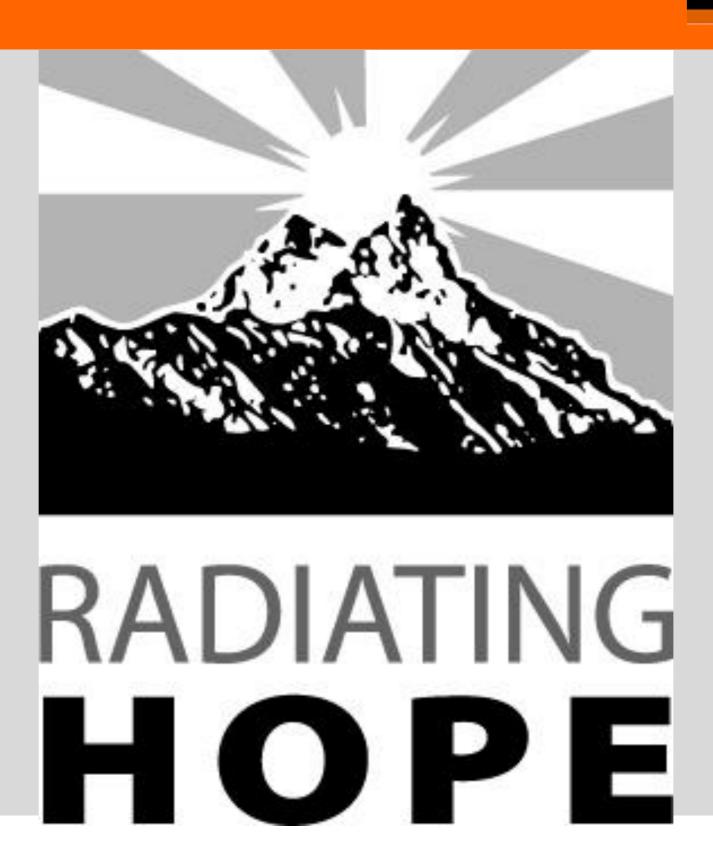
A World Without Fear of Cancer



An Organization of International Cooperative Groups for Clinical Trials in Gynecologic Cancer





Dr. Brandon Fisher

Physician-

- From Utah- USA
- Radiation Oncology
 - Gamma West Cancer Service in Utah

Philanthropist

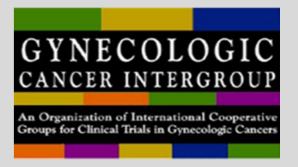
- President –RadiatingHope
- Member CCRN
- Board of Directors Above and Beyond Cancer

Mountain climber

- Member of Search and Rescue
- Rock and High Altitude climbing



Topic:



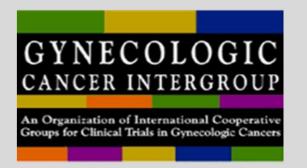
- Global Oncology
 - Global Access to Radiation
 - Opportunities for global outreach within RadiatingHope



FRESH HOPE?



Red Journal



International Journal of Radiation Oncology biology • physics

www.redjournal.org

GLOBAL HEALTH

Radiation Oncology in Africa: Improving Access to Cancer Care on the African Continent



