

IMPROVING PUBLIC HEALTH WITH RADIATION MEDICINE AND TECHNOLOGY

Non-communicable diseases such as cancer and cardiovascular disorders are becoming increasingly common throughout the world, including in low and middle income countries.

The growth in the number of people with such conditions is putting an enormous strain on developing countries, which often lack the resources to diagnose and treat these conditions effectively. Many people die of diseases which would be treatable if they lived in countries with advanced health care systems. This is a great human tragedy.



The IAEA plays an important role in ensuring that the highest safety standards are maintained when radiation techniques are used. This involves protecting both staff involved in administering procedures from exposure to radioactivity, and ensuring that patients receive the correct dose.

This edition of the IAEA Bulletin provides an insight into what the IAEA is doing to help.

As far as cancer is concerned, we help countries to establish or upgrade oncology and radiotherapy centres, and to build capacity in nuclear medicine for diagnosis.

We help to ensure that medical and technical staff receive the training they need to do

their work effectively. And we work with countries to ensure that radiotherapy services are integrated within a comprehensive, sustainable cancer control programme.

This is very important work. Action to fight cancer is urgently needed. By 2020, it is estimated that over 10 million people will die of the disease each year.

The IAEA has been working to deploy radiotherapy and nuclear medicine programmes in around 130 low and middle income countries. In the past eight years alone, we sent specialist teams to assess cancer control capacity in over 65 Member States.

Progress has been made in cancer control in many developing countries in recent decades. But the challenges remain formidable. Around 5000 radiotherapy machines are still required to provide curative and palliative treatment for cancer patients in low and middle income countries. Such treatment is vital, both to bring about cures, wherever possible, and to provide pain relief. The IAEA has been developing initiatives to address this issue.

To ensure that radiotherapy facilities already in place are providing the best treatment and care possible, our Division of Human Health provides comprehensive audits of radiotherapy practices. These audits help to give Member States the confidence that their facilities are providing the best treatment possible. The IAEA also assists Member States in addressing the risk of medical isotope shortage that has emerged over the past years.

For other health conditions, such as cardiac diseases, radiation medicine in general, and radiology and nuclear medicine in particular, play an extremely important role in patient care.

Radiation medicine enables doctors to observe physiological functions and metabolic activity inside the human body and to learn more about the health of individual organs.

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Top: During an official visit to Costa Rica in 2013, Director General Amano is briefed on the work of the Centre for Radiotherapy of the Mexico Hospital.

Below: Director General Amano is shown the equipment available at the Centre for Nuclear Medicine and Oncology at Bach Mai Hospital in Viet Nam during an official visit in 2014.

(Photos: C. Brady/IAEA)

exposure to radioactivity, and ensuring that patients receive the correct dose.

The IAEA works closely with partners such as the World Health Organization to strengthen the capacity of developing countries to diagnose and treat non-communicable diseases. Training and mentoring networks and innovative public-private partnerships play an important role.

We support a holistic approach to public health with the goal of ensuring that low and middle income countries, in particular, can

establish comprehensive health care systems, with trained staff and adequate equipment, to provide early detection, timely diagnosis and effective treatment for non-communicable diseases, as well as palliative care.

Strengthening the IAEA's human health activities is a high priority for me as Director General. The IAEA remains committed to doing all it can to reduce the suffering caused by cancer and other non-communicable diseases.

Yukiya Amano, IAEA Director General

