

HORIZON-MISS-2024-CANCER-01-05: Improving the understanding and management of late-effects in adolescents and young adults (AYA) with cancer

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of between EUR 4.00 and 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 36.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Award criteria</i>	<p>The criteria are described in General Annex D. The following exceptions apply:</p> <p>The thresholds for each criterion will be 4 (Excellence), 4 (Impact) and 3 (Implementation). The cumulative threshold will be 12.</p>
<i>Procedure</i>	<p>The procedure is described in General Annex F. The following exceptions apply:</p> <p>In order to ensure a balanced Cancer Mission project portfolio and to achieve the expected outcomes of this topic, grants will be awarded not only in order of ranking but also to ensure that:</p> <ul style="list-style-type: none"> • at least one application that fully addresses understanding of late effects in AYA cancer; • at least one application that fully addresses development of screening methods for early detection of late effects in AYA cancer • at least one application that fully addresses management of late effects in AYA cancer; <p>are funded provided that these applications attain all thresholds.</p>

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to the following expected outcomes:

- Increased awareness and improved understanding of the incidence, severity, and impact of late effects in AYA cancer survivors among healthcare providers, patients, caregivers and the general public;

- Researchers, innovators, and professionals from different disciplines and sectors ensure accessibility and re-usability of their data, models, tools and technology to support the UNCAN.eu¹⁸⁴ platform, which is currently in preparation;
- Identification of effective interventions and best practices to support AYA patients and survivors in preventing, reducing and better managing late-effects, promoting optimal health outcomes and overcoming disparities between regions;
- Improved quality of life and long-term outcomes for AYA cancer survivors, including improved physical, emotional, and social well-being.

Scope: This topic will contribute to the achievement of the Mission's objective to improve the quality of life of cancer patients, survivors and their families. The focus should be exclusively on adolescent and young adult (AYA, age range 15-39)¹⁸⁵ cancer patients and survivors.

Each year, more than 150,000 AYA cancers are diagnosed in the EU, and over 1.2 million worldwide. About 300,000 AYA patients live with or beyond cancer in the EU; the majority experience late-effects due to their cancer treatment, including chronic pain, cardiovascular disease, organ and skin alterations, cosmetic sequelae, fertility problems, cognitive and functional impairment, and mental health issues such as depression and anxiety. Survivors may also be at increased risk of second cancers due to the long-term effects of radiation and chemotherapy. The negative impact on education and employment of AYA survivors and in general the financial burden borne by them is also commonly observed.

Late effects are particularly challenging for AYA cancer survivors, who often experience them during a critical phase of their lives. Late effects are also challenging for caregivers. The considerable progress made in treating AYA cancers has further exposed gaps in the understanding, prevention and management of late-effects, which warrant more targeted pan-European research on AYA cancer survivorship.

Proposals should focus on one or more cancer types and address only one of the following interventions:

- Building on data from existing or newly established AYA patient cohorts, ensuring comparability of data across participating countries as appropriate, obtain a thorough assessment by cancer type of the prevalence, specific effect(s), severity, time of onset, relative risk, and risk factors associated to late effects in AYA cancer patients. Attention should be paid also to social and health determinants, including sex, gender, age and other relevant variables, including socio-economic status, living in rural or remote areas and education;

¹⁸⁴ Under the Mission work programme a Europe-wide research and data platform, UNCAN.eu, will be established, utilising existing, relevant research infrastructures. Once operational, the platform should enable integration of innovative models and technologies with longitudinal patient data, data beyond research, or the health domain, samples and biomarkers for translation to patients.

¹⁸⁵ there is no internationally agreed definition of age range in AYA cancer. Given the purpose of this topic, the target age range should be 15-39 years of age at the time of primary cancer diagnosis. This is broader than the range 15-24 years of age, used in previous topics supported by the Cancer Mission.

- Develop, test and scale-up evidence-based screening methods for the early detection of late-effects in AYA cancer patients;
- Develop, test and scale up in real-life settings, innovative, holistic approaches and tools (including digital tools), optimising cancer treatment and follow-up regimens to prevent, reduce and/or effectively manage late-effects, including psycho-social aspects. Approaches could focus on education, sports, nutrition, medical follow-up and counselling, for example on mental and physical health, pain management, and wellbeing in general, as well as reproductive matters, including infertility, onco-fertility and fertility options in general and development of effective methods for fertility preservation and guidelines on related counselling.

This topic requires direct involvement of cancer patients and survivors, survivor representative organisations, caregivers, and the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant results, enhancing the impact of the related research activities.

The use of participative research models, such as oncology-centred living labs or other approaches to deliver (social) innovation should be considered.

Due consideration should be given to EU-funded initiatives such as: EU-CAYAS-NET¹⁸⁶; ERN PaedCan¹⁸⁷; PanCareFollowUp¹⁸⁸; PanCareSurPass¹⁸⁹; EUonQoL¹⁹⁰; e-Quol¹⁹¹; STRONG-AYA^{192 193}.

The Commission will facilitate coordination. Therefore, successful proposals will be asked to join the 'Quality of Life' cluster for the Mission on Cancer established in 2023¹⁹⁴ and should include a budget for networking, attendance at meetings, and potential joint activities without the prerequisite to give details of these at this stage. Examples: organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. The details of joint activities will be defined during the grant agreement preparation phase and during the life of the project.

¹⁸⁶ <https://siope.eu/news/news-from-eu-cayas-net-Oct22/>

¹⁸⁷ <https://paedcan.ern-net.eu/>

¹⁸⁸ [Home - PanCareFollowUp](#)

¹⁸⁹ [PanCareSurPass – Implementing the digital Survivorship Passport to improve Person-Centered Survivorship Care](#)

¹⁹⁰ [Quality of Life in Oncology \(euonqol.eu\)](#)

¹⁹¹ Add ref Funding & Tenders Portal before adoption. Project will start Jan 2024.

¹⁹² <https://strongaya.eu/>

¹⁹³ Applicants are not expected to contact these initiatives before the submission of proposals

¹⁹⁴ In order to address the objectives of the Mission on Cancer, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions.