



Technical Cooperation Programme

## Improving cancer and cardiac disease management in Latin America and the Caribbean

## The challenge...

In recent years, Latin America has experienced various demographic, social and economic changes which have had a significant impact on health. These include ageing populations, changes in diet and changes in physical activity. These socioeconomic changes have contributed directly or indirectly to a range of health problems, including obesity, hypertension and cardiovascular disease, as well as problems related to tobacco, alcohol and drugs.

Cardiovascular diseases, cancer, chronic respiratory diseases and diabetes have become the leading causes of death (31%) in the region, along with external causes such as accidents and homicides. It is estimated that there are 800 000 new cases of cancer in the region each year, of which 450 000 are fatal. This number could double by the year 2020 if current deficiencies in the prevention and management of the disease continue.

The most deadly malignant neoplasms in the Americas, appearing among the ten leading causes of death in the general population of many countries, are those of the lung and colon. Among men, other important neoplasm sites also include the prostate, while in women these are the breast and the uterus.

## The project...

Early and accurate diagnosis is vital for effective treatment of both heart disease and cancer. The diagnostic and therapeutic applications of nuclear medicine play a pivotal role in the management of cardiac and cancer patients, allowing opportune and proper therapy due to early diagnosis.

The project aimed to provide comprehensive training to strengthen the knowledge of health professionals in the region, including nuclear medicine physicians, endocrinologist, surgeons, and technologists, in several fields related to the application of nuclear medicine techniques.

Around 263 professionals were trained in nuclear cardiology, PET/CT, sentinel lymph node scintigraphy, radio-guided surgery, nuclear oncology, radionuclide therapies and hybrid imaging techniques; additionally, 87 expert missions were carried out to raise awareness of the clinical applications of nuclear medicine.



## The impact...

Due in part to training opportunities organized under this project, the public now enjoys broader access to nuclear medicine.

The regional project has contributed to the improved management of patients with cardiac diseases and cancer patients in Latin America and the Caribbean through the strengthening of nuclear medicine capacities. The project also supported the standardization of clinical protocols in nuclear cardiology and nuclear oncology used in diagnostic nuclear medicine. The newly standardized approach will contribute to the efficient and accurate application of nuclear medicine techniques for patients with cardiac diseases and cancer across the region. In addition, the manuscript, entitled "Current Status of Nuclear Medicine Practice in Latin America and the Caribbean," was accepted for publication in the Journal of Nuclear Medicine and will be published in July 2015.

Technical cooperation project RLA/6/063: Improving Management of Cardiac Diseases and Cancer Patients by Strengthening Nuclear Medicine Techniques in Latin America and Caribbean Region (ARCAL CIX)