Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

The Chronic Disease Initiative at Mailman

Position paper on:

United Nations High-level Meeting on noncommunicable disease prevention and control

On 19-20 September 2011, the United Nations General Assembly will hold a high level meeting (heads of state and government) on Non-communicable diseases (NCD). This appellation refers to chronic disease, especially cardiovascular disease, cancer, diabetes mellitus, and chronic lung disease. NCDs are already the majority cause of morbidity and mortality in developing as well as developed countries, accounting for 73% of deaths and 60% of the world's burden of disease. Indeed, the fact that this resolution on chronic disease emanated originally from the Caribbean group underscores the changing patterns of global morbidity and mortality.

UN resolution 265 states that: "the conditions in which people live…influence their health... and quality of life and that the most prominent non-communicable diseases are linked to common *risk factors*...[that] have *economic*, *social*, gender, *political*, *behavioural* and *environmental* determinants, and in this regard stressing the need for a multisectoral response to combat non-communicable diseases" Alleyne G, Stuckler D, Alwan A, 2010

Because the resolution builds on the determinants (italicized, above) that are at the core of public health, and the most impactful solutions will be through prevention and public health approaches, public health schools have a unique obligation to be involved in order to help inform the debate, contribute to interventions and evaluations of impact, model various scenarios and costs, both incurred and averted, and provide a link for public-private partnerships.

Having the world focus on NCDs is, to a certain extent, a celebration of success in other health programs. People are living enough -not simply to old age, but to middle age- to be affected by chronic conditions. At the same time, a sedentary lifestyle, smoking, and unhealthy diets all contribute to the rapid growth of NCDs in both low- and high-income countries. Thus, this conference is being called at a moment of confluence between the success in increasing life expectancy worldwide and the exponential rise in chronic disease enhancing behavior which accompanies economic betterment in developing countries

The rise of NCDs is also a threat to economies and the broad national agendas of states. In 2005, the estimated losses in national income from heart disease, stroke and diabetes (reported in international dollars) were $18 billion in China, $11 billion in the Russian Federation, $9 billion in India and $3 billion in Brazil. In the US, the Milken Institute estimates –in non-institutionalized persons alone- the costs of the seven top chronic conditions to have been just over a trillion dollars in 2003, including the indirect costs of lost wages and lessened productivity affecting the country's GDP. When institutionalized patients are taken into account, the medical care costs of people with chronic diseases account for more than 75% of the US $2 trillion medical care costs.

These costs affect the development strategies of states in the developing world, leading several countries to adapt the Millennium Development Goals - silent on this emerging pandemic- to include NCDs.

But there are good news and strong reasons for new energy and efforts. First, prevention works. Chronic diseases are malleable to intervention and change, as evidence proves. In Finland, a community and national intervention aimed at changing behaviors and involving all sectors of society –beyond traditional public health systems- resulted in reduction of coronary heart disease deaths by 85%, as well as a reduction in many cancers in men and in all-cause mortality in both sexes. Second, contrary to perception, interventions can make a difference in a relatively short time, i.e. in a few years rather than decades. Smoking cessation reduces mortality within months of stopping, as demonstrated in a US community in Montana where population acute coronary syndromes decreased by 40% in 6 months after a smoking ban, and returned to previous levels when the law was rescinded. Dietary intervention changes mortality rates within 1-5 years: after 1989, the Polish government encouraged the availability and higher consumption of vegetables and fruits and ended subsidies for meat and animal fats; there followed a 25% fall in coronary mortality rates in the following 5 years, even without noticeable improvements in the health care system. Third, prevention works in all segments of populations: while the decline in coronary heart disease mortality after community intervention in North Karelia, Finland was greater in the younger age groups, especially in men aged 35-44 (96%), it remained highly significant in older men, 65-74 years of age (69%). Similarly, in Cuba, the economic crisis of 1991-1995 led to more physical activity (from 30% to 67%, due to fuel shortage for buses) and leaner bodies (minus 1.5 unit of body-mass index), leading to a fall of coronary deaths within a year and a 39% decline by 2002. It is never too late, nor does it take long, in populations as diverse as those described above.

The effects of prevention, immediate, long lasting and widespread are the most cost-effective manner of obtaining a great return on public health investment, one that appears quickly and persists over ensuing decades: prevention saves lives, money and improves productivity.

What should be done? From a public health perspective, governments should focus on three distinct areas:

- Develop *structural approaches* to prevention: laws, systems, and taxes should include a study of their public health impact. This is not cosmetic, or politically correct; it is smart and a cost-saving mechanism, as myopic non-recognition of impact can lead to further expenses and consequences in the midterm. These will create a normative environment that will both foster subtle but certain cumulative changes and make any intervention easier;

- Adopt a *lifecourse approach* to chronic disease prevention with tiered focus on immediate impact (as in older age interventions) to longer term impact (as in early childhood and adolescence). Governments should balance between immediate and long term intervention programs, based in part on the age distribution of the population, the prevalence and predictions of chronic disease and its risk factors, and the culture and values of their people. However, prevention at every age and stage of life has a high return on investment;

- Recognize the *importance of private entities and communities* external to traditional health concern, including corporations, religious institutions and the educational system. There is a need for governments and corporations to engage and have some agreement: distribution of unhealthy foods particularly requires new kinds of global cooperation to curtail the epidemic of chronic disease. These alliances will be unavoidable to initiate a national normative approach to changing a country and community behaviors. A broad concept of health which involves and concerns multiple layers of communities, corporations and individuals is necessary to migrate from a “sickness system” into a health system with a high return on investment: less costly, more satisfactory, and leading in short order to a healthier workforce to address the problems of our times.

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The Chronic Disease Initiative at Mailman was convened by the Dean as a transdisciplinary thinktank of faculty and leaders to concretize the School's Strategic Vision in addressing the public health challenge of chronic disease for the next generation. This document reflects the consensus of this group related to the UN High-level meeting on Non-Communicable Disease. As the oldest School of Public Health in New York City, host of the UN meeting, and with faculty working in more than 100 countries, the Mailman School feels a dual obligation to contribute its academic and field-tested voice at this important crossroad.