



Perspective

Addressing Non-Communicable Diseases in Bangladesh: A Perspective on Lifestyle Changes and Public Health Strategies

MD. Faisal Ahmed ^{1*} 

¹ Department of Health Sciences and Informatics, Bangladesh Institute of Innovative Health Research, Dhaka-1216, Bangladesh

* Correspondence: faisal.biihr@gmail.com; Tel.: +8801943-189863

Abstract

Non-Communicable Diseases (NCDs) have become a pressing public health concern in Bangladesh, accounting for approximately 67% of total deaths. The rising prevalence of NCDs such as cardiovascular diseases, diabetes, cancer, and chronic respiratory conditions is driven by urbanization, lifestyle changes, and an aging population. Changes in dietary habits, characterized by increased consumption of processed, calorie-dense foods, and reduced physical activity in urban settings, have significantly elevated NCD risks. Tobacco use remains widespread, affecting over 35% of adults, and rising alcohol consumption among urban youths exacerbates the problem. Stress from economic and urban transitions further contributes to the burden of NCDs and related mental health issues. The healthcare system faces critical challenges, including a shortage of trained professionals, limited resources, and high out-of-pocket costs for treatment, which often lead to financial hardship. Although the government's National NCD Strategy and Action Plan (2016–2021) aims to address these issues, its implementation has been inconsistent. Public health interventions are vital for combating NCDs. Promising strategies include community-based programs to promote physical activity and healthy eating, educational campaigns, and regulatory measures to limit unhealthy food and tobacco consumption. The integration of mobile health (mHealth) initiatives has also shown potential in managing chronic diseases in resource-limited settings. Tackling the NCD burden requires a comprehensive approach involving strengthened healthcare infrastructure, public health initiatives, and community engagement. Prioritizing these efforts can significantly improve population health and reduce the socioeconomic impact of NCDs in Bangladesh.

Keywords: Non-communicable diseases; Lifestyle changes; Public health strategies; Bangladesh.



Citation: Ahmed, M.F. (2024). Addressing non-communicable diseases in Bangladesh: A perspective on lifestyle changes and public health Strategies. *Journal of Innovative Health Research*, 1(1), 4-8. <https://doi.org/10.5281/zenodo.14265606>

Received: 30 October 2024
Revised: 1 December 2024
Accepted: 2 December 2024
Published: 3 December 2024



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1. Introduction

Non-Communicable Diseases (NCDs) have emerged as a critical public health challenge in Bangladesh, posing significant threats to its population and healthcare system. NCDs, including cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, account for approximately 67% of total deaths in Bangladesh (*Noncommunicable Diseases Country Profiles 2018, 2019*). This shift from communicable diseases to NCDs is largely driven by rapid urbanization, lifestyle changes, and an aging population.

2. Lifestyle Changes and NCDs

Lifestyle changes in Bangladesh have significantly contributed to the rising prevalence of NCDs. Urbanization has altered traditional dietary habits, leading to increased consumption of processed foods high in sugars, salts, and unhealthy fats

(Banik & Rahman, 2018). The Global Burden of Disease Study highlights that poor diet is a major risk factor for NCDs in Bangladesh (Vos et al., 2020). Additionally, physical inactivity has surged, particularly in urban areas where sedentary lifestyles are becoming more common due to desk-bound jobs and limited recreational spaces (S. M. Ahmed et al., 2011).

Tobacco use is another critical factor exacerbating the NCD burden. Despite efforts to curb smoking rates, tobacco consumption remains high, with about 35.3% of adults using tobacco products (*Report on Bangladesh Sample Vital Statistics 2018*, 2019). The WHO reports that tobacco use is a leading cause of cardiovascular diseases and respiratory conditions, significantly contributing to mortality and morbidity in Bangladesh (Tobacco Fact Sheet Key Facts, 2018).

Alcohol consumption, though traditionally low, is rising, especially among urban youths, further adding to the NCD risk profile (J. Islam et al., 2017). Moreover, the stress associated with rapid urbanization and economic transitions is contributing to mental health issues, which are closely linked with the onset of NCDs (Figure 1) (Hossain et al., 2020).

