Plans, and Champions, Needed To Control Growing World Cancer Burden, IOM Report Says

By Renee Twombly

Infectious diseases don’t kill most residents in low- and middle-income countries anymore. Chronic disorders claim the most lives. But while many of these countries have started to address heart conditions and mental disorders, they have left cancer largely untouched or placed it too far down the health care priority list, according to a new Institute of Medicine report released on World Cancer Day.

The result, according to Cancer Control Opportunities in Low- and Middle-Income Countries, is that more people in these countries die from cancer each year (4 million) than from AIDS (3 million), and more cases of cancer are now being diagnosed in these regions (6 million) than in higher-income countries (5 million). As these countries, which represent most of the world’s population, continue to adopt the unhealthy behaviors of wealthier nations, the numbers are expected to rise, the report warns.

“Where there is a lot of infectious disease, chronic disease is not an issue,” said Frank Sloan, Ph.D., chair of the IOM committee. However, the only region in the world where that is currently true is sub-Saharan Africa, said Sloan, a professor of economics at the Center for Health Policy, Law, and Management at Duke University.

“Now chronic diseases like cancer are increasing at an alarming rate, and cancer incidence is already much greater than is widely appreciated.”

Given this rising burden of cancer, the IOM report, funded by the National Cancer Institute and the American Cancer Society, recommends several approaches for these low- and middle-income countries. These “opportunities” will vary according to need and resources; for example, the lowest-income countries can promote palliative care to the 80% of patients whose cancers are discovered at a late, incurable stage. Middle-income nations should begin to stress prevention and develop guidelines for managing cancers in which treatment can make a substantial difference in outcome.

The report also points out that most cancer cases and deaths are preventable in these nations, perhaps even more so than they are in higher-income countries. Lung cancer is the most common cancer overall, the cancer most often diagnosed in men, and the top cancer killer. So all the countries should work to control the use of tobacco and should sign the World Health Organization’s Framework Convention on Tobacco Control, the report said.

Also, 26% of cancers in these countries are caused by potentially preventable or treatable infectious agents—more than the 8% seen in higher-income countries. The number two and three cancers in men (liver, stomach) and the number two and three cancers in women (cervical and stomach) are not even on the top 10 list of higher-income nations because of use of vaccines, screening, and antibiotics. A dent in liver cancer can be made with just a $2 vaccine available from UNICEF, but it requires that countries have an immunization program for children. The new human papillomavirus vaccine could prevent cervical cancer, if the cost for the series of shots (more than $300) was reduced, and screening for existing human papillomavirus infections could save lives.

Among other recommendations packed into the 324-page report is the suggestion that all nations should develop their own national cancer plan and programs. Such an effort would be akin to the cancer control plans that have been developed by individual U.S. states. “There will be a temptation to think of these plans as motherhood and apple pie, and to export what we do here, but that won’t work,” Sloan said. “Each plan has to fit the individual country, but if it is only a piece of paper without any resources to back it, it is meaningless.”

“If the global health community is really interested in saving lives, it has to be interested in heart disease and cancer in these countries, and if money is spent wisely, that will offer the biggest bang for the buck,” said Gerard Anderson, Ph.D., a professor at the Johns Hopkins Bloomberg School of Public Health. “I believe if we alert the right people to the problem, they will slowly take action and want to do the right thing.”

Who Will Take the Lead?

Funding is just one hurdle the countries must jump if they want to get a handle on cancer, he said. The biggest obstacle is that the global health community must agree that cancer control is a priority, and they have to initiate a shift in public policy.

“It is just a fact that most people are interested in the cancer rates in Zimbabwe,” he said. “We need to develop that interest and constituency because without pushing, this effort hasn’t a prayer of succeeding.

“Public policy is like a shoe salesman,” said Sloan, who wonders who will take the lead. “You have to get on the street, peddle it around and impress people.”

Joe Harford, Ph.D., director of the office of international affairs at the National Cancer Institute, said that each country has

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been responsible for cancer control within its border. “Cancer control plans can’t be done from the outside,” he said.

“There is not a country on this planet that couldn’t do more than they are doing,” Harford said. “There is a problem of limited resources but also one of limited resolve, and part of the purpose of this report is to get the countries themselves organized.”

As a government research agency, the NCI can play only a limited role. They will start by offering international planning grants to academic health centers, Harford added, like the one it has provided to the Fred Hutchinson Cancer Research Center to help fund the Breast Health Global Initiative, which strives to improve breast health in undeveloped nations. International donors and aid agencies could play a bigger role, he said.

