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PREVENT EU PROJECT



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# PREVENT

EMPOWERING CHILDHOOD HEALTH, PREVENTING **OBESITY - GO HEALTHY FOR A BRIGHT FUTURE** 

The global prevalence of childhood obesity has increased significantly since 1975, posing a substantial risk to overall health for one in three European children aged 6 to 9 years old. Developing obesity in childhood has important implications for lifelong wellbeing. This is because children and adolescents living with obesity are five times more likely to continue to live with obesity as adults.

Extensive studies over almost five decades have established a clear link between obesity and the development of at least 13 different types of cancers, including meningioma, adenocarcinoma, multiple myeloma, kidney, uterus, ovaries, thyroid, breast, liver, gallbladder, upper stomach, pancreas, and colon and rectum.

Research has shown that excessive weight and obesity can induce changes in the body, such as ) sustained inflammation and heightened levels of insulin, insulin-like growth factors, and sex hormones. These changes might play a role in the onset of cancer.

Acknowledging this strong link between obesity and cancer risk, the European Knowledge Centre on Cancer issued 12 evidence-based recommendations to support improved health of the population and enhance the prevention of cancer. These recommendations emphasise the importance of taking part in regular physical activity, limiting sedentary habits and eating a balanced, nutritious diet.

Effective interventions to prevent, address and manage the development of excess weight and obesity in childhood would have lasting benefits for health. However, recent research by the World Cancer Research Fund International revealed missed opportunities in 30 European countries to create environments conducive to healthy eating and active lifestyles for children and teenagers.



PREVENT is an EU-funded initiative focused on addressing childhood obesity to enhance cancer prevention. By conducting diligent research and adopting a holistic approach to address obesity and cancer, PREVENT envisions a future where every child enjoys a healthier lifestyle and brighter prospects.

**PREVENT's** mission is to identify and overcome barriers to the effective implementation of interventions to address childhood obesity, with the ultimate goal of reducing the risk of cancer in adulthood and enhance primary interventions for weight control in youth through implementing regular physical activity and a nutritious balanced diet in an educational setting. The ultimate goal is to investigate current intervention challenges and introduce tailored strategies for children's and adolescents' engagement, expanding to diverse settings.



Source: https://data.worldobesity.org/publications/?cat=19



Innovation \* Empowerment \* Inclusivity \* Evidence-Based \* Collaboration



The findings of PREVENT are expected to benefit European citizens significantly. The prevalence of obesity among children and adolescents in the European Region is predicted to rise from 2020 to 2035, with 14% of girls and 21% of boys expected to be obese by 2035 is shown in the table below.

Children and adolecents (aged 5-19 years) in the European Region with obesity 2020-2035				
	Boys 2020	Boys 2025	Boys 2030	Boys 2035
Number of boys with obesity (millions)	11	13	15	17
Proportion of all boys in the region	13%	15%	18%	21%
	Girls 2020	Girls 2025	Girls 2030	Girls 2035
Number of girls with obesity (millions)	7	8	9	11
Proportion of all girls in the region	8%	10%	12%	14%

By improving the upscaling of primary interventions to address the development of excess weight and obesity in childhood and adolescence, the initiative aims to substantially reduce the risk of different types of cancer associated with obesity. The table below shows some examples of cancer. types and their connection to the risk of overweight and obesity:

Cancer type (reference)	Compared with people without obesity or overweight, this cancer is
Endometrial (9,10)	7 times as likely in people with severe obesity* 2-4 timesas likely in people with obesity or overweight
Esophageal adenocarcinoa (11)	4.8 times as likely in people with severe obesity
	2.4-2.7 times as likely in people with obesity
	1.5 times as likely in people with overweight
Liver (13, 14)	2 times as likely in people with obesity
Kidney (15, 16)	2 times as likely in people with obesity or overweight
Multiple myeloma (17)	1.1 - 1.2 times as likely in people with obesity or overweight
Meningioma (18)	1.5 times as likely in people with obesity
5 . ,	1.2 times as likely in people with overweight

Source:https://www.cancer.gov/about-cancer/causes-prevention/risk/obesity/obesity-fact-sheet#what-is-known-about-the-relationship-between-obesity-and-cance

This proactive approach holds the potential to avert between 30-50% of all cancer cases, demonstrating the cost-effectiveness and long-term benefits of prioritising preventive measures in healthcare systems.



#### **APPROACH AND OBJECTIVES**



**PREVENT** employs a holistic approach to address childhood obesity. This encompasses identifying barriers, studying successful practices, and devising strategies for broader implementation. Through pilot programs in Greece, Sweden, and Spain-Catalonia, PREVENT assesses the impact of its interventions, tailoring them to diverse socio-economic and cultural contexts. The approach is versatile, employing various strategies, co-creation, and active behavioural change methods.

Additionally, PREVENT will establish three different 'Living Labs' (LL) to understand which parts of existing interventions for childhood obesity work best, and for whom. These Living Labs will be large, interactive ecosystems that include key stakeholders such as schoolchildren, citizens, local governments and policymakers. The Living Labs will help capture feedback on different childhood obesity intervention components from the PREVENT stakeholder community over the next four years. Furthermore, PREVENT will develop an Analytics Framework for the collection, storage, harmonisation, curation, anonymisation, and analysis of the data collected during the implementation of the LLs. The interpretability, explainability and trustworthiness of the Al module are crucial for policymakers and all stakeholders, both to understand but also to trust the recommendation and results of the analytics module. Collaboration is central to PREVENT's approach, actively involving stakeholders in intervention design and delivery. Thorough evaluation and expansion are ensured through a comprehensive assessment approach, allowing flexibility in policy adoption. Additionally, PREVENT advocates for legislative changes, respecting legal and privacy considerations.



## \*\* COMMUNITIES OF PRACTICE \*\*\*



A Community of Practice (CoP) is a group of people united by a shared passion for something they are skilled at, regularly engaging to enhance their expertise in the field. At PREVENT's outset, the establishment of Communities of Practice (CoPs) will be prioritised, signifying their pivotal role in the project's success. CoPs are comprised of diverse experts, including physicians, endocrinologists, behavioural specialists (with a focus on children), nutritionists, educators, obesity experts, training specialists (e.g. nurses), public health professionals, and policymakers. These CoPs are integral throughout the project's lifecycle, contributing significantly to achieving project goals and milestones. They play a pivotal role in verifying obesity risk factors, and overseeing the process of gathering current intervention policies, particularly on a large scale. Additionally, they help identify factors closely linked to cancer. CoPs actively contribute to proposing new PREVENT interventions and engagement strategies to surmount existing barriers. They engage in the co-creation design phase, tailoring PREVENT interventions to meet the varied needs of stakeholders. CoPs propose pathways to optimise the impact of engagement strategies on children and adolescents and establish objective criteria for assessing interventions across economic, medical, ethical, and acceptance dimensions. They also offer guidance on the assessment framework of PREVENT and recommend measures to enhance the scaling-up process, including procedures for expediting legislation. CoPs ensure the seamless integration of various scientific disciplines and foster collaboration among social, medical, educational, and technical sciences.

Joining PREVENT's CoPs offers professionals unparalleled benefits, including access to cutting-edge research, networking opportunities with diverse experts, skill development across disciplines, and the chance to actively shape interventions and strategies. CoPs provide a platform for visibility, leadership opportunities, and contribute to both professional growth and the collective impact on public health challenges posed by obesity and cancer.

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