

# Non-Communicable Diseases (NCDs)

## WHAT YOU SHOULD KNOW

**Each year, 38 million people worldwide die from non-communicable diseases (NCDs)**, with three-quarters (28 million) of those deaths occurring among people living in low- and middle-income countries.<sup>1</sup> NCDs – including but not limited to cancer, cardiovascular disease, diabetes, chronic lung diseases, mental and neurological disorders, and injuries – present a rapidly expanding worldwide public health and development crisis.

**Rather than diseases of affluence, NCDs are especially diseases of poverty, impacting poor countries and poorer populations in higher income countries early in life.** The poor are exposed to a broader range of risk factors, including low-cost, high-calorie food; malnutrition; tobacco; limited opportunity for exercise; and exposure to environmental pollution. Among the world's poorest populations, particularly in rural areas, the heavy burden of death and disability from NCDs is dominated by diseases – such as rheumatic heart disease, type 1 diabetes, Burkitt's lymphoma and cervical cancer – that are driven more by infections and environmental exposures than by behavioral and metabolic risk factors.<sup>2</sup>

**In the global effort to address NCDs, cost is not the problem, inaction is.** There are critical “inflection points” throughout a person's life, such as pregnancy and childhood, when investments can be particularly cost-effective.<sup>3</sup> Well-known “best buys”<sup>4</sup> are available to prevent NCDs, addressing major risk factors, such as tobacco use, physical inactivity, unhealthy diet, and harmful use of alcohol. Effective interventions and service delivery platforms have also been developed to bring integrated prevention and treatment of NCDs to poor countries and communities.<sup>5</sup>

**Limited access to quality-assured medicines and diagnostic technology contributes to the high mortality rates from NCDs in developing countries.** A child diagnosed with cancer who lives in one of the poorest countries has an 80% probability of dying, compared to less than 30% in the U.S. and other wealthy countries, despite existence of low-cost, curative drugs that can be administered safely and effectively in low-resource settings.<sup>6</sup>

**NCDs can also cause disabilities that place significant strains on the individual and the economy.** Disabilities from NCDs account for 78.6% of all years lived with a disability.

## RECOMMENDATIONS FOR CONGRESS

**Integrate NCD-related objectives into existing health programs and platforms.** Examples include encouraging smoke-free pregnancies, screening and treating pregnant women for hypertension and gestational diabetes, and screening for and treating cervical cancer within the HIV population. These interventions would increase access to some of the most proven, sustainable, and cost-effective global health interventions and save millions of lives at minimal cost.

**Coordinate U.S. global health investments to address the growing, long-term threat presented by NCDs.** As a first step to achieving the UN Sustainable Development Goals (SDGs) agreed to by the United States in 2015, the U.S. government should begin by working more closely with Ministries of Health and local partners in priority countries to address NCDs. To help strengthen coordination, the U.S. should consider naming an NCD coordinator at the Department of State, the U.S. Agency for International Development (USAID), or the Department of Health and Human Services. The U.S. has been influential in addressing other global health concerns (for example HIV/AIDS) and serves as a catalyst for initiating interventions and collaborations.

**Undertake a comprehensive analysis of the epidemiology and disease trends in U.S. priority countries.** The effort should include all causes of morbidity and premature mortality as reflected in the Global Burden of Disease (GBD)<sup>7</sup> and should give particular attention to the epidemiology and disease burden among the poorest and most vulnerable populations.

**Incorporate statutory language into future State, Foreign Operations, and Related Programs (SFOPs) Appropriations bills addressing NCDs.** Hold USAID accountable for implementing NCD interventions in existing global health programs and developing guidance for health systems strengthening. Encourage other U.S. agencies to expand their programs and messaging to better address NCDs with a view toward directing global health investments to priority country needs while advancing U.S. security, diplomacy, and development interests.

**Establish a public-private advisory group.** The group would provide guidance, assistance, and support for the U.S. government's global effort against NCDs.

