated cancer prevention and care for people with mental health problems. The methodology combined evidence generated throughout WP5, including the integrated cancer care standards developed in Deliverable 5.1, country-level mapping activities, and stakeholder validation and co-creation workshops conducted across the four participating countries: Austria, Greece, Poland and Spain.

The overall approach was implementation-oriented and focused on translating evidence and stakeholder experience into practical policy and organisational recommendations. Rather than developing recommendations exclusively through literature review or expert consultation, the methodology aimed to integrate scientific evidence, system mapping, pilot experience and stakeholder perspectives in order to identify feasible and context-sensitive implementation priorities across different health system settings.

Particular emphasis was placed on identifying cross-country convergence regarding fragmentation, prevention barriers, coordination gaps, navigation needs and implementation challenges affecting people living with mental ill health across the cancer continuum.

4.2. Data sources

The recommendations presented in this deliverable were informed by multiple complementary data sources generated throughout the CO-CAPTAIN project.

First, the deliverable builds upon the CO-CAPTAIN integrated cancer care standards developed and validated in Deliverable 5.1. These standards were informed by a systematic review of integrated cancer and mental health care interventions and a modified Delphi consensus process involving international experts and stakeholders.

Second, country-level mapping exercises conducted across Austria, Greece, Poland and Spain provided contextual information regarding existing cancer prevention and care

pathways, mental health service organisation, coordination mechanisms, implementation gaps, governance arrangements and system-level barriers and enabling factors.

Third, evidence was generated through national stakeholder workshops conducted in each participating country. These workshops explored implementation feasibility, local priorities, organisational barriers, workforce challenges, navigation functions, continuity mechanisms and policy needs related to integrated cancer prevention and care for people with mental health problems.

Fourth, the recommendations were informed by Deliverable 3.1, the Final Implementation Report of the CO-CAPTAIN Patient Navigation Model. This report provided practical evidence on how the model was implemented across the four pilot sites, including recruitment and retention patterns, engagement of Patient Navigators, implementation barriers and facilitators, operational feasibility, and lessons for transferability and scalability.

Fifth, the recommendations were also informed by Deliverable 4.2, the Evaluation Report of the CO-CAPTAIN Patient Navigation intervention. This report provided evidence on the intervention's effects on risk behaviours, psychosocial and health-related outcomes, health literacy, use of health and care services, implementation processes, sex-related differences and cost-utility considerations.

Together, these sources enabled the recommendations to be grounded not only in scientific evidence, expert consensus and stakeholder priorities, but also in real-world implementation and evaluation learning from the CO-CAPTAIN pilot experience. This strengthened the practical relevance of the recommendations and helped identify the organisational, workforce, financing and quality assurance conditions required for sustainable scale-up.

4.3. Stakeholder engagement

Stakeholder engagement constituted a central component of the methodology used to develop and validate the recommendations presented in this deliverable. A series of multi-stakeholder workshops was conducted across Austria, Greece, Poland and Spain

to ensure that the recommendations reflected local implementation realities, organisational contexts and stakeholder priorities.

Participants included representatives from cancer care, mental health, primary care, psycho-oncology, social care, public health, NGOs, patient organisations, navigation initiatives, policymakers and people with lived experience. The workshops aimed to validate the findings emerging from the mapping exercise, identify implementation barriers and enabling factors, discuss local adaptation needs, and prioritise feasible policy and organisational actions.

Across countries, stakeholder discussions consistently highlighted fragmentation between services, weak continuity mechanisms, limited mental health integration within cancer pathways, insufficient navigation support, workforce challenges and digital interoperability barriers. At the same time, stakeholders identified important enabling factors, including existing screening programmes, primary care systems, cancer care infrastructures, community mental health services, NGOs and local coordination initiatives.

The participatory nature of the methodology strengthened the contextual relevance, credibility and implementation orientation of the final recommendations by ensuring that they were grounded not only in scientific evidence, but also in practical experience and stakeholder consensus across different health system contexts.

4.3.1. Workshop participants and stakeholder representation

The national workshops involved multidisciplinary stakeholders from Austria, Greece, Poland and Spain representing cancer care, mental health, primary care, psycho-oncology, public health, social care, NGOs, community organisations, patient navigation initiatives, policymaking bodies and academia. Several workshops also included representatives with lived experience and caregiver perspectives.

Across the four participating countries, the workshops aimed to ensure balanced representation from:

- healthcare providers;
- mental health professionals;

- primary care;
- social and community services;
- patient and civil society organisations;
- policymakers and health administrators;
- researchers and implementation experts
- people with lived experience.

Participants contributed practical insights regarding implementation feasibility, coordination barriers, prevention challenges, navigation needs, workforce gaps and policy priorities related to integrated cancer prevention and care for people with mental health problems.

Table 3. Provides an overview of workshop participation across countries and stakeholder groups.

