In 2011, some of those who attended the United Nations Summit on the growing global specter of chronic noncommunicable diseases (NCDs) left feeling skeptical: Some countries questioned, behind closed doors, if the voluntary declaration issued by governments at the close of the meeting would yield tangible results. The declaration had affirmed these diseases as a major challenge to development in the 21st century and called for an urgent response from member states and the U.N. system with increased attention and resources. But there was real reason for that skepticism: In reality, without significant funding to turn words into action, it would be impossible to fight this global epidemic.

For a decade prior to the summit, efforts to get chronic diseases on the world agenda fell flat, and despite skyrocketing incidence, these diseases remained largely neglected by governments, international health organizations and aid organizations. Could we expect that, in just 10 years, a sudden awareness of the huge threat they posed would open the floodgates and bring in significant funding? The obvious answer is no. But the summit brought awareness and has triggered both action and greater advocacy.

There is another big opportunity looming. With the current U.N. Millennium Development Goals expiring in 2015, there is powerful jockeying to determine which priorities will receive aid. The current goals galvanized unprecedented efforts to meet the needs of the world’s poorest people, with three out of eight of those goals focused on health. A barrage of competing interests is now trying to influence the post-2015 framework, which has an explicit focus on helping low-income countries. One of those advocates, the nonprofit NCD Alliance, notes that in order to safeguard progress made by the current Millennium Development Goals—and to continue to drive sustainable and equitable development—health must be at the heart of the new framework. They are among many who insist that addressing chronic diseases (along with the risk factors and the social, economic and environmental conditions that drive them) is central to creating a healthier world.

Advocates have led an impressive lobbying effort, asking governments to include targets for cardiovascular and other chronic diseases in the new goals. Creating specific targets would place greater responsibility on developing countries (where 80 percent of deaths from chronic diseases occur) to take action—and would generate more international aid for NCDs from Western countries.

Global health funding for these diseases has increased in recent years. Expanded support has allowed for a proliferation of global health organizations and
“There is another big opportunity looming. With the current U.N. Millennium Development Goals expiring in 2015, there is powerful jockeying to determine which priorities will receive aid.”
initiatives focused on cardiovascular and related diseases worldwide. Though these successes exist within a fragmented, complicated and inadequately tracked state of global health finance, they provide a basic roadmap for ways to pay for prevention, diagnosis and treatment of chronic disease.

The responsibility for health-related financial resources over the long term will ultimately fall to governments, supported by taxes from businesses and by the general public, with additional support from NGOs and nonprofit private foundations. Policy makers and researchers have long recognized that investing in strong health system infrastructure is key. That means establishing a strong primary care network and training and employing health workers as well as building a comprehensive national health database to track disease and causes of death. Each of these steps is crucial in the fight against chronic disease.

Unfortunately, both funders and politicians have largely neglected the glaring lack of health infrastructure in developing countries. Politicians, policy makers and philanthropies are most likely to act on problems they think they can readily solve. Building a health system requires long-term investments that don't create tangible changes overnight. Aid programs have traditionally invested in quick-fix initiatives such as providing vaccines for contagious diseases—initiatives that are easy to track and show prompt short-term results. More recently this has shifted with the global response to HIV/AIDS, which has increasingly focused on systems strengthening as well as longer-term planning for sustained intervention.

GOVERNMENT AGENCIES, TAXATION AND MANDATES

One of the main reasons for the success in the multifaceted international fight against HIV/AIDS was a great sense of urgency, fanned by a small army of protesters, celebrities and philanthropists. It sparked action that was possible only because there were a number of available, effective solutions. The global solidarity shown by government agencies is one of history's great achievements in international health, on par with the eradication of the smallpox virus in the 1970s. The question is whether the long-term, devastating threat of cardiovascular disease and other chronic illnesses can generate a similar vigorous response. The answer is yes, with three initiatives offering examples of global, national and local programs: the Global Alliance for Chronic Diseases, the Uganda Parliamentary Forum on Noncommunicable Diseases and former Mayor Michael Bloomberg's New York City model.

THE GLOBAL ALLIANCE FOR CHRONIC DISEASES

There has been startlingly little research in developing nations on the prevalence of cardiovascular diseases or on treatment protocols and prevention programs. In 2009, the Global Alliance for Chronic Diseases became the first international governmental coalition to specifically address chronic noncommunicable diseases (heart disease, type 2 diabetes and hypertension, among others). It's a powerful alliance forged in 2009, the New York City Board of Health approved then-Mayor Michael Bloomberg's plan that outlawed the use of artery-clogging trans fats in approximately 24,000 New York City restaurants.

