Executive Summary

The Center for Global Health (CGH) at the US National Cancer Institute (NCI) was established in 2011 to contribute to improved cancer control worldwide. Coincident with the CGH 10th anniversary in 2021, this strategic plan will inform activities for the five-year period of 2021–2025.

CGH supports the NCI mission by advancing global cancer research and coordinating NCI engagement in global cancer control. CGH also represents NCI in international research partnerships, playing a key role in coordinating multinational research efforts for global benefit.

Core values for CGH are impact, equity, and collaboration. These values inform CGH efforts to lead innovative, impactful programs with partners within and outside NCI. CGH goals are focused on research, research training, dissemination, and partnership, primarily in low- and middle-income countries (LMICs).

Areas of scientific focus include new technologies, implementation science, cancer health disparities, clinical trials, and cancer etiology. Each of these areas require CGH to leverage expertise and resources across NCI divisions, offices, and centers (DOCs). Strategies related to each goal area are highlighted below, building on CGH successes during its first decade.

By actualizing this plan, CGH will serve as a strong NCI hub for science and service to the global cancer research and control community. Throughout strategic plan implementation, we will solicit advice from internal and external advisory boards and continuously monitor progress toward CGH goals. We will undertake an external evaluation of CGH in 2025 to inform an updated strategic plan for the period of 2026–2030.
MISSION

The **NCI mission** is to lead, conduct, and support cancer research across the nation to advance scientific knowledge and help all people live longer, healthier lives. The **CGH mission** is to support the NCI mission by advancing global cancer research and coordinating NCI engagement in global cancer control.

VISION

The **CGH vision** is to reduce worldwide cancer suffering through global scientific discovery and dissemination. Two fundamental beliefs underlie this vision. First, current tools for achieving global cancer control are inadequate and new discoveries are needed. Second, existing tools for achieving global cancer control have been incompletely applied and greater population-level dissemination is needed.

CGH CORE VALUES

CGH core values which guide our activities are **impact**, **equity**, and **collaboration**.

IMPACT

The core value of **impact** mirrors the NCI and CGH missions to improve people’s lives by reducing cancer morbidity and mortality. It acknowledges that success in global cancer research includes traditional scientific metrics, and must also consider policy and programmatic adoption, promotion of global cancer research careers, and improvements in global cancer research capacity and culture.

EQUITY

The core value of **equity** reflects the belief that all people should benefit from cancer research, and that studying cancer anywhere should benefit people everywhere. It also reflects an intent to promote NCI engagement in global cancer research as a peer and partner, and to listen to and learn from colleagues and collaborators around the world. Such an approach is necessary to realize scientific opportunities afforded by global cancer research and to address historical inequities in the way global health research has often been conducted.

COLLABORATION

The core value of **collaboration** reflects an awareness of the enormity of global cancer as a public health problem, beyond the capacity of CGH or NCI to address alone. Strategic partnerships with other NCI DOCs, other institutes, centers, and offices (ICOs) of the National Institutes of Health (NIH), other Department of Health and Human Services (HHS) offices and agencies, other US government partners, NCI-Designated Cancer Centers, and various other national and international governmental and nongovernmental partners are essential to achieving the CGH mission.
By 2040, 6% of cancer deaths worldwide will occur in the United States, and 69% will occur in LMICs as defined by the World Bank. Given that NCI is the world’s leading supporter of cancer research, it has a unique role to play in addressing cancer as a global public health problem. Without NCI continuing to embrace this leadership role, there will be missed opportunities for generating new knowledge related to cancer and contributing to the global control of cancer.

CGH was established in 2011 to incorporate cancer control into global health programs, foster relevant research activities throughout the NCI extramural and intramural divisions, and work closely with many potential collaborators having shared objectives. Much has been accomplished with respect to this original intent, and CGH remains committed to helping NCI maximize its global impact as CGH enters its second decade.

**KEY STRENGTHS OF CGH INCLUDE:**

- high visibility in global cancer research and control;
- ability to draw on the resources, expertise, and reputation of NCI, NIH, and HHS through existing collaborations;
- an extensive worldwide network of partners;
- signature programs that have made important contributions to global cancer research and control;
- a primary focus on global health among NCI DOCs, viewed through a transdisciplinary lens;
- staff with strong global health expertise and exceptional commitment to the CGH mission; and
- ability to recruit new staff as needed to more fully realize the CGH strategic plan and goals.
KEY OPPORTUNITIES FOR CGH INCLUDE:

- strong support from leadership across NCI;
- major recent growth of global cancer activities at NCI-Designated Cancer Centers;
- global health programs at other NIH ICOs and other US government agencies, which can be leveraged;
- strong global cancer interest among trainees and early career investigators in the NCI intramural and extramural communities living in the United States and abroad;
- renewed emphasis on global health due to the COVID-19 pandemic;
- opportunities to accelerate novel cancer control interventions in settings where standard approaches from high-income countries are not well established;
- renewed emphasis on equity, diversity, inclusion, and addressing disparities in cancer research, which are values strongly connected to global health;
- a rich partner community with capabilities complementary to NCI, which is eager for continued NCI global leadership; and
- studies in specific rare cancers (e.g., HIV- and infection-associated malignancies) for which progress can be realized more rapidly and efficiently through NCI global engagement.
Goals

CGH goals are as follows, with a primary focus on LMIC settings for CGH-led programs:

1. support innovative, impactful research that (a) addresses key scientific issues in global cancer control and/or (b) leverages unique or unusual scientific opportunities afforded by collaboration with global partners

2. support cancer research training that enables equitable, impactful global scientific collaboration

3. promote the integration of current scientific knowledge into global cancer control policies and practice

4. represent NCI and promote its engagement with key partners in global cancer research and control

GOAL 1: SUPPORTING INNOVATIVE, IMPACTFUL GLOBAL CANCER RESEARCH

STRATEGIC PRIORITIES

- increase the portfolio of NCI extramural funding involving LMIC collaborators, by developing new extramural funding initiatives and collaborating with other NCI extramural divisions and NIH ICOs

- target areas for extramural funding initiatives based on key scientific gaps in global cancer control and potential for unique and/or catalytic NCI contributions

- serve as a resource for other NCI DOCs in developing funding opportunity announcements with foreign components and managing and administering international grants

- support and collaborate with NCI intramural investigators seeking to develop and expand international collaborations

- promote equity in global cancer research by supporting the independent scientific capacity of LMIC investigators and institutions, and by developing research programs that are driven by LMIC needs

- increase and coordinate support for global cancer research from non-NIH funding agencies, including organizations outside the United States
RESEARCH THEMES

CGH will focus on the following research themes, which provide opportunities to lead important new initiatives with high potential impact while leveraging expertise and resources outside CGH.

Accelerate the development of innovative, effective, and deployable technologies for global cancer control.

Existing cancer control technologies are often not widely scalable in LMICs due to cost, infrastructure, human capacity, or other barriers. NCI and CGH can play a catalytic role in supporting new applied technologies to address these gaps. An example of such a program is the Affordable Cancer Technologies Program, which has supported 21 awards, recently received NCI Board of Scientific Advisors approval for reissuance in 2021, and has yielded important new technologies that have been successfully commercialized and programmatically adopted in diverse LMIC settings. This program is led by CGH and includes partners across NCI and the National Institute of Biomedical Imaging and Bioengineering. Other programs focused on technological innovation for cancer control in LMICs include CGH coordinating NCI participation in trans-NIH initiatives focused on mobile health technologies in LMICs and data science in Africa. CGH will continue to develop our global health technology portfolio and seek collaboration with other relevant programs, for example the Innovative Molecular Analysis Technologies program or Small Business Innovation Research/Small Business Technology Transfer programs, as we have previously done.

Accelerate global cancer implementation science.

Key gaps currently exist between researchers, program implementers, and the populations they serve. Without bridging these gaps, the global impact of new scientific discoveries and evidence will be diminished. NCI and CGH can play a catalytic role to address these issues by supporting the growth of global cancer implementation science. Examples of programs already led by CGH in this area include support for adapting tobacco cessation interventions for HIV-infected populations in LMICs, and a notice of special interest for R01/R21/R03 applications focused on implementation science for cancer prevention and control in LMICs, developed as part of the Global Alliance for Chronic Diseases consortium. CGH also coordinates several dissemination platforms to facilitate interaction between the overlapping, but distinct, global cancer research and global cancer control communities, like the International Cancer Control Partnership. We will continue to develop our global cancer implementation science portfolio and we will seek collaboration with partners including the NCI Division of Cancer Control and Population Sciences.