**Adequately fund existing programs. Addressing NCDs within existing programs can increase program efficiency and impact.** For example, the Global Nutrition Coordination Plan 2016-2021 identified nutrition-related NCDs as a focus area that can enhance the impact of current nutrition-related investments, and the Centers for Disease Control and Prevention's Strategic Framework for Global Immunization 2016-2020 recognizes that some cancers and other NCDs can be prevented with vaccines. Both platforms should be funded and strengthened.

## WHY THIS INVESTMENT IS IMPORTANT

Currently, NCDs in low- and middle-income countries are plunging families into poverty, damaging productivity, threatening economic growth and national economies, further straining health budgets and health systems, and putting our very substantial global health investments at risk. Barring intervention, this problem will only increase in the future. Today's 8.2 million annual cancer deaths worldwide are projected to increase to 13.1 million in 2030, with comparable increases in cardiovascular disease, unipolar depressive disorders, and other NCDs. With 16 million NCD-related deaths occurring before the age of 70 and more than 82% of these premature deaths occurring in developing countries, NCD-related deaths outnumber those caused by HIV/AIDS, tuberculosis, and malaria in U.S. priority countries.<sup>8</sup>

Children face unique challenges and need tailored solutions for the prevention, management, and treatment of NCDs. Diseases and conditions acquired during childhood can affect people throughout their lives. Half of adult NCDs begin in childhood, and most of the behaviors that underlie NCDs start during adolescence. Children in low- and middle-income countries who suffer from NCDs often die prematurely because of late diagnosis or lack of access to adequate treatment, or they suffer long-term disabilities from chronic conditions that are not adequately managed.

More than 25% of maternal deaths are caused by pre-existing medical conditions such as diabetes, HIV, malaria, and obesity. For women living with NCDs, particularly type 1 diabetes or rheumatic heart disease, preconception planning can help to reduce maternal and child morbidity and mortality. Early detection and management of gestational diabetes mellitus, for instance, could help to reduce stillbirths by up to 45% and reduce the risk of later cardio-metabolic disease for both the mother and child. Postnatal follow-up provides additional screening opportunities.

### Resources

CDC Global Health Protection and Security, Division of Global Health Protection (DGHP), NCDs <http://bit.ly/2gdXhBg>  
Institute for Health Metrics and Evaluation (IHME), Global Burden of Disease <http://bit.ly/1OLTTXE>  
NCD Alliance <http://bit.ly/2cYG6Cr>  
NCD Roundtable <http://bit.ly/2gOImR6>  
The U.S. Government and Global Non-Communicable Disease Efforts <http://kaiserf.am/2h6gfvy>  
World Health Organization (WHO), Non-communicable Diseases and Mental Health <http://bit.ly/1hwUfqh>

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A linkage facilitator registers a mother for cervical cancer screening.  
Credit: Jennifer Acio, MSH, International Medical Corps

NCDs affect all countries, but developing countries are affected disproportionately. This population has increased exposure to certain risk factors (for example, indoor air pollution) along with insufficient resources to treat the resulting health outcomes.<sup>9</sup> Communicable diseases and NCDs coexist and in many cases influence each other's risk and/or disease progression.

These diseases are sapping the economic strength and social capital of societies that are major U.S. partners for trade and development. The World Economic Forum continues to rank NCDs as one of the greatest risks to global well-being, similar to fiscal crises. Projections of future economic losses over the coming 15 years resulting from NCDs reach \$47 trillion. Much of this hampered economic growth is expected in low- and middle-income countries, further threatening education outcomes and workforce productivity, and undermining progress toward global poverty eradication, including existing and future development goals.

### Citations

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6. Knaul FM, Gralow JR, Atun R, Bhadelia A (Eds.) "Closing the Cancer Divide: an Equity Imperative." Harvard Global Equity Initiative/Harvard University Press, Cambridge, MA; 2012.
7. "Global Disease Burden," Institute for Health Metrics and Evaluation. <http://bit.ly/1OLTTXE>.
8. "U.S. Priority Countries," U.S. Global Health Programs. <http://bit.ly/2gSI4KS>.
9. "The Emerging Global Health Crisis: Noncommunicable Diseases in Low- and Middle-Income Countries." <http://on.cfr.org/1zjxqez>.