



Annual Meeting 2024
Toronto, Canada



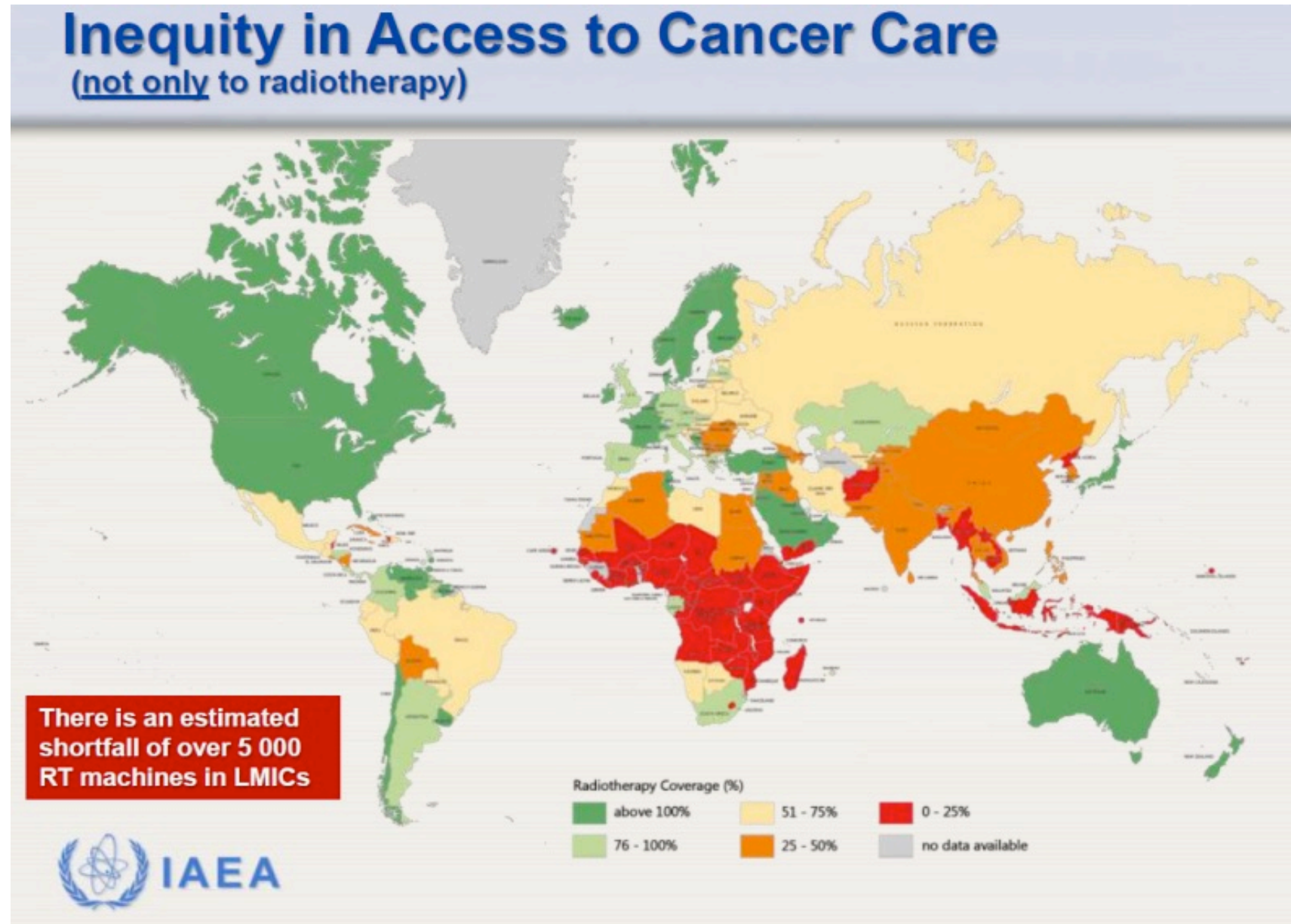
JOHNS HOPKINS
M E D I C I N E

Global Oncology: Catalyzing high impact collaborations to eliminate cancer health disparities

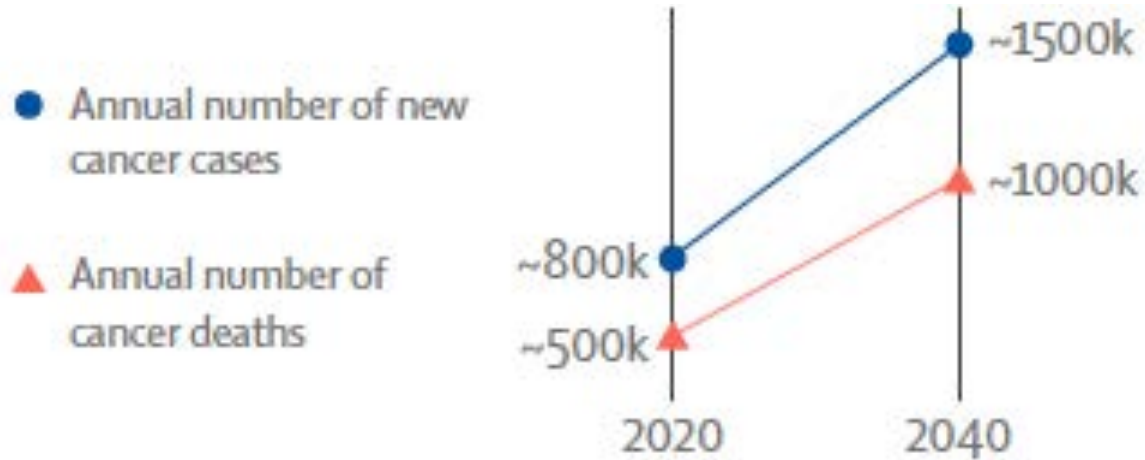
Wil Ngwa,
Director, Global Health Catalyst
Leader: USA Lancet Cancer Moonshot commission
ICTU Distinguished Professor of Public Health

The Challenge

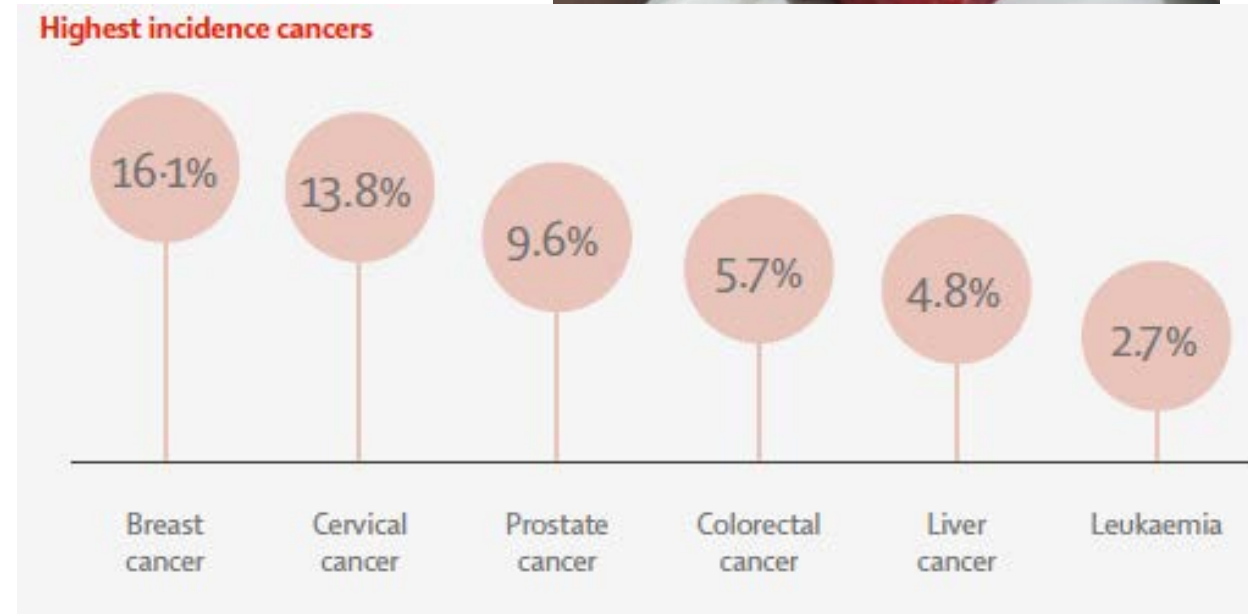
- Global Health Disparities
- "Do US dogs have better access to radiotherapy than Nigerian people?"
BBC