The Uganda NCD Alliance supports patients and furthers research, runs public awareness campaigns and advocates for action on chronic diseases.
among national health research institutions in Australia, Canada, China, the United Kingdom, the United States, India, South Africa and Europe. Together, these institutions contribute 80 percent of public health research funding worldwide. The goal of the alliance is to coordinate and provide financial aid for research that addresses prevention and treatment of NCDs. Part of their stated mission is to identify the most effective interventions and to develop and share the knowledge needed to guide public policy; they are now taking a leadership role in promoting global investments in cardiovascular research and building well-staffed health systems in developing nations. The outstanding motivation of the alliance is based on the principle that unification with shared responsibility produces greater results.

Uganda’s Countrywide NCD Fight

In 2010, Uganda formed a national nonprofit coalition, the Uganda NCD Alliance, to advance action on cardiovascular diseases and cancer. The nation has seen a sharp rise in cases over the last decade, and although there are no hard data on prevalence, there are more people sick and dying of noncommunicable diseases than those who seek care at health facilities—many of whom live far from clinics or hospitals and are still treated by traditional healers. The organization has its roots in the Uganda Women’s Cancer Support Organization, a group that had been founded by breast cancer survivors six years before. They later teamed up with others working on NCDs to form the alliance, which supports research, offers support for thousands of patients, runs large-scale public awareness campaigns and targets advocacy to unite action. They have also begun deploying village health teams to educate rural people on how to prevent NCDs, and refer those who are ill to a new patient resource center in Kampala that offers free screening, counseling and patient support.

Public outcry from the alliance and numerous patient groups convinced Uganda’s elected officials to take action. Uganda’s Parliamentary Forum on NCDs was launched in 2012 with the intent of better equipping the country to fight the spread of cardiovascular and other chronic diseases, to implement the U.N. Summit resolutions—and to lobby for resources to pay for it all. Part of their mission is also to monitor progress and ensure that all levels of government are investing manpower and money in the interests of health.

A Healthier New York City

The New York Times once characterized former New York City Mayor Michael Bloomberg as “the Impossible Mayor of the Possible.” Part of that reputation comes from bold initiatives that reshaped New York City into a culture of healthy lifestyle, changes that were funded by both taxpayer dollars and Bloomberg’s own significant personal contributions. Among his achievements are a network of bike lanes that now cover more than 600 miles, a fleet of public bikes for tourists and commuters and 800 acres of new outdoor space, much of it along the city’s shorelines.

To lower exposure to secondhand smoke, Bloomberg signed a law in 2002 banning smoking in public indoor spaces. In 2011, he went further, eliminating smoking in parks, on beaches and at shopping plazas, with a $50 fine for offenders. These anti-smoking measures prompted one of the fastest declines in the country: The city’s smoking rate dropped from 22 percent to about 14 percent by 2013, according to Susan Kansagra, a deputy commissioner at the New York City Department of Health and Mental Hygiene.

Unhealthy food has been another target. In 2006, the New York City Board of Health approved Bloomberg’s plan that outlawed the use of artery-clogging trans fats in approximately 24,000 of the city’s restaurant kitchens. Three years later, new regulations required restaurant chains to include calorie counts on menu boards and printed menus. And a “Salads in Schools” initiative created low-height salad bars in grade schools across the city’s five boroughs. Obesity rates among New York elementary and middle school students dropped by 55 percent from 2006 to 2011. Together, this suite of initiatives has helped create a healthier New York.

NONPROFIT PRIVATE FOUNDATIONS AND PHILANTHROPY

Private Funding for Public Health

According to the World Bank, nonprofit organizations donated nearly $5 billion for international projects or development in 2005; nearly one third of those initiatives were health-related, with the lion’s share ($1.2 billion) coming from the Bill & Melinda Gates Foundation. Their entry into the global health landscape in 1998, along with a $30-billion donation by investor Warren Buffett, took private philanthropic funding to
new and unprecedented heights. The Gates Foundation's global health grants are nearly equal to the annual budget of the entire World Health Organization. They fund tobacco control, including new support for antismoking programs in Africa and also provide extensive support for agricultural development that is improving the accessibility of healthy foods in developing countries. But chronic diseases per se are not among their “priority areas,” despite the large and growing global burden.

Other substantial nonprofit contributors include The Rockefeller Foundation, the Wellcome Trust, the Ford Foundation, the United Nations Foundation and the Aga Khan Foundation—but their total contribution to noncommunicable diseases is relatively limited.

The SHE Foundation

Local nonprofit foundations can make a huge impact, so in 2009, I created the Science, Health and Education (SHE) Foundation to promote cardiovascular health in Spain. After a lifetime devoted to medicine and research, I was firmly convinced that a change in people's lifestyles was the only way to stem the spread of epidemic cardiovascular diseases. Our overall 21st-century challenge is figuring out how to build preventive health care.

