The Global Task Force on Radiotherapy for Cancer Control (GTFRCC)

San Francisco Symposium at ASTRO

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Princess Margaret Cancer Centre
Professor, University of Toronto
World Cancer Day – Feb 4th, 2014

Release of ‘WHO - World Cancer Report’
Predicted Global Cancer Cases

Source: WHO GloboCan
<table>
<thead>
<tr>
<th>Year</th>
<th>Incident Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>12.7 million</td>
<td>7.6 million</td>
</tr>
<tr>
<td>2012</td>
<td>14.1 million</td>
<td>8.2 million</td>
</tr>
<tr>
<td>2030</td>
<td>22 million</td>
<td><strong>13.2M</strong></td>
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</table>
Rates for 2012
Closing the Cancer Divide: An Equity Imperative is devoted to demonstrating the many necessary, affordable, and implementable opportunities that exist to reduce the burden of cancer in low and middle income countries. Taking up these opportunities is a moral, equity, and economic imperative that will contribute to closing the cancer divide.
Population per radiotherapy treatment unit.

http://cancer.iaea.org/agart.asp
GLOBAL HEALTH

International Outreach: What Is the Responsibility of ASTRO and the Major International Radiation Oncology Societies?
Nina A. Mayr, MD,* Kenneth S. Hu, MD.† Zhongxiao Liao, MD.‡ Akila N. Viswanathan, MBeatriz E. Amendola, MJIatinder R. Palta, PhD,* Ramesh Rengan, MD, Ph

GLOBAL HEALTH

Bringing Radiation Therapy to Underserved Nations: An Increasingly Global Responsibility in an Ever-Shrinking World
Anthony Zietman, MD, FASTRO, Editor-in-Chief

GLOBAL HEALTH

Radiation Therapy Infrastructure and Human Resources in Low- and Middle-Income Countries: Present Status and Projections for 2020
Niloy R. Datta, MD* Massoud Samiei, PhD † and Stephan Bodis, MD‡

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Early in my career, I had the great privilege of working first for a year as a medical student in Nigeria and then as a sub-intern in Sierra Leone. With 30 years of perspective, I can now see how little I gave in comparison to how much I gained. To a completely unanticipated extent, my personality, my politics, and my practice were shaped by the great vitality and the profound poverty of West Africa. It proportions of the problem and, by implication, the depth of our responsibility. They make suggestions and give pragmatic examples as to how we might organize the pool of willing human talent to begin to meet these urgent needs.

We begin by first attempting to get a sense of the scale of the challenge that we face globally. Datta et al use the World Bank classification to define 139 LMICs and look at
Charge from the UICC Board

The Task Force is asking a single question:

"What does it cost to close the gap between what exists today and reasonable access to radiotherapy globally?"

To report at the UICC Cancer Congress 2014.
Secretariat of GTFRCC

Dr. Tabaré Vázquez
Honorary Chair:

Radiation oncologist and statesman In 2004, Dr. Vazquez was elected President of the Oriental Republic of Uruguay and served for five years beginning March 1, 2005.

David Jaffray
Head of Physics
Princess Margaret
Head of Secretariat

Mary Gospodarowicz
Medical Director
Princess Margaret
President, UICC

Eduardo Rosenblatt
Applied Radiobiology and Radiotherapy Division
IAEA

Bhadrasain Vikram
Chief Clinical Radiation Oncology Branch at the NCI

Michael Barton
Professor Radiation Oncology
University of New South Wales

Michael Baumann
Professor Radiation Oncology
Technische Universität Dresden

Peter Hoskin
Professor Clinical Oncology
University College London

Felicia M. Knaul
Director of the Harvard Global Equity Initiative

Rifat Atun
Professor of International Health Management
Imperial College London

Cary Adams
Chief Executive Officer, UICC

Julie Todore
Deputy Chief Executive Officer, UICC

Jake Van Dyk
Professor, Western University

+ 80 Task Force Members from over 35 Countries
Task Force - Global Engagement
By 2030, 70% of cancer deaths will occur in lower and middle income countries

BACKGROUND

In 2008, cancer accounted for more than 7.6 million deaths worldwide. By 2030, that number is projected to more than double, with 70% of deaths occurring in lower and middle income countries.

Radiation therapy is recognized as an essential tool in the cure and palliation of cancer, and is indicated in over half of new cancer patients. In LMICs, the need for radiation therapy may in fact be higher due to more advanced stage of disease at presentation.