Lancet Oncology Commission: Cancer in Sub Saharan Africa



- Cervical Cancer a leading cause of cancer death
- Killed more than COVID



Economic impact of cancer in Africa: Examples

Country	GDP per Capita (current USD) - 2019	DALYs in 2019 due to Cancer	Annual Economic Loss Due to Cancer
Algeria	\$3,974	675,351.37	\$2,683,822,080
Angola	\$2,791	437,545.22	\$1,221,069,091
Benin	\$1,219	171,621.13	\$209,280,413
Botswana	\$7,961	62,882.26	\$500,626,120
Burkina Faso	\$787	343,883.48	\$270,600,408
Nigeria	\$2230	\$2 526 342·71	\$5 633 387 262
Tanzania	\$1122	\$1 076 035·85	\$1 207 443 296

[Disability-adjusted life years \(DALYs\)](#)

is a measure of health burden, including both reduction in life expectancy and diminished quality of life: Highlights areas of healthcare prioritization

Cancer Health Disparities?

USA Cancer Health Disparities examples

HIGHER cancer death rates	<p>From 2018 to 2020:</p> <ul style="list-style-type: none">• Black women had 1.4 times and two times higher death rates for breast and uterine cancer, respectively, compared to White women, despite having similar incidence rates; Black men had two times higher death rates for prostate cancer, compared to White men.• American Indian and Alaska Native men had 1.8-, 2.1-, and 2.7-times higher death rates due to cancers of the kidney, liver, and stomach, respectively, compared to White men.• Native Hawaiian or other Pacific Islander (NHOPI) 20- to 49-year-olds had the highest cancer death rates, compared to all other racial or ethnic groups of similar age range.• Hispanic men and women had twofold higher death rates for stomach cancer, compared to White men and women.
2-FOLD or higher	Compared to cisgender patients, transgender patients have twofold or higher increased risk of death from non-Hodgkin lymphoma, prostate cancer, and bladder cancer.
5-FOLD or higher	Among childhood cancer survivors , those living in neighborhoods with the highest socioeconomic deprivation are at a five-fold or higher increased risk of all-cause deaths compared to those living in the least socioeconomically disadvantaged neighborhoods.
LEAST progress	Congressional districts in the U.S. Midwest and Appalachia made the least progress , while those along the southern East Coast and the southern border made the greatest progress in reducing overall cancer death rates between 1996–2003 and 2012–2020.
78% higher	Among older adults with newly diagnosed cancer, rural residents have a 78 percent higher one-year mortality compared to urban residents.