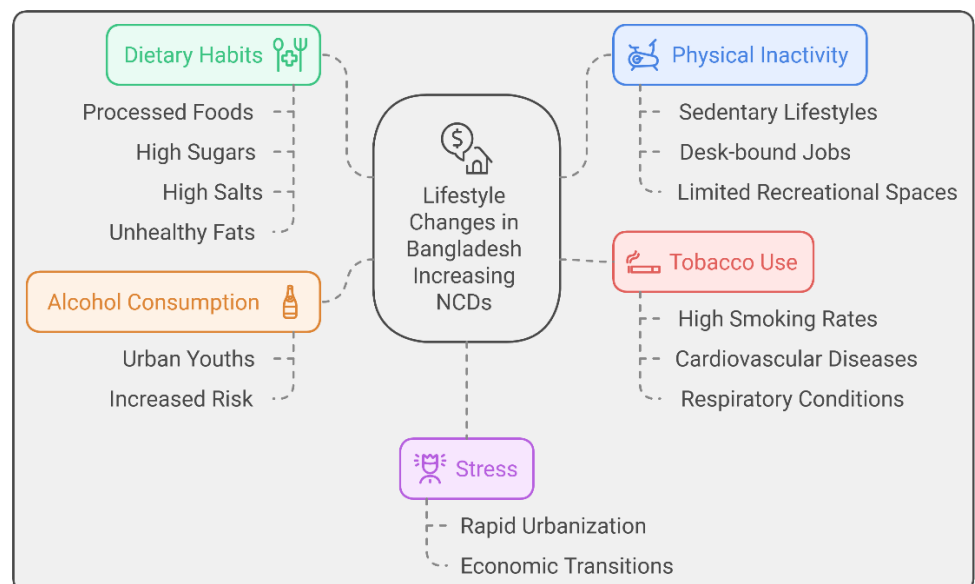


Figure 1: Mental Health Stressors Contributing to Non-Communicable Diseases in Urban Bangladesh

3. Diet and Physical Activity

The nutritional transition in Bangladesh is evident, with a marked increase in the intake of calorie-dense, nutrient-poor foods. This shift has led to a dual burden of malnutrition, where undernutrition and obesity coexist. The Bangladesh Demographic and Health Survey (BDHS) 2017-18 indicated a growing trend of overweight and obesity, particularly among women in urban areas (National Institute of Population Research and Training (NIPORT) and ICF, 2023). These trends are alarming as obesity is a significant risk factor for diabetes and cardiovascular diseases (Banik & Rahman, 2018).

Conversely, the traditional diet, rich in fruits, vegetables, and whole grains, is being replaced by fast food and sugary beverages, which are more accessible and affordable in urban settings (National Institute of Preventive and Social Medicine (NIPSOM) NCDC, 2019). This dietary shift necessitates urgent public health interventions to promote healthy eating habits and curb the rise of diet-related NCDs.

4. Healthcare System and NCD Management

The healthcare system in Bangladesh faces substantial challenges in addressing the NCD burden. There is a critical shortage of healthcare providers trained in NCD management, and healthcare facilities are often inadequately equipped to handle chronic diseases (Nishtar et al., 2018). Furthermore, out-of-pocket expenses for NCD treatment are high, pushing many families into poverty (*Out-of-Pocket Expenditure (% of Current Health Expenditure)*, 2024).

The government's response has included the formulation of the National NCD Strategy and Action Plan (2016-2021), which focuses on prevention, early detection, and management of NCDs (National Institute of Preventive and Social Medicine (NIPSOM) NCDC, 2019). However, implementation remains inconsistent, and more robust efforts are needed to integrate NCD services into primary healthcare (Figure 2).

