Why the U.S. Has Gone Global in the Fight Against Cancer

By Eric T. Rosenthal

Since the signing of the National Cancer Act in 1971, the U.S. has looked beyond its borders to develop oncology research and training programs, along with prevention and screening programs, focused largely in the developing world. These initiatives are often the result of collaborative efforts between private and public entities, where diplomatic, health care, and domestic issues may be at stake. But the rationale behind some of these undertakings is not always publicly understood.

In an effort to learn what criteria are used to determine cancer-related initiatives outside the U.S., the Journal spoke with representatives of government agencies as well as the Bush Institute and Komen for the Cure. On the basis of these interviews, the empowerment of women seems to be a cure. On the basis of these interviews, the empowerment of women seems to be a cure. On the basis of these interviews, the empowerment of women seems to be a cure.

According to Isabella Danel, M.D., associate director for program development at the National Cancer Institute’s Office of International Affairs (OIA), two global cancer scientific initiatives that took place during Bill Clinton’s presidency were “unapologetically diplomatic”: the Middle East Cancer Consortium created in 1996, during the Israeli–Palestinian peace talks that brought Cyprus, Egypt, Israel, Jordan, and the Palestinian Authority together (with Turkey joining later), and the establishment of the 1999 Ireland–Northern Ireland–National Cancer Institute Cancer Consortium, an outcome of U.S. involvement in the Belfast Agreement.

“I often use an Arab saying, ‘the enemy of my enemy is my friend,’” Hartford said, referring to cancer as the common enemy in both instances.

According to Isabella Danel, M.D., associate director for program development with the Centers for Disease Control and Prevention’s Center for Global Health, “When we work with other countries on health care, we build relationships that can help during other crises.”

Danel said that although CDC was focused largely on infectious disease control, it is also involved in noncommunicable diseases.

“We are guided by what Congress wants us to do. There is an interest in public health and security and in keeping Americans healthy and diseases out of the U.S.,” she said, adding that “There is an altruistic component to what Congress does through PEPFAR. We are also guided by the burden of diseases that are major health issues facing countries.”

According to Carol Langley, M.D., M.P.H., senior technical advisor for Care and Support with the Office of the U.S. Global AIDS Coordinator, the criteria for countries participating in PEPFAR included the burden of the disease, the degree of resources available to each nation, and an established working relationship with some health structures already in place—and that programs were already under way in sub-Saharan Africa, Asia, Latin America, Eastern Europe, and the Caribbean.

“A lot of the structures put in place through PEPFAR around HIV can be leveraged for other diseases, such as cervical cancer screening.”

Women whose immune systems are compromised by HIV are four to five times more likely to develop cervical cancer.

Behind the Scenes: NCI

Government agencies are invariably involved in a lot of groundwork for global health care initiatives. Hartford’s OIA is involved primarily in capacity building and individual and group training, accomplished mainly through the postdoctoral training of foreign researchers at NCI and an annual 5-week course in cancer prevention offered to researchers from low- and middle-income nations.

The NCI also has a new global health center that will subsume some other NCI...
offices, including OIA and the Office of Latin American Cancer Program Development (OLACPD).

“All of NCI’s international initiatives will be encompassed within the Center for Global Health, which will also serve as liaison to other health agencies’ and institutes’ global programs,” said the center’s director, Edward L. Trimble, M.D., M.P.H.

Trimble said the center had several potential roles, including working closely with the other NCI divisions to identify appropriate new research projects and to focus on scientific opportunities as well as the greatest cancer burdens around the world.

“[NCI Director] Dr. Varmus said he wants us to look very carefully at what needs to be done in the areas of research, cancer prevention, vaccination where vaccines are available, screening where available, and broader issues of cancer control.

“We will be identifying what needs to be done from a research perspective in terms of cancer biology, epidemiology, prevention, screening, treatment, implementation science, symptom management—soup to nuts in terms of cancer in a global perspective,” Trimble said, adding that cervical cancer was one area where NCI should play a global role.

Trimble said that India, Brazil, and China were putting together cancer research programs and had expressed interest in working with NCI, which could provide help and technical assistance and could in turn learn from these nations as they develop their programs.

NCI’s international activities have traditionally included tobacco control, epidemiology and genetic epidemiology, cervical cancer screening, and human papillomavirus (HPV) vaccinations; the new center will help coordinate these efforts.