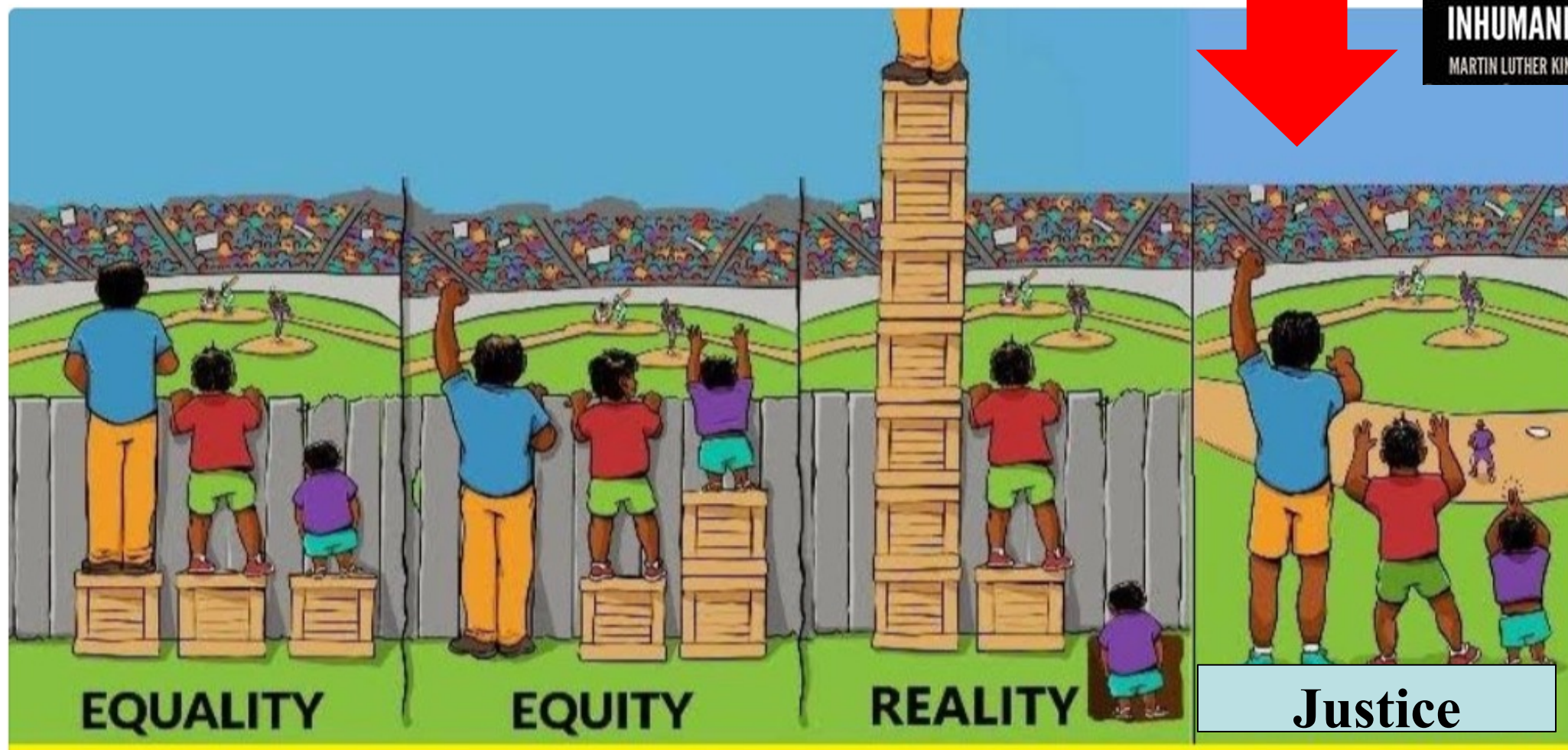
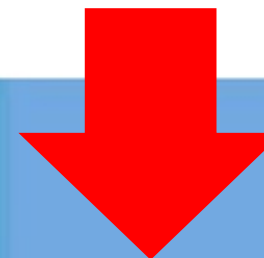
Disparities across:

- Race
- Gender
- Socio-economics
- geography

Cancer Health disparities

- Collaborations to Eliminate the barriers!

'OF ALL THE
FORMS OF
INEQUALITY,
INJUSTICE IN
HEALTH CARE
IS THE MOST
SHOCKING AND
INHUMANE.'
MARTIN LUTHER KING



Collaboration Opportunity: The Cancer moonshot.

February 2022 President Biden launched Cancer Moonshot 2.0 with following GOALS:

- Reduce mortality by 50% in 25 years
- Increase the quality of life for those living with and surviving Cancer

#GlobalCancerMoonshot





May 2022:
Lancet Oncology
Commission for sub-
Saharan Africa!



Extending the Cancer Moonshot Globally

Opportunity for win-win collaborations

#GlobalCancerMoonshot



December 2022: The Cancer Moonshot announces over \$300 million to drastically improve cancer outcomes in Africa during the U.S. Africa leader's summit.

“Cancer Moonshot goals could be more achievable in Low and Middle Income Countries”?

eCancer Editorial by Isaac Adewole, Emily Kobayashi, Megan O'Brien, Jackson Orem, Anne F Rositch and Wilfred Ngwa

Extending the Cancer Moonshot Global Opportunity for win-win collaboration

- Developing a Global Cancer fund or other collaboration driving sustained funding in consonance with the work of ICRP:
- Interest for collaboration at highest levels from USA, UK, Tanzania etc: Mobilization at the Global Health Catalyst summit June 7-9, 2024 at Johns Hopkins
- Example recommendations of opportunities for win-win collaborations:
 - workforce (bidirectional): Global Oncology University
 - Cervical cancer elimination
 - Using technology/AI in global health



