

Abstract

Estimating the economic burden of tooth decay in children aged 6 years: A household study in Ardabil

Introduction: Tooth decay directly and indirectly affects the national economy of some countries. These diseases reduce the number and productivity of the workforce. Medical expenses eat up savings and investments (such as investing in children's education). All of these factors reduce the earning power of individuals and households and affect the national economy, so an important part of the social and economic consequences of tooth decay is the impact on savings at the household level and national income or gross domestic product at the national level. According to the health economics texts, disease and then health programs to cover diseases impose several types of costs on individuals and the country; 1. Specific direct costs such as the capital and ongoing costs of a health intervention 2. Direct but intangible costs such as program support costs or miscellaneous payments 3. Indirect costs such as the time and opportunity costs of the patient and relatives 4. Intangible costs such as the costs of pain, anxiety, and stress . Therefore, this study was conducted with the aim of estimating the economic burden of dental caries in children of Ardabil city.

Materials and methods: The present study was descriptive, analytical and cross-sectional. The study sample was 260 children aged 6 to 15 who referred to dental centers in 1400, who were randomly selected. The economic burden included direct medical costs, direct non-medical costs, and indirect costs. The direct medical cost included the costs of medicine, hospitalization, outpatient, etc. Direct non-medical expenses included out-of-pocket payments for accommodation, transportation, etc. Indirect costs also include lost productivity or production due to disability or premature death. All the data were collected by the checklist made by the researcher. SPSS version 25 software was used for data analysis.

Results: The total cost of dental services related to tooth decay in children aged 6 to 15 years in Ardabil city was equal to 22543323 rials for one tooth, 94.23% of these costs related to direct medical costs, 2.2% related to indirect medical costs and 3.57.0% is related to non-medical indirect costs. Also, the economic burden of dental services related to tooth decay in the population of 6 to 15 in Ardabil city was estimated at 4826581666076 rials.

Conclusion: The use of ways to prevent tooth decay and early treatment in this field can reduce the cost and economic burden, and making the necessary plans to prevent tooth decay and requiring insurance companies to pay a part of the treatment cost should be on the agenda of health system managers. to be placed

Keywords: Dental health, Tooth decay, Economic burden.