

A decade of action on cancer control

By Cornel Feruta, Acting Director General, IAEA

Cancer was responsible for the death of nearly 10 million people last year. The number of cancer-related deaths is on the rise, and developing countries are particularly hard hit.

For many years, the IAEA has worked to improve access to nuclear medicine — including diagnostic imaging — radiotherapy and dosimetry in developing countries. During the last ten years, under the leadership of late Director General Yukiya Amano, helping countries to tackle the cancer burden became one of the priority areas of the Agency. Supporting countries in offering comprehensive cancer care and improved radiotherapy services to an increasing number of patients became a key strategic goal of the IAEA.

While there are still close to 60 countries where less than a quarter of patients have access to radiotherapy, access has increased significantly in at least 20 developing countries over the last five years.

Some of these countries benefited from IAEA support. Our focus is on transferring knowledge and expertise. We provide training to radiation oncologists, medical physicists, radiologists and other professionals. We also help countries to acquire equipment.

The IAEA helps to ensure patient safety through quality control services. We have conducted over 13 500 dosimetry audits in the last 50 years, helping more than 2300 institutions around the world to ensure that patients receive exactly the right doses of radiation.

In 2015, world leaders adopted the United Nations Sustainable Development Goals, which include a key target to reduce the number of deaths from non-communicable diseases, like cancer, by one third by 2030. Nuclear science and technology can make a significant contribution to the achievement of this goal.

This edition of the *IAEA Bulletin* takes a closer look at radiation for cancer control throughout the world and the role of the IAEA. It provides an overview of cancer — its biology, diagnostics and treatment (page 4) — and highlights major recent advances such as image guided brachytherapy (page 10) and theranostics (page 8), including the production of new kinds of radiopharmaceuticals (page 6).

While radiation has been pivotal in how we control cancer, safety is of paramount importance to its effective use. A network of dosimetry laboratories coordinated by the IAEA and the World Health Organization is helping experts to ensure that radiation doses reliably meet international standards and are both safe and effective (page 27). IAEA safety standards play a central role in helping health authorities set up cancer care services (page 12). Innovative and cost-effective educational tools developed by the IAEA help countries to move beyond limitations of geography and funding to build up a highly trained national pool of specialists such as radiation oncologists and medical physicists (page 24).

Access to cancer care requires the establishment of effective national cancer control systems. Some countries work with the IAEA to adopt their laws and regulations (page 16), while others seek assistance with developing so-called ‘bankable documents’ that enable them to raise funding from lending institutions (page 18). Many countries also turn to the IAEA for training, equipment and expertise (page 22).

The 2019 Scientific Forum in September takes stock of the IAEA’s contribution to cancer control in the last decade. In four sessions over two days, leading scientists and experts from around the world, as well as IAEA experts, will review successes and challenges related to the setting up and delivery of nuclear and radiation medicine to fight a growing cancer burden. I invite you to follow the proceedings online: www.iaea.org/scientific-forum.



“Supporting countries in offering comprehensive cancer care and improved radiotherapy services to an increasing number of patients became a key strategic goal of the IAEA.”

—Cornel Feruta,
Acting Director General, IAEA