#GlobalCancerMoonshot

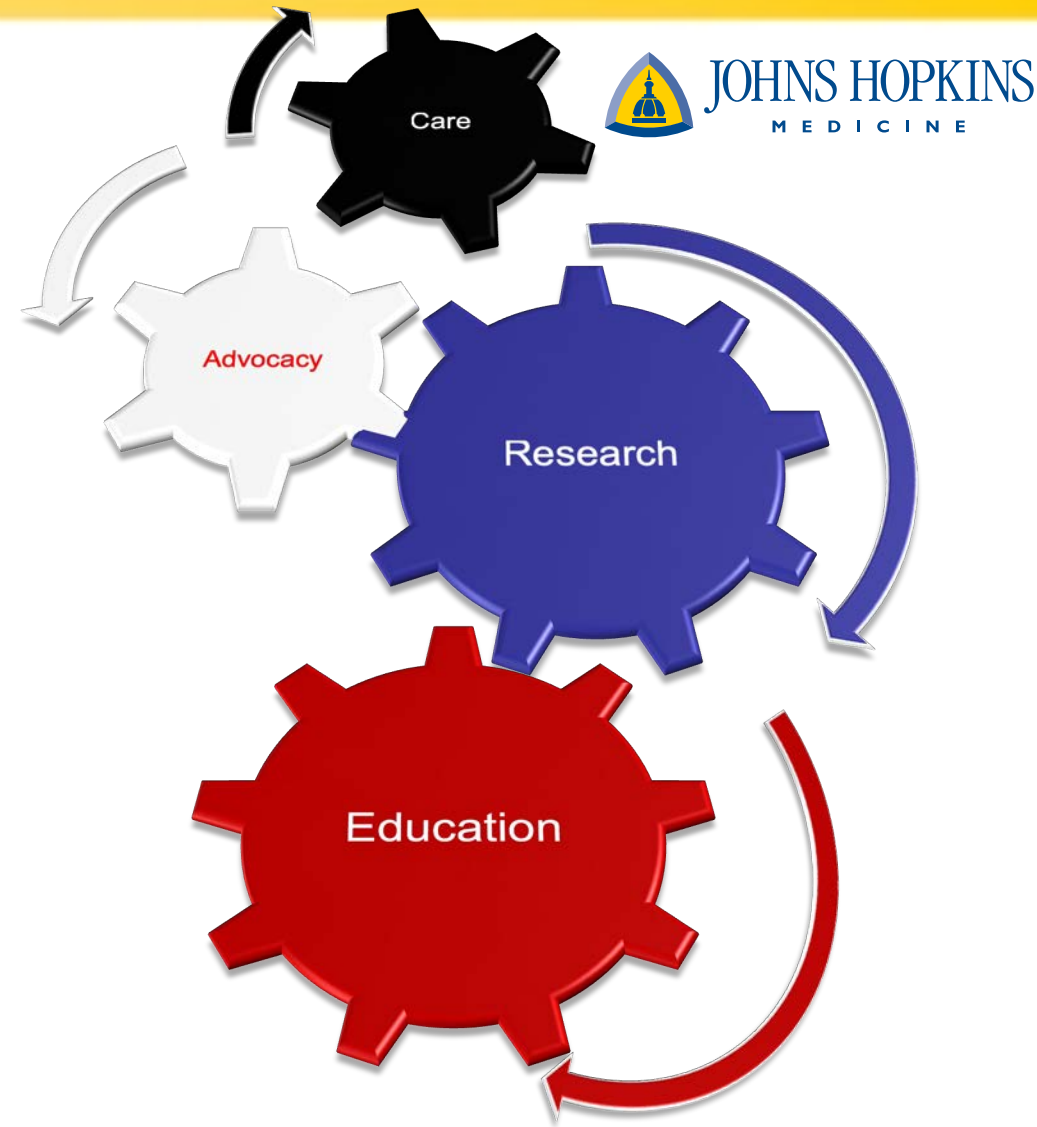
Cancer Moonshot 2.0: Opportunity for collaboration

- **Expand the use of digital health solutions to address the growing cancer burden and disparities**
- **Metrics: increased investment in telehealth; increased collaborations involving government and industry for successful implementation and use of digital health solutions**
- **Timeframe: 1–3 years**



