



Update from the NCI Center for Global Health

Satish Gopal MD MPH

*NCI and ASCO
Academic Global Oncology Meeting*

Recent Global Events Have Evoked Global Responses

The New York Times

Coronavirus Accelerates Across Africa

The virus was slow to start in many African countries, but epidemiologists say the number of confirmed cases on the continent is now rising fast.

By **Ruth Maclean**

June 16, 2020



Workers disinfecting a gravesite before burying a man believed to have died from the coronavirus, at a cemetery in Nairobi, Kenya, last month. Brian Inganga/Associated Press



After the death of George Floyd, Africa mobilises against police violence

    915 shares

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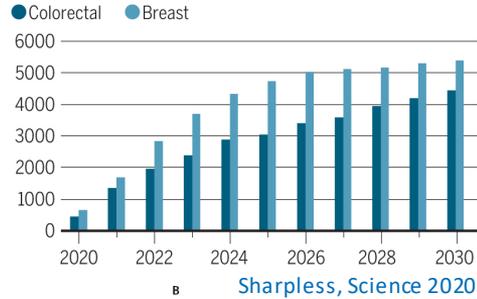


Family members of people killed by Kenyan Police protest in front of the Kenyan Parliament against police brutality in Nairobi on June 9, 2020. © Patrick Meinhardt, AFP

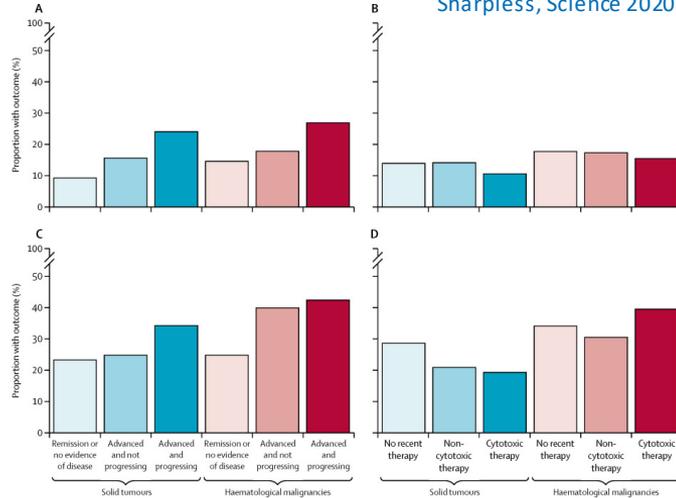
Text by: Romain HOUEIX

COVID-19 and Racial Disparities Threaten Cancer Control Everywhere

Modeled cumulative excess deaths from colorectal and breast cancers, 2020 to 2030*



Mortality as a function of cancer type and status (A) and cancer type and therapy type (B). Composite outcome as a function of cancer type and status (C) and cancer type and therapy type (D).



NATIONAL CANCER INSTITUTE

What Are Cancer Disparities?

Cancer affects all population groups in the United States, but certain groups may have higher rates of cancer cases, deaths, and related health complications compared to other groups.

These disparities are frequently seen in people with low socioeconomic status, certain racial/ethnic populations, and those who live in certain geographical areas.

Disparities can also be seen when cancer rates are improving overall but the improvements are delayed in some groups relative to others.

Although disparities are often considered in the context of race/ethnicity, groups defined by disability, gender/sexual identity, income, education, and other characteristics may experience cancer disparities.

EXAMPLES OF CANCER DISPARITIES

BREAST CANCER
African American women are nearly twice as likely as white women to be diagnosed with triple-negative breast cancer and are much more likely than white women to die from breast cancer.

KIDNEY CANCER
The highest rates of kidney cancer cases and death in the United States occur among American Indians/Alaska Natives.

LIVER CANCER
Rates of liver cancer are higher among American Indians/Alaska Natives and Asian and Pacific Islanders than other racial/ethnic groups.

PROSTATE CANCER
African American men are more than twice as likely as white men to die from prostate cancer.

CERVICAL CANCER
Women in rural areas are twice as likely to die from cervical cancer as women in more urban areas.

MULTIPLE MYELOMA
African Americans are twice as likely as whites to be diagnosed with and die from multiple myeloma.

