

عنوان مقاله:

Traffic Accident Mortality in Najafabad, Iran during ۲۰۱۱-۲۰۱۷

محل انتشار:

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خلاصه مقاله:

Background: Road traffic accident is one of the most important causes of disability and death in the young population. A significant number of people injured in road traffic accidents die after they arrive at the hospital. Objectives: This study aimed to assess the trend of mortality in road traffic accidents and forecast it for the coming years using time series modeling. Methods: This study investigated the trend of road traffic accidents and their victims in Najafabad, Iran, between ۲۰۱۱ and ۲۰۱۷. The ARIMA time series model was fitted on the obtained data and the best model was selected based on the least mean square error. Moreover, the model's goodness of fit was investigated by residuals ACF and PACF plots as well as Ljung-Box chi-square statistics. Results: The trend analysis and ARIMA models were investigated, and the results showed a descending trend of fatalities due to traffic accident during ۲۰۱۱-۲۰۱۷. Afterwards, some models were fitted and ARIMA was selected $(0, 1, 1)$, because it had the lowest mean square error value. By fitting the best model, the trend of traffic accident mortality was forecasted for five years (۲۰۱۸ to ۲۰۲۲). Finally, the forecasted values showed that future traffic accident mortalities had a decreasing trend. Conclusion: The trend of mortality due to road traffic injuries declined, indicating a decreasing trend in deaths for the upcoming years. Therefore, the interventions that have been applied in recent years may be considered as useful.

کلمات کلیدی:

Road accident, time series, Trend, seasonality

لینک ثابت مقاله در پایگاه سیویلیکا:

