

National Cancer Advisory Board (NCAB)
Ad hoc Subcommittee on Global Cancer Research (GCR)

Hyatt Regency Bethesda Hotel
1 Bethesda Metro Center
Bethesda, MD
December 9, 2013
6:00 – 7:30 p.m. EST

FINAL SUMMARY

Subcommittee Members:

Dr. Olufunmilayo Olopade, Chair
Dr. Edward Trimble, Executive Secretary
Dr. Kevin Cullen
Dr. Kim Lyerly
Dr. Jonathan Samet

NCAB Members:

Dr. Victoria Champion
Dr. Marcia Cruz-Correa
Mr. William Goodwin
Dr. Tyler Jacks
Dr. Elizabeth Jaffee
Dr. Beth Karlan
Dr. Mack Roach III

Other Participants:

Stacey Adam - Deloitte
Nelvis Castro - NCI
Henry Ciolino - NCI
Brenda Edwards - NCI
Douglas Lowy – NCI
Daniel McBrayer - NCI
Matthew Ong - The Cancer Letter
Michele Powers - NCI
Sudha Sivaram - NCI
Lisa Stevens - NCI
Viviane Callier - SCG, Rapporteur

Welcome and Opening Remarks

Dr. Olufunmilayo Olopade, Subcommittee Chair, welcomed meeting participants. NCAB members introduced themselves.

Dr. Edward Trimble, Director, the National Cancer Institute (NCI) Center for Global Health (CGH), said that the CGH recently hired Dr. Thomas Gross, pediatric oncologist at The Ohio State University,

as Deputy Director of CGH. Dr. Gross's expertise in clinical trials and international outreach make him a strong addition to the CGH.

Global Cancer Research – 2 Year Report

Edward Trimble

Dr. Trimble discussed the global health-related activities of the various NCI offices. The CGH focuses on seven signature themes that resulted from a meeting of stakeholders held in the spring of 2012. The signature themes were:

- (1) Cancer control planning and implementation;
- (2) Research on cancers association with chronic infection;
- (3) Research on modifying common risk factors for non-communicable diseases (NCDs);
- (4) Research on ecological-niche cancers;
- (5) Building capacity for global cancer research;
- (6) Development of low-cost technology for cancer detection and diagnostics; and
- (7) Expanding partnerships.

The determined priorities were to: (1) encourage decision-makers to prioritize cancer control; (2) assist countries in developing cancer control plans; and (3) coordinate efforts to develop and disseminate cancer control planning materials and tools. As part of this plan, the CGH has developed an online portal for cancer planners (www.iccp-portal.org), a searchable database of published national cancer control plans. Dr. Olopade asked who financially supports the database. Dr. Trimble explained that at this stage, the database is simply a tool to promote interactions among cancer control researchers in different countries. Dr. Lisa Stevens, CGH, mentioned that leadership forums had recently taken place in the Middle East and North Africa to discuss plans and actionable steps for cancer control. The leadership forums currently are funded by the NCI, and forums in East Africa and Southeast Asia are planned in the near future. The Union for International Cancer Control (UICC) currently is organizing a call for funders of cancer control planning.

With respect to cancers associated with chronic infection, Dr. Trimble stated that Dr. Douglas Lowy, Deputy Director, has helped to promote randomized clinical trials of the human papilloma virus (HPV) vaccine, and also participated in discussions about delivering the birth dose of hepatitis B vaccine with the Centers for Disease Control and Prevention (CDC) and the Gates Foundation.

Dr. Trimble remarked that the risk factors for NCDs, such as obesity, diabetes and heart disease, also are risk factors for cancer. He stated that smoking is one of the most important risk factor for NCDs including cancer, and that NCI has supported the highly successful International Tobacco and Health Capacity Building Program (TOBAC). The program resulted in collaborations with researchers from more than 30 countries, publication of more than 400 articles, and training of more than 3,500 people in tobacco control research.

Ecological-niche cancers show distinct geographical distribution patterns. For example, esophageal cancer is particularly prevalent in China, Iran, and East Africa; gallbladder cancer is prevalent in certain regions of Chile and India; Burkitt's lymphoma is prevalent in the malaria belt in Latin America and Africa; and nasopharyngeal cancer is over-represented in Asia. The CGH is working with cancer epidemiologists to understand these patterns and their causes.

For information dissemination and capacity building, the CGH has supported regional grant-writing and scientific peer-review workshops, scientific writing workshops, and clinical trials workshops. The CGH also co-sponsors a summer curriculum in cancer prevention, a month-long course that serves as an introduction to cancer prevention for national and international researchers. There are 45 slots each year. Dr. Trimble noted that it is important to maintain contacts with alumni of these training programs and keep track of their activities. As part of capacity building, NCI is expanding its clinical trials network, which now includes sites in Australia, Brazil, Canada, Peru, Saudi Arabia, South Africa, and other countries. The CGH also assists countries such as Australia, China, France, Japan, Korea, and the United Kingdom in building clinical trials infrastructure.