PURPOSE

The Board of the UICC has approved the convening of a Global Task Force on Radiotherapy for Cancer Control (GTFRCC) to address this very challenge under their purpose — “...to unite the cancer community to reduce the global cancer burden, to promote greater equity, and to integrate cancer control into the world health and development agenda.”
Youth – Global Engagement

Danielle Rodin, MD
Radiation Oncology Resident
Princess Margaret Cancer Centre/University of Toronto

- Mentorship
- Peer Networking
- Working Group Contribution
- Young Leaders Projects
Charge from the UICC Board

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To report at the UICC Cancer Congress 2014.
An Investment Framework Approach for Radiotherapy

Rifat Atun, MD, FRCP
Professor of Global Health Systems at the Department of Global Health and Population at Harvard University’s School of Public Health.

Investment Framework - Not just a cost
• Emphasizes benefits – in health and economic terms
• Clear time horizons
• An organizing principle for a core set of actions

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

UNAIDS HIV Investment Framework

A

New HIV infections

- Baseline
- Investment framework

12.2 million new infections averted between 2011 and 2020

B

Cost (billions US$)

- Baseline
- Investment framework

7.4 million AIDS deaths averted between 2011 and 2020
The need to expand global access to radiotherapy

The escalating global tide of cancer cases and deaths, and the increasing burden of disease in low-income and middle-income countries (LMIC), is a major global health challenge. To respond to this challenge, in 2012 the World Oncology Forum endorsed an urgent plan of action—to lessen cancer deaths by 25% by 2025, achieving a worldwide reduction of 1.5 million deaths from cancer per year.¹

A comprehensive cancer management strategy is needed to achieve this target, especially in LMIC, and to

A plan of action to ensure global access to radiotherapy is long overdue. In view of the grand convergence envisioned by the Lancet Commission on Global Health 2035,⁸ and drawing on successful experiences guiding investments for HIV/AIDS,⁹ the time is right for a global framework to guide investments in radiotherapy.
GTFRCC - Functional Organization

Leadership and Stewardship

International Secretariat

Investment Framework

Burden and Demand

GLOBAL BURDEN OF CANCER
Current and Future Requirement for Radiotherapy:

Health Systems Readiness

CORE INVESTMENTS
- Facilities
- Equipment
- Personnel

ENABLING SERVICES
- Pathology
- Radiology
- Surgery
- Primary Care

CONTEXTUAL READINESS
- Infrastructure
- Finances
- Awareness

Education

Outputs

Outcomes
- Lives Saved
- Patients Palliated

Task Force Membership
Radiation Therapy, Oncology, Global Health, Industry
5 hour GTFRCC symposium was held on April 4th, 2014 in conjunction with the ESTRO meeting in Vienna.

Speakers from the IAEA, ESTRO, industry, and members of the Task Force.
Burden and Outcomes

Chair: Michael Barton
Members:

Soren Bentzen
Norman Coleman
Geoff Delaney
Cai Grau
Tim Hanna
Peter Hoskin
William Mackillop
Graeme Morgan
R. Sankaranarayanan
Scott Tyldesley
Mei Yap
Danielle Rodin
Radiotherapy Utilization Rates

Model Components: RURs, Global Differentials in Burden, Fractionation, and Income Adjusted

Core Investments

Co-chair: Jake Van Dyk
Co-chair: Eduardo Rosenblatt

Members:
Mary Coffee
Andres Cordova
Penelope Engel-Hills
David Jaffray
Tomas Kron
Michelle Leech
Yolanda Lievens
Ahmed Meghzifene
Ben Mijnheer
Michael Milosevic
Joseph Mugabe
Bhadrasain Vikram
Machine Cost Compared to Total Cost
(12 publications)

Mean = 21% ±7% SD

* All RT equipment

* Work in progress
Integral to the core investments/human resources calculation

Transcends all domains -- medical, political, cultural
Health Systems Readiness

**ENABLING SERVICES**
- Pathology
- Radiology
- Surgery
- Primary Care

**CONTEXTUAL READINESS**
- Infrastructure
- Finances
- Awareness

Need to be acknowledged and addressed

Will not form part of the main investment calculation

Common requirements/enablers for all oncology services
GTFRCC at ASCO 2014 in Chicago – Multidisciplinary Engagement
GTFRCC Activity Calendar

INTRODUCTION AND ORIENTATION MEETING - October 1, 2013, Amsterdam

TORONTO LAUNCH MEETING - February 5, 2014, Toronto

ESTRO VIENNA GTFRCC SYMPOSIUM - April 4, 2014, Vienna

ASCO GTFRCC CONSULTATION MEETING - June 2, 2014, Chicago

ASTRO GTFRCC MEETING - September 14, 2014, San Francisco

WORLD CANCER CONGRESS - December 3, 2014, Melbourne