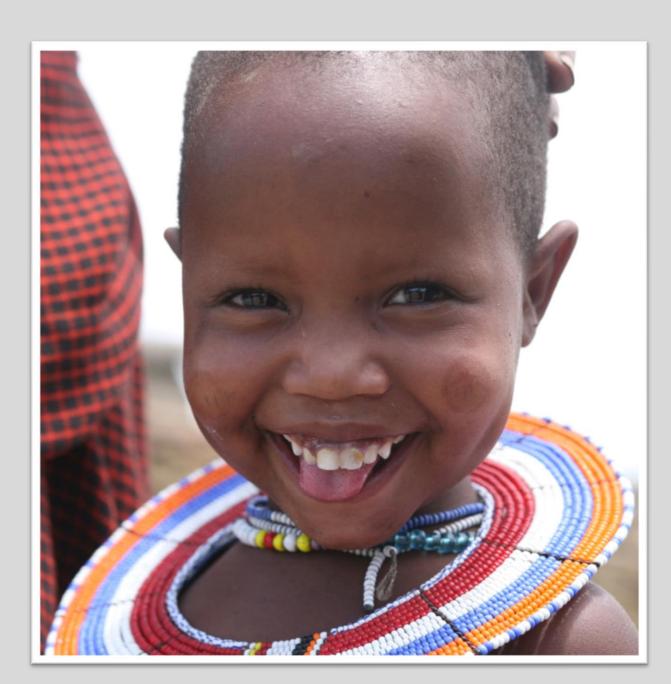
Brandon J. Fisher, DO,* Larry C. Daugherty, MD,† John P. Einck, MD,¶ Gita Suneja, MD,§ Mira M. Shah, MD, Luqman K. Dad, MD,¶ Robert W. Mutter, MD,# J. Ben Wilkinson, MD,** and Arno J. Mundt, MD‡

Incidence



Cancers globally:

- 15+ million in 2016
 - 2/3 will occur in developing countries.
- "It is not an exaggeration to say that cancer represents an imminent crisis for developing countries."
 - IAEA Director General Yukiya Amano



Cervix Cancer Education Symposium, February 2018

Cancer in developing countries:

quick facts:

- 7 out of 10 cancer deaths globally occur in developing countries
- Cancer kills more people than HIV/AIDS,
 Malaria, and Tuberculosis combined
- Developing countries make up roughly 85% of the world's population, and possess only one third of the world's radiation equipment.
- Developing countries lack availability to radiation equipment and the equipment they do have is usually outdated and insufficient

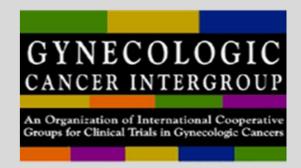


Cervix Cancer Education Symposium, February 2018

^{1.} Salminen E, Anacak Y, Laskar S, et al: Twinning partnerships through International Atomic Energy Agency (IAEA) to improve radiotherapy in common paediatric cancers in low- and mid-income countries. Radiother Oncol 93:368–371, 2009.

^{2.} International Atomic Energy Agency: Design and implementation of a radiotherapy programme: Clinical, medical physics, radiation protection and safety aspects. [IAEA-TECDOC-1040.] Vienna, Austria, International Atomic Energy Agency, 1998.

By the numbers:



• US:

- Approximately 1 machine for 100,000 people
- 2% of machines are cobalt

Africa:

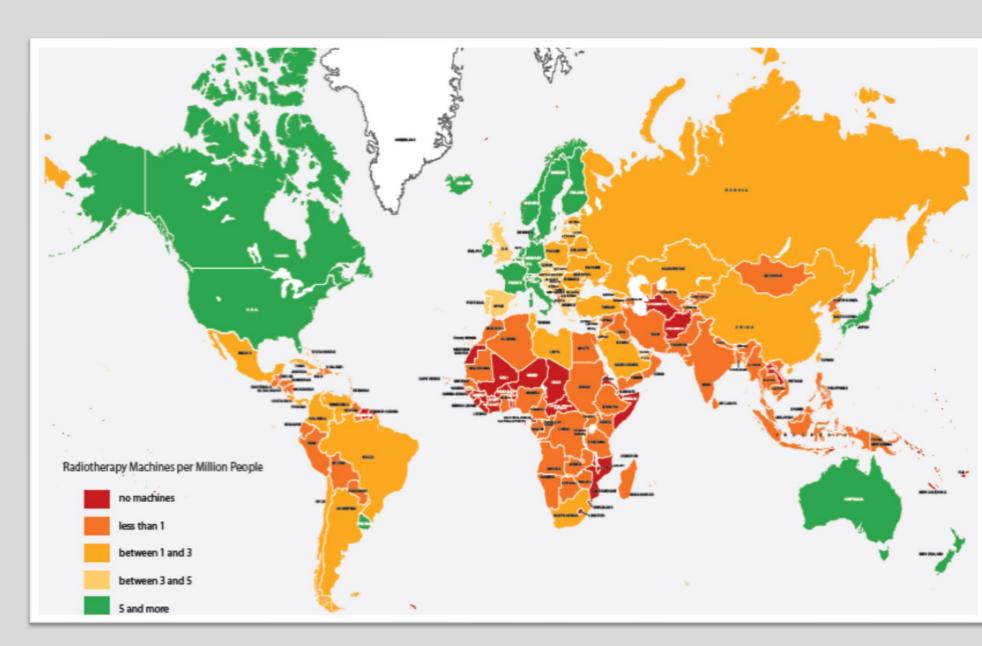
- 1 machine for 4.8 million people
- 48% of machines are cobalt

South America:

- 1 machine for 640,000 people
- 39% of machines are cobalt

Nepal:

- 1 machine for 6 million people
- 40% of machines are cobalt

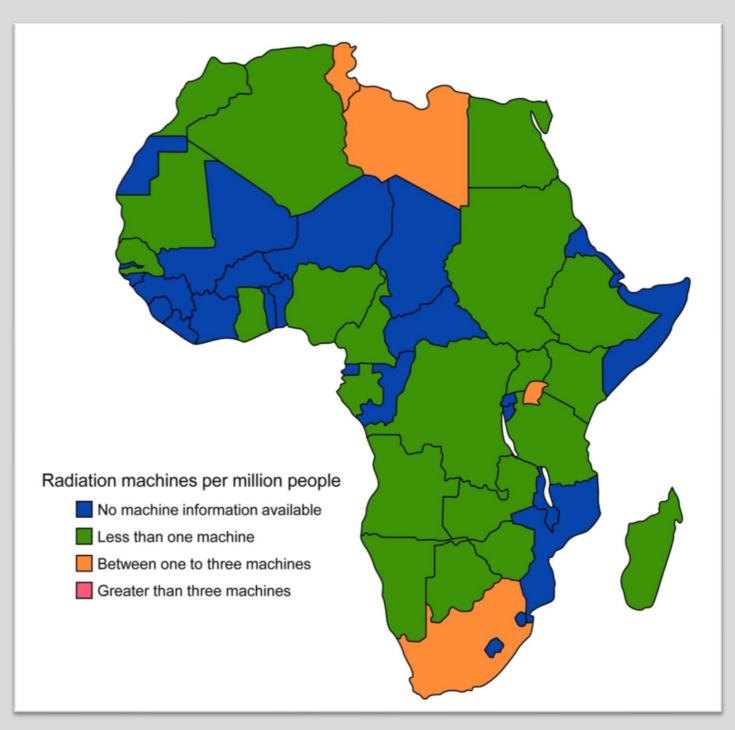


Africa:

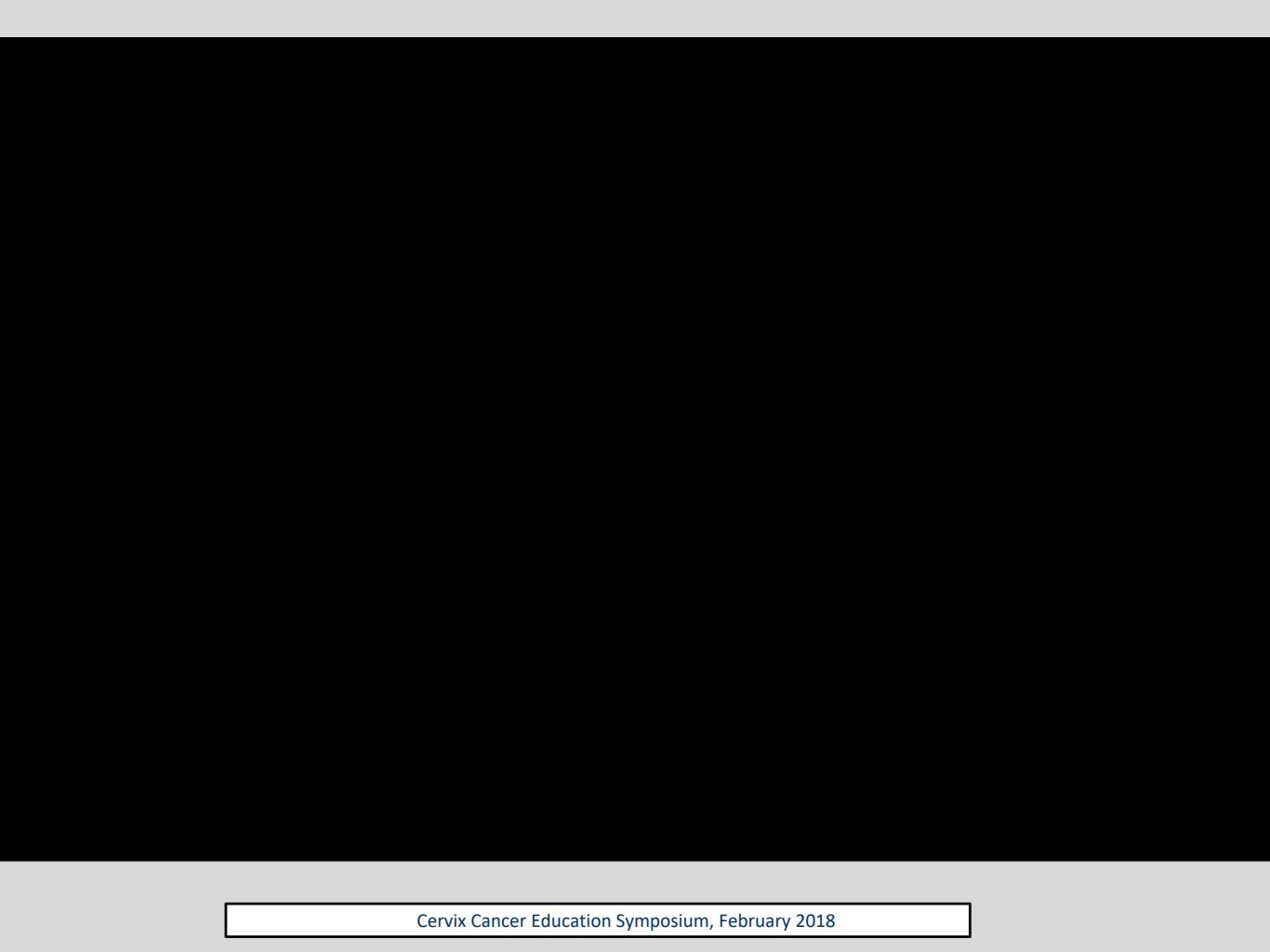


- Rwanda:
 - No machines
- <u>Uganda</u>:
 - -1 machine per 33,000,000
- Tanzania:
 - 1 machine per 14,000,000
- Sudan:
 - 1 machine per 7,000,000
- Mali: No machines
- Senegal:
 - 1 machine per 13,000,000
- Ghana:
 - 1 machine per 1,000,000
- Ethiopia:
 - 1 machine per 70,000,000
- South Africa:
 - 1 machine per 1,000,000

Overall: Megavoltage machines are in 23 of the 52 of the African countries



International Atomic Energy Agency: DIRAC (Directory of Radiotherapy Centres). Updated February 2011. Available at: http://www-naweb.iaea.org/nahu/dirac/informationupdate.asp. Accessed July 21, 2011.



Addressing Global Health Initiatives

Dr. Margaret Chan- Director-General of the WHO said:

- "A complex group of diseases like cancer MUST be tackled on MULTIPLE fronts, by MULTIPLE partners!!"
 - Partners:
 - Country Initiatives
 - GlobalRT
 - RadiatingHope
 - Partners in Health
 - CCRN
 - ARRO/ASTRO
 - Above and Beyond Cancer
 - ICEC- International Cancer Expert Corps
 - Foundation for Cancer Care in Tanzania

An Organization of International Cooperative Groups for Clinical Trials in Gynecologic Cancers

So on and so on!!!

