RISK FACTORS ASSOCIATED WITH DISPARITIES

Genetic and Biological Factors, Health Care Access, Socioeconomic Factors, Chemical and Physical Exposures, Diet, Physical Inactivity

HOW NCI IS ADDRESSING CANCER DISPARITIES

Basic, clinical, and epidemiologic research into factors that may influence cancer risk

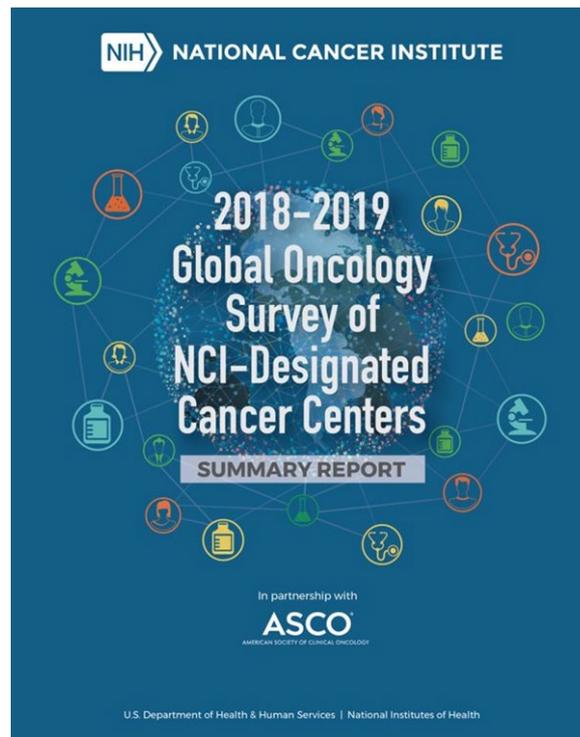
Clinical trials that test interventions in diverse populations

Programs that address cancer care delivery in diverse communities

Training to increase diversity in the cancer and cancer disparities research workforce

ASCO Is a Longstanding and Important Partner for NCI Center for Global Health

- Annual Symposium for Global Cancer Research at the Consortium of Universities in Global Health Annual Meeting
 - March 11, 2021 in Houston
 - Dissemination of meeting content in *JCO Global Oncology*
- International Cancer Control Partnership (ICCP)
- 2018-19 Global Oncology Survey of NCI Designated Cancer Centers coordinated with ASCO Academic Global Oncology Task Force
 - Dissemination in *JCO Global Oncology*
- International trainings





8TH ANNUAL SYMPOSIUM ON Global Cancer Research



<https://www.cugh.org>

<https://www.cancer.gov/about-nci/organization/cgh/events>

8th Annual Symposium on Global Cancer Research - Webinar Series

June-August, 2020

Due to the COVID-19 pandemic, the 8th Annual Symposium on Global Cancer Research (ASGCR), scheduled for April 17, 2020, was not held as an in-person Symposium. We are pleased to announce that the ASGCR Scientific Steering Committee is partnering with the Consortium of Universities for Global Health (CUGH) to present some of the timely scientific content from the Symposium through the CUGH global health webinar series.

26 June

Breast Health Global Initiative Cancer Supplement Launch Webinar: Improving Breast Healthcare Through Resource-Stratified Phased Implementation
Friday, 26 June 2020, 1-2PM US ET. Register [here](#) .

10 July

8th Annual Symposium on Global Cancer Research Selected Oral Abstract Presentations
Friday, 10 July 2020, 11AM-12PM US ET. Register [here](#) .

29 July

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session One: Overview of the global initiatives in cervical cancer control
Wednesday, 29 July 2020, 11AM-12PM US ET. Registration link pending.

05 August

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session Two: Latest scientific advances, tools, and approaches to address cervical cancer control at the country-level
Wednesday, 05 August 2020, 11AM-12PM US ET. Registration link pending.

12 August

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session Three: Ensuring effective implementation of cervical cancer prevention and control strategies
Wednesday, 12 August 2020, 11AM-12PM US ET. Registration link pending.

