

Non-communicable diseases and the developing world

This month's newsletter is dedicated to chronic, non-communicable diseases (NCDs) and the increasing distress they pose to the developing world.

1.1 What are NCDs?

NCDs have been called diseases of civilization, Western diseases, diseases of affluence and lifestyle diseases. Simply put, non-communicable diseases (NCDs) are chronic, non-infectious diseases that have gained in prevalence with the advancement of medicine, Western diets, tobacco use and sedentary modern lifestyles. NCDs are not curable, but they are preventable and can be manageable. The most common NCDs include cardiovascular disease (heart diseases), cerebrovascular disease (stroke), hypertension, diabetes mellitus Type 2, chronic respiratory disease and those cancers linked to tobacco use, poor diet and lack of activity.

1.2 Environmental Factors

Modernization, urbanization, technological advancements and medical discoveries have brought about a huge shift in human lifestyles. Medical advancements via disease vaccination and treatment have increased the average lifespan by (in many cases) virtually eliminating the risk of contracting a non-chronic, infectious disease. At the same time, modern conveniences have allowed humans to become more and more sedentary. What were once characteristic of lifestyles of only the most affluent sectors of society (lower risk of death by infectious disease, sedentary pursuits, lack of physical exercise, sugary diet and high fat consumption) have become commonplace to society at all levels.

1.3 Implications

The world has undergone an epidemiological shift where the average person is much more likely to develop an NCD than contract a fatal infectious disease. NCDs, a product of the modern global lifestyle, are now the major cause of deaths across the globe. The links in this month's newsletter explore the burden of NCDs on global healthcare systems and the development of health policy in the lower and middle income countries. Fortunately, NCDs can be both prevented and managed. The following selection of online resources is rich with strategic ideas for both preventing the future escalation of the global NCD epidemic and managing the current NCD situation.

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1.4 INTERGOVERNMENTAL ORGANIZATIONS

Department of Chronic Disease and Health Promotion (DHP), World Health Organization (WHO)
This department's site is a clearinghouse of information on NCDs in the developing world, highlighting that "Chronic disease is responsible for 60% of all deaths worldwide" and "80% of chronic disease deaths occur in low and middle income countries" (Ten facts about chronic disease, Fact File, WHO). Several countries are featured in the WHO global report, Preventing Chronic Diseases: A Vital Investment. Additional information on the impact of NCDs in these and other countries can be accessed via these region and country specific information sheets. This site also links to the prevention and intervention-based Global Strategy on Diet, Physical Activity and Health (DPAS) that was endorsed by the World Health Assembly in May 2004 (WHA60.23).

The Atlas of Heart Disease and Stroke, by the World Health Organization (WHO)
The WHO in collaboration with the US Centers for Disease Control and Prevention (CDC) has developed this comprehensive introduction to the global epidemic of cardiovascular disease. This page contains a series of maps including one of organizations devoted to research and prevention of cardiovascular diseases. Also see their map of the global burden of health disease calculated in disability-adjusted life years (DALYs).

The CARMEN Initiative, by the Pan American Health Organization (PAHO)
CARMEN aims to develop strategies for NCD prevention in the Americas that integrate community-based activities, policybuilding and health care services. The PAHO section on non-communicable diseases (NCDs) also hosts a wealth of both technical and general documents addressing the nature of NCDs and their impacts in the Americas.

Health Transitions, Disease Burdens, and Health Expenditure Patterns, by The World Bank
This report serves as a primer for the understanding the impact of NCDs on the health spending policies of lower- middle- and high-income countries. An earlier report published by the Population and Human Resources Department of The World Bank, How the Epidemiological Transition Affects Health Policy Issues in Three Latin American Countries, forewarns of the increasing burdens of NCDs on developing countries in Latin America.

1.5 GOVERNMENT

Centers for Disease Control and Prevention (CDC), US Department of Health and Human Services,
Atlanta, GA, US

The CDC's National Center for Chronic Disease Prevention and Health Promotion is the entry point for information from the US Government on heart disease, cancer, diabetes and the dangers of tobacco use. It contains summaries of exemplary state-based (US) policies and programs that

successfully reduce chronic disease risk factors. Another resource is the CDC's journal, Preventing Chronic Disease; available online and via RSS feed.

National Symposium on Chronic Non-Communicable Diseases, by the Ministry of Health of Trinidad and Tobago, Port-of-Spain

The Ministry of Health hosted this symposium, which emphasized the problems posed by cardiovascular disease in the Caribbean. This page includes links to Power Point and full text presentations of the events' most distinguished speakers.

Centre for Chronic Disease Prevention and Control (CCDPC), Public Health Agency of Canada, Ottawa

Co-leading the CARMEN initiative, the CCDPC is a highly involved organization, both within Canada and throughout the international community. Its website contains an abundance of useful links to outside organizations and initiatives such as The Canadian Best Practices Portal for Health Promotion and Chronic Disease Prevention, in itself a major resource.

