

FORUM:	General Assembly
ISSUE:	Measures to Reduce the Rising Rates of Noncommunicable Diseases in Economically Developing Countries
STUDENT OFFICER:	Esther Hale
POSITION:	Deputy President of General Assembly

Introduction

According to the Pan-American Health Organization (PAHO), noncommunicable diseases (NCDs), are a classification of diseases that are not primarily transmitted through infection. This category includes cancer, diabetes, and heart disease. According to the World Health Organization (WHO), NCDs are responsible for 41 million deaths annually, accounting for 74% of all deaths worldwide. Unfortunately, up to a third of these deaths are premature, ranging from 30 to 69 years old. The high death rates from NCDs can be attributed to their chronic nature, often necessitating prolonged and expensive treatments that are not widely accessible. However, treatment for these diseases is both expensive and limited, resulting in a lack of access to requisite treatment in economically developing countries. According to statistics from the WHO, approximately 77% of all deaths from NCDs occur in low- and middle-income countries, with an additional 85% of premature deaths.



East African Initiatives Providing Chemotherapy Access to Ugandan Cancer Patients

Background

As detailed by Bynum, in the 1600s, English physician Thomas Sydenham was the first to differentiate between “acute” diseases, and “chronic”, or non-communicable, diseases. As defined by The National Council on Aging, acute diseases develop quickly and last a short time, while non-communicable diseases develop slowly and last a long time. In the following centuries after Sydenham’s discovery, many other philosophers, doctors, and physicians added and updated his idea. However, it wasn’t until much later that the modern classifications were developed.





A Proposed 5x5 Framework

Throughout Earth's history, NCDs have been a leading cause of death. However, as noted by Abdesslam and Saber Boutayeb, they began causing significant issues in industrializing countries after the Second World War. Due to this historical link between NCDs and economic development, these ailments were known as diseases of the rich or diseases of affluence, as described by Budreviciute. During that time, the American chronic disease movement pioneered a multitude of research into cancer, heart disease, and the like. Data centered around developing countries have only been produced more recently, showcasing NCDs' more prevalent effect on Economically Developing Countries.

This research developed the 4x4 framework for tackling NCDs which focuses on four diseases: cancer, diabetes, heart disease and chronic lung disease; and four risk factors: tobacco, alcohol, physical inactivity, and poor diets. The framework is often used as a basis for strategies to limit the effects of NCDs. However, some recent research has begun including mental health issues, such as mood disorders and anxiety disorders, in the NCD classification as noted by Stein. This has led to the 5x5 framework, adding mental health as a new disease and either air pollution or environmental factors as a new risk factor. Despite some recent research, this movement has “mostly been ignored by both the NCD advocacy community and the Maternal and Child Health and child survival service communities,” according to Gray and Klein.

Ongoing research continues to explore the complex interplay between genetics, lifestyle, and environmental factors in the development of NCDs. Future studies aim to develop more targeted interventions to reduce the global burden of these diseases.

Problems Raised

Increasing Poverty Rates

NCD treatment expenses impoverish poor families in developing countries. Even in 2012, “12 of the 13 newly-approved cancer drugs were priced above \$100,000 annually,” and the issue has not subsided with time according to Workman et al. It is projected that from 2020 to 2050, total cancer expenses will cost around 0.55% of the global GDP. Other NCDs, such as diabetes and heart disease, maintain similar barriers. The American Diabetes Association cites the total annual diabetes spending in 2022 to reach \$412.9 billion in the USA alone. One study conducted by Joseph Menzin, a PhD

specializing in health economy, found that first-year costs of heart disease medication average around \$32,345.

Productivity Decline

The productivity of a country or business is a measure of their efficiency in “converting inputs into useful outputs,” such as a factory turning raw materials into products, or a court turning unresolved cases into sentences. In 2015, Chaker et al. published a report showcasing how productivity is influenced by a wide variety of factors. These factors can include unemployment rates, average age, and average lifespan. In many developing countries, NCD-related population decline and disability have prompted declining workforce productivity.

A surprisingly similar situation to these current concerns was documented in Brazil in the early 2000s. During that time, Brazil faced an increase in the already vast number of deaths due to NCDs, mainly diabetes. This caused extreme reductions in the workforce capabilities, and an estimated “1.1 million years of productive life were lost in the workforce of Brazil,” according to Fuster et al. In fact, according to the World Bank (74), treatment costs and productivity loss amounted to an estimated 10% of Brazil’s GDP in 2003.