The U.S.-Latin America research network, which includes Argentina, Brazil, Chile, Mexico, and Uruguay, is conducting a molecular profiling breast cancer study. The study has harmonized procedures across sites, built biobanks, provided quality assurance, and organized many training workshops. It developed a questionnaire for epidemiological data that will enrich the interpretation of the molecular profiling.

The CGH is in the process of setting up a small network to conduct epidemiological studies on Burkitt's lymphoma. Researchers at the Fred Hutchinson Cancer Center have surveyed potential sites for Burkitt's lymphoma cases; they visited 12 sites and recommended 6 of them: 3 in Africa, 2 in Brazil, and 1 in Guatemala City. All sites are paired with U.S. institutions for collaborations. The CGH has contacted the French NCI to investigate the possibility of co-funding a similar initiative in Francophone Africa.

To examine the global activities of the NCI designated Cancer Centers, Dr. Trimble and Dr. Gross created a database detailing the activities of 50-60 Cancer Centers. They are developing an interactive website for this purpose, and plan to include activities of the European cancer centers, as well as the activities of professional societies such as American Society for Clinical Oncology (ASCO). They wrote a report of the activities of the 53 NCI-designated cancer centers.

The CGH has created a pilot complement program to promote collaborations between NCI-designated cancer centers and foreign institutions. Each Cancer Center was allowed to submit only one application for consideration; 41 applications were received. The applications were reviewed internally at the CGH, and a total of 15 will be funded. The emphasis of the complement program is to encourage consortia of universities to work together to solve problems in cancer control. Dr. Tyler Jacks asked about the selection criteria. Dr. Trimble explained that the purpose of the complements is to build capacity, and strengthen what the Cancer Centers are already doing. Dr. Olopade inquired how the idea of the supplements was received. Dr. Jacks said that the supplements are a good indicator of NCI's priorities, and that the new initiative has helped global health researchers who previously could not capture the attention of their institutional leadership to gain visibility.

With respect to building partnerships, the challenge is that there is no new funding for NCDs. It is therefore necessary to leverage existing resources and partner with foreign governments; nongovernmental organizations (e.g., IUCC, ASCO); industry; multilateral organizations (e.g., Asia Pacific Economic Forum); U.S. cancer centers; and other NIH institutes. For example, the CGH could partner with the National Institutes of Allergy and Infectious Diseases (NIAID) to study the interaction between tobacco use and tuberculosis control, or tobacco use and HIV control. Dr. Stevens noted that the CGH is partnering with the Komen Foundation on the Pink Ribbon Red Ribbon initiative, which screens (and treats) women in Sub-Saharan African and Latin America for cervical cancer. That

initiative is expanding to support breast cancer education in Zambia, Botswana, and Tanzania. The CGH also is working with the U.S. Agency for International Development (USAID) to create cancer centers in Uganda and other low-income countries, and support initiatives for tobacco control in Indonesia.

Dr. Olopade noted that an important issue is to convince partners that cancer control is a problem worth focusing on. The Gates Foundation does not focus its support on cancer control efforts because it deems cancer a problem that is too complex to address. Dr. Lowy said that Bill Gates gave a presentation at the NIH the week of December 2, 2013, and he expressed interest in co-funding projects with the NIH. Historically, the Gates Foundation has focused on children and infectious diseases, where it is able to make an impact in a focused way. Thus far they have not focused on NCDs or on cancer, which generally is a disease of adulthood. Dr. Lowy said that, nevertheless, the Gates Foundation seemed receptive to expanding its scope to cancer control, including (but not limited to) cancers associated with infection.

The NCI has supported technology development through its Small Business Innovation Research (SBIR) program and other activities. The problem to solve is that, in many cases, technology designed for industrialized countries is not useable in low-income countries. The NCI therefore created a request for applications (RFA) for teams having expertise in cancer, business, and engineering to design ways to modify existing technology so as to make it useful for cancer detection, diagnosis, and treatment in low-income settings. NCI's commitment to this initiative is clear from its budget of \$45 million over 5 years. Dr. Jacks noted that there is a bigger issue: developing entirely new technologies designed for cancer control in low-resource settings. Dr. Lowy agreed and said that the development of new technology for use in the developing world is an important area to invest in. Currently, such projects can be supported through the SBIR program. Dr. Jacks mentioned that engineers at his institution are very interested in solving these kinds of problems.

Dr. Samet expressed concern over the "confusing landscape" of NCDs, and how the CGH plans to negotiate it. Dr. Trimble said that it is critical to track the work on cancer control that is being done all over the world. Dr. Sudha Sivaram stated that Harvard Global Oncology researchers are building interactive website. In addition, CGH is organizing training workshops (with support from UICC, ASCO, and others), and investigating the work of oncology nursing programs all over the world. Dr. Trimble mentioned that the website is a great tool that will assist researchers in finding each other worldwide and building collaborations. He said that it is necessary to "knock on every door" and leverage the work of infectious disease researchers (30% of cancers in the developing world are associated with infectious disease) and to use the momentum of the United Nations (UN) and World Health Organization (WHO) on NCDs as vehicles to promote awareness and control of risk factors for NCDs including cancer.

