

Workshop: Improving global access to radiation therapy

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Hosted by CERN

Organized and sponsored by International Cancer Expert Corps

No financial conflict of interest

****NC- presentation relates to ICEC and not National Cancer Institute position***

Views expressed in this presentation are those of the presenters; no endorsement by NCI, NIH, or any other U.S. Government agencies has been given or inferred



**International
Cancer
Expert Corps**

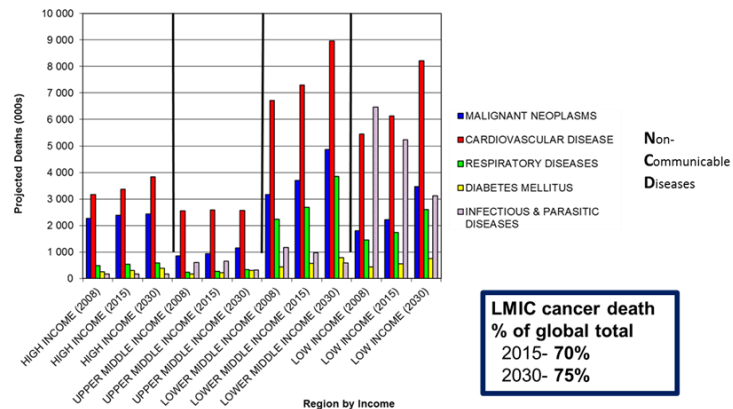
Partnering to transform global cancer care

Problem we are addressing:

Global shortage of cancer care as an approach to NCDs
Spectrum of cancer care with the critical need for radiation therapy

WHO Global Burden of Disease

http://www.who.int/healthinfo/global_burden_disease/projections/en/index.html

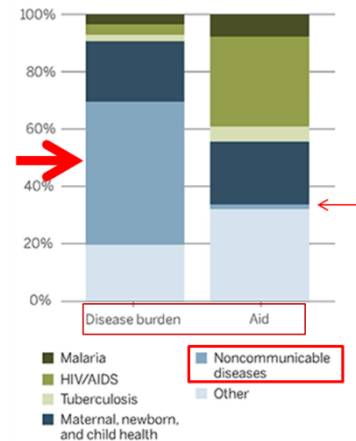


Defining the problem for example



Skewed funding For NCDs

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



Source: Institute for Health Metrics and Evaluation

1. Big and growing LMIC burden of cancer →

2. Huge gap in care, including *essential radiotherapy* →

3. Fix inadequate investment in NCDs

Complex problem:

Many interested parties, need for *action*.

Cancer care, Security of nuclear material (Co-60, Cs-137), World peace

Cancer groups:

Union International
Cancer Care (UICC):
Global Task Force for
Radiation for Cancer
Control

Professional Societies:

ASTRO, ESTRO, others

U.S.:

National Cancer Institute
Department of Energy
Health & Human Services

International:

International Atomic
Energy Agency
World Health Organization

Industry:

Varian
Elekta
Accuray

Non-proliferation:

James Martin Foundation

Individuals:

Broad societal interest

1. Cancer societies,
academia, global health

2. Agencies,
Ministries of Health

3. Industry and
individuals

Cancer care continuum:

Taking care of cancer also addresses NCDs and Infectious diseases

1. Prevention, screening, diagnosis (pathology, diagnostic imaging)

Tumor localization

Treatment planning

Simulation

Breadth of expertise

**Trained workforce-
capacity, capability**

2. Treatment- surgery, **radiation**, chemotherapy: Multi-modality expertise

Machine calibration

Treatment delivery- and verification

Machine reliability

**Quality assurance-
technology and technique**

3. Sustainable care-access, public health; **Centers of Excellence**

Environment

Power supply

Service, repair

Upgrade, replace

**Cost, affordability
Healthcare system**

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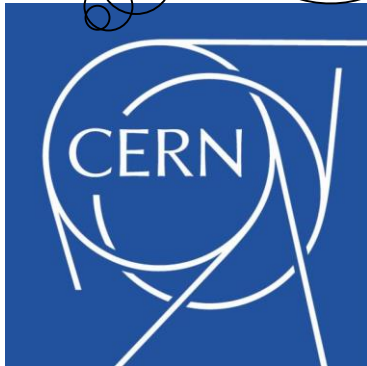


European Organization for Nuclear Research (CERN)
International Atomic Energy Agency (IAEA)
James Martin Center for Nonproliferation Studies (CNS)
National Aeronautics and Space Administration (NASA)
National Nuclear Security Administration (NNSA)

**We often hear global cancer is
“Too hard. Can’t be done”**

**WRONG: Current cancer
situation not acceptable!**

**Perfect venue to
think about –and
help solve-what
others say is
impossible.**



**“It always seems impossible
until it's done.”**

Nelson Mandela