Investment framework for radiation therapy
World Cancer Congress
Melbourne, December 2014
1. Why an investment framework?
2. Examples of investment frameworks in health
3. Investment case for radiation therapy
Why an investment framework?

1. Emphasises health and economic benefits of investing in cancer
2. Provides a clear time horizon for a core set of actions
3. Makes a case for allocation of resources form domestic and international sources
1. Why an investment framework?

2. **Investment frameworks in health**

3. Investment case for radiation therapy
Case for investing in health

THE LANCET
Towards an improved investment approach for an effective response to HIV/AIDS

Bernhard Schwartlander, John Stover, Timothy Hallett, Rifat Atun, Carlos Arias,unned Govers, Michael Rutstein, Peter D. Caby, Marianne Crichton, David Fair, Thomas Maged, Lee Galgany, Memie de Fokke, Geoffrey Garnett, Charles Holmes, Kim Laga, Vagner Pelay, Andriana Eduardo Stanczak, Craig McChesney, Gottfried Huisch, Melo Laga, Nianga Pialale, on behalf of the Investment Framework Study Group*  


Global Investment Framework for Women’s and Children’s Health

Global health 2035: a world converging within a generation
1. Why an investment framework for cancer
2. Investment frameworks in health
3. Investment case for radiation therapy
Investing for cancer: making a case


Rodin D, Jaffray D, Atun R, Knaul FM, Gospodarowicz M. for GTF.RCC. The need to expand global access to radiotherapy. *Lancet Oncology* 2014
Investment framework for radiotherapy

**Burden and Demand**
- **GLOBAL BURDEN OF CANCER**
  - Current and future demand for radiotherapy

**Health Systems Readiness**
- **Core Investments**
  - Facilities
  - Equipment
  - Personnel
- **Enabling Services**
  - Health system infrastructure
  - Pathology
  - Radiology
  - Surgery
  - Primary Care
- **Contextual Readiness**
  - Finances
  - Awareness

**Outcomes**
- **Health & Economic Impact**
  - Lives Saved
  - Patients Palliated
  - Economic benefits
Number of new cancer cases (top 9 cancer sites) amenable to radiotherapy in low-income countries (2015-35)
Projected number of fractions that need to be delivered per year in LIC (2015-35)
Annual investment needed in low-income countries to scale up radiotherapy (2015-35) (discounted)
Health benefits of investing in radiotherapy in low income countries (2015-35)

Estimated total health benefits: 3,956,674 Life Years gained
Economic benefits (annual US$)—patients return to work after radiotherapy

Total economic benefits > 8 Billion USD

Economic benefit in US$

<table>
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<th>Year</th>
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Innovations in radiation therapy will improve:

- **Feasibility**
  - New care delivery modes and proven technology

- **Affordability**
  - Higher performance – productivity, efficiency, effectiveness

- **Safety**
  - Automation, standardisation, and human centric solutions
Annual costs and benefits (2015-35) with 3% annual efficiency improvement
Annual costs and benefits with 5% annual efficiency improvements

Costs and benefits in US$

- Total annual cost of scale up with efficiency
- Economic benefits
- Net benefit

Years: 2015 to 2035

Values: -4E+08 to 1E+09