

Novel LINAC/Radiation Therapy Program: a key step to addressing challenges ODAs and more

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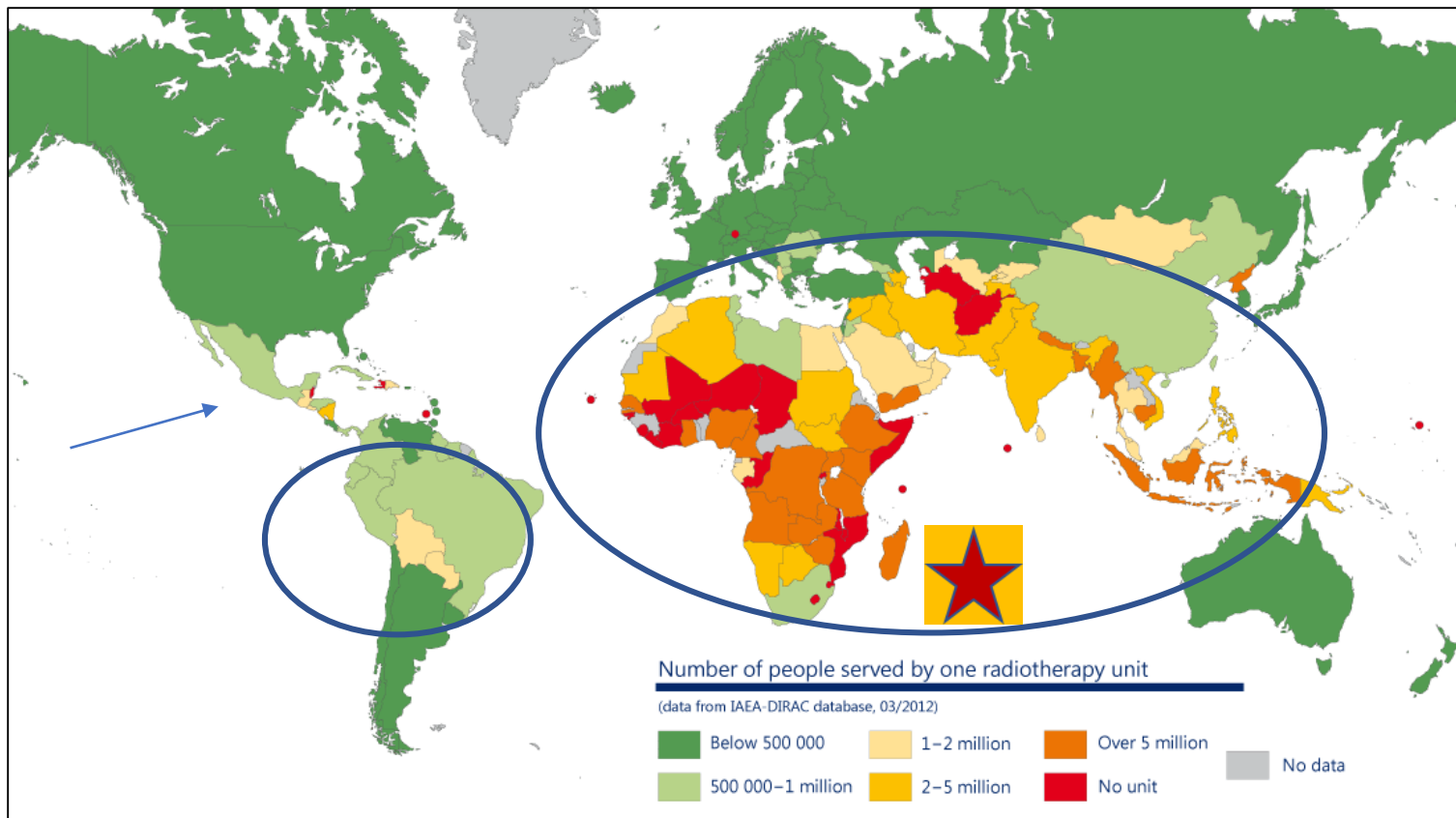
Accelerating the Future: Designing a Robust and Affordable Radiation Therapy
Treatment System for Challenging Environments

Gabarone Botswana
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Disclaimer: The presentation is the personal opinion of the presenter. It does not represent opinion or policy of the US Government, National Cancer Institute or NIH. Dr. Coleman is employed by the NCI, however, **ICEC is an official “outside activity”**.

No conflict of interest.

Global shortage of RT per IAEA – NCD shortfall

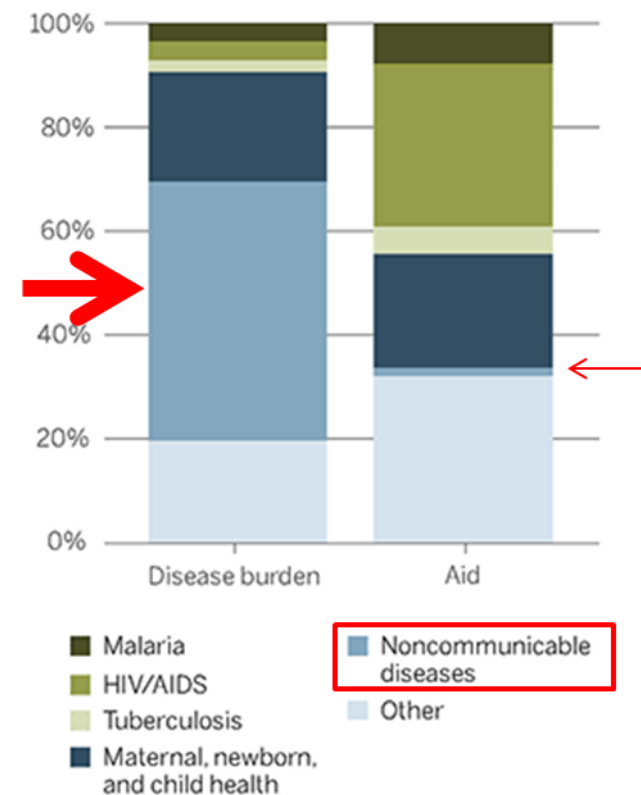


<https://cancer.iaea.org/agart.asp>

Shortfall of **over 5000 linear accelerators** (essential for **total cancer care**) in developing world and many thousands of needed experts

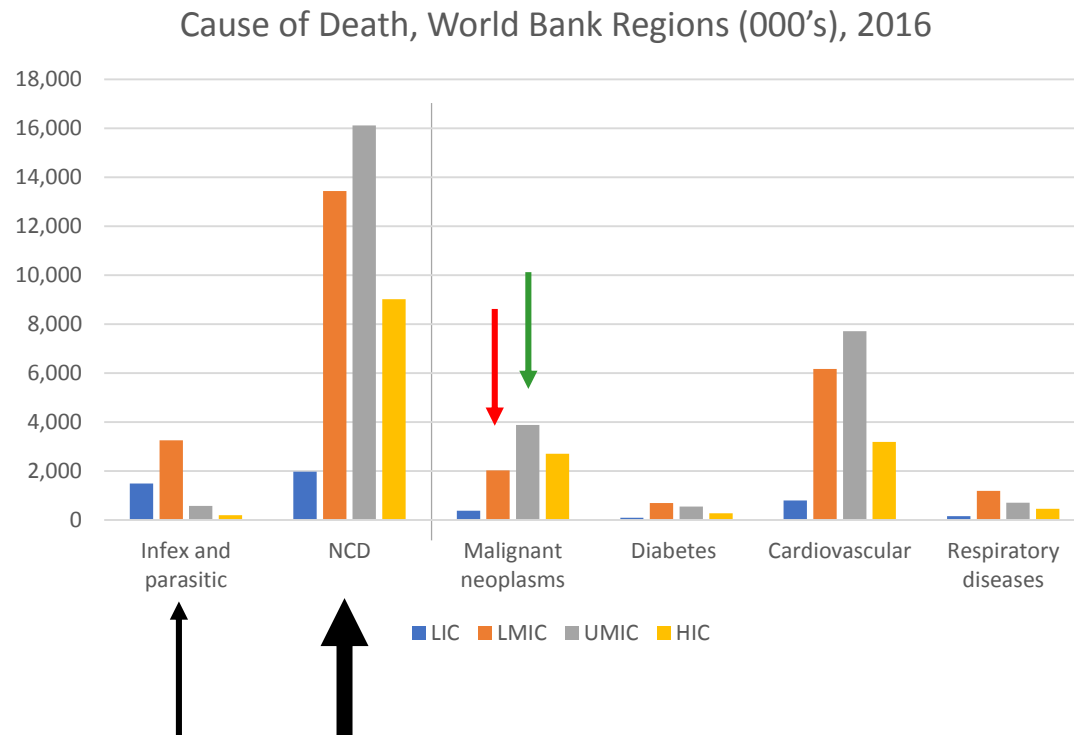
Skewed funding

The diseases that cause the highest burden—expressed in disability-adjusted life years, or DALYs—don't get most of the international largesse. In 2010, HIV/AIDS received the biggest chunk; little aid went to noncommunicable diseases like diabetes, whose burden is large and growing.



Source: Institute for Health Metrics and Evaluation

Addressing issue- why cancer:



“There are other diseases we need to take care of before cancer.”

- Correct, but NCDs outnumber infectious and parasitic diseases (ID) (**not that they are in competition**).
- Cancer is in second place for **LMICs**. Cancer is even worse for **UMICs** (which is **aspirational goal** of LMIC, so we now start with the LMIC)
- Stable healthcare infrastructure necessary. **Addressing cancer also addresses infectious diseases** (vaccination for HPV, hepatitis and treatment for others as basis for ID as routine and essential part of healthcare system).
- Cancer prevention and survivorship **address other NCDs** (cardiovascular, respiratory, metabolic,...)

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Camaraderie	Personal connections, career-long mentor-mentee relationships

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Camaraderie

Crazies “too hard is not an answer!”



Environment

Cooperative

Business model

Relationships

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Camaraderie

Personal connections, career-

Cash

- Visionary Investors
- Brilliant social business model
- Economists and political leaders who understand the value of healthy people



Inspiration doesn't get old:
Being part of the serious effort for a solution
puts one in good company



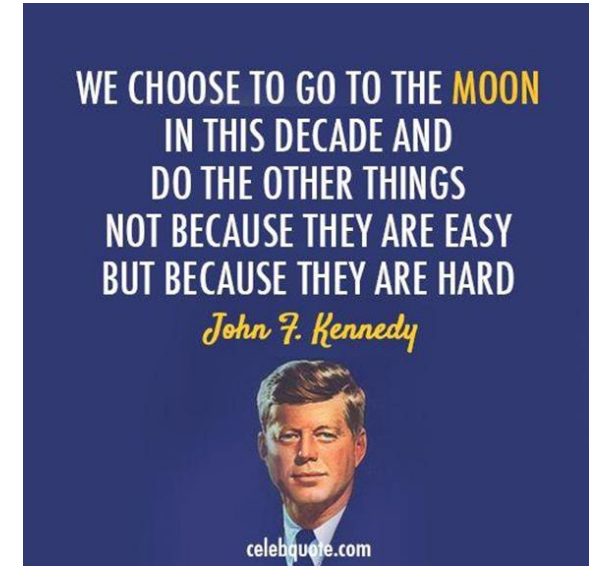
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Nelson Mandela (1918 - 2013)



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International
Cancer
Expert Corps

Partnering to transform global cancer care

Mentoring
Matching Experts to Needs

Innovation
New Equipment Design