Dr. Trimble noted that WHO in Geneva does not have expertise in cancer or other NCDs. WHO's goal is to reduce mortality from NCDs by 25 percent by 2025, and most of that reduction will come from preventing and treating cardiovascular disease. Nevertheless, the global cancer burden is predicted to increase with the aging population, so it is important to address cancer as a global public health problem. Dr. Trimble suggested that it would be possible to leverage the issue of safe surgery to promote awareness of cancer. Dr. Trimble also emphasized the importance of bringing awareness of global health issues to the attention of other NIH institutes, especially NIDDK and NHLBI.

Dr. Olopade noted that the WHO has no expertise in cancer, yet the WHO is the organization creating plans for controlling NCDs internationally. There exists a global fund for TB and malaria, but none currently for cancer. There is a need for leadership in global cancer control. Dr. Stevens said it is important to bring expertise about cancer to the WHO headquarters in Geneva as well as the regional offices.

Dr. Trimble emphasized the importance of working with the WHO to expand their list of essential medicines. Currently, the essential medicines list includes individual drugs, but no drug combinations, or recommendations about the most efficacious drug treatments for common cancers. Dr. Olopade reiterated the need to solve the supply chain problem for generic chemotherapy drugs in low-resource environments. Currently, cancer patients cannot get access to low cost drugs. She emphasized that advocacy for cancer awareness and screening is unethical if it is not accompanied by access to treatments. Solving this problem should be a priority for NCI.

Dr. Olopade also noted that the cancer control problem is more complicated than distributing anti-hypertensive medicines to treat cardiovascular disease; cancer is a more complex disease. She noted that it is a mistake to lump cancer with other NCDs; although there are common risk factors for cardiovascular disease, diabetes, obesity and cancer, it is necessary also to focus resources on treating cancer.

Dr. Elizabeth Jaffee asked how success of the NCI and CGH would be measured. Dr. Trimble agreed with the importance of measuring the appropriate endpoints. He suggested that rates of hepatitis B vaccination, HPV vaccination, tobacco use, and obesity would be appropriate endpoints to measure. Several participants noted the importance of assessing current levels of NCDs burden to measure the impact of interventions.

Dr. Olopade asked Subcommittee members to reflect on the following questions until the next Subcommittee meeting: What would the group consider to be a success for a Center of Global Cancer Research? How should the Center measure its impact?

NCI Ambassadors program

Ted Trimble

Dr. Trimble introduced the NCI Ambassador's Program by the numbers: in 2010, more than 600 NCI members traveled to more than 70 countries. He described ways in which those trips could be leveraged to expand global health diplomacy activities. The NCI has representatives stationed in Delhi, Beijing, Argentina, and Brussels; representatives of the U.S. Department of Defense (DOD) and CDC also are abroad, with whom the NCI can collaborate. Dr. Trimble gave the examples of Dr. Varmus, Dr. Trimble and Dr. Parascandola's trips to Indonesia, India and Russia, respectively. These trips resulted in press coverage of important issues such as the link between tobacco use and cancer, creation of partnerships with foreign government agencies, and exploration of mechanisms to expand NCI grantee networks abroad.

Dr. Mack Roach asked how the ambassadors for global cancer control should be trained, and whether there should be a formal training program for NCI staff. Dr. Trimble said that there is no training program, but that they are testing the possibilities by first involving NCAB members in diplomacy efforts. Dr. Olopade noted that the challenge for the ambassadors is that people go to places that are convenient, but those places are not necessarily where the needs for cancer control are. The challenge

is to go to the places where the need is greatest; doing so will give the Center for Global Health (CGH) credibility. There also is a need for greater advocacy. Finally, she emphasized the importance of creating a program that sustains support in the partnering countries for an extended time period. If funding support for the programs is disrupted and the program dissolved, this will breed mistrust in the partnering countries and institutions. Dr. Jacks agreed that there is a need for a strategy of engagement with the partnering countries and institutions, so that the partnerships have some permanence and can truly be effective.

Dr. Marcia Cruz-Correa brought attention to the need for translation of knowledge to the community. There is a need to educate journalists and lay people about cancer control. As the CGH builds capacity, a priority should be to find ways to empower the lay people to understand cancer prevention.

Questions, topics for future meetings and new business
Olufunmilayo Olopade

Dr. Olopade thanked the participants and asked whether the *Ad Hoc* Subcommittee wanted to continue meeting regularly. Dr. Kevin Cullen stated that it is important to sustain this Subcommittee's work and to make sure that the focus is maintained.

Adjournment

The Subcommittee meeting adjourned at 7:30 p.m. EST.

Dr. Olufunmilayo Olopade Date
Chair

Dr. Edward Trimble Date
Executive Secretary