Radiotherapy in Peru: Shortage and inequities in access and solution proposal

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International Atomic Energy Agency
Current Situation (1)

GLOBOCAN 2012:
age-standardized incidence: 154.5,
mortality rate: 92.1

Cancer Registry in Lima 2010-2012:
Incidence: 216.9,
Deaths due to cancer: 25,888

2012:
Health Ministry (MINSA) launched “Plan Esperanza”, for comprehensive cancer care and improved access for oncological services in Peru.

Its main benefit is the cost coverage of the treatment by the Comprehensive Health Insurance system (SIS) targeting most vulnerable population.
In radiotherapy, main obstacle is shortage of places.

For a population of almost 17,500,000 SIS affiliates only two MINSA Hospitals have radiotherapy facilities:

- Instituto Nacional de Enfermedades Neoplásicas INEN (Lima)
  - 3 Co60 units
  - 3 LINACS
- Goyeneche Hospital (Arequipa)

This lack of geographical access causes treatment delay or abandon due to:

- long waiting times
- high transportation costs, stay and food,
- laboral absenteeism of the patient and relatives, among other issues.

Situational Analysis of Cancer in Peru (ASIS 2013)
Objective and Analysis

OBJECTIVE
To decentralize radiotherapy services in Peru, improving geographic and economic access for cancer patients.

ANALYSIS
SIS affiliates (dec. 2016):
17’497,944

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Lima and Callao</td>
<td>4.262.916</td>
<td>24.93%</td>
</tr>
<tr>
<td>Main northern regs.</td>
<td>3.325.540</td>
<td>19.45%</td>
</tr>
<tr>
<td>Southern regions</td>
<td>3.602.392</td>
<td>21.07%</td>
</tr>
<tr>
<td>Jungle regions</td>
<td>1.227.545</td>
<td>7.17%</td>
</tr>
</tbody>
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Based on IAEA/WHO recommendations:

Peru needs at least **52 LINACS**
Proposal and Conclusions

Actually; Peru has a great shortage and inadequate distribution of resources

First stage: distribute 37 megavoltage units (MU) in 7 regions, according to population, preexistence of other oncological services and land transport facilities. Will initially provide services to neighbour regions

One high dose rate brachytherapy unit in each installation is desirable.

Second stage: expanding facilities to other regions with population demand and availability of the other oncological services (chemotherapy, surgery).