International Actions

World Health Organization

Due to the prevalence of NCD-related deaths and resulting issues, NCDs have garnered global attention. As Richard Horton delineates, in 2012, the World Health Organization made a goal to reduce “avoidable mortality” from NCDs by 25% by 2025. Similarly, the UN Interagency Task Force on NCDs developed several NCD-oriented goals regarding reducing exposure to risk factors such as water pollution and tobacco usage, a goal that was detailed in the article “NCDs in UNIATF Health Policies”. Sustainable Development Goal 3 also focuses on NCDs in one subpoint. Unfortunately, despite the history of movements surrounding this topic, especially those by large-scale organizations and governments, the impact of NCDs remains prevalent.



WHO Annual Gathering on NCDs Prevention and Control



TIANMUN

Middle Eastern Investments

From 2019 to 2021, the United Nations headed an investment project in the Gulf Cooperation Council, or GCC, countries, Kuwait, Bahrain, Saudi Arabia, Oman, and Qatar. The project developed six different investment cases, meaning one was based in each country. Through analyzing the health and economic burdens of NCDs, the cases provided much needed data on NCD-related losses in the region, and furthermore enabled the creation of beneficial healthcare policies. According to the UN report by Grafton et al. on the matter, the majority of funds were utilized in increasing NCD awareness among the public and generating high-level support among key stakeholders.

Key Players



Speakers from NCD Alliance Kenya

Kenya

Kenya is on the forefront of tackling NCD-related problems. In 2012, the NCD Alliance of Kenya was formed, providing valuable awareness and government interest, according to the NCD Alliance Kenya. Then later, in 2016, the Kenya Red Cross Society partnered with Novartis, a global healthcare company. Additionally,

Kenya's proximity to other developing countries provides it with a unique role in combating NCDs, resulting in NGOs such as the African Palliative Care Association, Amref Health Africa, and the African Population and Health Research Centre basing some research in Kenya.

United States of America

The US government has been increasingly providing funding, research, and technical assistance to economically developing countries. In addition, explains KFF, various interventions targeting modifiable risk factors, such as diet and awareness have been implemented through “creating environments that support increased consumption of fruit and vegetables, reduced salt intake, and increased physical activity”. The United States' general stance on the issue was clearly stated in a speech by Thomas Alexander at a 2017 World Health Organization meeting, “The United States strongly supports efforts to combat non-communicable diseases.”

United Kingdom

The United Kingdom is one of the main contributors to research on non-communicable diseases. Most of this research is done through the UK Working Group on NCDs, “a network of over 20 UK-based national and international NGOs and research organisations.” This group has raised money for vulnerable and marginalized populations in economically developing countries, and states on its website that “The UK Working Group on NCDs calls for NCDs to be a priority for UK international development.”

Possible Solutions

Stricter Control of Tobacco and Alcohol

Many experts in the field, such as Muktabhant et al., cite tobacco use and the harmful use of alcohol as two of the largest NCD risk increasing factors. Due to this fact, current strategies for limiting NCDs’ impact involve discouraging tobacco and alcohol use. However, Dag Rekve, who studies substance abuse, explains how “Although governments have endorsed...interventions to tackle the harmful use of alcohol, progress...has been uneven.” Similarly, Collins et al. have recorded interference in the tobacco industry which has undermined NCD-prevention efforts. Therefore, current, feasible strategies on control of tobacco and alcohol use are lacking. Improved strategies are requisite and would require reviewing tangible benefits, increasing awareness, and improving access to addiction relief programs.



A visual created titled “Alcohol Use: Fueling the NCDs Tsunami” by Movendi International

Improving Rural Access to Healthcare

According to Ganju et al., a large issue in Economically Developing Countries is access to healthcare, and it has been cited as one of the key challenges in combating NCDs. In fact, around 83% of countries around the world have impedingly little to no access to pain-relieving medical drugs, according to data from The Economist Intelligence Unit. In addition, access to health insurance, which is equally uncommon, is also important to address. Insufficient access to both healthcare and health insurance must be countered through the development of infrastructure, improved transportation of medicine, and training of more healthcare employees.

Glossary

Economically Developing Countries

Economically Developing Countries are defined as countries with lower than average standards of living and economic prospects compared to other countries.

Premature Death

A term for the death of people aged 30-69.

