

JOINT POSITION STATEMENT

CANCER PREVENTION ACROSS EUROPE



Introduction

This paper provides a framework to help reduce the growing burden of cancer and close the inequalities in healthcare systems and will be adopted by cancer workforce organisations at the frontline of cancer care in Europe. The cancer workforce has a crucial role in supporting people to reduce their risk of developing cancer; to increase health and wellbeing; to address the multiple and varying needs of patients, communities, and the public; and to support the overall sustainability of healthcare systems. As stated in the [EU's Beating Cancer Plan](#), Europe urgently needs a renewed commitment to cancer prevention that recognises the growing challenges but also the opportunities to overcome them. Without action, the cancer mortality in Europe is expected to increase by more than 24% by 2035.

Cancer prevention is proven to be more effective than cure and the most cost-effective, long-term cancer control strategy. Cancer prevention can be improved dramatically by raising awareness and addressing the risk factors. With effective primary and secondary prevention, the risk of developing cancer is reduced, and the possibilities for early detection of cancer is improved by high attendance rates in screening programmes. Efficient tertiary prevention will reduce morbidity and disability in people diagnosed with and being treated for cancer.

The organisations included in the [PrEvCan cancer prevention campaign \(Cancer Prevention across Europe\)](#) commit to promoting preventive initiatives and to act as role models by supporting integrated, dynamic, personalised and evidence-based information and interventions in every aspect of cancer prevention. The 66 PrEvCan international and national partners are listed at <https://cancernurse.eu/prevcan/>

Organisations representing the cancer workforce have the potential to move towards more coordinated and harmonised cancer control efforts due to their national and international influence. The cancer prevention recommendations in the European Code Against Cancer (ECAC) are important calls to action and are based on the latest scientific evidence. Their aim is to support healthcare providers and other stakeholders in delivering the best possible evidence-based, reliable information on how to reduce the cancer risk to a wider proportion of the European population.

The four areas of recommendations are a synthesis of knowledge gathered from a rapid literature review, expert panel opinions and the Europe-wide PrEvCan campaign and research findings.

The recommendations include actions on all levels:

- i.) Policy
- ii.) Research
- iii.) Education
- iv.) Clinical practice.

They are interrelated and stress that a strong collaboration between all relevant stakeholders is crucial in advancing our understanding of cancer prevention and developing effective strategies to reduce the incidence and / or the number / impact of complications from cancer.

Key points from the PrEvCan campaign

- The PrEvCan campaign has reached out to the intended target groups through a large variety of activities, from local to national and/or international initiatives, covering all 12 recommendations included in the ECAC
- Cancer prevention literacy can be improved by positive communication on the benefits of lifestyle changes when delivered by trustworthy sources such as the cancer workforce
- The cancer workforce needs to take a more proactive approach in public health and primary/secondary/tertiary cancer prevention
- Cancer prevention education and interventions should be better integrated into education programmes, as today's students are tomorrow's healthcare professionals
- Cancer prevention communication needs to be inclusive and non-judgemental. Intimidating and condescending messages should be avoided
- Effective cancer prevention can positively impact socio-economic inequalities but needs to be approached carefully to avoid exposing already vulnerable groups
- Misconceptions related to cancer risk factors are common and need to be addressed with evidence-based, context-specific communication and support aimed at different target audiences

- Individual recommendations on cancer prevention should be combined with clear support structures, both on an individual and societal level. These structures may vary between both individuals and population
- The commitment to cancer prevention requested by the EU needs to include enhanced funding opportunities, promoting novel research and development.

