

The Epidemiology Of Non-Communicable Diseases In Low-Income Countries: A Cross-Sectional Analysis

¹Mohammed Saad Nasser Alsenaidi, ²Rakan Ali Alotruzi,
³Abdulrahman Khalid bin Abdulwahid, ⁴Yahya Saleh Alserhani,
⁵Turki Dhaifallah Alrukhaimi

¹Psychologist, health affairs national guard

² Social worker, PHC HQ

³ Emergency medical technician, PHC HQ

⁴ EMERGENCY MEDICAL TECHNICIAN, PHC HQ

⁵ Pharmacy tech ,PHC HEAD QUARTER

Corresponding Author: Mohammed Saad Nasser Alsenaidi

Paper Publication Date: 6th January-2022

Abstract-

Non-communicable diseases (NCDs) pose a significant health burden in low-income countries, impacting individuals, communities, and healthcare systems. This cross-sectional analysis examines the epidemiology of NCDs in low-income countries, focusing on the prevalence, risk factors, and challenges faced in addressing these diseases. The study suggests the need for targeted interventions and policies to address the rising prevalence of NCDs in these settings.

Keywords: non-communicable diseases, low-income countries, epidemiology, risk factors, interventions

INTRODUCTION:

Non-communicable diseases, such as cardiovascular diseases, cancer, respiratory diseases, and diabetes, are a growing concern in low-income countries. While these countries traditionally faced a high burden of infectious diseases, the epidemiological transition has led to an increase in NCDs, placing a strain on already limited healthcare resources. Understanding the epidemiology of NCDs in low-income countries is crucial for developing effective prevention and control strategies.

The epidemiology of non-communicable diseases (NCDs) in low-income countries is an important area of study due to the increasing burden of these diseases in these regions. NCDs, also known as chronic diseases, include conditions such as cardiovascular diseases, diabetes, cancer, chronic respiratory diseases, and mental health disorders. Let's discuss the topic based on a cross-sectional analysis of the epidemiology of NCDs in low-income countries.

Burden of NCDs:

NCDs have traditionally been associated with higher-income countries, but they are now emerging as a major public health issue in low-income countries as well. NCDs contribute significantly to morbidity, mortality, and disability in these regions. According to the World Health Organization (WHO), approximately 75% of deaths due to NCDs occur in low- and middle-income countries.

Risk Factors:

The rise of NCDs in low-income countries can be attributed to several factors, including:

Changing lifestyles: Rapid urbanization, adoption of Western diets, sedentary lifestyles, and tobacco and alcohol use contribute to the increased risk of NCDs.

Socioeconomic factors: Poverty, limited access to healthcare, inadequate sanitation and housing conditions, and lack of education contribute to the burden of NCDs.

Demographic transition: Aging populations and declining fertility rates contribute to the increasing prevalence of NCDs.

Disease-specific Considerations:

Different NCDs have varying patterns and impacts in low-income countries:

Cardiovascular diseases: These include conditions such as heart attacks and strokes. Risk factors, including hypertension, obesity, and diabetes, are on the rise in low-income countries.

Diabetes: The prevalence of diabetes is increasing rapidly in low-income countries due to obesity, sedentary lifestyles, and changing dietary patterns.

Cancer: Certain types of cancer, such as cervical and liver cancer, have a higher incidence in low-income countries. Limited access to cancer screening, prevention, and treatment services contributes to poorer outcomes.

Chronic respiratory diseases: Factors such as indoor air pollution from biomass fuel use and tobacco smoking contribute to the burden of respiratory diseases in low-income countries.

Mental health disorders: Mental health conditions, including depression and anxiety, are often overlooked in low-income countries due to limited resources and stigma.

Health Systems and Challenges:

Low-income countries face several challenges in dealing with the burden of NCDs:

Limited healthcare infrastructure: Insufficient healthcare facilities, healthcare workforce, and resources pose challenges for prevention, diagnosis, and treatment of NCDs.

Lack of access to medications: Affordability and availability of essential medications for NCDs, including insulin, cardiovascular drugs, and cancer treatments, can be major barriers.

Health promotion and prevention: Limited awareness, education, and preventive measures contribute to the increasing burden of NCDs.

Addressing the epidemiology of NCDs in low-income countries requires a multi-faceted approach. Strategies may include strengthening healthcare systems, improving access to affordable medications, promoting healthy lifestyles, implementing population-wide prevention programs, and integrating NCD care into primary healthcare services.

Cross-sectional analyses provide valuable insights into the current burden and risk factors of NCDs in low-income countries. However, longitudinal studies and further research are needed to monitor trends, evaluate interventions, and develop targeted strategies to effectively address the growing challenge of NCDs in these regions.

METHODOLOGY:

This cross-sectional analysis utilizes data from national health surveys, demographic health surveys, and global health databases to assess the prevalence and risk factors associated with NCDs in low-income countries. The study focuses on key indicators such as the prevalence of NCDs, risk factors including tobacco use, unhealthy diet, physical inactivity, and alcohol consumption, and challenges in addressing NCDs in resource-constrained settings.

RESULTS:

The analysis reveals a high prevalence of NCDs in low-income countries, with cardiovascular diseases and diabetes emerging as major contributors to the burden of disease. Risk factors such as tobacco use, unhealthy diet, physical inactivity, and alcohol consumption are widespread, highlighting the need for targeted interventions to address these modifiable risk factors. Challenges in addressing NCDs in low-income countries include limited healthcare infrastructure, lack of trained healthcare professionals, and competing health priorities.

DISCUSSION:

Effective strategies for addressing the epidemiology of NCDs in low-income countries include implementing policies to promote healthy behaviors, improving access to healthcare services, and strengthening health systems to deliver NCD prevention and treatment services. Collaborative efforts between governments, non-

governmental organizations, and international partners are essential to mitigate the impact of NCDs on population health in low-income countries.

CONCLUSION:

The epidemiology of non-communicable diseases in low-income countries presents a complex challenge that requires multifaceted interventions to address the rising burden of NCDs. By understanding the prevalence, risk factors, and challenges associated with NCDs in these settings, policymakers can develop targeted strategies to promote health and well-being among populations in low-income countries.

REFERENCES:

1. Beaglehole R, Bonita R, Alleyne G, et al. UN high-level meeting on non-communicable diseases: addressing four questions. *Lancet*. 2011 Oct 1;378(9789):449-55.
2. World Health Organization. *Global Status Report on Noncommunicable Diseases 2014*. Geneva: World Health Organization; 2014.
3. Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*. 2012 Dec 15;380(9859):2224-60.
4. Popkin BM, Adair LS, Ng SW. Global nutrition transition and the pandemic of obesity in developing countries. *Nutr Rev*. 2012 Jan;70(1):3-21.
5. World Health Organization. *Noncommunicable diseases country profiles 2018*. Geneva: World Health Organization; 2018.
6. Nugent R, Feigl AB. Where have all the donors gone? Scarce donor funding for non-communicable diseases. Center for Global Development Working Paper 228. 2010 Jul.
7. Kontis V, Mathers CD, Rehm J, et al. Contribution of six risk factors to achieving the 25×25 non-communicable disease mortality reduction target: a modelling study. *Lancet*. 2014 Dec 20;384(9941):427-37.
8. Alwan A. *Global status report on noncommunicable diseases 2010*. World Health Organization; 2011.
9. World Health Organization. *Deaths from noncommunicable diseases - country profiles 2017*. Geneva: World Health Organization; 2017.
10. Engelgau MM, Karan A, Mahal A. The economic impact of non-communicable diseases on households in India. *Global Health*. 2012 Jan 6;8(1):9.