Although SHE focuses on research, it also helps to teach healthy habits from childhood onward. With the onset of cardiovascular disease drifting toward younger populations, it's key to instill healthy behaviors as early in life as possible. Toward that end, the SI! Program instructs about 20,000 children from preschool to high school in Spain on diet, human physiology (including heart function) and the need for exercise and emotional management (to prevent tobacco, alcohol and drug abuse). It incorporates learning materials produced by Sesame Street (including a new Muppet, Dr. Valentin Ruster), video segments, storybooks, a board game, flash cards and more. An initial trial in 2010 with 1,000 preschoolers, their parents and their teachers demonstrated that even a year afterward, children's attitudes about and knowledge of health—and healthier behaviors—remained significantly higher than those who hadn't been part of the program.

Another initiative in seven towns in Spain, the Fifty-Fifty Programme, organizes small groups of adults from 25 to 50 years old that support one another's efforts to eat better, improve physical fitness, quit smoking and monitor blood pressure. With nonprofit private funding, we are creating a frame of reference for health that involves people of all ages and at all stages of life.

GOVERNMENT PARTNERSHIPS WITH NONPROFIT ORGANIZATIONS

With the need to fund ongoing health research and the need for state-of-the-art facilities equipped with costly equipment to adequately treat patients, governments and public research institutions must enlist the aid of both private donors and corporations.

Although partnerships with corporations are still essential in their infancy, there are some programs that are creating
new ways to address important global health problems. In the late 1970s, amidst rising concern about the inability of international agencies to cope with the world's enormous health and social problems, new public-private partnerships began to emerge. In the United States, that was made possible by legal and tax restrictions that had been lifted two decades before, a move that encouraged corporations to establish charitable foundations. More recently, some members of the business community have recognized broader obligations to society. Private funding has become increasingly important, to the point where it is irreplaceable. Such injections of private money have traditionally come from philanthropic donations by wealthy benefactors or charitable foundations, but is increasingly coming from corporations. Public-private partnerships also combine different skills from the worlds of government and business to address persistent global health problems.

Some of these partnerships come in the form of straight, no-strings-attached financial support, with positive publicity, tax breaks and in some cases, social commitment as the main incentives. These “social-commitment partnerships” are usually sparked by the recognition that science and technology drive the future economy or by wide concerns regarding the social and economic costs of epidemic levels of chronic diseases.

Generous social-commitment donations have helped build several leading research institutes devoted to biomedical research in Europe, the U.S. and other Western countries. One of these is the National Center for Cardiovascular Investigation (CNIC) in Madrid. This national center was designed to expand national capabilities for cardiovascular research and to bring those research results into clinical practice, both in Spain and internationally.

To fund this ambitious plan, the government sought long-term financial commitments from the largest businesses in the country. The resulting agreement, signed in 2005 between the Ministry of Health and a group of prominent Spanish companies, became the ProCNIC Foundation; its 14 members include representatives from the energy, banking and media industries, among others. In this innovative arrangement, the Spanish government committed $620 million over the first decade, with the foundation donating $248 million more. That money was invested in areas that public funding often can’t afford, such as training for young investigators, very focused research and costly equipment needed for those studies that would be otherwise unaffordable, along with programs that offer incentives to keep valuable investigators at the center.

Corporate members sit on the board, contributing a wealth of managerial and business expertise and taking an active role in management, planning and decision-making. The result: Some of Spain’s most powerful corporations have committed to a direct involvement in biomedical research and the fight against cardiovascular diseases.

But contributions from the pharmaceutical or biotech sectors are quite different. Quite often, these are entrepreneurial investments meant to generate profits from a new product, technology or procedure. Product-development partnerships may launch start-up companies at university science parks or fund specific collaborations with a government research group.

One of these enterprises is a three-way collaboration between the Spanish government’s research foundation, the CNIC, a nonprofit, the World Heart Federation and a Spanish pharmaceutical company, Ferrer. Together, they are developing a “polypill” that combines three medications into one pill, targeting patients with a history of heart attack. It’s an affordable approach that costs far less than three separate prescriptions. With one medication to take instead of three, the hope is that patient adherence to treatment will grow, preventing additional heart attack—or death. As of February 2014, this combination drug had been approved in seven countries.

Health funding for cardiovascular and other noncommunicable disease has increased in recent years—a beginning response to the fragmented, complicated and inadequately tracked state of global health finance. That funding has sparked a proliferation of global health organizations and initiatives. Programs across the globe have been made possible through successful, ongoing financial support from government agencies, nonprofit private or philanthropic foundations, for-profit private corporations—and partnerships among them. Those cited here illumine the basic principles for future funding that will allow us to address the world’s epidemic of noncommunicable diseases.

**About the Author**

**Valentin Fuster** is the physician in chief of The Mount Sinai Hospital in New York City. He has served as president of the American Heart Association as well as the World Heart Federation. He is editor in chief of the *Journal of the American College of Cardiology* and the popular Hurst’s *The Heart* textbook of cardiology. He has been named a Living Legend in Cardiovascular Medicine by the American College of Cardiology.

**More to Explore**