1.6 NON-GOVERNMENTAL ORGANIZATIONS

The Global Forum for Health Research, Geneva, Switzerland

This organization is devoted to improving the health of people in developing countries. Their webpage contains RealHealthNews, a collection of timely reports on current health issues in the developing world such as action research to prevent non-communicable disease. The Global Forum will also host Equitable Access: Research Challenges for Health in Developing Countries, a conference to be held 29 October - 2 November 2007 in Beijing, China.

Heartfile, Islamabad, Pakistan

Heartfile is an example of NGO leadership in the prevention of NCDs and the promotion of health in the developing world. The organization is widely engaged within Pakistan's health system. Alongside the WHO and the government of Pakistan, Heartfile is a major partner in the National Action Plan for Prevention and Control of Non-communicable Diseases and Health Promotion in Pakistan (NAP-NCD).

The Oxford Health Alliance, London, UK

Through their initiatives, the Oxford Health Alliance is dedicated to preventing and reducing the global impact of the NCDs caused by tobacco use, physical inactivity and poor diet. They also host 3FOUR50, an action-based social network aimed at preventing chronic disease.

International Network for the Availability of Scientific Publications (INASP) - Health Program Area, Oxford, UK

The INASP works to increase knowledge sharing and information access among health professionals and policymakers in both the developed and developing world. Their site provides hundreds of selected health links and introduces the INASP's information sharing initiatives and professional list serves.

1.7 RESEARCH AND ACADEMIA

Prevention of Non-Communicable Diseases in Pakistan: An Integrated Partnership-Based Model, by Health Research Policy and Systems, London, UK

This report introduces the problems that NCDs pose within the context of Pakistan. The author discusses Pakistan's current and future joint initiatives with organizations such as the WHO and Heartfile.

The Global Burden of Chronic Diseases: Overcoming Impediments to Prevention and Control, by JAMA (The Journal of the American Medical Association), Chicago, IL, US

This article explains that health systems are not adequately orientated toward managing chronic diseases. The article also gives advice on how to persuade policymakers to devote more attention to NCDs. The authors maintain that the issue of the rising burden of NCDs needs stronger leadership by advocates and health professionals in order to gain importance on the agenda of policymakers.

Influencing Public Nutrition for Non-Communicable Disease Prevention: From Community Intervention to National Programme - Experiences from Finland, by Public Health Nutrition, London, UK

This paper chronicles the successes of the North Karelia Project, which was launched in 1972 as a community-based program to lessen diet and lifestyle risks for cardiovascular disease. These community-based interventions eventually gained prominence at the national level, leading the authors to suggest a similar model for initiating NCD policy in the developing world. For more information on Finland's North Karelia Project, see this article that appeared in the Bulletin of the World Health Organization.

Non-Communicable Disease and Priorities for Health Policy in Sub-Saharan Africa, by Health Policy and Planning, Oxford, UK

In his paper, the author writes that even though the countries of sub-Saharan Africa will face combating high instances infectious disease for the foreseeable future, NCD prevention should still be included in the health policy agendas of these countries.

Changes in Population Cholesterol Concentrations and Other Cardiovascular Risk Factor Levels After Five Years of the Non-Communicable Disease Intervention Programme in Mauritius, by BMJ (British Medical Journal)

This study assesses the state of NCDs in Mauritius following the government's national NCD intervention program in 1987. The authors cite the reduction of tobacco use as one of the intervention programs major successes, adding that a similar tactic might reduce tobacco consumption elsewhere in the developing world.

The Burden of Non-Communicable Diseases in Developing Countries, by the International Journal for Equity in Health, London, UK

This paper employs data from national registries and international organizations to analyze NCDs and their burden in developing countries. The authors outline urgent measures that they say should be taken to control major risk factors such as tobacco, alcohol, obesity, blood pressure diet and

inactivity. In absence of preventive measures, they argue that developing countries will be unable to provide their people with standard health care.

Economic Evaluations of Non-Communicable Disease Interventions in Developing Countries: A Critical Review of the Evidence Base, by Cost Effectiveness and Resource Allocation, London, UK
This paper examines the real value of cost-effectiveness discussions associated with various NCD intervention and prevention campaigns throughout the developing world.

Alternative Projections of Mortality and Disability by Cause 1990-2020: Global Burden of Disease Study, by The Lancet, London, UK

From their research, the authors conclude that the declining percentage of deaths and disabilities caused by communicable and genetic disorders is being steadily replaced by a higher incidence of NCDs. The article pays particular attention to tobacco-related deaths, predicting that they will average 8.4 million in 2020.