ECONOMICS OF NCDs, INJURY, AND ENVIRONMENTAL HEALTH: Advancing Evidence-based Policies

**BY THE NUMBERS**

- **40%**
  - 40% or more of NCD deaths occur during the most productive period of life—before age 70

- **$7T**
  - $7 trillion in projected economic loss is attributed to NCDs in low- and middle-income countries over the next 15 years

- **$1-$3**
  - $1 to $3 (US) per person annually is the modest investment required to control many NCDs

**The Issue**

Noncommunicable diseases (NCDs) are a leading cause of premature death and disability in low- and middle-income countries (LMICs). NCDs are associated with high productivity losses and healthcare costs, which can add strain on developing economies with limited healthcare systems. However, NCD prevention through “best buy” interventions can result in millions of lives saved from premature deaths and billions in economic output.

“Best buys” are a core set of evidence-based interventions identified by WHO as highly cost-effective, feasible, and appropriate to implement within the constraints of the local health system. These include measures to control tobacco and reduce harmful use of alcohol; strategies to promote a healthy diet and physical activity; scaled-up treatment of cardiovascular disease and diabetes; and prevention of certain cancers. The annual per capita cost of implementing the full set of “best buys” in all low- and middle-income countries over 2011-2025 is estimated to be under US$1 in low-income countries, US$1.50 in lower middle-income countries, and US$3 in upper middle-income countries.

When compared to overall health spending, the costs of implementing intervention packages to control NCDs constitute a small portion of total health spending – 4% in low-income countries, 2% in lower middle-income countries, and less than 1% in upper middle-income countries. Benefit-cost models show that chronic hypertension management programs in LMICs could result in US$23 in benefits per US$1 spent. Population-based measures for reducing tobacco and excessive alcohol use, as well as improving diets and physical inactivity in low- and middle-income countries, are estimated to cost less than US$0.40 per person.

The rise of chronic noncommunicable diseases presents public health with an enormous challenge. For some countries, it is no exaggeration to describe the situation as an impending disaster. I mean a disaster for health, for society, and most of all for national economies.

Dr. Margaret Chan, WHO Director-General

Hypertension, also known as the “silent killer,” is a risk factor for cardiovascular disease and can be controlled with low-cost interventions.

For more information about CDC’s Global NCD, Injury, and Environmental Health initiatives, please visit: http://www.cdc.gov/globalhealth/healthprotection/ncd

07/11/2014
The Centers for Disease Control and Prevention (CDC) collaborates with academic, governmental, and nongovernmental partners to generate evidence-based intervention strategies to tackle the leading causes of NCDs and their underlying risk factors. CDC coordinates an international network for NCD economics research with the purpose of furthering economic and policy evidence for NCD prevention and control globally. Ongoing projects explore:

- Fiscal policy research on sugar-sweetened beverages and tobacco (e.g. Bangladesh, Barbados, Mexico, Thailand)
- Benefit-cost studies for NCD management of hypertension (e.g. Bangladesh, Turkey)
- Economic impact of NCDs on poverty, development and health systems (e.g. Bangladesh)

An area for potential further development explores links between health systems and NCD outcomes globally, as well as the role of NCD prevention and control in the global development agenda.

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<th>Economic Burden of NCDs in LMICs, 2011-2025¹</th>
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<tbody>
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<td>Diabetes</td>
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<td>Cardiovascular diseases</td>
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<td>Respiratory diseases</td>
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Center for Global Health
Division of Global Health Protection