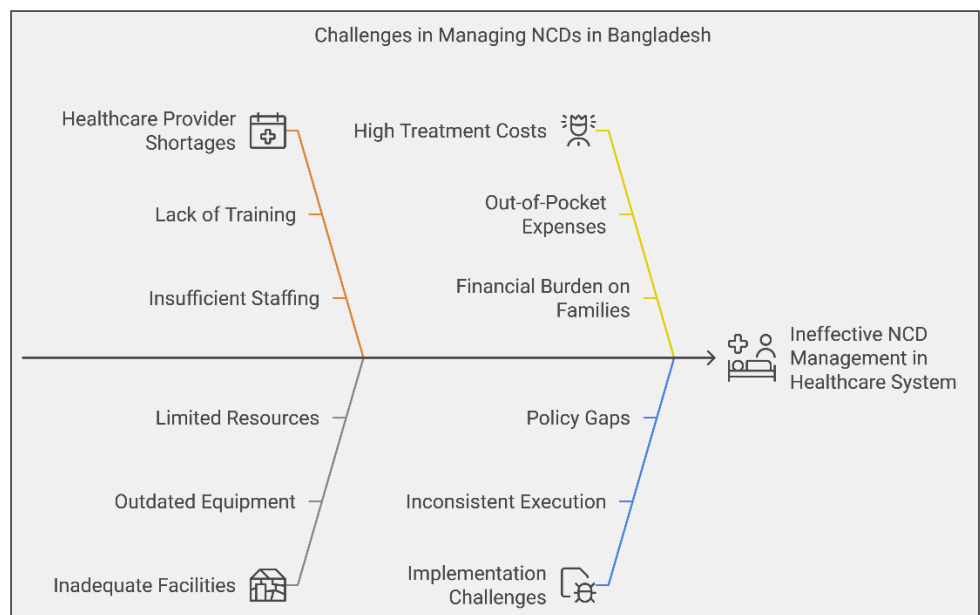


Figure 2: Challenges in Healthcare Infrastructure for NCD Management in Bangladesh

5. Public Health Interventions

Effective public health interventions are essential to combat the rise of NCDs in Bangladesh. These include educational campaigns to promote healthy lifestyles, regulations to reduce the availability and marketing of unhealthy foods, and the establishment of smoke-free zones (S. M. S. Islam et al., 2014). Community-based programs that encourage physical activity and healthy eating have shown promise and should be scaled up (Ali et al., 2022; Khanam et al., 2019).

Moreover, leveraging technology can enhance NCD management. Mobile health (mHealth) initiatives, which use mobile devices to deliver health services and information, can play a pivotal role in monitoring and supporting patients with NCDs (Stephen et al., 2023). For instance, mHealth programs have successfully managed diabetes and hypertension in rural settings by providing regular health tips and reminders for medication adherence (Figure 3) (Ahmed, M.F., 2024; Morrison et al., 2022).

Strategies for Combating NCDs in Bangladesh

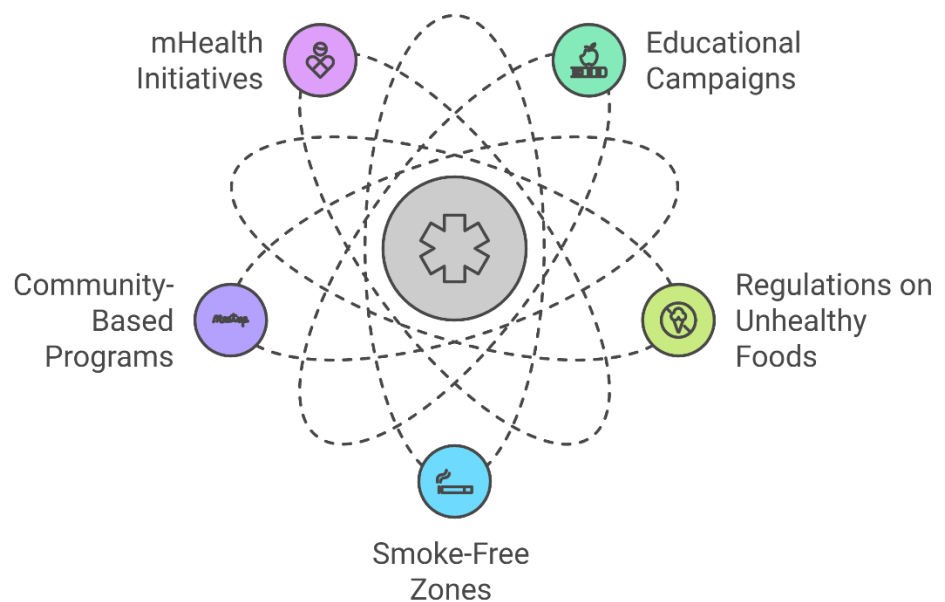


Figure 3: Role of mHealth Initiatives in Enhancing Non-Communicable Disease Management

6. Conclusion

The rising prevalence of NCDs in Bangladesh is a multifaceted issue driven by lifestyle changes, urbanization, and inadequate healthcare infrastructure. Addressing this challenge requires a comprehensive approach that includes public health interventions, healthcare system strengthening, and community engagement. By prioritizing the prevention and management of NCDs, Bangladesh can improve the health and well-being of its population and mitigate the economic burden associated with chronic diseases.

Funding: This research received no external funding.

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Acknowledgments: Not Applicable

Conflict of Interest: The author declares that there are no conflicts of interest and that this study is original work, and is free from any financial or personal bias.

Declaration of generative AI in scientific writing: During the preparation of this work, the author used ChatGPT to assist in drafting and refining various sections of the manuscript. After this tool was utilized, the author reviewed and edited the content as needed and takes full responsibility for the content of the published article.

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