

THE ECONOMIC BURDEN OF NON-COMMUNICABLE DISEASES IN THE AMERICAS

ISSUE BRIEF ON NON-COMMUNICABLE DISEASES

KEY MESSAGES

- Non-communicable diseases represent a **high cost to society** and contribute to social inequities.
- Available cost estimates indicate a large and **growing burden** to individuals, families, and the public and private sectors.
- **Complications of non-communicable diseases incur considerable costs**; for example, diabetic nephropathy was estimated as the most costly complication of diabetes in the Americas.
- Non-communicable disease costs are expected to rise; in the next ten years alone, **cancer costs will rise by one-third**.
- Knowledge and technologies exist to bring down the burden of non-communicable disease. **Paying for non-communicable disease prevention and management is an investment.**

The costs of non-communicable diseases (NCDs) to the health system, businesses and individuals, are significant and growing. Governments, communities, and private industries are all affected by the high costs of premature death and disability as well as of treatments and caretaking for those living with NCDs. The burden is so great because of the large numbers of people affected, especially those men and women of working-age who are not able to secure productive employment. **Without adequate prevention and early detection, these costs only rise, as they require expensive treatments, surgeries, and medications and cut productive lives short.**



NCDs: CARDIOVASCULAR DISEASE, CANCER, CHRONIC RESPIRATORY DISEASE, AND DIABETES

Estimates of the economic burden of the four major non-communicable diseases (cardiovascular disease, cancer, chronic respiratory disease, and diabetes) are not thoroughly documented. Available country-level evidence indicates that NCDs pose a tremendous economic burden that can be felt far beyond the health sector. In fact, according to the World Economic Forum's annual risk report, NCDs have been determined a major risk to economic loss by global business leaders and decision makers, placing them among other severe risks such as underinvestment in infrastructure, fiscal crises, and unemployment.^{1,2}

CANCER. In the Americas, there were an estimated 2.8 million new cases of cancer in the year 2009 alone.³ The cost of these new cancer cases was estimated at \$153 billion¹ for the first year after diagnosis, taking into account medical costs, non-medical costs, and lost productivity. This staggering estimate is conservative, as it does not include the cost of cancer screening and prevention, lost income due to cancer mortality, or future treatment costs. Using this estimation method, the most costly cancers were lung (annual cost of \$31 billion), prostate (\$18 billion), and breast (\$17 billion). Cancer cases are projected to grow in the next decade by approximately 30%; these 3.6 million new cases in 2020 will incur costs of treatment, caregiving, and lost earnings.

CARDIOVASCULAR DISEASE. Recent data from Argentina indicate that the loss of healthy life years due to cardiovascular disease and stroke can be avoided through existing knowledge and technologies. Doing so would save costs to the tune of \$395 million annually.

CHRONIC RESPIRATORY DISEASE. Data from the United States indicate that chronic obstructive pulmonary disease (COPD) costs \$24 billion annually; this estimate is from 1993, so today's costs are most likely substantially higher.^{4,5}

DIABETES. Diabetes was estimated to cost the Region of the Americas \$65 billion in the year 2000; the majority of costs were indirect (\$54 billion).⁶ The most expensive complication of diabetes was estimated to be nephropathy, followed by retinopathy. Diabetes constitutes a significant portion of total health expenditure. The most recent estimates from the International Diabetes Federation indicate that in 2010, spending on diabetes accounted for 9% of the total health expenditure in South and Central America, and 14% in North America (including the English-speaking Caribbean countries and Haiti).⁷

COMBINED ESTIMATE. For the time period 2006-2015, the cumulative loss to GDP from heart disease, stroke, and diabetes was calculated at \$13.54 billion for four countries of the Americas: Argentina, Brazil, Colombia, and Mexico.⁸ In Brazil, the Region's second-largest economy after the United States, the cost of treatment and lost productivity due to five NCDs (ischemic heart disease, cerebrovascular disease, diabetes mellitus, chronic obstructive pulmonary disease, and cancer of the trachea, bronchi and lungs) was estimated at \$72 billion.⁹



MEETING THE CHALLENGE AND ADDRESSING INEQUITIES

The burden of non-communicable diseases on health systems, economies, educational systems, and taxpayers can be tremendous. In Mexico, the Region's third-largest in population and economy, it is estimated that if diabetes and hypertension continue to increase as projected, the health budget would have to grow by five to seven percent each year.¹⁰

The Region of the Americas has very high levels of income inequality; some countries of the Americas rank among the most unequal in the world,¹¹ and extra efforts need to be made to reach the poorest and most vulnerable people of the Region. Populations in lower socio-economic groups have the greatest exposure to NCD risk factors, while still experiencing morbidity and mortality due to infectious disease and nutrient deficiencies.^{12, 13} With the least amount of available resources to treat illness, poor households are at great risk for even deeper impoverishment with even one case of non-communicable disease.

NCDs have the potential to deepen women's inequality in the Region. Traditional gender roles assign women the task of providing care to the chronically sick, disabled, and elderly. Women often are not paid for this caregiving, which consumes their available time and makes it difficult for them to obtain and maintain paid work in the formal economy. As a result, women do not receive employer-provided health insurance or social security credit for their unpaid, but socially valuable, caregiving work. As women themselves become elderly and chronically ill, they have little of their own money to pay for needed health care, and they are excluded from publically reimbursed health and social services.

As non-communicable disease creates and reflects social inequities, it is important that strategies to address the burden take into account different NCD incidence and survival rates for different ethnic and racial groups. Culturally-appropriate programs should be designed and implemented by target indigenous and ethnic communities to address disparities in obesity, alcohol use, and tobacco use rates. Prevention programs should operate at the community level to emphasize abstention from tobacco use, healthy diets that include locally available and acceptable foods, and physical activity for girls, boys, women, and men.

Policies and programs for prevention and control of NCDs must take into account the social determinants and behavioral risk factors for NCDs. To respond to the needs of the Region's poor and marginalized people, non-communicable disease strategies must prioritize interventions that include gender, intercultural, and community-based approaches.



OPTIONS AND OPPORTUNITIES TO ADDRESS NON-COMMUNICABLE DISEASES AND REDUCE COSTS

There is a great opportunity to meet the challenges posed by non-communicable diseases in the Americas. Knowledge of how to prevent and manage NCDs and risk factors exist. If we were to apply this knowledge, millions of premature deaths could be prevented, avoiding the lost productivity and financial hardship to families. Some policy options have the potential to generate revenue in addition to improving health, such as taxes on tobacco, alcohol, and sugary drinks. There has been substantial movement in the Region to increase spending related to non-communicable disease. Today, all countries in the

Region report having a national budget dedicated to non-communicable diseases, compared to two-thirds of countries in 2005.¹⁴ This trend needs to be leveraged to stem the tide of non-communicable diseases and their associated costs.

The costs of non-communicable diseases are high, but the costs of inaction are even higher. Paying for non-communicable disease prevention and control is much more than a cost, but rather, an investment for the future.



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