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**REMARKS BY DR. GERALD HANSON ON THE OCCASION OF THE  
50<sup>th</sup> ANNIVERSARY OF THE RADIOLOGY PROGRAM**

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**50th DIRECTING COUNCIL  
Washington, D.C., 29 September 2010**

Honorable President of the Directing Council, Honorable Ministers, Delegates, Members of the Diplomatic Corps, Dr. Roses, Friends and Colleagues:

First, I would like to thank Dr. Roses for assigning this time for a celebration of the 50 years of the PAHO Radiological Health Program. At the time the program was initiated in 1960, people throughout the Region felt great anxiety because of the testing of atomic weapons in the atmosphere. Without any doubt, radioactive fallout was a major public health concern.

With help from the U.S. Public Health Service, the Pan American Health Organization responded to the needs of its member states by organizing a network of monitoring stations to obtain data concerning radioactivity in the air and in milk. And indeed, very high levels of radioactive contamination were found in the Region. PAHO then sent a health physicist to the field to work as the Regional Advisor in Radiation Protection, and to organize radiation protection services. In some countries, with PAHO assistance radiochemical laboratories were established, which enabled the measurement of radioactive strontium and cesium. As one national health authority commented this was: "Just in case the superpowers should decide to test on each others territory". Fortunately, that never came to pass, but, for much of the world, and for many years, that was a real and continuing threat.

National radiation protection services were established, and national personnel were trained in the leading universities through PAHO fellowships. With PAHO guidance, the newly-trained national personnel began to pay attention to the exposure of workers and patients resulting from the medical use of radiation. Personnel dosimetry services were established so the radiation exposure could be measured, and radiation protection surveys were made in hospitals and medical clinics.

As the radiation protection professionals worked in the hospitals, PAHO observed the almost complete absence of a critical team member within the hospitals -a medical physicist. In fact, around 1970, there were only a dozen medical physicists in all of Latin America and the Caribbean. With PAHO's leadership and collaboration medical physicists were trained and dosimetry laboratories were established. Now, even though there is still a large deficit, medical physicists are being trained in many countries, and there are around

1000 physicists providing support for radiotherapy and diagnostic imaging services.

PAHO also observed the situation concerning the lack of access to even the most essential diagnostic imaging services in small hospitals. Consequently, soon after a revolutionary new type of X-ray machine was unveiled at the University of Pennsylvania; PAHO organized a meeting to develop specifications and to promote basic radiology. Even now, this effort has only been partially successful. While some of the most modern and costly imaging equipment is being installed in hospitals in the large cities, large segments of the population do not have access to good-quality, simple X-ray examinations.

As the benefits of radiation were introduced and expanded in the Region, adverse consequences were experienced in accidents in the industrial as well as the medical area.

PAHO responded immediately to requests for help for the victims, and also helped the authorities to understand the cause so that errors would not be repeated. PAHO joined with other international organizations to prepare guidance for preventing accidents, along with responding to them if they should occur; as well as basic safety standards for protection against radiation during normal activities.

One of the main responsibilities of the medical physicist is in Quality Assurance, whether it be to assure that the correct dose is delivered to patients for therapeutic radiation treatments, or that the best quality available is obtained in imaging procedures: from plain chest X-rays to mammography, or complex computer-assisted imaging. PAHO has promoted Quality Assurance for 4 decades, and has organized training courses and symposia throughout the Region on this essential activity. In addition PAHO has stimulated and supported research by national personnel concerning image quality and coordinated significant inter-country research projects.

Upon request, PAHO has provided advice, guidance and collaboration during the planning and construction of cancer treatment centers and complex diagnostic imaging facilities. In addition, as more and more complex and costly equipment has been introduced, PAHO has cautioned and advised about the need for adequate supporting infrastructure and management, especially in regard to human resources, so that these expensive investments will be a true benefit rather than an expensive detriment.

Lastly, but far from the least, of the Radiological Health Program's efforts to mention is preparation for response in case of a disaster, and cooperation

with the countries and other international organizations to ameliorate the effects when a disaster occurs.

Details concerning what I have mentioned are available in various PAHO budget documents, the Annual Reports of the Director, Health in the Americas, the “History of the PAHO Radiological Health Program” on the PAHO website; and as a visual summary that is being presented in posters that were prepared for this “birthday celebration”.

In closing, I would like to remark on a theme that I have attempted to weave. The Radiological Health Program (first of all) has (1) responded to the priorities and requests of the PAHO member states; (2) has studied the situation in the countries and presented clear and accurate information to its governing bodies; (3) with a strategic vision toward the future, proposed and promoted practical actions and policies. Through its competent and dedicated staff; the Program has earned the respect and cooperation of its national and international counterparts; and the PAHO member states have at their disposal the latest and most accurate information concerning radiology and radiation protection.

Thank you for this opportunity to share a few thoughts with you. I have been so fortunate to have served the Organization that I love for many of the 50 years of the Radiological Health Program.

It is my pleasure to recognize my successors as Regional Advisors on Radiological Health, Cari Borrás and Pablo Jiménez.