

*Breaking out of the clinic:  
Nontraditional medical physics careers:*

## Medical Physics Careers in International Organizations

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Medical Physicist: Barcelona, Spain; Philadelphia, PA;  
San Francisco, CA; Washington DC; Recife, Brazil

Former staff member  
Pan American Health Organization /  
World Health Organization



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## What the presentation aims to cover

- Brief outline of my own career path
- Recommendations to become a medical Physicist in an international organization
- Needed resources to apply for a position
- Strategies for a successful career
- Comparison of day-to-day duties with those of a clinical medical physicist
- Benefits and drawbacks

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Where it all started: Universitat de Barcelona



1960's

Fulbright Scholarship – Travel to the USA

Hospital Santa Creu i Sant Pau



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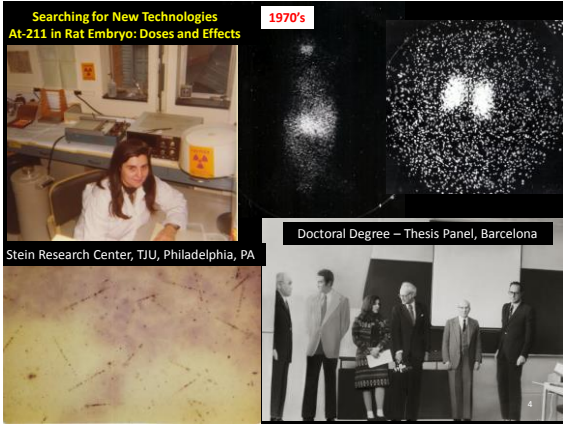
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**When applying to become a member of an international organization, it is essential to understand its goals and to realize that medical physics activities will have to be programmed within the organization's remit.**

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## International Organizations

- **Intergovernmental (Counterparts)**
  - IAEA (Atomic / Nuclear Energy Commissions)
  - ILO (Ministries of Labor)
  - WHO (Ministries of Health)
  - Pan American Health Organization (Ministries of Health of the Americas)
- **Professional – Medical Physics (Region)**
  - IOMP (World)
  - EFOMP (Europe)
  - AFOMP (Asia / Oceania)
  - SEAFOMP (South East Asia)
  - ALFIM (Latin America)
  - FAMPO (Africa)
  - MEFOMP (Middle East)
- **Professional – IUPESM (Medical Physics & Biomedical Engineers)**
  - HTTG

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- PAHO was founded in 1902
- In 1950 it agreed to also serve as the WHO Regional Office for the Americas
- In 2002 PAHO celebrated its 100th Anniversary
- The Radiological Health Program was established in 1960. In 2010, it celebrated its 50<sup>th</sup> anniversary.

[https://www.paho.org/hq/index.php?option=com\\_content&view=article&id=3494:2010-50-anos-programa-radiologia-radioproteccion-ops&Itemid=42232&lang=en](https://www.paho.org/hq/index.php?option=com_content&view=article&id=3494:2010-50-anos-programa-radiologia-radioproteccion-ops&Itemid=42232&lang=en)

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If one really believes that medical physics improves the delivery of health care, to promote medical physics it is essential to analyze first the situation of diagnostic and therapeutic radiology services in the countries served.

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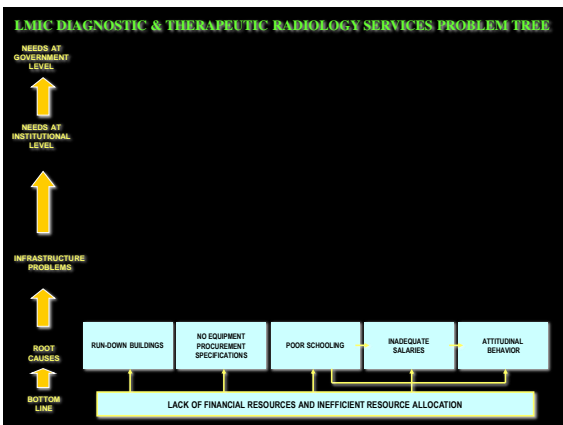
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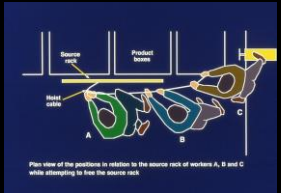
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### Radiation Accidents



San Salvador  
El Salvador  
1989  
Co-60  
Industrial  
Irradiator



Doses >30 Gy

Source: REACTS

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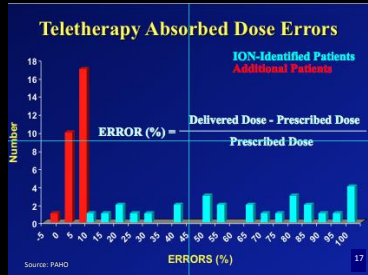
### Radiotherapy Overexposures

Costa Rica, 1996  
Co-60 Unit  
Miscalibration  
increased doses by 42%  
Affected 115 patients

Panama 2000-2001  
Misuse of TPS  
Affected 28 patients



Source: IAEA




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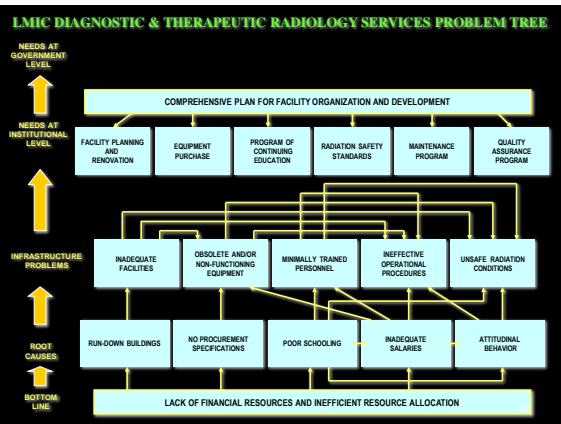
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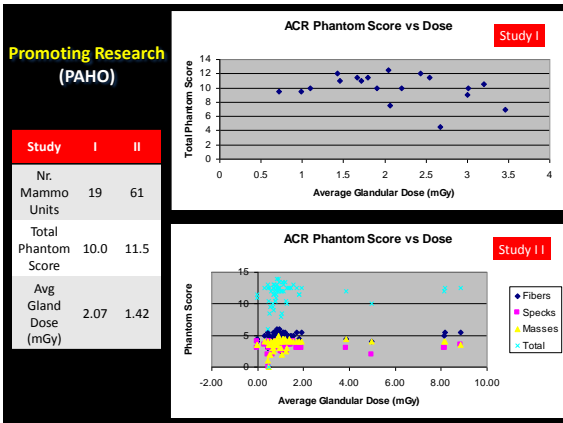
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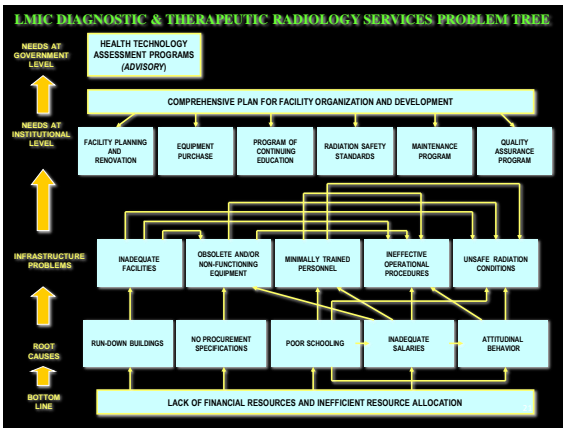
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