

Letter to the Editor



Low-Quality Domestic Automobiles Continue to Threaten Lives in Iran: Economic Instability as the Potential Contributor

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Dear Editor,

With the 16th largest automobile industry worldwide,¹ Iran is confronted with the 3rd highest rate of road traffic mortality among middle-income countries at 32.1 deaths per 100 000² as a major public health concern. However, there is no international report showing that its domestically designed and produced passenger vehicles comply with global safety regulations including frontal impact, electronic stability control, and pedestrian protection.³ The most affordable of these is the Saipa Pride, a variant of the 1986 Ford Festiva subcompact city car, the price of which has almost quadrupled in the last two years. Saipa Pride accounts for more than 6 million of total 20 million passenger vehicles in Iran and has the lowest safety scores in domestic evaluations.⁴

We collected road accident data from Iran Road Maintenance and Safety Organization, containing all inter-city road accidents leading to at least one at-the-scene death in 2017 (n = 5801). We excluded 1180 events involving non-4-wheel vehicles including inter-city buses or motorcycles. Accidents caused an average of 1.28 ± 0.72 deaths and 0.85 ± 1.23 non-fatal injuries. Generalized log-link Poisson regression adjusted for the total number of cars, resulted in near 9% of increase in injuries with each more Pride involved in the accident compared to other domestic cars (incident risk ratio or IRR = 1.08, CI: 1.02–1.16). This increases to 21% when comparing Pride to all other domestic or imported 4-wheel vehicles (IRR = 1.21, CI: 1.14–1.28). While our data have limitations like unavailability of records of non-fatal accidents, our results show that being involved in an accident in Saipa Pride, as the most accessible automobile in Iran, is likely to result in higher incidents of road traffic injuries at the accident scene.

Trump's announcement of the US's withdrawal from the joint comprehensive plan of action and signing of a

presidential memorandum to institute the highest level of sanctions on Iran⁵ was marked by the unprecedented devaluation of the Iranian Rial to a tenth of its value against the US dollar during the past two years. This led to inflation in prices for both imported and domestically produced goods. On the other hand, the exit of European car manufacturers over US sanctions and continued inflation may result in further reduction of production quality and purchasing power and consequently, increase the demand for cheaper domestic vehicles. This is of special significance for younger individuals and families, who on average have lower income and a higher risk of exposure to traffic injuries,⁶ seeking to own their first vehicle. We are thus likely to see increased mortality and morbidity from road accidents in Iran as an indirect consequence of the continuation of economic instability.

Authors' Contribution

BM and MA contributed to data gathering, BM, FM, NA, and MA have conducted the data analysis, BM, FM, MA, NA, and FF have drafted and finalized the manuscript. FF and BM have done the conceptual design of the study.

Conflict of Interest Disclosures

None.

Ethical Statement

This project has been ethically approved by the National Institute of Medical Research Development ethics code: IR.NIMAD.REC.1394.016.

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