Why We Wanted to Have this Virtual Meeting Today



Not lose momentum from the inaugural meeting last year



Retain focus on cancer as an urgent global public health problem



Reconnect with a community committed to addressing global cancer



Highlight maturation of global oncology as an academic discipline



Inform future meetings when we can meet in person

Young investigators supported by ASCO Global YIAs

US-LMIC global oncology collaborations

National Cancer Institute

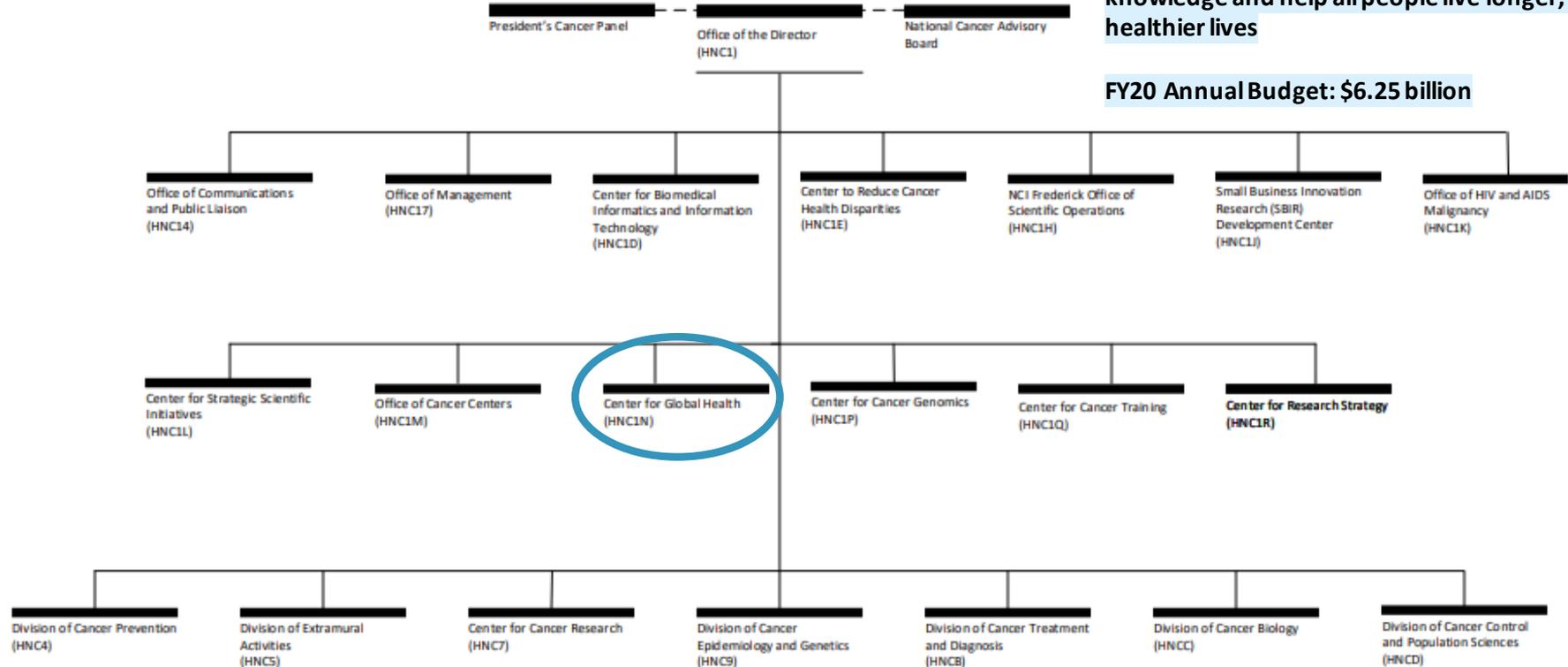


NCI Director Dr. Norman E. Sharpless

Established by the National Cancer Institute Act of 1937 and in current form by the National Cancer Act of 1971

Leads, conducts, and supports cancer research across the nation to advance scientific knowledge and help all people live longer, healthier lives

FY20 Annual Budget: \$6.25 billion



Why NCI Created the Center for Global Health

...we have recently established the NCI Center for Global Health, which will develop an appropriate research strategy to help incorporate cancer control into global health programs; foster relevant research activities throughout the NCI's own extramural and intramural divisions; and work closely with the many potential collaborators who have displayed an interest in shared objectives.

Strikingly, many...questions are not only relevant to cancer in the developing world, they address problems that can be solved only by giving more attention to cancers in other parts of the globe.

COMMENTARY

POLICY

Integrating Cancer Control into Global Health

Harold Varma* and Edward L. Trimble

Many in the global health community have recently proposed that current efforts be expanded to include diseases typically associated with advanced economies, such as heart disease, mental health disorders, diabetes, and cancers. Here, we discuss ways in which the National Cancer Institute's newly formed Center for Global Health plans to stem the rising cancer burden in developing countries.

