

Abstract

Estimating the economic burden of tooth decay in the adult population: A household study in Ardabil

Introduction: The economic burden of diseases is used to plan the health budget for a country, and the resulting information provides a basis for comparisons for new strategies, setting priorities, and predicting the future costs of implementing health programs. Estimating the economic burden of disease may be used to convince health managers and policy makers of the magnitude of a particular disease and to encourage greater participation in its prevention or early detection. The prevalence of dental caries, resulting from oral and dental hygiene surveys, is essential to evaluate the oral and dental health status of the population. Assessment of such prevalence is needed to assess its determinants, design or formulate effective preventive programs, and predict possible future needs for oral health care. Therefore, this study was conducted with the aim of estimating the economic burden of tooth decay in the adult population in Ardabil.

Materials and methods: The present study was descriptive, analytical and cross-sectional. The study sample was 260 people over 19 years of age 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 the adult population of Ardabil city was estimated to be 32277897 rials for one tooth, of which 95.93% of costs are direct medical costs, 2.43% of costs are direct non-medical costs, and 1.65% of costs are direct costs. constituted indirect non-medical costs and the economic burden of dental services related to tooth decay in the adult population of Ardabil city was estimated at 42 trillion 839 billion 559 million 839 thousand 682 rials.

Conclusion: Tooth decay is one of the diseases that impose huge costs and heavy economic burden on the society. This group of diseases accounts for a huge part of the growing expenses of families, on the other hand, most of the cost of tooth decay treatment is not covered by insurance. It should be kept in mind that tooth decay is one of the most preventable non-communicable diseases.

Keywords: tooth decay, economic burden, adult