Country	Number of workshops	Approx. participants	Main stakeholder groups
Austria	3	19	Oncology, mental health services, primary care/community health, policy / governance / health authorities, people with lived experiences / representatives
Greece	3	~3–5+	Community mental health / NGOs, oncology / primary care
Poland	3	29	Oncology centres / mental health centres / NGOs, public health
Spain	3	~138	Primary care / oncology / mental health / public health / people with lived experience
Total	12	190–200 stakeholders	Different stakeholders

Across the four participating countries, the WP5 workshops involved approximately 200 stakeholders representing cancer care, mental health, primary care, public health, social care, NGOs, psycho-oncology, patient navigation initiatives, governance bodies and

people with lived experience. Participation varied across countries and workshops, reflecting differences in local organisational capacity and stakeholder availability, but all workshops achieved multi-stakeholder representation and contributed to validating mapping findings, refining policy recommendations and identifying implementation priorities.

Section 5. Cross-country analysis

5.1 Common challenges across countries

Across all participating countries, stakeholders consistently identified fragmentation between cancer care, mental health, primary care, public health and social support systems as the main barrier affecting equitable cancer prevention and care for people with mental health issues. Services largely continue to operate in parallel rather than through coordinated and person-centred pathways.

A first common challenge concerns the absence of formalised coordination and referral mechanisms between mental health and cancer care services. In all countries, people with mental health problems generally accessed cancer prevention, screening, diagnosis and treatment through mainstream pathways without dedicated navigation, continuity or follow-up support. This contributed to delayed access, weak continuity and difficulties managing transitions across services.

A second shared challenge relates to limited patient navigation and continuity support. Stakeholders across countries highlighted that existing systems rely heavily on patients' own ability to navigate complex healthcare pathways, attend appointments, understand information and coordinate care between providers. This creates important barriers for individuals experiencing severe mental conditions, psychosocial vulnerability, loneliness, stigma or cognitive difficulties.

A third recurring issue concerns workforce pressures and insufficient integrated care competencies. Participants reported limited time for coordination, unclear professional responsibilities, insufficient multidisciplinary communication and a lack of training

related to diagnostic overshadowing, stigma, supported decision-making and communication with people with mental health problems.

Digital fragmentation and limited interoperability also emerged as a common challenge across countries. Stakeholders consistently identified difficulties in sharing information between cancer care, mental health, primary care and social care services, limiting referral tracking, continuity monitoring and shared care planning.

Finally, all countries highlighted persistent inequalities affecting access to prevention and screening programmes. Standard invitation systems and mainstream prevention approaches were frequently perceived as insufficiently adapted to the needs of people experiencing mental health problems, particularly those experiencing social vulnerability, isolation or reduced engagement with services.

5.2 Key differences

Despite shared challenges, important differences emerged across countries regarding system organisation, policy maturity and implementation readiness.

Austria and Poland demonstrated relatively structured cancer care systems supported by national cancer strategies, specialised cancer care infrastructures and formal cancer coordination mechanisms. However, integration between cancer care and mental health services remain limited, with psychosocial and navigation functions still insufficiently embedded within cancer pathways.

Spain demonstrated strong primary care and public health infrastructures, including organised population-based screening programmes and community health initiatives. However, stakeholders highlighted that coordination across cancer care, mental health and social services often depend on informal professional relationships rather than formalised integrated care mechanisms.

Greece showed comparatively stronger reliance on community-based and NGO-supported approaches, particularly through Mobile Mental Health Units and community mental health structures. These services represented important opportunities for

outreach and navigation, especially in rural and underserved areas, although service availability and organisational capacity remain uneven.

Differences also emerged regarding implementation capacity and digital maturity. Austria and Poland reported greater concerns related to interoperability, governance complexity and fragmented information systems, while Spain and Greece emphasised variability in coordination capacity across regions and local services. Workforce availability and protected time for multidisciplinary coordination also varied substantially between contexts.

Stakeholder participation and institutional engagement differed across workshops. Spain and Poland demonstrated broader multi-stakeholder participation and stronger institutional representation during policy validation activities, whereas Austria and particularly Greece experienced more limited participation in some workshop stages.

5.3 Implications for transferability

The findings suggest that several components of the CO-CAPTAIN recommendations are highly transferable across countries because they address common organisational gaps identified consistently across all contexts. In particular, patient navigation, referral protocols, adapted communication approaches, workforce training and strengthened continuity mechanisms were broadly perceived as feasible and relevant irrespective of national system structure.

Recommendations related to navigation, coordination and psychosocial support may therefore represent “low-threshold” implementation priorities that can be progressively integrated into existing services without requiring large-scale structural reform. Countries already possess many of the necessary organisational components, including cancer care centres, primary care systems, mental health services, NGOs and community resources.

However, implementation pathways will require adaptation to local governance arrangements, workforce structures, digital maturity and service organisation. In more centralised systems, implementation may depend more heavily on national policy leadership and formal governance frameworks, whereas decentralised or community-

oriented systems may require stronger local agreements, inter-organisational partnerships and flexible coordination arrangements.

Digital interoperability and integrated information systems are likely to require greater long-term adaptation and investment. Stakeholders consistently identified legal, technical and organisational barriers affecting data sharing and continuity monitoring, suggesting that digital integration may progress at different speeds across countries.