Over the past two decades, the world's leading economies have given growing levels of attention to the health of people in low- and middle-income countries, with increasing evidence of success. These efforts to improve what is now called "global health" are founded, in part, on the conviction that better control of disease is generally a precondition, not just a consequence, of economic development; equally important, investments in global health are viewed as a manifestation of a nation's humanitarian concerns and a useful element in international relations (1–3). The ambitions of the global health movement have recently broadened. In this Commentary, we describe how a newly formed Center for Global Health at the National Cancer Institute (NCI) can contribute to improved control of cancer throughout the world, even in the poorest countries (Fig. 1).

EXPANDING THE FOCUS OF GLOBAL HEALTH

Most of the action in the emerging field of global health has been directed at disease-related problems in developing countries that traditionally are considered to be the most common, the most important, or arguably the most solvable: infectious diseases (especially malaria, tuberculosis, and HIV/AIDS); maternal and infant mortality; and nutritional deficiencies. Recently, however, numerous commentators have noted the need to give greater attention to those chronic and generally noncommunicable diseases that are the major focus of medical prevention, care, and research in advanced economies—cardiovascular diseases, obesity and diabetes, cancers, and mental disorders (4–7). As one highly visible example of this change in perspective, the United Nations has convened a High Level Meeting (September 2011) on

National Cancer Institute, National Institutes of Health, Department of Health and Human Services, Bethesda, MD 20892, USA.

*Corresponding author. E-mail: harold.varma@nih.gov

noncommunicable diseases (NCDs) in the developing world, the first time that this prestigious forum has focused on health issues other than HIV/AIDS (8).

This broadening of objectives is partly a response to the success of current global health programs. The lengthening of life spans in many poor countries has allowed more people to reach later life stages during which NCDs are most common, and



Fig. 1. Combating cancer worldwide. NCI's new Center for Global Health promotes a collaborative effort to reduce the burden that cancers impose on people and countries around the world.

economic growth has fostered pathogenic changes in diet, physical activity, and other behaviors that increase the incidence of diabetes, heart disease, and cancer.

Rising numbers of cancer deaths in developing countries are among the significant consequences of a confluence of factors—population growth, population aging, and an increased prevalence of risk factors, such as obesity and the use of tobacco and

alcohol, all of which raise the incidence of certain cancers. In 2008, ~7.6 million people died from cancer worldwide, and 64% percent of these deaths occurred in developing countries. These numbers are up from 2002, when there were 6.2 million cancer deaths, and only 55% percent were in the developing world (9, 10). By 2030, the number of cancer deaths may rise as high as 13.2 million, with 69% percent occurring in developing countries.

Until recently, proposals to screen for, treat, and even prevent cancers and other NCDs in developing countries have taken a back seat to plans for controlling the traditional targets of global health with measures—such as vaccines and antibiotics, obstetrical care, and food—deemed more affordable and more effective in resource-limited settings. However, while these measures remain important and incompletely implemented, they are increasingly recognized as only one part of what might be done to advance global health. Furthermore, the distinctions between traditional approaches to global health and those required to combat NCDs are not always clear-cut.

For instance, about a quarter of life-threatening cancers in the developing world result from infection with viruses, bacteria, and parasites—examples include liver cancers associated with hepatitis B virus (HBV) and hepatitis C virus; cervical cancer caused by human papillomavirus (HPV); gastric cancer caused by the bacterium *Helicobacter pylori*; Kaposi's sarcoma, nasopharyngeal carcinoma, and Burkitt's lymphoma induced by herpesviruses; bladder cancer resulting from infection with *Schistosoma*, a parasitic flatworm; and various cancers associated with HIV infection. For some of these, effective prevention measures already exist: vaccines against HBV and some strains of HPV that protect against hepatic and cervical cancer, respectively; antimicrobial drugs for the treatment of gastric ulcers caused by *H. pylori* to prevent gastric cancer; and methods to prevent infection by *Schistosoma* and consequent bladder cancer.

Other prevention strategies for control of tobacco and alcohol abuse entail behavioral changes that offer multiple, long-term health benefits, generally at a low cost. Moreover, several kinds of cancer treatments that were thought to be prohibitively expensive for use in poor countries may now be affordable. For example, some effective cancer chemotherapies are no longer patient-protected, and the list will grow



A Refreshed NCI Center for Global Health

Mission

CGH supports the NCI mission by advancing global cancer research, and by coordinating NCI engagement in global cancer control.