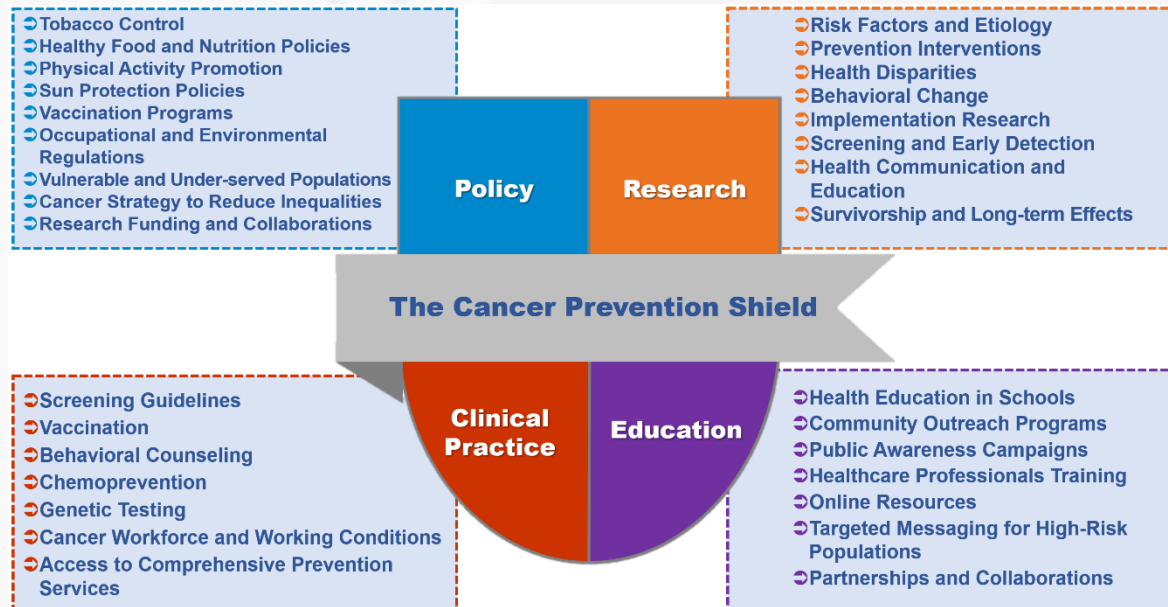


Figure 1. "The Cancer Prevention Shield": Scheme of the multidimensional recommendations for cancer prevention in Europe.