The findings also highlight several risks for scale-up. These include:

- over-reliance on short-term project funding;
- insufficient workforce capacity;
- lack of protected coordination time;
- unclear role definitions;
- variability in political commitment;
- and the risk that navigation functions remain isolated pilot initiatives rather than embedded system roles.

A further risk concerns inequitable implementation, particularly in rural or underserved areas where access to cancer care, psychosocial support and community services may already be limited. For this reason, stakeholders emphasised that phased implementation strategies should prioritise flexibility, local adaptation and the strengthening of existing structures rather than the creation of parallel systems.

SECTION 6. Conclusions

6.1 Key policy messages

- **Mental health must be explicitly embedded in cancer prevention, screening and care policies**, rather than treated as a separate or secondary concern.
- **Cancer prevention and care systems should prioritise formal coordination mechanisms** linking cancer care, mental health, primary care, public health, social care and community support.
- **Patient navigation should be recognised and funded as a core equity mechanism** to improve screening participation, referral completion, continuity and psychosocial support.
- **Existing cancer, primary care and mental health infrastructures should be connected and adapted**, rather than creating parallel services for people living with mental ill health.
- **Equity monitoring should include mental health-related barriers**, including screening uptake, missed follow-up, diagnostic delay, continuity gaps and psychosocial support needs.
- **Health and care workforces should be equipped to address stigma, diagnostic overshadowing and communication barriers** through training, adapted communication practices and proactive continuity mechanisms.
- **Digital and governance infrastructures should enable, not hinder, integrated care**, by supporting referral tracking, shared follow-up, continuity monitoring and safe information exchange across services.
- **Scale-up should be phased, context-sensitive and built on existing systems**, using current cancer, primary care, mental health, community and NGO infrastructures rather than creating parallel pathways.

6.2 Policy relevance

6.2.1. European level

The findings and recommendations generated through CO-CAPTAIN are highly relevant to current European priorities related to cancer prevention, mental health, health inequalities, integrated care, and rights-based healthcare delivery. The recommendations align with the objectives of Europe's Beating Cancer Plan, the EU Comprehensive Approach to Mental Health, the European Pillar of Social Rights and broader EU priorities concerning equity, prevention and continuity of care for populations

in vulnerable situations. Furthermore, they support the right to health as outlined in the UN CRPD by addressing systemic health inequities.

The recommendations also contribute to ongoing European discussions regarding integrated care implementation, cross-sector coordination and the need to address structural barriers affecting underserved groups. In particular, the recommendations highlight the importance of embedding psychosocial, mental health and navigation support within cancer prevention and care systems in order to reduce avoidable inequalities.

6.2.2. National level

At the national and regional level, the recommendations provide a practical framework for strengthening coordination between cancer care, mental health, primary care, social care and community services. The findings demonstrate that implementation does not necessarily require entirely new systems, but rather improved integration, governance, continuity mechanisms and workforce support across existing structures.

The recommendations may support policymakers, social care and health authorities, cancer programmes, mental health services, hospitals, NGOs and community organisations in identifying feasible implementation priorities adapted to local organisational maturity and resource conditions. They also provide guidance for progressive scale-up through phased implementation approaches.

6.3 Future directions

6.3.1. Implementation

Future implementation efforts should prioritise the operationalisation of integrated care pathways, patient navigation functions, referral protocols and continuity mechanisms across cancer prevention and care services. Particular attention should be given to strengthening collaboration between cancer care, mental health, primary care and community-based services.

Pilot implementation and phased scale-up approaches may provide important opportunities to test feasible coordination models, evaluate implementation barriers and refine governance arrangements before wider adoption. Sustainable implementation will

require protected coordination time, workforce development, leadership support and stable financing mechanisms.

6.3.2. Research gaps

The project also identified several important evidence gaps requiring further research. These include limited evidence regarding:

- the effectiveness of navigation models for people with mental health problems;
- implementation strategies for integrated cancer care–mental health pathways;
- long-term continuity and survivorship support;
- digital interoperability models;
- approaches for reducing diagnostic overshadowing and stigma within cancer care.

Overall, the CO-CAPTAIN evaluation provides promising but preliminary evidence on the potential of patient navigation to support psychosocial wellbeing, health literacy and preventive engagement among people with mental health problems. Future research should build on these findings through controlled study designs, larger and more diverse samples, longer follow-up periods, and outcome measures sensitive to psychosocial, behavioural and preventive care changes over time.

Further research is also needed to evaluate implementation outcomes, patient experiences, workforce impact, cost-effectiveness and equity outcomes associated with integrated care and patient navigation interventions in different health system contexts.

6.3.3. Scaling potential

The findings suggest strong potential for future scale-up of the CO-CAPTAIN standards and recommendations across European health systems. Many participating countries already possess the core organisational components required for integrated care, including cancer screening programmes, cancer care infrastructures, primary care systems, mental health services and community resources.

The main challenge therefore lies not in creating entirely new services, but in strengthening the coordination, continuity and governance mechanisms connecting existing systems. The CO-CAPTAIN standards provide a transferable framework capable of supporting progressive implementation of more coordinated, person-centred and equitable cancer prevention and care pathways for people experiencing mental health problems across different organisational and policy contexts.

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