Cancer

Cancer is one of the four main NCDs responsible for fatalities and is an affliction where malignant growths inhibit bodily functions.

Diabetes

Diabetes is another of the four main NCDs responsible for fatalities and is caused by abnormal body sugar levels.

Chronic Disease

Chronic Disease is a slow-paced and long-term disease that requires continuous medical treatment.

Acute Disease

Acute Disease is a disease that develops quickly and lasts for a short period of time, usually with instantaneous severe symptoms.

Sources

- “About Us.” *Amref Health Africa in Kenya*, 24 Mar. 2021, amref.org/kenya/about-us.
- African Palliative Care Association. *Integration | African Palliative Care Association*.
www.africanpalliativecare.org/what-we-do/integration.
- “African Population and Health.” *International Institute for Environment and Development*,
www.iied.org/org/african-population-health-research-centre
- Boutayeb, Abdesslam, and Saber Boutayeb. “The burden of non communicable diseases in developing countries.” *International Journal for Equity in Health*, vol. 4, no. 2, Jan. 2003, doi:10.1186/1475-9276-4-2.
- Budreviciute, Aida, et al. “Management and Prevention Strategies for Non-communicable Diseases (NCDs) and Their Risk Factors.” *Frontiers in Public Health*, vol. 8, Nov. 2020,
doi:10.3389/fpubh.2020.574111.
- Bynum, Bill. “A History of Chronic Diseases.” *Lancet*, vol. 385, no. 9963, Jan. 2015, pp. 105–06,
doi:10.1016/s0140-6736(15)60007-1.
- Chaker, Layal, et al. “The Global Impact of Non-communicable Diseases on Macro-economic Productivity: A Systematic Review.” *European Journal of Epidemiology*, vol. 30, no. 5, Apr. 2015, pp. 357–95, doi:10.1007/s10654-015-0026-5.
- Collins, Téa E., et al. “Time to Align: Development Cooperation for the Prevention and Control of Non-communicable Diseases.” *BMJ. British Medical Journal*, July 2019, p. 14499,
doi:10.1136/bmj.14499.
- “Development and NCDs.” *UK Working Group on NCDs*, 11 Apr. 2024, globalncdsuk.org/what-we-do/sdgs-ncds.
- Fuster, Valentin, et al. “Low Priority of Cardiovascular and Chronic Diseases on the Global Health Agenda.” *Circulation*, vol. 116, no. 17, Oct. 2007, pp. 1966–70,
doi:10.1161/circulationaha.107.733444.
- Grafton, Daniel, et al. “Scaling up Action on Non-communicable Diseases Across Gulf Cooperation Council Countries.” *University of Birmingham*, Geneva, Switzerland, UNDP, WHO, UNIATF, GHC, 1 Dec. 2021, research.birmingham.ac.uk/en/publications/scaling-up-action-on-non-communicable-diseases-across-gulf-cooper.
- Gray, Nicola, and Jonathan D. Klein. “Mental Health and Non-communicable Diseases: A Narrative Review.” *Pediatric Medicine*, vol. 5, Feb. 2022, p. 6, doi:10.21037/pm-20-84.
- Horton, Richard. “Non-communicable Diseases: 2015 to 2025.” *Lancet*, vol. 381, no. 9866, Feb. 2013, pp. 509–10, doi:10.1016/s0140-6736(13)60100-2.