Understand and address the multiple determinants of global cancer health disparities, with emphasis on potentially modifiable determinants.

Renewed attention on cancer health disparities, and the strong NCI portfolio in this area, provide opportunities for NCI and CGH to catalyze exchange between domestic cancer health disparities researchers and global cancer researchers. A recent administrative supplement opportunity led by CGH to support global cancer health disparities research demonstrated strong extramural interest in this area. Applications were received for supplements to parent grants across NCI
DOCs, geographic settings, disciplines, and disease sites. Additionally, a particularly supportive environment currently exists to address global cancer health disparities in light of NCI equity initiatives in which CGH is participating, as well as the recent American Association for Cancer Research (AACR) Cancer Disparities Progress Report 2020 and increased global content in the recent AACR Conference on the Science of Cancer Health Disparities. As we develop the CGH global cancer health disparities portfolio, we will seek collaboration with partners including the NCI Center to Reduce Cancer Health Disparities and Division of Cancer Control and Population Sciences.

**Increase support for cancer clinical trials in LMICs.**

Given the critical importance of NCI-supported clinical trials in advancing progress against cancer, the limited NCI-supported clinical trials footprint in LMICs can likely be increased to realize important scientific opportunities. These include creating generalizable evidence for cancer control by evaluating interventions in diverse populations, health systems, and geographic settings. They also include evaluating lower-cost, lower-intensity interventions in settings where standard approaches from high-income countries are not well established and accelerating progress for cancers that are rare in the United States but common in other parts of the world. The NCI-supported AIDS Malignancy Consortium has substantially increased its clinical trial portfolio in Africa and Latin America in recent years, and CGH previously led an effort to stimulate capacity for clinical trials in LMICs for pediatric Burkitt lymphoma. Additionally, it may be possible to provide dedicated support for investigator-initiated clinical trials, for example at NCI-Designated Cancer Centers with strong LMIC institutional partnerships, where infrastructure is already established for clinical trial conduct in LMICs. We will seek collaboration with other partners, including the NCI Division of Cancer Treatment and Diagnosis, Division of Cancer Prevention, and Office of HIV and AIDS Malignancy, to explore solutions and potentially develop capacity at CGH to support expanding cancer clinical trials in LMICs that are driven by local needs.

**Increase understanding of cancer etiology and biology through collaborations with global investigators and populations.**

CGH has supported intramural investigators in the NCI Division of Cancer Epidemiology and Genetics and Center for Cancer Research, as well as extramural investigators, to conduct research focused on breast cancer in Latin America, cervical cancer in Africa, esophageal squamous cell carcinoma in Africa, Burkitt lymphoma in Africa, and liver cancer in Asia. CGH has also coordinated NCI support for trans-NIH efforts focused on unique environmental exposures in LMICs that are associated with adverse health outcomes including cancer, for example a multinational clinical trial evaluating associations between household air pollution and cancer-associated biomarkers through the Global Alliance for Chronic Diseases. We will continue to seek such collaborations with intramural DOCs. We will also pursue opportunities to develop extramural initiatives with the NCI Division of Cancer Biology, as opportunities are identified to elucidate cancer biology in LMIC contexts. Such efforts can generate progress that benefits populations in LMICs and the United States more rapidly and efficiently than would be possible otherwise.
GOAL 2: SUPPORTING GLOBAL CANCER RESEARCH TRAINING

STRATEGIC PRIORITIES

- increase participation of LMIC investigators in existing NCI-supported cancer research curricula
- identify key curricular gaps for aspiring global cancer investigators and address these gaps in collaboration with intramural and extramural partners, ideally through virtual learning platforms to increase access by diverse learners worldwide
- increase NCI career development awards to young investigators working in LMIC settings
- continue strategic co-funding to Fogarty International Center (FIC) research training awards that complement NCI-administered research training awards
- work with other funders to increase non-NIH support for early career global cancer researchers
- support institutional capacity for global cancer research training, particularly at NCI-Designated Cancer Centers and their LMIC institutional partners
- serve as a resource for NCI intramural trainees from foreign countries and those with global cancer research interests

CGH will serve as the NIH nucleus for global cancer research training and support broader NCI training efforts to diversify the cancer research workforce. This includes support for LMIC investigators and institutions to enable them to rigorously ask and answer research questions that are relevant locally and globally. It also includes support for US investigators and institutions to support scientific careers focused on global cancer research.

