

Index of Cancer Preparedness: The Czech Republic ranks eighth in preparedness for the treatment of cancer

The Czech Republic ranks eighth among 29 countries assessed for the quality of their measures for cancer prevention and treatment. PPF and SOTIO initiated the country's participation in the Index of Cancer Preparedness (ICP) designed by The Economist Intelligence Unit.

According to the Index, the Czech Republic's strengths lie in the infrastructure of its healthcare system and the availability of highly qualified oncologists combined with preventive and screening programs and early detection. The Index identified room for improvement in the country's strategic plan for cancer control and treatment as well as in supportive care for cancer patients and survivors. The Index also showed inferior results in one of the key oncology indicators, the five-year survival rate. The results of all 45 indicators assessed by the Index are available at www.valkaprotirakovine.cz.

The Czech Republic is joining the ICP exactly 50 years after US President Richard Nixon declared war on the disease in 1971. Billions in investments later, and despite the efforts of thousands of researchers and hundreds of scientific teams, the war is far from over. *"We have been focusing on research and the development of cancer treatment for more than 10 years. Cancer is a global issue and it is crucial to keep up with global developments and see how they approach cancer prevention and treatment in other countries. We believe that international inspiration is important here, as it is in other fields,"* says Ladislav Bartoníček, CEO of PPF Group and former CEO of SOTIO, to explain the motivations behind the Czech Republic's involvement in the survey of the prestigious independent The Economist Intelligence Unit. The Czech Republic came eighth overall among the 29 countries analyzed as part of the Index of Cancer Preparedness, behind countries like the USA and France yet outperforming Sweden and South Korea. Australia, Canada and Germany took the notional 'podium' positions in the overall rating.

Health system and governance

The Index rates countries in three principal categories: Policy and planning, Care delivery, and Health system and governance. The Czech Republic achieved its best rating in the Health system category. Its strength lies primarily in its infrastructure, which is where the Czech Republic came in second place, just after Germany. Czechia was first for density of surgeons per 1,000 population; it also shines for density of oncologists; and it ranks in the Top Ten as regards the total number of skilled health professionals (physicians and nurses)

per capita. *“We are proud of the oncological care system of the Czech Republic. We have a network of regional Complex Oncology Centers and two national centers specializing in more atypical cancer diagnoses, or pediatric oncology,”* Associate Professor Jana Prausová, President of the Czech Society for Oncology and Head of the Oncology Clinic of the Motol University Hospital told the Economist Intelligence Unit during data collection.

Czechia fared less well in terms of the magnitude and growth of health expenditure in the past 10 years. *“Generally, cancer treatment in the Czech Republic is at a very good level. The majority of oncology care is free of charge, and as such widely accessible,”* says Professor Jiřina Bartůňková, Head of the Department of Immunology of the 2nd Faculty of Medicine of Charles University in Prague & Motol University Hospital, adding: *“I can confirm that expenses for oncology care increased substantially in the past year. The reason is the introduction of new, innovative treatment methods such as checkpoint inhibitors, other monoclonal antibodies and CAR T-cell therapy. One treatment may cost several million crowns.”* According to the Index, there is room for improvement also in the cooperation between ministries on programs focused on cancer prevention.

Care delivery

Czechia holds a leading position in the Index for immunization as a form of prevention of certain types of cancer, in particular thanks to national vaccination programs for the human papillomavirus (HPV) and Hepatitis B in infants. The country also obtained full marks for the development of screening programs, in particular for breast, cervical and colorectal cancers, allowing for early detection of these diseases. The screening is fully covered by public health insurance, which, according to Jana Prausová, significantly contributes to the Czech population widely availing itself of it.

The Czech Republic rated well above the average for service availability and health workforce. The country has the highest density of radiation oncologists per capita of all the 29 countries analyzed, and it ranks 5th in terms of clinical oncologists per 1,000 population. The drugs that the WHO deems essential for treatments are available (cisplatin, fluorouracil, docetaxel, imatinib, rituximab and trastuzumab); they are registered in the country and fully reimbursed by health insurance companies. The country is also active in the development of new treatments. SOTIO has progressed the furthest in this respect. *“We are the first Czech biotech company with preparations in both Phase II and Phase III clinical trials, namely our RLI-15 product based on interleukin 15 and DCVAC, our active cell immunotherapy. We would like to administer our BOXR, an innovative treatment based on CAR T-cells, and our SOT102 utilizing the ADC technology, to the first patients at the turn of the year,”* confirms Radek Špišek, PhD., CEO of SOTIO.

Two areas where Czech healthcare lags behind are the continuous follow-up services and monitoring of childhood cancer survivors into adulthood, and special care for survivors suffering from side effects of prior cancer treatment. The availability of psychotherapy for oncology patients, density of nutrition and palliative care specialists, and hospice capacity could also be improved.

Policy and planning

This is Czechia’s weakest category in the ICP, with it ranking 15th out of 29 countries. The most obvious deficiency is the absence of a comprehensive strategic cancer control plan, including an implementation framework and regular evaluation of the goals achieved. By

contrast, the Czech Republic obtained a strong rating for the high quality of its national cancer registry maintained by ÚZIS (Institute of Health Information and Statistics of the Czech Republic) whose data is updated on a monthly basis, published, and used as input for the evaluation of preventive programs and of the expenditure on cancer treatment.

“The Index of Cancer Preparedness has shown the high standard of both prevention and cancer treatment in the Czech Republic. At the same time, it also confirms that we could be faster and more efficient in certain procedures, such as referrals from primary to specialized care,” says Professor Bartůňková. Not just research and development of new treatments, but also an earlier detection of more patients should contribute towards improving clear quantitative metrics such as the five-year rate of survival, which is where Czechia slightly lags behind other developed countries.

The project of the PPF Group and SOTIO together with The EIU belong to the activities of PPF, which in cooperation with professional partners have long focused on the development and sharing of expert topics in the key areas of its business. Within the PPF Insights series, PPF maps and shares expertise, develops discussion and offers inspiration and access to information for the public, professional and academic sectors. The full results of the Index of Cancer Preparedness are available at www.valkaprotirakovine.cz and will be discussed at an expert debate scheduled for November 2021.

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