ABOVE+BEYOND

CANCER



The Lancet Oncology Commission

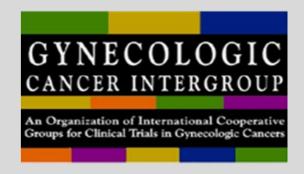
Expanding global access to radiotherapy



Rifat Atun, David A Jaffray, Michael B Barton, Freddie Bray, Michael Baumann, Bhadrasain Vikram, Timothy P Hanna, Felicia M Knaul, Yolande Lievens, Tracey Y M Lui, Michael Milosevic, Brian O'Sullivan, Danielle L Rodin, Eduardo Rosenblatt, Jacob Van Dyk, Mei Ling Yap, Eduardo Zubizarreta, Mary Gospodarowicz

- Radiotherapy is perceived as a complex treatment and has lead to a misleading assumption is that its deployment in poorer nations is not feasible, but
 - "nothing could be further from the truth".
- •Radiotherapy can be effectively standardized and delivered irrespective political, and cultural context. Lancet provided evidence to show that radiotherapy is affordable and feasible, and can be safely and consistently delivered in low-income and middle-income countries.

Lancet 2015



- Investment in radiotherapy:
 - Not only enables treatment of large numbers of cancer cases to save lives
 - They state that as we 'scale-up' the radiotherapy capacity in 2015–35 from current levels could lead to saving of 26.9 million life-years in low-income and middle-income countries over the lifetime of the patients who received treatment.
 - But also brings positive economic benefits.
 - The economic benefits of investment in radiotherapy are very substantial.



Senegal Project- Red Journal

GLOBAL HEALTH

Implementation of a High-Dose-Rate Brachytherapy Program for Carcinoma of the Cervix in Senegal: A Pragmatic Model for the Developing World

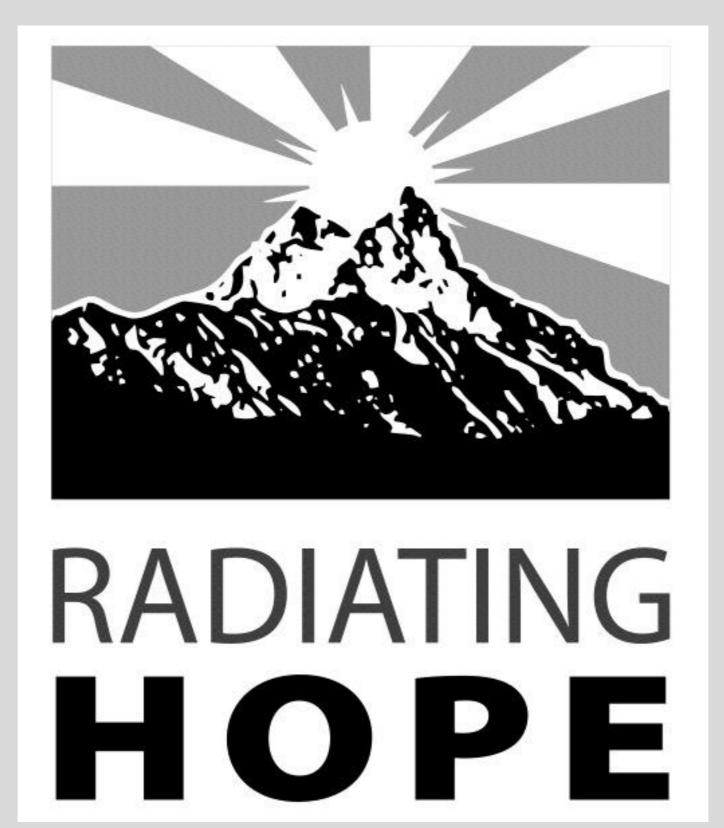


John P. Einck, MD,* Alana Hudson, MSc,† Adam C. Shulman, MS,‡ Catheryn M. Yashar, MD,* Mamadou M. Dieng, MD,§ Magatte Diagne, PhD,§ Latifatou Gueye, MSc,§ Fama Gningue, MSc,§ Pape M. Gaye, MD,§ Brandon J. Fisher, DO, Arno J. Mundt, MD, FACRO, FASTRO,* and Derek W. Brown, PhD, FCCPM†

