Presentation by Robert N. Butler, M.D., President and CEO, International Longevity Center-USA, in the symposium "Longevity and Healthy Aging: Evidence and Action," held at the International Association of Gerontology's 17th World Congress of Gerontology, Vancouver, July 5, 2001.

My remarks will be more policy oriented and global in character. They arise out of my deep concern about the need for the developed world to be more constructive and contributory to the developing world. I consider healthy aging to be a global investment. It is a dividend of a lifetime commitment to healthy behavior and continuing education. I consider healthy aging to be not only an individual matter but also a matter of public health and a significant generator of wealth. I also consider healthy population aging to be a geopolitical factor of universal and increasing importance.

In the United States, we stress the concept of equal opportunity. But this is meaningless if each individual does not have an equal start through the provision of opportunities— through access to good health care and education. Health and education are the necessary substrates to the good life and, collectively, to a prosperous and wealthy nation.

It was reported in a provocative and very important article in *Science* in February 2000 (Bloom & Canning, 2000) that, in contrast to the gloomy fears of many who believe population aging and longevity will reduce wealth, in fact health and longevity generate wealth. The article compared societies that had a five-year advantage in life expectancy over those that did not and found a substantial increase in growth of GDP in the former.
This illustrates one kind of research necessary to help societies deal with the unparalleled revolution of longevity. All forms of research, from basic to applied policy research, must be devoted to healthy aging. Only modest funds are presently spent on the basic biology of aging, for example, in the United States barely $200 million out of the $20 billion in fiscal year 2001 within the National Institutes of Health (NIH).

The findings of the basic biology of aging could help stave off the increasing vulnerability to disease and death that follows the aging of the organism. Research on healthy aging as well as aging-related diseases is essential. At the same time, we need to understand the socioeconomic, moral, cultural, and personal consequences of the new longevity and population aging. Nothing less than a transformation of the culture and experience of aging is required.

There are many ways to generate a healthy, educated population. At the International Longevity Center, our Healthy Life Program is one of our two major priorities in Research, Policy Development, and Education. It focuses first upon advancing programs for the training of health personnel to more effectively assess, diagnose, care for, and treat older people in order to maintain healthy

life—that is, the evolution of the field of geriatrics. Second, we favor initiatives that sponsor medical and behavioral research, including embryonic stem cell technology as a basis for regenerative, or "spare parts," medicine. Also, we favor research designed to better our understanding of Alzheimer's disease and other dementias and the discovery of more effective means to reduce frailty since Alzheimer's disease, called "the disease of the century" by scientist and author Lewis Thomas (1997), could become an epidemic by the mid-twenty-first century due to unparalleled population aging. A major international research initiative should be launched because, in my judgment, we have only begun to have a superficial understanding of the central nervous system in general and the pathology of its diseases and this disease in particular, and we are very far from a cure.

Third, we support the creation of healthy intervention communities as counterparts to the Framingham type of discovery community that brought us the coronary risk profile. The International Longevity Center is among 13 members of a steering committee, along with Procter & Gamble and various universities among others, endeavoring to build Millennium Communities to act as models for improving the health of our nation—a concept that could be applied to other nations as well.

As important as health education per se can be, it is discouraging that only 15 percent of the 319 goals laid down by the *Healthy People 2000 Report* from the U.S. Surgeon General (US Department of Health and Human Services, 1990) have been met. Only 15 percent![1] The Millennium Communities Project will focus on two major objectives: diet and exercise—to be implemented by encouraging smaller portions of food, reduced saturated fat, and exercise via inexpensive walking clubs (The Partnership to Promote Healthy Eating and Active Living, Inc., undated). To this health regimen I would personally add tobacco cessation and very moderate use of alcohol.

Fourth, the ILC is engaged in a policy initiative in our country—the reinvention of Medicare. More broadly, we are studying ways to create a health-care system that, given the realities of a longevity society, establishes a continuum of care—from healthy aging to long-term care and hospice care. A comparison with systems in operation in other countries will clearly help us in our work. We believe that if we sustain a nation's health, we will contribute to productive aging—that is, the continuing capacity of older people to contribute to the economy through paid work, volunteering, family caregiving, and so forth. We know, on an individual basis, that we can bank our health. Many of the diseases of old age, such as atherosclerosis, are really disorders of longevity that began in early life. For example, young Americans killed in the Korean War were found to have pathological evidence of atherosclerosis. We also know that bone density is most effectively established during puberty and adolescence, as are good health habits in general. It is so discouraging to witness the rise of overweight and

[1] See www.health.gov/healthypeople/document for a summary of *Healthy People 2000 Final Review*

obese citizens in the United States. We are perhaps the fattest nation in the world now. Twenty percent of our children are obese, and we are seeing Type II or old-age diabetes in our children as young as 10 years of age.

