

The Economic Burden of Diabetes Related Blindness and Vision Impairment in Saudi Arabia

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Poster Code:
EE699

Introduction:

Vision loss and impairment due to diabetes significantly affect millions globally, leading to increased healthcare costs, reduced quality of life, and heightened disability rates among affected populations. Our main objective is to measure the economic impact of managing diabetic related visual impairment and blindness in KSA to inform policy and resource allocation for effective disease management and prevention.

Methodology:

We developed a prevalence-based cost of illness model using Microsoft Excel© to assess the economic impact of treating diabetic related visual impairment and blindness over a one-year period. The model categorizes costs according to severity levels: mild, moderate, and severe visual impairment and blindness. It encompasses direct medical expenses such as drug acquisitions, surgical procedures, healthcare resources, monitoring, visual aids and psychological care, as well as indirect costs such as productivity losses. The model's outputs provide cumulative and detailed breakdown of the costs associated with visual impairment and blindness in KSA.

Results:

Our economic model showed that the total economic burden of diabetes-related vision impairment and blindness in KSA in one-year was SAR 150,324,912,186.

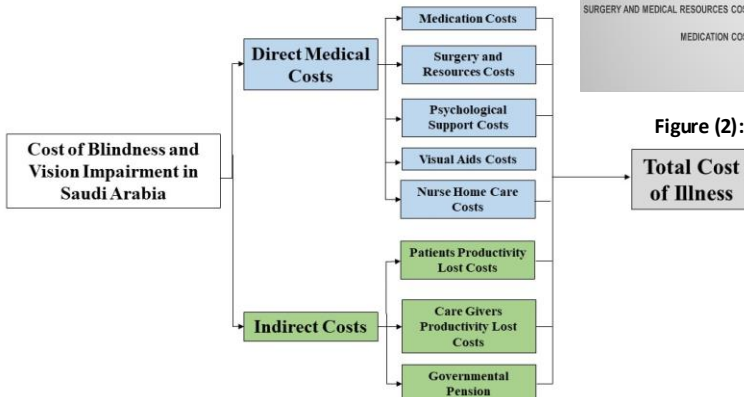


Figure (1): Cost of Illness Model

This cost is divided into the following: direct medical costs and indirect medical costs; estimated at SAR 101 billion and SAR 49 billion, respectively. The annual cost per patient is SAR 165,070.

Conclusion:

The significant economic repercussions of diabetes-related vision impairment and blindness across individuals, households, and the Saudi healthcare systems impose a substantial financial burden amounting to approximately SAR 150 billion. The major component is attributed to medication costs, alongside patients' productivity loss. These findings highlight the urgent need for targeted interventions and policy initiatives aimed at mitigating these costs, enhancing accessibility to essential treatments, ultimately improving quality of life for affected individuals and families and achieving sustainable healthcare and socio-economic development goals in the Kingdom.

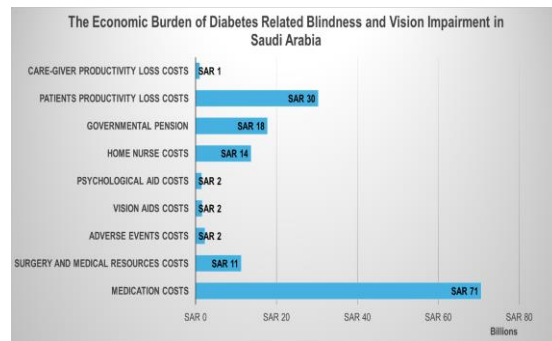


Figure (2): Base-Case resulted costs components