Global Oncology Outreach



Provide and update radiation equipment in developing countries and advance cancer care in those countries.



Projects

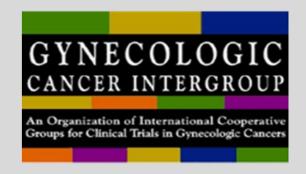


RadiaitngHope

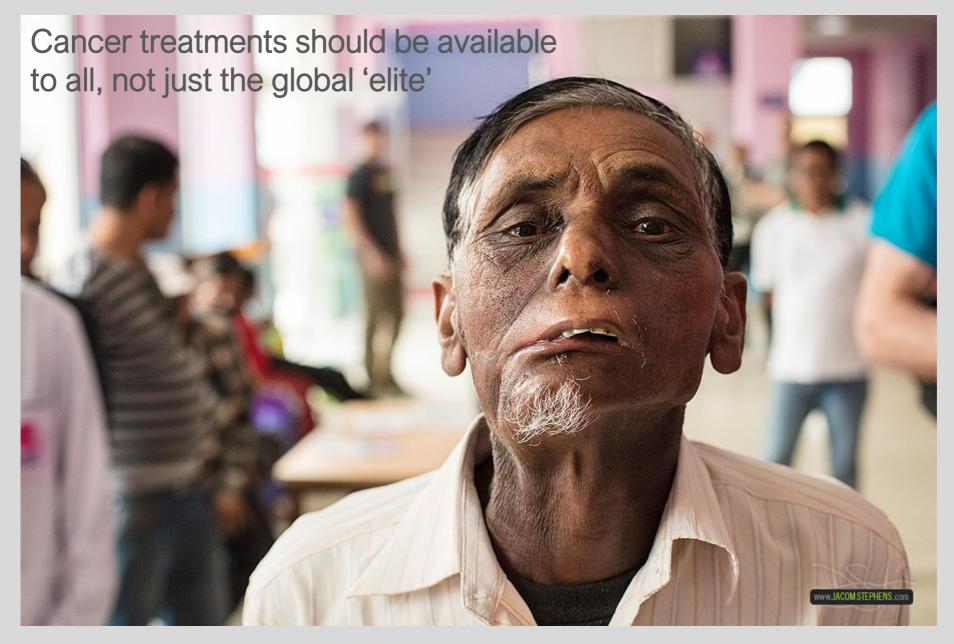
- Africa/Latin America/Nepal Projects
 - Ghana, Senegal
 - Honduras, Guatemala, Chile
 - Nepal
- RadHope Society
 - www.radiatinghope.org
- Annual Cancer Symposium
 - Training
 - Site visits and outreach
- Prayer Flag and Climbing Projects
 - Super-advocate projects
 - Climbing- platform for fundraising



Lancet 2015



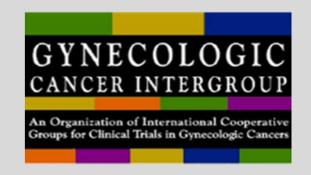
- Concluding statement:
 - Time to take Action! End the needless suffering...



Time to climb that Mountain!!!

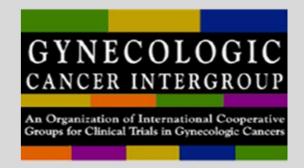
Gynecologic Cancer InterGroup Cervix Cancer Research Network

Time to take Action!





Time to climb that Mountain!!!



Thank You