References

- Cancer Prevention Literacy among Different Population Subgroups: Challenges and Enabling Factors for Adopting and Complying with Cancer Prevention Recommendations. Sharp, L.; Doglek, N.; Willis, D.; Leppänen, A.; Ullgren, H. *Int J Environ Res Public Health*. 2023 May; 20(10): 5888.
- GBD 2019 Cancer Risk Factors Collaborators. The Global Burden of Cancer Attributable to Risk Factors, 2010–2019: A Systematic Analysis for the Global Burden of Disease Study 2019. *Lancet* 2022, 400, 563–591.
- Winn, A.N.; Ekwueme, D.U.; Guy, G.P.; Neumann, P.J. Cost-Utility Analysis of Cancer Prevention, Treatment, and Control: A Systematic Review. *Am. J. Prev. Med.* 2016, 50, 241–248.
- Agrawal, M.; Pandey, S.; Jain, S.; Maitin, S. Oral Cancer Awareness of the General Public in Gorakhpur City, India. *Asian Pac. J. Cancer Prev.* 2012, 13, 5195–5199.
- Magaña-Valladares, L.; González-Robledo, M.C.; Rosas-Magallanes, C.; Mejía-Arias, M.Á.; Arreola-Ornelas, H.; Knaul, F.M. Training Primary Health Professionals in Breast Cancer Prevention: Evidence and Experience from Mexico. *J. Cancer Educ.* 2018, 33, 160–166.
- Diez de los Rios de la Serna, C.; Fernández-Ortega, P.; Lluch-Canut, T. Educational Programme for Cancer Nurses in Genetics, Health Behaviors and Cancer Prevention: A Multidisciplinary Consensus Study. *J. Pers. Med.* 2022, 12, 1104.
- Europe's Beating Cancer Plan Communication from the Commission to the European Parliament and the Council. European Commission: Brussels, Belgium, 2020. Available online: https://health.ec.europa.eu/system/files/2022-02/eu_cancer-plan_en_0.pdf (accessed on 20 January 2023).
- Schüz, J.; Espina, C.; Villain, P.; Herrero, R.; Leon, M.E.; Minozzi, S.; Romieu, I.; Segnan, N.; Wardle, J.; Wiseman, M.; et al.
- European Code against Cancer 4th Edition: 12 ways to reduce your cancer risk. *Cancer Epidemiol.* 2015, 39, S1–S10.
- Ritchie, D.; Mallafré-Larrosa, M.; Ferro, G.; Schüz, J.; Espina, C. Evaluation of the impact of the European Code against Cancer on awareness and attitudes towards cancer prevention at the population and health promoters' levels. *Cancer Epidemiol.* 2021, 71, 101898.
- European Commission. The European Social Policy Network (ESPN). Inequalities in Access to Healthcare; A Study of National Policies. 2018. Available online: <https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8152&furtherPubs=yes>
- World Health Organization: Regional Office for Europe. World Cancer Report: Cancer Research for Cancer Development. IARC. 2020. Available online: <https://www.iarc.who.int/featured-news/new-world-cancer-report/>
- de la Torre-Montero JC.; Casla-Barrio S.; Herrero-López B.; García-Saénz JÁ. Editorial: Exercise, physical therapy, and wellbeing in breast cancer patients. *Front Oncol.* 2023 Feb 14;13:1118718. doi: 10.3389/fonc.2023.1118718.
- Afshar, N.; English, D.R.; Blakely, T.; Thursfield, V.; Farrugia, H.; Giles, G.G.; Milne, R.L. Differences in Cancer Survival by Area-Level Socio-Economic Disadvantage: A Population-Based Study Using Cancer Registry Data. *PLoS ONE* 2020, 15, e0228551.
- De Jesus, M.; Rodrigue, C.M.; Rahmani, S.; Balamou, C. Addressing Cancer Screening Inequities by Promoting Cancer Prevention Knowledge, Awareness, Self-Efficacy, and Screening Uptake Among Low-Income and Illiterate Immigrant Women in France. *Int. J. Public Health* 2021, 66, 1604055.
- Lagerlund, M.; Åkesson, A.; Zackrisson, S. Population-based mammography screening attendance in Sweden 2017–2018: A cross-sectional register study to assess the impact of sociodemographic factors. *Breast* 2021, 59, 16–26.
- Ingleby, F.C.; Woods, L.M.; Atherton, I.M.; Baker, M.; Ellis-Brookes, L.; Belot, A. An investigation of cancer survival inequalities associated with individual-level socio-economic status, area-level deprivation, and contextual effects, in a cancer patient cohort in England and Wales. *BMC Public Health* 2022, 22, 90.

Stuart, G.; D’Lima, D. Perceived barriers and facilitators to attendance for cervical cancer screening in EU member states: a systematic review and synthesis using the Theoretical Domains Framework. *Psychol.*

What Is Health Literacy? | Health Literacy | CDC. Available online:
<https://www.cdc.gov/healthliteracy/learn/index.html>

World Health Organization. Health Promotion Glossary; World Health Organization: Geneva, Switzerland, 1998. Available online: <https://www.who.int/publications/i/item/WHO-HPR-HEP-98.1> (accessed on 21 February 2023).

United Nations Development Programme. Strategic Plan 2022–2025; One United Nations Plaza, New York, NY, USA, 2021. UNDP10017. Available online: <https://www.undp.org/publications/undp-strategic-plan-2022-2025>.

Morris, N.S.; Field, T.S.; Wagner, J.L.; Cutrona, S.L.; Roblin, D.W.; Gaglio, B.; Williams, A.E.; Han, P.J.K.; Costanza, M.E.; Mazon, K.M. The association between health literacy and cancer-related attitudes, behaviors, and knowledge. *J. Health Commun.* 2013, 18 (Suppl. S1), 223–241.

