

# The laws behind using radiation for cancer care: opening the door to treatment

By Laura Gil



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—Nyane Moeti, Legal Officer, Ministry of Foreign Affairs and International Relations, Lesotho

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When we hear the words “cancer treatment”, images of doctors, hospitals and machines come to mind. But before the first machine is installed or the first patient is treated, the right laws and regulations should be in place. This can take years of preparation, and countries don’t have to do it alone: the IAEA provides support to countries around the world in developing the necessary legal infrastructure, including nuclear laws, for the safe and secure use of radiation for cancer care.

“If we do not have a nuclear law, we cannot have a regulatory authority,” said Nyane Moeti, Legal Officer for the Ministry of Foreign Affairs and International Relations in Lesotho. “And if we do not have a regulatory authority, we cannot offer nuclear medicine or radiotherapy and therefore cannot save cancer patients’ lives.”

Lesotho enacted its first nuclear law in 2018, with the support of the IAEA. This small country of 2.4 million people sends approximately 100 cancer patients a year to South Africa to be treated. With the new law in place and a regulatory body expected to be operational before the end of 2019, experts are now working on building a radiotherapy facility. They plan to have it up and running

in three to four years, allowing these patients to be treated close to home.

“The law will help Lesotho in many ways,” Moeti said. “It will allow us to cover all the radiotherapy regulations and will help us provide radiotherapy services in compliance with international best practices. In addition, with the law enacted, we can now regulate the use of radiation sources in health and other industries, such as mining or construction, ensuring the safety of users and the areas where these activities take place.”

Having no national legal and regulatory framework to protect people and the environment restricts global suppliers from selling radioactive sources to a country.

“An adequate legal and regulatory framework is needed to guarantee the safe use of radiotherapy for the benefit of patients, while protecting workers,” said Fanny Tonos Paniagua, a Legal Officer at the IAEA.

Countries need to set up or revise their national legislation when their existing framework is not in line with international standards for the protection of people and the environment. The first step in this case is to develop and adopt a nuclear law establishing

a regulatory system of control over the use of nuclear technology. Once the nuclear law is enacted, the second step is to create a national regulatory framework, including the establishment of a regulatory body to ensure the development of general and technical regulations and, through licensing, inspection and enforcement actions, to verify that the legal system is being implemented when using radioactive sources in the country.

The IAEA offers legislative assistance in assessing, revising and drafting national laws. “Based on our experience working with countries, the process of drafting the necessary legislation should be started as early as possible to prevent delays in the implementation of national projects related to cancer treatment or other relevant areas,” Tonos Paniagua said.

### IAEA assistance

In the past 10 years, the IAEA has provided bilateral legislative assistance to 82 countries for adopting or revising the nuclear laws of these countries, out of which 29 have completed the process, and many others are in the final stages of doing so. In Jamaica, for example, the IAEA has been providing legal support since 2011.

“We need the right laws in place, first of all, to maintain and enforce the standards of safety and, second of all, to minimize the risk to workers, patients, and the environment,” said Erica Boswell-Munroe, former Deputy Chief Parliamentary Counsel of Jamaica.

In March 2013, responding to a request from the Minister of Health of Jamaica, the IAEA sent a team of cancer control experts

to conduct an in-depth assessment of the country’s cancer control capacity and needs. The results of this mission, known as an imPACT Review, are supporting national efforts to develop a comprehensive national cancer control programme that includes laws and regulations.

Further developing a national cancer control programme is the aim of Jamaica’s Ministry of Health. “We see the need to expand our cancer care services, as much as we see the need to finalize the laws and regulations that come with it,” Boswell-Munroe said. “On more than one occasion, we were unable to import radiation sources because we didn’t have the law in place and, therefore, were not able to grant the necessary authorizations.”

In 2015, Jamaica passed the Nuclear Safety and Radiation Protection Act with the IAEA’s support. The Act, among other things, sets out to protect people from exposure to ionizing radiation and monitor facilities using ionizing radiation and nuclear technology, as well as to facilitate Jamaica’s compliance with international obligations.

The Act calls for the establishment of a national regulatory body to grant authorizations and establish operational standards, as well as to regulate and monitor activities, practices and facilities that make use of ionizing radiation and nuclear technology.

Jamaica is currently upgrading its Nuclear Medicine Centre at the University Hospital of the West Indies with the help of the IAEA’s technical cooperation programme. Planned to be completed by 2021, the Centre is expected to become the country’s only public nuclear medicine facility.



**Delegates from Lesotho met with IAEA experts for a three-day meeting to discuss the country’s first cancer facility. From left to right: Mamasiane Tieho, Principal Secretary for Lesotho’s Ministry of Tourism, Environment and Culture; and Shaukat Abdulrazak, Director of the Division for Africa in the IAEA’s Department of Technical Cooperation**

(Photo: J. Howlett/IAEA)