To date, CGH has supported participation by LMIC investigators in relevant NCI didactic courses, such as the NCI Summer Curriculum in Cancer Prevention. It has supported exchanges between LMIC and NCI intramural scientists through the Short-Term Scientist Exchange Program, and between LMIC and extramural researchers through the Cancer Research Training Travel Awards. It has supported research training and capacity building efforts led by FIC through co-funding of K01/K43 awards for global cancer early career investigators from the United States and LMICs. It has also supported FIC D43 global health institutional research training programs and R25 programs focused on research bioethics capacity in LMICs. More recently, CGH has led a new NCI D43 to strengthen institutional capacity for global cancer research in LMICs, targeting global cancer early career investigators from the United States and LMICs who are pursuing mentored cancer research within existing partnerships between US and LMIC institutions. To achieve CGH training goals, we will collaborate with FIC, the NCI Center for Cancer Training, Office of Cancer Centers, Center to Reduce Cancer Health Disparities, and other NCI DOCs.
GOAL 3: PROMOTING SCIENCE-BASED GLOBAL CANCER CONTROL

STRATEGIC PRIORITIES

- Support signature dissemination and knowledge translation programs for global cancer control, using virtual platforms where possible to increase access.
- Support and convene signature scientific meetings and symposia focused on global cancer research and control, to disseminate scientific progress and highlight key programmatic achievements.
- Work to particularly highlight NCI-supported research in LMICs led by LMIC investigators.
- Develop a CGH digital presence that is a valued and trusted resource for global cancer research and control partners within and outside NCI.

CGH facilitates critical knowledge exchange between the NCI-supported intramural and extramural scientific communities and global cancer control policymakers and implementers. This function is derived from the unique convening ability of NCI to bring together diverse stakeholders to address common goals.

Examples of CGH promoting science-based global cancer control include support and coordination of virtual telementoring platforms using the ECHO model and the International Cancer Control Partnership, which provides technical expertise to countries developing and implementing national cancer control plans. Another example is hosting the Annual Symposium on Global Cancer Research, together with NCI-Designated Cancer Centers, American Association for Cancer Research, American Society of Clinical Oncology, and Consortium of Universities for Global Health, which was held for the 9th consecutive year in 2021 and has become one of the largest and longest-running annual scientific meetings dedicated to global cancer research. A final example is CGH coordinating and leveraging the World Health Organization (WHO) Collaborating Center for Global Cancer Control arrangement on behalf of NCI, by which NCI-supported researchers provide technical expertise to WHO as it develops and disseminates cancer-related programs and guidance. To achieve CGH dissemination goals, we will collaborate with partners, including the NCI Office of Communications and Public Liaison, Center for Biomedical Informatics and Information Technology, Center for Research Strategy, and other NCI DOCs.
GOAL 4: REPRESENTING NCI AND PROMOTING ENGAGEMENT WITH KEY PARTNERS

STRATEGIC PRIORITIES

- provide a clear NCI point of contact for global health programs at other NIH ICOs, US government agencies, and other key partners
- coordinate NCI participation in meetings focused on global cancer research and control when NCI participation is desirable
- maintain updated portfolio analyses and collaborator lists for global cancer research and control activities supported by NCI and other key partners
- maintain clear and consistent communication with other NIH ICOs and NCI DOCs
- encourage increased global engagement by partners, including NCI-Designated Cancer Centers
- develop CGH service capabilities for international travel, agreements, and grants management support, and deploy these on behalf of NCI

CGH represents NCI with various partners in global cancer research and control. This is essential to maintain NCI engagement with key global health partners, and it allows CGH to serve as a global health resource for other NCI DOCs.

