

Emergence and prevention of cardiovascular disease in non-western countries

Once primarily a problem of highly industrialized countries more than 30 years ago, cardiovascular diseases (CVD) now pose a major burden to low- and middle-income countries. Studies show that deaths due to CVD in these countries have increased at an alarming rate over the past 40 years. The prevalence of coronary heart disease has been increasing in India, Latin America and the Middle East. A high incidence of stroke has also been documented in China, Southeast Asia and sub-Saharan Africa. In addition, the early occurrence of cardiovascular events in individuals from developing countries before 70 years of age is becoming a great concern and must be addressed.

Dr. K. Srinath Reddy, a professor of cardiology at the All India Institute of Medical Sciences and coordinator of the Global Initiative for Cardiovascular Health Research in Developing Countries (IC-Health), discussed this problem in a recent article published in the *New England Journal of Medicine* entitled "Cardiovascular disease in non-Western countries" (See New Publications on page 23). This increasing CVD problem in developing countries has also been discussed by Prof. Stephen Leeder, Professor of Public Health and Dean of the College of Medicine at the University of Sydney, and his colleagues in a publication entitled "A Race Against Time: The Challenge of Cardiovascular Disease in Developing Countries",¹ sponsored by the Australian Health Policy Institute, University of Sydney; the Initiative for Cardiovascular Health Research in Developing Countries; Mailman School of Public Health and the Earth Institute at the University of Columbia.

Dr. Reddy cited projections of CVD mortality and morbidity rates, considering these as signals of the "the advance of the epidemics". Among the reasons for this occurrence are adverse lifestyles brought about by urbanization and globalization. These lifestyles such as smoking and high-fat diets (like most Western diets) have increased in most non-Western countries over the past two decades, exposing populations in low- and middle-income countries to these known risk factors for CVD. However, CVD has not been given much attention by health workers and policy makers in these countries where infectious diseases remain to be a health challenge. Compounded by poor healthcare systems limiting access to appropriate management especially by the poor sectors of their societies, Dr. Reddy predicted that the CVD problem will get worse in the next decade.

Prof. Leeder and colleagues also presented compelling data showing that CVD is cutting into productive work forces in developing countries. Given the aging population, CVD will become a major health problem within 20 years due to

expensive medical care. They further argued that CVD should be in the women's health agenda since CVD now causes four times as many deaths in mothers in most developing countries than do childbirth and HIV/AIDS combined. However, no funding agency for international aid funds research and programs on women's CVD.

While lifestyle modifications by personal choice have proven to be an effective preventive intervention for CVD in Western countries, Dr. Reddy contended that this bottom-up approach of community mobilization through health education must be complemented with legislation and regulation in addressing the problem in non-Western countries. Further, although globalization was identified as one of the factors for the CVD problem, it also offers a great opportunity for transfer of technology on CVD management by Western countries to non-Western countries. Collaborative researches should involve not only Western countries but also researchers from non-Western countries. This way, a coordinated research and program effort for the prevention and control of the growing burden of CVD in the world may be facilitated. Details on achieving this can be found at the IC-Health website at: www.ichealth.org

Two of the major points for action cited in "Race against Time" were:

- Programs to prevent/treat CVD should be locally sustainable. Governments can cut tobacco consumption by implementing taxes and eliminating advertising; plan pro-walking cities and earmark recreational space; ensure that all citizens have access to clinics for proper management; and implement long-term changes in macroeconomic policies that dismantle agricultural subsidies and implement the WHO Framework Convention on Tobacco Control.²
- International aid agencies should work with developing countries to contain CVD and its threats to global health, national prosperity and family life in the developing world.

1 Leeder S, Raymond S, Greenberg H, Liu H, Esson K. A Race Against Time: The Challenge of Cardiovascular Disease in Developing Countries. New York: Columbia University; 2004

2 WHO Framework Convention on Tobacco Control; adopted unanimously by the 56th World Health Assembly on May 21, 2003. World Health Assembly Resolution 56.1 Printable version can be found at www.who.int/tobacco/areas/framework/final_text/en/print.html