- Kenya Red Cross Society. “Kenya Red Cross.” *ReliefWeb*, 19 Aug. 2016, reliefweb.int/report/kenya/kenya-red-cross-society-and-novartis-join-forces-combat-non-communicable-diseases
- KFF. “The U.S. Government and Global Non-Communicable Disease Efforts | KFF.” *KFF*, 13 Mar. 2019, www.kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-non-communicable-diseases.
- Kola, Olarewaju. *Nigerian Cancer Patients Fret Over Medical Costs*. 4 Feb. 2020, www.aa.com.tr/en/africa/nigerian-cancer-patients-fret-over-medical-costs/1723509.
- Malta, Deborah Carvalho, et al. “Mortality Due to Noncommunicable Diseases in Brazil, 1990 to 2015, According to Estimates From the Global Burden of Disease Study.” *São Paulo Medical Journal*, vol. 135, no. 3, June 2017, pp. 213–21, doi:10.1590/1516-3180.2016.0330050117.
- McNeil, Donald G., Jr. “As Cancer Tears Through Africa, Drug Makers Draw Up a Battle Plan.” *New York Times*, 7 Oct. 2017, www.nytimes.com/2017/10/07/health/africa-cancer-drugs.html.
- Menzin, Joseph, et al. “One-year Costs of Ischemic Heart Disease Among Patients With Acute Coronary Syndromes: Findings From a Multi-employer Claims Database.” *Current Medical Research and Opinion*, vol. 24, no. 2, Jan. 2008, pp. 461–68, doi:10.1185/030079908x261096.
- Montevideo, U. S. Embassy. “‘the United States Strongly Supports Efforts to Combat Non-communicable Diseases’ - U.S. Embassy in Uruguay.” *U.S. Embassy in Uruguay*, 18 Oct. 2017, uy.usembassy.gov/montevideoroadmap.
- Movendi International. “New Resource: Alcohol and NCDs - Harm and Solutions - Movendi International.” *Movendi International*, 28 Oct. 2020, movendi.ngo/news/2019/05/20/new-resource-alcohol-and-ncds-harm-and-solutions.
- Muktabhant, Benja, et al. “Improved Control of Non-communicable Diseases (NCDs) Requires an Additional Advanced Concept for Public Health – a Perspective From a Middle-income Country.” *F1000Research*, vol. 8, Mar. 2019, p. 286, doi:10.12688/f1000research.18423.1.
- “NCD Alliance Kenya.” *NCD Alliance*, 28 Jan. 2022, ncdalliance.org/ncd-alliance-kenya.
- NCDs in UNIATF Health Policies*. uniatf.who.int/governance/ncds-in-uniatf-health-policies.
- “Noncommunicable Diseases.” *PAHO/WHO | Pan American Health Organization*, www.paho.org/en/topics/noncommunicable-diseases.
- “Non-Communicable Diseases (NCDs) Archives.” *Lake Health and Wellbeing*, lakehealthandwellbeing.com/category/blog/non-communicable-diseases.
- Parker, Emily D., et al. “Economic Costs of Diabetes in the U.S. in 2022.” *Diabetes Care*, vol. 47, no. 1, Nov. 2023, pp. 26–43, doi:10.2337/dci23-0085.
- Rekve, Dag, et al. “Prioritising Action on Alcohol for Health and Development.” *BMJ*, Dec. 2019, p. 16162, doi:10.1136/bmj.l6162.



- “Second annual gathering of the Global Group of Heads of State and Government for the prevention and control of NCDs.” *World Health Organization*, 21 Sept. 2023, www.who.int/news-room/events/detail/2023/09/21/default-calendar/second-annual-gathering-of-the-global-group-of-heads-of-state-and-government-for-the-prevention-and-control-of-ncds.
- Stein, Dan J., et al. “Integrating Mental Health With Other Non-communicable Diseases.” *BMJ. British Medical Journal*, Jan. 2019, p. 1295, doi:10.1136/bmj.1295.
- The Economist Intelligence Unit. “The Next Pandemic?” *The Economist*, 2017, impact.economist.com/perspectives/health/developing-countries-are-ill-equipped-manage-growing-chronic-disease-burden-new-eiu-report-finds.
- “Time to Deliver in Europe.” *WHO-Europe*, WHO/EURO:2019-3691-43450-61040, 10 Apr. 2019, www.who.int/europe/publications/i/item/WHO-EURO-2019-3691-43450-61040.
- “UK Working Group.” *NCD Alliance*, 5 Feb. 2021, ncdalliance.org/uk-working-group-on-ncds.
- Wang, XiaoDong. “All Poor Rural Areas to Get Basic Healthcare Access.” *Chinadaily.com.cn*, 10 July 2019, global.chinadaily.com.cn/a/201907/10/WS5d252922a3105895c2e7c990.html.
- Workman, Paul, et al. “How Much Longer Will We Put Up With \$100,000 Cancer Drugs?” *Cell*, vol. 168, no. 4, Feb. 2017, pp. 579–83, doi.org/10.1016/j.cell.2017.01.034.
- World Bank. “Addressing the Challenge of Non-communicable Diseases in Brazil.” *World Bank*, 32576-BR, 15 Nov. 2005, documents1.worldbank.org/curated/en/135951468020089832/pdf/325760BR.pdf.
- World Health Organization: WHO. *Noncommunicable Diseases*. 16 Sept. 2023, www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.

