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Commentary Open Access

Emerging Epidemic of Non-Communicable Diseases (NCDs) in South Asia: Opportunities for Prevention

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Commentary

Chronic non-communicable diseases (NCDs), primarily heart disease, stroke, diabetes, cancers, and chronic respiratory diseases have become a major global health burden accounting for 60% of death worldwide. About 80% of these deaths occur in low income countries having a huge negative economic impact in these resource poor countries. The South Asian region, encompassing people from India, Pakistan, Bangladesh, and Sri Lanka, Nepal and Bhutan, constitutes 25% of the world's population, and is a high-priority region for addressing the rising epidemic of NCDs particularly among people from low-income strata. The prevalence of NCDs, primarily associated with cardiovascular disease (CVD), type 2 diabetes, and chronic obstructive pulmonary disease, is the highest in South Asia when compared with the rest of the world [1]. Countries in this densely populated region are still fighting a lengthy battle to reduce the menace of infectious and communicable diseases. Therefore, controlling the worsening epidemic of NCDs due to rapid unplanned urbanization, and the globalization of unhealthy lifestyles, at the same time, is a serious challenge for this region. In Bangladesh and Pakistan, heart disease rates have increased more than 100% between 1999-2010 [2]. Additionally, NCDs have been a major cause of death in Sri Lanka over the last 20 years [2]. Neither the public nor private sector in these countries can sustain this trend without comprehensive international action which needs a focused and concerted approach.

The increasing global burden of NCDs is a major barrier to the Millennium Development Goals. Over the coming years, the projected burden from NCDs will rise substantially faster in third world countries with a cumulative loss of national income due to NCDs in India alone being $237 billion for 2006-2020 compared to $33 billion for Britain [3]. By 2030, the estimated damage to economic productivity due to NCDs will be 10-fold greater in India than in the US, which has three times the population of America [4]. These data call for concerted international action in support of national efforts for facilitating major reforms in national health policy for essentially recognizing the importance of Universal health coverage for the prevention and control of NCDs. There is a compelling need to raise the priority of NCDs on national and global agendas, establishing task force to effectively mobilize clinical and scientific community to address the shifting global burden of communicable diseases to NCDs in this densely populated region of the world.

Under the leadership of the World Health Organization (WHO), ~ 190 countries agreed in 2011 on a Global action plan for the prevention and control of NCDs 2013-2020. This plan aims to reduce the number of premature deaths from NCDs by 25% by 2025 (http://www.who.int/mediacentre/factsheets/fs355/en/). In 2011, the United Nations' high-level meeting on NCDs recommended five priority interventions including tobacco control, salt reduction, improved diets and physical activity, reduction in alcohol intake, and essential drugs and technologies [5]. Regrettably, the implementation of these policies often face serious challenges due to lack of political will, sustainable funding, infrastructure and human resources, accountability, and monitoring systems in these high-burden countries [2,5]. Although there is no US government program that specifically focuses on NCDs in low and middle-income countries, the US government's attention to NCDs has grown recently [6]. Besides the National Institutes of Health (NIH), other US agencies supporting such efforts include the Centers for Disease Control and Prevention (CDC), the Department of State, the U.S. Agency for International Development (USAID), the Department of Health and Human Services' Office of Global Affairs (OGA), and the Millennium Challenge Corporation (MCC). However, despite being a major global health threat, the overall identifiable funding support for NCDs in the US has remained relatively small. For instance, in 2012, the NIH's Fogarty International Center awarded $14 million to 15 research institutions to fund training in research areas related to NCDs in developing countries.

The rapid expansion in global clinical and biomedical research over the last two decades, particularly in these countries presents compelling opportunities for building momentum for scientific and technological exchange by accelerating research through international collaborations from Europe and the US to build an evidence base which will link research to policy. Amidst unique social and ethical challenges, other opportunities include and modification of health systems, implementation of innovative solutions for addressing trade and intellectual property concerns in order to promote NCD research and development efforts. There is dire need to increase national and international funding for targeted NCD programs focused on developing affordable technologies and infrastructures to expand the availability of inexpensive NCD medicines, diagnostics, and treatments in developing countries. A number of factors may be cited to explain the potential for growth in international research:

the economic advantages of outsourcing (as seen in other industries), the ability to impact global health concerns relevant to the developed world, and the increasing sophistication of international investigators and building the capacity of health systems and health workers to respond effectively to NCDs. Data from the US Food and Drug Administration reflect this growth. The number of international clinical trials registered with the FDA rose nearly twenty-fold from 1991-2000, increasing from 400 to over 7,500 trials. Thus, this is an historic opportunity calling for the increased involvement of US and European leadership for promoting and sustaining global movement to tackle NCDs in South Asia and worldwide. Particularly, the US engagement with the countries of South Asia offers enormous potential for the continued expansion of our relations with this region which is

in rapid transition from low-income to middle-income status. This will not only help sustain the momentum needed to achieve goals of reducing premature NCD deaths and disabilities, but will also have far reaching significance for enriching economic and scientific pursuits in the years to come.

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