It is a matter of enlightened self-interest for rich and powerful nations to improve the health and educational status of the developing world. Effective globalization and a global economy require healthy and productive consumers. Exporting nations, which eventually should include all nations, cannot succeed if there are no consumers who have the means to buy their products and services. The importance of health in the world is demonstrated by the fact that 10 percent of the lifetimes of all people living in developing nations are lost to disease and disability even while alive. It is hardly possible for nations whose citizens have impaired and shortened lives to be fully productive.

There are other reasons for the developed world to help the developing world. One important, self-interested reason is to protect against the potential dissemination of disease via modern transportation. We have seen the emergence of AIDS and the re-emergence of tuberculosis. We know that within any 36-hour period, disease can be transmitted from most any part of the globe to most any other. National governments, NGOs, corporations, and individuals should all be more generously supporting the AIDS Fund and should also find funds to deal with the two greatest killers—tuberculosis and malaria. One of my conclusions and action items is to include not only these practical goals but also some idealistic ones. Not only is it a matter of enlightened self-interest on the part of the developed world, but also a matter of purely humanitarian grounds that we should be more sensitive to the globe as a whole.

1. We need new forms of governance. These will have to break down our present preoccupation with individual national sovereignty. These new centers of power include reform governments, organized workers, localism or devolution, multinationals or civil society representing potential conflicting interests and facilitating core evolutionary forces of growth.

2. We must address the profound realities of globalization and build institutions and infrastructures that are substantially and simultaneously protective of the environment and of social benefits yet promote economic growth. As a matter of self-interest and common cause, international efforts against disease must be strengthened and the health of populations improved. Therefore, I propose an international, intergenerational global Health Corps to monitor, teach, and serve health needs—modeled in part after the wonderful French Doctors Without Borders, the U.S. Peace Corps, and other organizations and efforts of nations around the world. Bernard Kushner, founder of Doctors Without Borders and the former Minister of Health in France, supports, for example, the idea of pairing hospitals in rich countries with hospitals in Africa so that medicine, expertise, and equipment can be shared.

3. Development of an international and intergenerational global Voluntary Teachers Corp to help move education forward, focusing on areas such as language and computer literacy and basic occupational skills in a culturally sensitive manner.

4. While the core objectives of the World Bank and International Monetary Fund should be to raise the productivity and increase the per capita income in developing countries, these must be accomplished by more effectively promoting education and health. The International Monetary Fund and the World Bank should expand credit and reduce interest rates to reward advances in public health and education. In other words, successful outcomes should be demonstrated and documented. An example would be when health improvements are marked by increases in life expectancy, reductions in maternal and infant mortality rates and reductions in specific diseases. Educational outcome measures such as improvement in literacy should be rewarded. These would, in effect, be different kinds of world banks—banks of health and education, which are the motors of productivity. Nongovernmental organizations as well as governments could receive special funding and loans from the IMF and World Bank. These measures would contrast with the austerity programs demanded of third world nations in debt that often require the reduction of social benefits, educational opportunities, and the health of the nation.

5. We advocate that each nation, to the degree possible based upon its resources, level of prosperity, and so forth increase its support of the World Health Organization. In this regard, I regret exceedingly the successful lobbying of my country, the United States, the richest of all nations, for a 3 percent cut in its contribution to this important agency, the same percentage reduction obtained from the United Nations by the Clinton administration. Developing nations are supposed to make up this loss of the World Health Organization (WHO) budget. Note that the WHO's budget for the fiscal year 2002–2003 is less than $1 billion and yet the WHO's concerns are the world. While direct comparison could not be made in terms of mission, nonetheless, it is certainly notable that the U.S. NIH budget is $23 billion, in contrast to the less than $1 billion for the WHO.

I offer these proposals in the spirit of the United Nations 1999 International Year of Volunteers. I hope that citizen action will help advance human rights and further the finest of human activity—the giving of ourselves.

In conclusion, healthy aging should be seen as a critical and geopolitical generative force that advances the health and wealth of societies. It should be both an individual and a collective responsibility. I personally hope that the United Nations World Assembly on Ageing, which, as you know is to be held next April in Madrid, will address the health and wealth of nations.

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