Vision

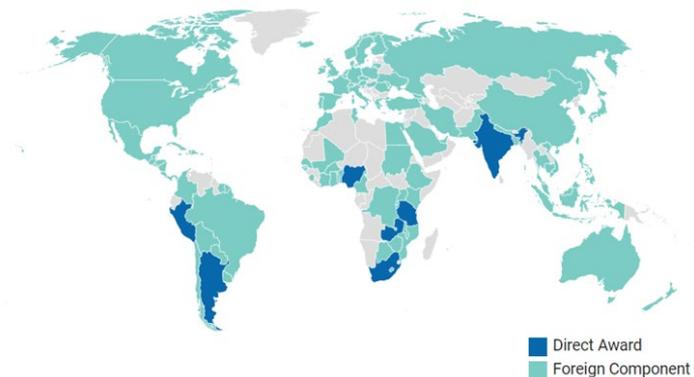
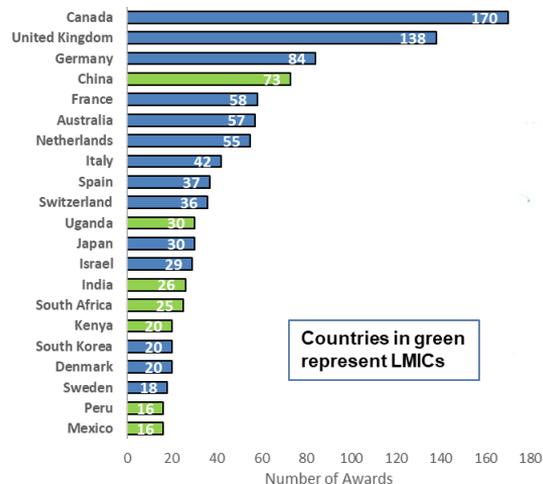
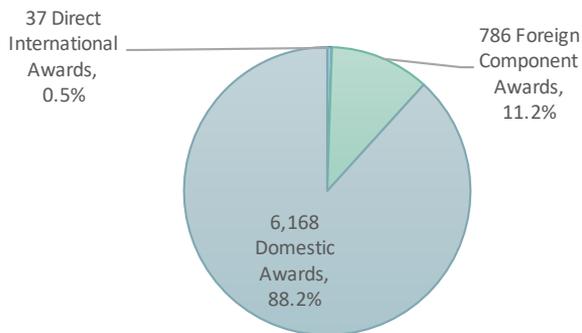
Reduce worldwide cancer suffering through global scientific discovery and dissemination.

Goals

- Support innovative, impactful **research** that addresses key scientific issues in global cancer control and/or leverages unique scientific opportunities afforded by global collaboration.
- Support global cancer **research training**, particularly in low- and middle-income countries, that enables impactful global scientific collaboration.
- Promote the integration of current scientific knowledge in **global cancer control**.
- **Represent the NCI** and promote its engagement with key partners in global cancer control.

NCI Global Portfolio (FY19)

Extramural



Intramural

NCI Intramural Division	# Projects with Intl. Collaborators
Center for Cancer Research	216
Division of Cancer Epidemiology and Genetics	93
Total	309

Center for Global Health Portfolio (2011-2020)

- CGH has supported 192 grants, grant supplements, and research contracts with collaborators from 62 countries

Type of Grant Program	# of Grants (FY11-19)
CGH Portfolio (includes co-funding)	128
CGH Coordination of Trans-NIH/NCI Initiatives	64
Total	192

- CGH has supported cancer research training for >150 individuals from >50 countries through the Division of Cancer Prevention Summer Curriculum, the Short-Term Scientist Exchange program, and co-funding through Fogarty training programs (D43, K43, and R25)

Supporting Innovative, Impactful Global Cancer Research

- **Affordable Cancer Technologies (ACTs) Program** *(Paul Pearlman)*
 - Program to support translational research on adapting new point-of-care technologies to address cancer in LMICs
- **International Bilateral Programs** *(Paul Pearlman)*
 - Foster international collaboration with key partners on areas of mutual interest in Brazil, China, Russia, South Africa, Turkey
- **Tobacco Cessation, HIV, and Comorbidities in LMICs** *(Mark Parascandola)*
 - New NCI U01 FOA will bring together transdisciplinary teams to adapt tobacco cessation interventions for people living with HIV in LMICs
- **Dissemination and Implementation Science for Cancer Prevention and Control in Low-Resource Environments** *(Mark Parascandola; NOT-CA-20-025)*
 - Supports implementation research related to cancer prevention and control in LMICs and in low-resource settings



www.cancer.gov/globalhealth

Supporting Global Cancer Research Training

Strengthening Institutional Capacity to Conduct Global Cancer Research (D43)

