

Purpose: To describe the current situation of the Medical Physics field in Colombia concerning to human resources, physics infrastructure (radiation oncology centers, radiation machines, treatment planning systems, dosimetry systems, nuclear medicine and diagnostic facilities, imaging devices and radiation protection systems), academic programs, medical physics societies and regulatory institutions.

Method and Materials: For this presentation we have taken as reference some studies carried out in Colombia during the last few years as follows:

- Evaluation of radiation oncology facilities in Colombia, an audit study conducted to evaluate the radiotherapy centers and the quality of assistance for cancer patients.
- Comparison among Medical Physics academic programs offered in the world, specially those carried out in the Latino-American region.

Results:

Up to the date the mentioned study was conducted, there was 46 radiation therapy centers in Colombia and only 14 had medical physicists.

The number of nuclear medicine centers existing in Colombia was approximately 47, mainly concentrated in Bogotá, where 22 of them are located. Currently the number of medical physicists working in the nuclear medicine facilities in Colombia is really scarce. Worldwide it can be seen that North America is the region with the greatest number of universities offering Medical Physics Master programs. In the Latin American context, Mexico had the greatest number.

The statistical distribution of diagnostic x ray machines was about 53000 in Latin-American countries and the number of medical physicist working to these centers is very low.

Conclusions:

There is human resources shortage, especially for Medical Physicists in the radiation oncology, nuclear medicine and diagnostic facilities.

There are some academic programs in Medical Physics. Currently there is a increasing interest from universities in Colombia to create medical physics under and postgraduate programs.