

Estimating Actuarially Fair Premium in Different Funds of Iran Health Insurance Organization (IHIO) in Fars and Kerman Provinces before and after Covid-۱۹

Abstract:

Introduction: Financial protection of patients against treatment costs is one of the goals of the health system in the world and a step towards achieving universal health coverage. Insurance is one of the necessary tools for financial protection. The most important source of insurance income is insurance premiums. This research aims to calculate actuarial fair premiums in different insurance funds of Health Insurance Organization in Fars and Kerman provinces before and after Covid-۱۹.

Methods: This is quantitative research; The research population included all the costs of different levels of treatment and the population of the insured, separated by different funds of Iran Health Insurance Organization in Fars and Kerman provinces. The data were extracted monthly from March ۲۰۱۷ to the end of ۲۰۱۹, and March ۲۰۱۸ (the start of the pandemic in Iran) was considered as an interrupted time. For the analysis, the time series method was used using the STATA ۱۵ software.

Results: The results showed that Covid-۱۹ in the short term caused a significant decrease in the actuarially fair premium in all insurance funds except the Iranian fund (with the lowest insured population) and caused a significant decrease in all funds as whole in Fars and Kerman provinces ۱۰۴۷۳۴/۹, ۸۴۰۴/۷ Iran's Rial respectively. In the long term, considering that there was an increasing trend, this trend was usually not significant. Also, actuarially fair premium in

Fars province as a whole decreased and in Kerman province, there was a slight increase, so these changes were not significant.

Conclusion: Despite the increase in treatment tariffs, the spread of Covid ۱۹ and its aftermath; The decrease in the activity of medical centers, people's fear of contracting the virus and the limitation of medical services to emergency services caused the actuarially fair premium to change. Also, regarding to the fact that the insurance premiums received from insurer organizations in year ۲۰۱۹ (during the outbreak of Covid ۱۹) compared to ۲۰۱۸ had an increasing trend as usual every year; therefore, decreasing in actuarially fair premiums in Fars province and a very small and insignificant increase in Kerman province made financial resources of the health insurance organization preserve or its possible accumulated losses reduce.

Keywords: Actuarially Fair Premium, Treatment Cost, Iran Health Insurance Organization, Health Insurance, Health Insurance Funds, Covid ۱۹, Interrupted Time Series (ITSA)



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By

Amin Daneshvar

Supervisors

Mohsen Barouni

Advisors

Khosro Keshavarz Mohammad Jafari Sirizi

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