The Comprehensive Cancer Center in the Cloud (C4): powered by AI

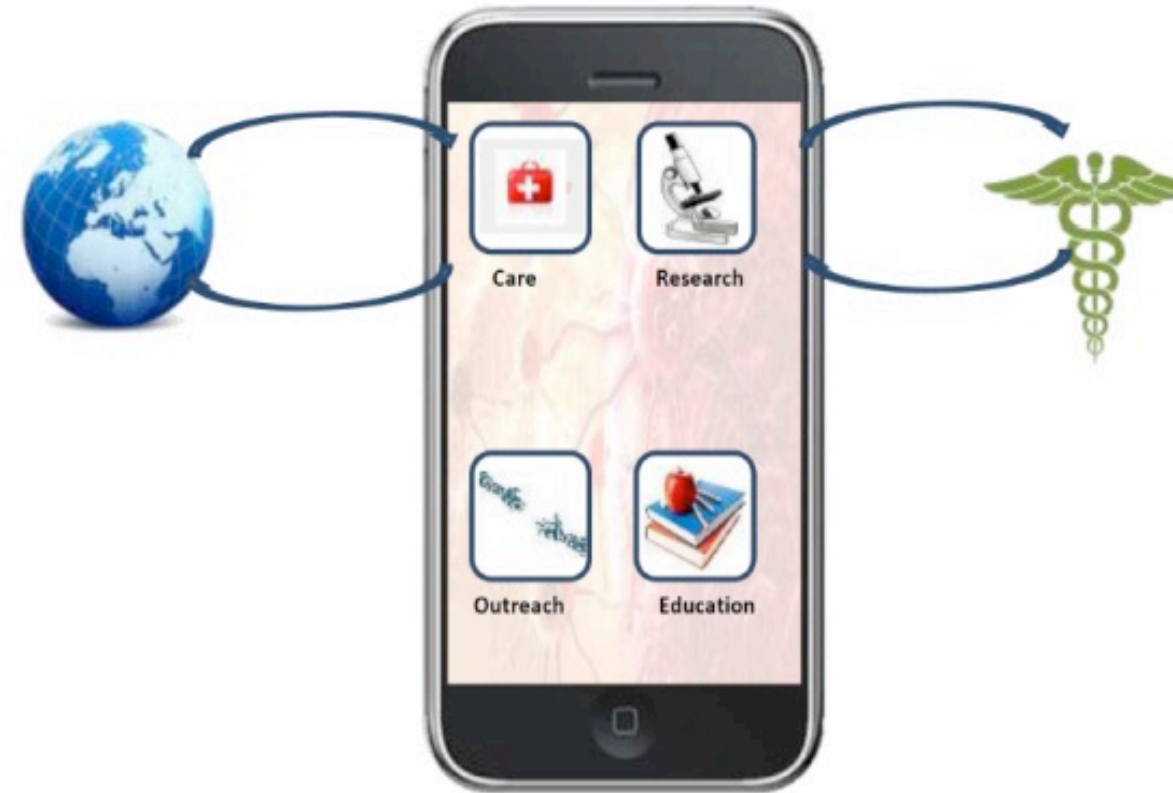
- Building a C4 for collaborations to dramatically increase access to quality cancer CARE
- Care,
- Advocacy,
- Research
- Education



“Until every cancer patient has access to quality treatment,”

Access to a Comprehensive Cancer Center at your finger tips

- **Care APP**: Tele-oncology with AI; tumor boards, second opinion, with remote treatment planning/QA support
- **Advocacy APP**: working with industry, policy makers, foundations, hundreds of diaspora organizations to turn brain drain to brain circulation; yearly Global Health Catalyst summits catalyze collaboration with different stakeholders
- **Research APP**: AI and Collaborative research e.g. co-mentored-research, multi-center clinical trials on hypofractionated radiotherapy
- **Education and Training APP**: Global oncology University



Comprehensive approach using 4 Apps to increase access and reduce disparities

One recommended model in the Lancet Oncology Commission for SSA is the Global Oncology University model (GO-U):

Collaboration driven education model combining online/VR learning with short intensive practical training at local credentialed partner sites

- GO-U review and upcoming courses/plans and integration in Center of Excellence initiatives and Lancet publications
- GO-U structure/personnel/management
- Updates and discussion to advance Accreditation
- Funding