Sundell, E.; Wångdahl, J.; Grauman, Å. Health literacy and digital health information-seeking behavior—A cross-sectional study among highly educated Swedes. *BMC Public Health* 2022, 22, 2278.

Tuffrey-Wijne, I.; Bernal, J.; Hubert, J.; Butler, G.; Hollins, S. People with learning disabilities who have cancer: An ethnographic study. *Br. J. Gen. Pract.* 2009, 59, 503–509.

Liu, Q.; Adami, H.O.; Reichenberg, A.; Kolevzon, A.; Fang, F.; Sandin, S. Cancer risk in individuals with intellectual disability in Sweden: A population-based cohort study. *PLoS Med.* 2021, 18, e1003840.

Willis, D.; Samalin, E.; Satge, D. Colorectal cancer in people with intellectual disabilities. *Oncology* 2018, 95, 323–336.

McDonald, J.T.; Farnworth, M.; Liu, Z. Cancer and the healthy immigrant effect: A statistical analysis of cancer diagnosis using a linked Census-cancer registry administrative database. *BMC Public Health* 2017, 17, 296.

Brindis, C.D. Setting the Stage: Advancing a Cancer Prevention Agenda for Young Adults. *Am. J. Prev. Med.* 2017, 53, S1–S4.

White, M.C.; Peipins, L.A.; Watson, M.; Trivers, K.F.; Holman, D.M.; Rodriguez, J.L. Cancer prevention for the next generation. *J. Adolesc. Health* 2013, 52, S1–S7.

Karasiewicz, M.; Chawłowska, E.; Lipiak, A.; Wieckowska, B. How to Improve Cancer Prevention Knowledge? A Way to Identify Gaps and Tackle the Limited Availability of Health Education Services in Primary Health Care Using the European Code Against Cancer. *Front. Public Health* 2022, 10, 878703.

Fung, J.; Vang, S.; Margolies, L.R.; Li, A.; Blondeau-Lecomte, E.; Li, A.; Blondeau-Lecomte, E.; Li, A.; Jandorf, L. Developing a Culturally and Linguistically Targeted Breast Cancer Educational Program for a Multicultural Population. *J. Cancer Educ.* 2021, 36, 395–400.

Su, X.; Ma, G.X.; Seals, B.; Tan, Y.; Hausman, A. Breast Cancer Early Detection among Chinese Women in the Philadelphia Area. *J. Womens Health* 2006, 15, 507–519.

Fleary, S.A.; Paasche-Orlow, M.K.; Joseph, P.; Freund, K.M. The Relationship Between Health Literacy, Cancer Prevention Beliefs, and Cancer Prevention Behaviors. *J. Cancer Educ.* 2019, 34, 958–965.

Jensen, J.D.; Carcioppolo, N.; King, A.J.; Scherr, C.L.; Jones, C.L.; Niederdieppe, J. The cancer information overload (CIO) scale: Establishing predictive and discriminant validity. *Patient Educ. Couns.* 2014, 94, 90–96.

Fang, C.Y.; Ragin, C.C. Addressing disparities in cancer screening among U.S. immigrants: Progress and opportunities. *Cancer Prev. Res.* 2020, 13, 253–259.

Sørensen, K.; Makaroff, L.E.; Myers, L.; Robinson, P.; Henning, G.J.; Gunther, C.E.; Roediger, A.E. The call for a strategic framework to improve cancer literacy in Europe. *Arch. Public Health* 2020, 78, 60.

Espina, C.; Yared, W.; Ritchie, D.; Lipponen, S.; Anttila, A.; Tamminiemi, K.; Schüz, J. Sustainability and monitoring of the European Code Against Cancer: Recommendations. *Cancer Epidemiol.* 2021, 72, 101933.