What is the IAEA’s Programme of Action for Cancer Therapy?

The Programme of Action for Cancer Therapy (PACT) provides assistance to Member States through the assessment of national needs and capacities in cancer control (imPACT Reviews), resource mobilization, and support for the development of strategic documents such as Comprehensive National Cancer Control Plans and bankable documents for fundraising. PACT also supports planning and resource mobilization for IAEA cancer-related activities that are delivered through the IAEA’s technical cooperation, human health and other programmes.

The IAEA established PACT in 2004, with the goal of ensuring the integration of radiotherapy in comprehensive cancer control and engaging with other international organizations, such as the World Health Organization (WHO), to comprehensively address cancer control. Since then, the Agency has worked closely with WHO, the International Agency for Research on Cancer (IARC), the Union for International Cancer Control (UICC) and many other partners to address the challenge of cancer in IAEA Member States.

The growing cancer challenge

In 2018, it was estimated that there were over 18 million new cancer cases around the world and over 9.5 million related deaths, according to the International Agency for Research on Cancer.¹ By 2030, these figures are expected to increase to over 24 million new cancer cases a year and 13 million deaths.

The greatest impact of this increase will fall on low- and middle-income countries. These countries are expected to bear around 70 per cent of all cancer deaths by 2030.

¹Source: IARC GLOBOCAN 2018
Cancer patients have a much greater chance to survive the disease when they have access to affordable early cancer detection and quality treatment.

One of the United Nations Sustainable Development Goals targets for 2030 aims to reduce early deaths from non-communicable diseases, including cancer, by one third.²

Realizing this ambitious target could result in saving at least 40 million lives from cancer. Achieving this, however, requires a concerted effort from a broad range of partners in multiple sectors to considerably scale up cancer services and establish strong political commitment for an integrated global response to cancer.

The IAEA’s role in fighting cancer

The IAEA supports the use of radiation medicine in Member States for both cancer diagnosis and therapy as part of a comprehensive range of affordable and effective services for cancer patients.

The IAEA helps countries to plan and build nuclear medicine and radiotherapy facilities, and arranges education and training for oncologists, radiologists, medical physicists and other specialists.

²Sustainable Development Goal 3.4: www.un.org/sustainabledevelopment/health
The IAEA offers its Member States integrated reviews of their comprehensive cancer control needs and capacities – called imPACT Reviews. These Reviews evaluate the status of national capacities for the implementation of national cancer control plans and provide a planning tool for governments by presenting data and recommendations to support evidence-based decision-making that prioritize cancer control interventions and investments.

An imPACT Review is organized on the request of a country’s Ministry of Health and is conducted in close collaboration with national and international health authorities involved with cancer control, such as WHO and IARC.

An imPACT Review benefits a Member State by:
- Supporting national cancer control planning
- Advocating for improved access to cancer care
- Guiding the establishment of safe, high quality radiation medicine services
- Providing information on opportunities for resource mobilization and partnerships.

Since 2005, the IAEA has conducted 100 imPACT Reviews in its Member States. As part of its services, PACT continues to engage with Member States that have received imPACT Reviews, providing follow up support for resource mobilization and strategic planning.

**Resource mobilization**

PACT supports the mobilization of additional resources from traditional and non-traditional donors for the implementation of cancer-related IAEA activities, and to support Member States in other cancer-related resource mobilization efforts within the IAEA mandate.

**Direct resource mobilization**

Many of the IAEA’s cancer-related projects are unfunded or require additional funding, particularly those planned under technical cooperation projects. PACT helps mobilize funds to support these activities from:
- IAEA Member States
- Development banks and financial institutions
- Philanthropic foundations
- The private sector
- International non-governmental organizations.
Indirect resource mobilization

PACT provides assistance to Member States in developing project proposals or bankable documents for fundraising. Countries then take the lead in approaching donors. In addition, the IAEA organizes and facilitates meetings between Member States, development banks and financial institutions to help obtain funds in the form of grants or concessional loans. Such funds may be used to build necessary infrastructure, including buildings or bunkers to house radiation equipment, to educate and train cancer specialists and to procure equipment such as linear accelerator (LINAC) radiotherapy machines and other critical medical and laboratory devices to support cancer treatment.

Strategic document development

With the imPACT report in hand, countries can begin to formulate realistic and robust cancer control strategies and bankable documents, while considering available resources.

In close cooperation with the World Health Organization and other partners, PACT supports Member States in the development of cancer control plans that reflect a comprehensive approach to strengthen cancer care and control at the national level. The planning process considers the imPACT Review report and the recommendations made to the country to address the key components of cancer control (prevention, early detection, diagnosis, treatment and palliative care). Cancer research and surveillance are also important for the development of effective control programmes that meet local needs. In addition, the safe and efficient use of nuclear technology involving radiation sources requires that appropriate infrastructure is in place to ensure that patients receive the optimum dose of radiation for their condition, that levels of occupational exposure to radiation are as low as reasonably achievable, and that risks to the public are minimized.

The economic benefits of investing in radiotherapy are substantial. Investing $97 billion in developing countries between 2015 and 2035 would produce benefits of $365 billion, enabling the treatment of many cancer cases, saving lives, and providing positive economic benefits. Source: Lancet 2015

Mya Mya Kyi (far right), Chief Medical Physicist at the Yangon General Hospital, Myanmar is working with radiotherapy operators treating a patient. (Photo: M. Gaspar/IAEA)