This role includes facilitating interactions with global health offices and programs in other NIH ICOs; US government agencies like HHS Office of Global Affairs, Food and Drug Administration, and Centers for Disease Control; and NCI-Designated Cancer Centers. It includes facilitating interactions with various international partners, for example WHO, the International Agency for Research on Cancer, the Union for International Cancer Control, the International Atomic Energy Agency, and the International Cancer Research Partnership. It also includes managing interactions with research agencies in other countries. These interactions allow NCI to maintain a strong and visible connection to key global partners, consistent with its role as the largest funder of cancer research in the world. It allows NCI to develop research programs that are responsive to global cancer control needs and to encourage greater global engagement by key partners like the NCI-Designated Cancer Centers. It serves the NCI community by facilitating rapid and transparent knowledge sharing with respect to key developments in global health, and key political, diplomatic, or administrative issues affecting international activities. It also allows CGH to provide technical assistance for specific issues relevant to NCI global activities, for example assistance with international travel, agreements, and grants management. To achieve CGH partnership goals, we will work closely with partners including FIC, the HHS Office of Global Affairs, the NCI Office of Government and Congressional Relations, and Office of Cancer Centers.
Implementing this plan will require a creative staff who are committed to CGH becoming a strong NCI hub for science and service to the global cancer research and control community. This will require adding scientific expertise in key areas, for example clinical/translational science, cancer epidemiology, and implementation science. CGH may also require added expertise in training, clinical trials support, and international agreements. We will strive to optimally utilize existing CGH staff and promote their career development. We will also explore personnel linkages to other NCI DOCs through adjunct appointments and detail arrangements as appropriate.

Strong collaboration is needed to implement this strategic plan. We will ensure regular communication between CGH and other NCI DOCs, through consistent direct contact and trans-NCI platforms such as the Global Working Group. We will similarly ensure regular communication with other key global health partners such as FIC and HHS Office of Global Affairs. We will also ensure consistent participation by CGH in trans-NCI forums (e.g., Scientific Program Leaders, Clinical and Translational Research Operations Committee, Equity Council). The Global Working Group is currently convened quarterly by CGH, and the National Cancer Advisory Board Global Cancer Research Subcommittee convenes approximately twice each year.

Finally, strong planning and management are needed to actualize this plan in a focused and disciplined manner, leveraging resources and expertise within and outside CGH. This includes strengthened financial planning working closely with the NCI Office of Budget and Finance. It also includes strong program prioritization and development through structured concept solicitation, development, review, and selection within CGH, and further development through trans-NCI channels, including the Global Working Group, Clinical and Translational Research Operations Committee, Scientific Program Leaders, National Cancer Advisory Board, and Board of Scientific Advisors.
Evaluation

We will continuously assess progress during implementation of this plan. Programs supported through CGH-controlled resources will submit annual progress reports for review by CGH leadership with each new fiscal year to include an updated project plan, outcomes, and budget justification. Upon program conclusion, a final evaluation and closeout report will be submitted. For programs supported via central NCI resources, typically through requests for application (RFAs), these will undergo formal evaluation prior to any reissuance request being submitted to the NCI Scientific Program Leaders, as was recently completed for the Affordable Cancer Technologies Program prior to its recently approved reissuance request.

We will also solicit advice from internal and external advisory boards through meetings of the NCI Global Working Group, National Cancer Advisory Board, and Board of Scientific Advisors. We will undertake an external evaluation of CGH in 2025 to inform development of an updated CGH strategic plan for the period 2026–2030. Additionally, we will provide center-wide annual reports for dissemination to the NCI Scientific Program Leaders and Global Working Group, as well as the National Cancer Advisory Board Global Cancer Research Subcommittee.

Strategic Plan Timeline

- Feb 2020: Review of prior CGH internal review (completed fall 2017) and external review (completed spring/summer 2018)
- Mar-Sep 2020: Strategic planning with all CGH staff and NCI Office of Workforce Planning and Development
- Oct-Jan 2021: Strategic plan draft and feedback solicitation from NCI leadership, NCI Board of Scientific Advisors, and other key partners
- Feb-Mar 2021: Implementation planning
- Apr 2021: Listening sessions with all CGH staff, NCI DOC leaders, and other key partners