



Importance of Non-Communicable Diseases on a Global Level

The R&D-based pharmaceutical industry recognizes the increasing burden that Non-Communicable Diseases (NCDs) place on patients and health systems around the world. In our fight to improve the health and quality of life of all patients, we are committed to continue our partnerships to tackle these complex issues including extensive investment in R&D programs dedicated to the development of new NCD preventative and treatment products. Both prevention and treatment play an important role in increasing our ability to tackle NCDs.

The pharmaceutical industry has long recognized the economic and social burden of non-communicable disease and has been working with governments, health care providers, patients groups and other stakeholders as an active solution partner in lessening this burden. The industry promotes and supports health prevention and promotion strategies and patient-centered approaches to managing chronic conditions and their risk factors. At the same time the global biopharmaceutical industry leads the search for new cures and the research and development of new medicines to treat or prevent non-communicable diseases. There are currently thousands of medicines either in clinical trials or awaiting approval to treat NCDs. The great challenge in preventing and controlling NCDs on a global scale is finding patient-centered solutions that reduce the burden on health services by promoting individual healthy lifestyles.

Cost-effective solutions can address the impact of NCDs and the costly complications that can result from inadequate management of chronic conditions by improving disease prevention, early intervention and effective disease management. Health disparities can be reduced by focusing on minimizing barriers to access and good health, encouraging and rewarding continuous advances. Clinical practice research can lead to improved quality of care for those with prevalent and costly NCDs. Advancing health literacy can accelerate improvements in the quality and availability of health information to patients allowing them to play a greater role in the management of their own health.

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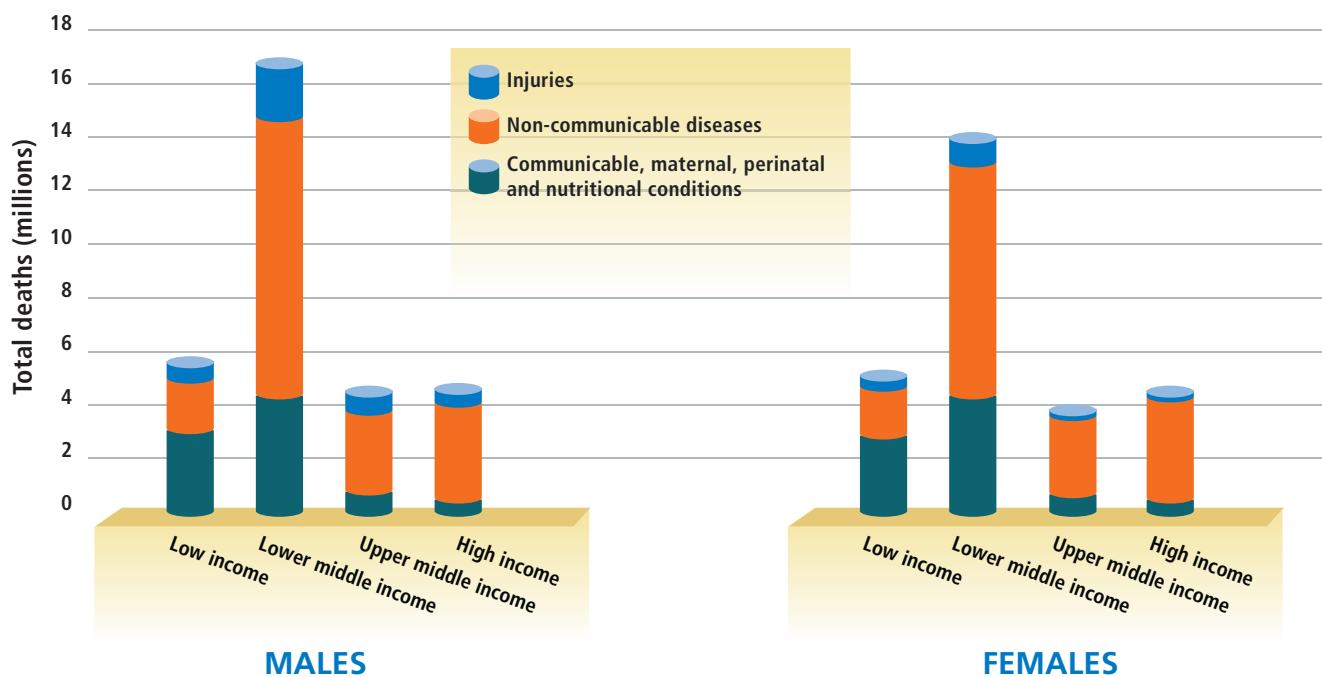
Health conditions including strokes, heart disease and diabetes, cancers, neuropsychiatric and respiratory disorders place a heavy burden on economies and health care systems globally.ⁱ In the recent past, NCDs and more specifically chronic diseases, were considered a problem reserved for high-income countries while infectious diseases seemed to affect low-income countries.ⁱⁱ The burden of disease attributed to NCDs worldwide is 85% in industrialized nations, 70% in middle-income and nearly 50% in low-income nations.ⁱⁱⁱ In fact, in 2008, chronic diseases accounted for 36 million of the 57 million deaths worldwide.^{iv} This is twice the number of deaths attributed to all infectious diseases, maternal and perinatal conditions and nutritional deficiencies.^v There is an indirect correlation between burden of disease and deaths from NCDs based on a country's income level – nearly 80% of chronic disease deaths occur in low and middle income countries, with only 20% occurring in higher income countries.^{vi}

