

## Socioeconomic Burden of Life Long Disease: A Case of Diabetes Care in Bangladesh

**Authors :** Samira Humaira Habib

**Abstract :** Diabetes has profound effects on individuals and their families. If diabetes is not well monitored and managed, then it leads to long-term complications and a large and growing cost to the health care system. Prevalence and socioeconomic burden of diabetes and relative return of investment for the elimination or the reduction of the burden are much more important regarding its cost burden. Various studies regarding the socioeconomic cost burden of diabetes are well explored in developed countries but almost absent in developing countries like Bangladesh. The main objective of the study is to estimate the total socioeconomic burden of diabetes. It is a prospective longitudinal follow up study which is analytical in nature. Primary and secondary data are collected from patients who are undergoing treatment for diabetes at the out-patient department of Bangladesh Institute of Research & Rehabilitation in Diabetes, Endocrine & Metabolic Disorders (BIRDEM). Of the 2115 diabetic subjects, females constitute around 50.35% of the study subject, and the rest are male (49.65%). Among the subjects, 1323 are controlled, and 792 are uncontrolled diabetes. Cost analysis of 2115 diabetic patients shows that the total cost of diabetes management and treatment is US\$ 903018 with an average of US\$ 426.95 per patient. In direct cost, the investigation and medical treatment at hospital along with investigation constitute most of the cost in diabetes. The average cost of a hospital is US\$ 311.79, which indicates an alarming warn for diabetic patients. The indirect cost shows that cost of productivity loss (US\$ 51110.1) is higher among the all indirect item. All constitute total indirect cost as US\$ 69215.7. The incremental cost of intensive management of uncontrolled diabetes is US\$ 101.54 per patient and event-free time gained in this group is 0.55 years and the life years gain is 1.19 years. The incremental cost per event-free year gained is US\$ 198.12. The incremental cost of intensive management of the controlled group is US\$ 89.54 per patient and event-free time gained is 0.68 years, and the life year gain is 1.12 years. The incremental cost per event-free year gained is US\$ 223.34. The EuroQoL difference between the groups is found to be 64.04. The cost-effective ratio is found to be US\$ 1.64 cost per effect in case of controlled diabetes and US\$ 1.69 cost per effect in case of uncontrolled diabetes. So management of diabetes is much more cost-effective. Cost of young type 1 diabetic patient showed upper socioeconomic class, and with the increase of the duration of diabetes, the cost increased also. The dietary pattern showed macronutrients intake and cost are significantly higher in the uncontrolled group than their counterparts. Proper management and control of diabetes can decrease the cost of care for the long term.

**Keywords :** cost, cost-effective, chronic diseases, diabetes care, burden, Bangladesh

**Conference Title :** ICDM 2021 : International Conference on Diabetes Mellitus

**Conference Location :** Dubai, United Arab Emirates

**Conference Dates :** August 16-17, 2021