(Sudha Sivaram; RFA-CA-20-031 applications due 7/24/2020)

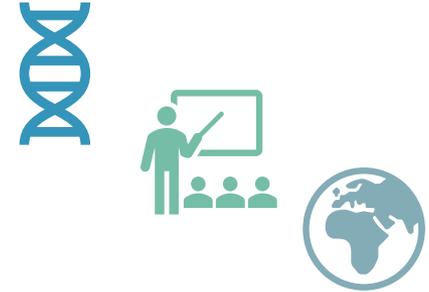
- Lack of global cancer research training support for US and LMIC scientists
- CGH has addressed through a dedicated global cancer research training program
- Developed with NCI Center for Cancer Training and Office of Cancer Centers

Short-Term Scientist Exchange Program *(Vidya Vedham)*

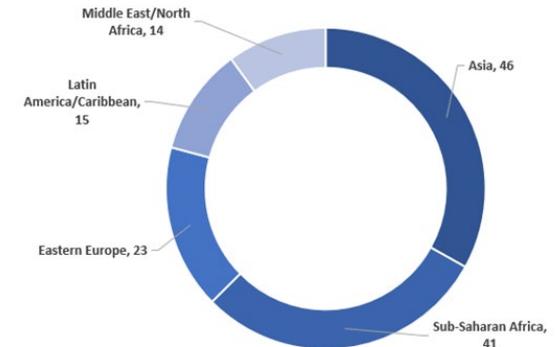
- Exchanges between non-US and NCI intramural scientists

NIH Support for Conferences and Scientific Meetings *(R13; James Alaro)*

Division of Cancer Prevention Summer Curriculum



CGH-Supported NCI Summer Curriculum Participants, 2011-2019, by Participant Region



Fostering Global Cancer Research at NCI-Designated Cancer Centers

- NCI recognizes 71 centers meeting rigorous standards for transdisciplinary, state-of-the-art research focused on cancer
 - 33 Centers have a formal Global Oncology program
 - 61 Centers reported >600 non-NIH-funded Global Oncology projects
- CGH has supported a series of grant supplements to encourage growth of Global Oncology as a scientific discipline at NDCCs:
 - Administrative Supplement to Stimulate or Strengthen Global Cancer Health Disparities Research (2020; NOT-CA-20-032; *James Alaro*)
 - Supplements to Promote Clinical Research Studies on Pediatric Burkitt Lymphoma in Low- and Middle-Income Countries (2016; PAR-16-086)
 - Administrative Supplements to Promote Cancer Prevention and Control Research in Low and Middle Income Countries (2015; PAR-15-155)
 - RFPs for Pilot Collaborations with LMICs in Global Cancer Research at NCI-Designated Cancer Centers (2014; contract mechanism)
- CGH has worked with NCI Office of Cancer Centers to improve incorporation of global oncology into Cancer Center Support Grants



Promoting Science-Based Global Cancer Control

Cancer Research and Control ECHO Program (Kalina Duncan & Mishka Ciria)

- Virtual knowledge exchange and community of practice in cancer control
- Connects researchers to policy makers, planners, and implementers in LMICs
- Africa ECHO now led by Africa-based steering committee, the Kenyan Network of Cancer Organizations, and coordinated by CGH
 - Cancer care in COVID-19 era series held in April-August
- CGH working with the International Cancer Control Partnership (ICCP) to launch an ECHO focused on implementing national cancer control plans in 2020



Conclusions



HOLDING THIS MEETING DURING THIS TIME EMPHASIZES THE IMPORTANCE OF ACADEMIC GLOBAL ONCOLOGY AS AN EMERGING DISCIPLINE



THIS IS AN EXCITING TIME FOR GLOBAL HEALTH AT NCI WITH MANY ONGOING INITIATIVES AND NEW PROGRAMS UNDER DEVELOPMENT



WE LOOK FORWARD TO CONTINUED PARTNERSHIP WITH ASCO AND ALL OF YOU TO SUPPORT CONTINUED GROWTH OF OUR FIELD

satish.gopal@nih.gov

<https://www.cancer.gov/about-nci/organization/cgh>



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