Anderson said that little international aid is focused on preventing or treating chronic diseases in these countries, and he doubts that situation will easily change. In a perspective published in January in the New England Journal of Medicine, Anderson and Edward Chu, a Johns Hopkins medical student, said that international aid agencies tend to focus on tuberculosis, HIV/AIDS, and malaria because they promise the potential of a “permanent fix,” yet they are responsible for only 10% of deaths in low-income countries.

Aid agencies also wrongly perceive that preventing and treating chronic diseases will be more expensive than preventing communicable diseases, Anderson said. “But how much does an aspirin a day cost, or a vaccine to control hepatitis?”

The basic issue, he said, is that sympathy helps drive public opinion. “Cancer and heart disease aren’t sexy at all,” he said. “You probably can’t get Brad Pitt to sit for a photo with a 40-year-old guy who has hypertension.

Problems in Eastern Europe, Eurasia

In fact, the NAS report comes soon after several studies and conferences aimed at focusing attention on the growing burden of chronic diseases.

A December 2005 World Bank report called Dying Too Young found that life expectancy in Russia, which it calls a transitional country, was only 66 years (58 for men) and that the country’s population is falling by 700,000 people a year, dropping from 149 million in 1992 to 143 million in 2003.

The decline is due mostly to high death rates and illness from chronic diseases, including cancer, said the report’s author, Patricio Marquez, the World Bank’s lead health specialist for Europe and Central Asia. The Russian population is “rapidly becoming smaller and sicker,” and this “demographic devastation” is unprecedented among industrialized nations, he said.

Higher-income countries and aid agencies cannot solve these problems, Marquez said. Solutions must come from the Russian government, which can use some of its oil wealth to, among other measures, restructure its medical system to incorporate health promotion and disease prevention. In 2006, Russia’s president, Vladimir Putin, launched the $7 billion National Project for Health Care to address some of these issues.

Also, last October, the U.S. Agency for International Development (USAID) funded and released a report showing that noncommunicable diseases and injuries play a major role in the high mortality and
morbidity rates in the 16 countries that make up Eastern Europe and Eurasia. More than 16 times more people in these regions died from chronic disease than from the combination of all infectious diseases, maternal and perinatal conditions, and nutritional deficiencies.

USAID has been the major funder of programs that partially address some of these problems, through primary health care and health partnership programs, but the agency’s ability to continue funding these issues in any depth right now is limited, said Paul Holmes, senior regional health advisor with USAID’s Bureau for Europe and Eurasia. He also called on the international donor community to enlarge its focus to take on chronic diseases.

Most international aid organizations focus on relief work or attack infectious diseases. For example, the Bill and Melinda Gates Foundation does not fund cancer programs, including the 25% of cancers caused by viruses, a spokesman from the foundation’s public relations firm confirmed.

**Latin America Gets Helping Hand**

Elmer Huerta, M.D., president-elect of the American Cancer Society and a native of Peru, said that ACS has already begun to act as a “convener” for some countries in Latin America that are tackling cancer control. “We can’t allow Latin America—our backyard—to be a factory of advanced cancer,” said Huerta, a cancer prevention specialist at the Washington Hospital Center who will be the society’s first Latino president. “These countries desperately need our help.”

Peru has developed and is now implementing a national cancer control plan, the first one in Latin America, and Guatemala has established a center for tobacco control, Huerta said. The ACS is also in conversations with Mexico and has the goal of establishing a cancer control plan in all 20 Latin American countries within 10 years.

Some of the strategies developed in the United States to control certain cancers can be adapted to Latin America, like cervical cancer education. But in other cases, these countries must start from scratch, he said. Stomach cancer is one example. “Latin America has the world’s highest incidence of stomach cancer, much of which is due to a bacterial infection, but there has been no good way to address prevention or treatment,” Huerta said. “All the big research ideas come from the United States, and we don’t have a lot of stomach cancer here.”

Paying for these plans and their implementation is also a problem in Latin America, but Peru, for one, is borrowing from the U.S. playbook: Advocates are trying to persuade the government to dedicate a tax on tobacco to pay the $184 million needed to execute it, Huerta said. ACS provides advice and shares expertise with a coalition of specialists involved in drafting the plan, which includes the Peruvian minister of health, Carlos Vallejos, M.D., a medical oncologist who spearheaded its development, and funds the coalition’s executive director. “This is a plan developed by Peruvians for Peru,” Huerta said.

NCI’s Harford said that many nations are beginning to seek help to deal with their climbing cancer rates, and the NAS report has come along at the right moment. “There are more people, and older people, in low- and middle-income countries, and they are asking their health ministries to take care of the cancer that is developing,” he said. “These ministers, in turn, are raising their hands for assistance because cancer is a more expensive disease to treat than many others, and that can really affect a struggling health care system.”

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