Prioritizing Latin America
OLACPD is the only NCI office exclusively dedicated to a specific international-geographical region. In 2008, founding director Jorge Gomez, M.D., Ph.D., left NCI’s Organ Systems Branch, where he oversaw the SPOREs (Specialized Programs of Research Excellence) program to set up the office charged with advancing local and global initiatives to prevent, diagnose, and treat cancer by facilitating the development of a comprehensive cancer research infrastructure in Latin America.

Gomez said that with an increasing Hispanic and Latino population in the U.S., it was important to understand cancer patterns in Latin America that could help researchers and clinicians accelerate progress against cancer both here and in Latin America.

To that end, OLACPD collaborates with national health, science, and technology ministries; research institutions; and universities throughout Latin America, and is now working on a breast cancer molecular profiling project with investigators from Mexico, Brazil, Argentina, Chile, and Uruguay. He also mentioned NCI’s involvement with HPV vaccinations in Costa Rica.

He said one reason for expanding the research south of the U.S. was the very small percentage of Hispanic people in the U.S. with access to clinical trials at the larger cancer centers, who often seem more comfortable seeking care at smaller community hospitals.

Working with researchers from other nations allows NCI to reach the necessary critical mass for clinical trials and to offer advanced training for foreign scientists and clinicians, Gomez said, adding that “Science exists beyond borders.”

“[Beyond this program], many American investigators funded [by the National Institutes of Health or NCI] have international collaborators, and there are now about 150 countries participating in clinical trials with U.S.-based groups.”

He said cultural appropriateness is crucial to success, and researchers should be “diplomatically aware” when they travel abroad for a federal health agency.

“I learned very quickly you have to be very careful with that, and you need to work in sync with the State Department or you can cause diplomatic harm,” Gomez said.

Health initiatives in Latin America have helped empower women to get involved in civic affairs, according to Roger I. Glass, M.D., Ph.D., director of NIH’s Fogarty International Center and associate director for Global Health Research at the NIH.

“By helping others, we help ourselves. We have to take science where the problems are,” Glass said, referring to Fogarty’s involvement in studying alcoholism in Russia or strokes in China. He added that both the HPV vaccine and AIDS drugs used in the PEPFAR program came from NIH research.

Glass also cited NIH’s involvement with the Global Alliance for Clean Cookstoves, announced in September 2010 by Secretary of State Hillary Clinton at the Clinton Global Initiative meeting in New York, as an example of a public-private partnership led by the United Nations Foundation to reduce indoor air pollution that may lead to many health problems, including cancer.

Komen’s Lead
Komen for the Cure is at the forefront of breast cancer initiatives around the world. President Liz Thompson said that Komen’s Global Health Alliance is dedicated to making women’s health and cancer a priority on the global health agenda by convening health and finance ministers, ambassadors, first ladies, and global health advocates;
connecting national and international decision makers with the grassroots networks that Komen established; and integrating awareness, screening, and treatment into existing global health infrastructures.

Acknowledging that Komen’s international work began on a somewhat opportunistic basis with small grants in the late 1990s that were like medical missionary money, Thompson said it was important to start somewhere and that certain things we would not accept as the standard of care in the U.S. might be able to help women elsewhere. For example, because mammography is generally not available in many parts of the world, breast cancer screening in the PRRR program initially involves breast awareness and clinical breast examinations, followed by ultrasound if indicated, and mammography only for diagnostic purposes.

Thompson noted other differences that often emerge between various countries around the world. “The average age of onset of breast cancer in this country is 62, but in China [for example] it is age 47, so screening is completely different there,” she said, adding that not all populations absorb medication in the same way.

Today Komen has relationships in more than 50 nations. One of its first global efforts was the Middle East–North Africa Partnership, formed during the Bush administration, when there was an initial push to recognize that women in that region of the world needed to be educated to vote and that women’s health initiatives could help empower women.

To a similar end, the Global Health Institute of the George W. Bush Institute—initially dedicated to fighting against AIDS and malaria—was founded on the belief that “every life is precious; to whom much is given, much is expected; and healthy mothers create healthy families and society,” according to Eric G. Bing, M.D., Ph.D., M.B.A., the institute’s senior fellow and director.

“We want to raise awareness, and our focus is on women’s health issues,” he said, adding that the institute’s involvement with cancer had to do with the fact that PEPFAR’s already established health care infrastructure could be effectively expanded to screen women for cervical and breast cancers as well.