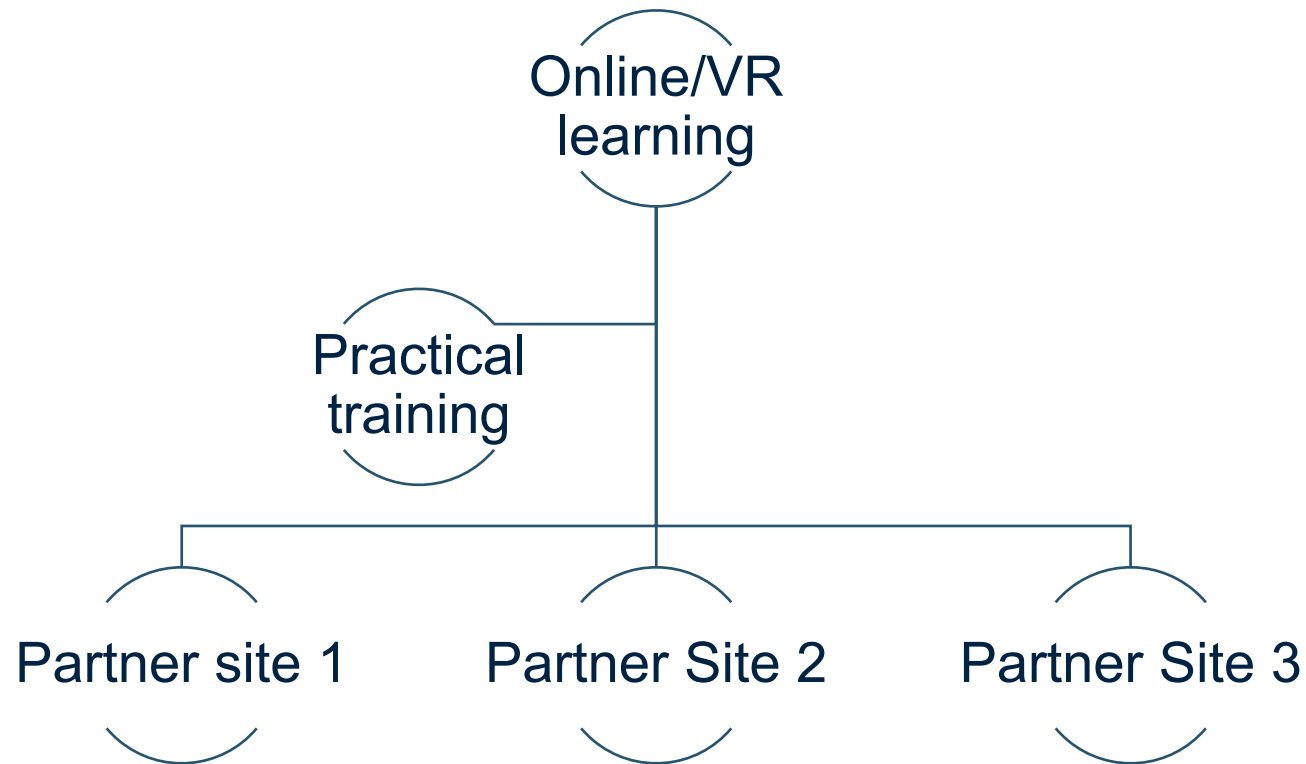
Interested/committed Partner site Examples:

- Harvard
- Upenn
- Johns Hopkins
- Heidelberg
- Singen
- Oxford
- Tanzania
- Kenya
- Egypt
- Nigeria
- North Macedonia
- Pakistan
- Ghana
- UMASS
- Industry Partners



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GO University Impact (potential impact)

- ▶ Overcomes Geographic barriers to crucial oncology training
- ▶ No tuition for paying professors/instructors, since this is collaborative teaching. Anyone who has 1 hour every 6 months can teach with global health impact.
- ▶ Relatively more harmonious education/training
- ▶ Quality education and training from the best faculty in each area
- ▶ Diaspora can teach, turning brain drain to global health gain
- ▶ Over 5000 oncology health professionals trained
- ▶ Currently offering Continuing Education course
- ▶ Collaborations critical



Summary & Conclusions

- Major disparities
- Win-win collaborations are critical to close these disparities
- E.g. Collaborate in advocacy for Global Cancer Fund or increased funding aligned with ICRP
- Collaborate leveraging advanced information and communication technologies to overcome geographic or distance-time barriers to collaborations



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Thank you for your attention !