Causes and Impact of Non-Communicable Chronic Diseases

Most NCDs are preventable because they are caused by modifiable risk factors, which include poor diet, lack of physical activity and tobacco use.^{vii} Every year, more than 5 million people die because of direct tobacco use and 2.8 million die from being overweight or obese. High cholesterol accounts for 2.6 million deaths and 7.5 million die because of elevated blood pressure.^{viii}

Figure 1

Projected Deaths by Broad Cause Group, by World Bank Income Group and by Sex, 2008



By 2030, deaths caused by chronic diseases are expected to increase to 52 million while deaths caused by infectious diseases, maternal and perinatal conditions and nutritional deficiencies are expected to decline by 7 million over the same time period.^{ix} Individually, chronic disease lowers quality of life for those affected, causes premature deaths and negatively impacts the economic solvency of families, communities and nations. National economies are foregoing significant national income because of premature deaths resulting from heart disease, stroke and diabetes. For example, China is expected to forego approximately \$558 billion in national income between 2005 and 2015 due to premature deaths caused by heart disease, stroke and diabetes.^x

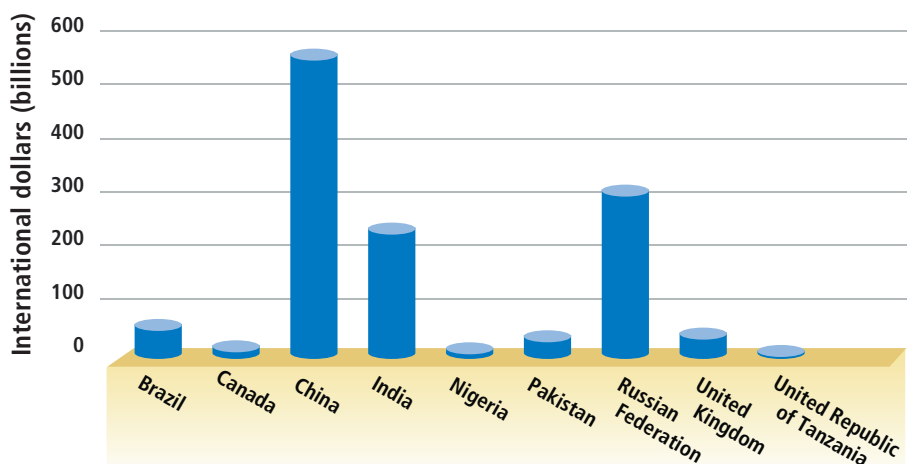
Controlling Non-Communicable Chronic Diseases

The main risk factors of NCDs are known; therefore, if the primary risk factors were eliminated, four out of five cases of heart disease, stroke and type 2 diabetes and 40% of cancers would be prevented.^{xi} Interventions targeting the main risk factors can have a significant impact on reducing the burden of disease worldwide; there are low-cost solutions that can be implemented in every country. Preventions focused on better diet, increased physical activity and access to vaccines are shown to decrease the prevalence of chronic disease that in turn improves quality of life and lowers healthcare costs.^{xii}

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Figure 2

Projected Foregone National Income Due to Heart Disease, Stroke and Diabetes *in Selected Countries, 2005 - 2015*



SOURCE: World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 5

End Notes

- ⁱ World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 35
- ⁱⁱ World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. vii
- ⁱⁱⁱ Lopez, Alan; *Global Burden of Disease and Risk Factors*; World Bank, 2006, pg. 89
- ^{iv} World Health Organization; *Global Status Report on Noncommunicable Diseases*; World Health Organization Cataloguing-in-Publication Data, 2011, pg. 9
- ^v World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 2
- ^{vi} World Health Organization; *Global Status Report on Noncommunicable Diseases*; World Health Organization Cataloguing-in-Publication Data, 2011, pg. 9
- ^{vii} World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 6
- ^{viii} World Health Organization; *Global Status Report on Noncommunicable Diseases*; World Health Organization Cataloguing-in-Publication Data, 2011, pg. 17-25
- ^{ix} World Health Organization; *Global Status Report on Noncommunicable Diseases*; World Health Organization Cataloguing-in-Publication Data, 2011, pg. 9
- ^x World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 5
- ^{xi} World Health Organization; *Preventing Chronic Diseases a Vital Investment*; World Health Organization Cataloguing-in-Publication Data, 2005, pg. 18