

The effect of socioeconomic status on ambulance requests

Type of article: conference abstract

Ali Dadashi¹, Mohamad Reza kalani¹, Saeed Eslami^{1,2*}

1: Department of Medical Informatics, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran. Email: ali.dadashi.2008@gmail.com

2: Department of Medical Informatics, University of Amsterdam, Amsterdam, The Netherlands.

*Tel: +98. 9154403990, E-mail: eslamis@mums.ac.ir

ABSTRACT

Introduction: Emergency medical events are not randomly distributed over a certain area. Many hidden patterns may influence this distribution due to several socioeconomic, demographic, and geospatial factors. Identifying these patterns will help health policy makers have a better planning for emergency medical services (EMS) in finding high-risk places, and people at high risk.

Methods: Mashhad city EMS calls records have been analyzed retrospectively. The privacy of the data was considered by eliminating the identification information such as the name or phone number of the patients. To recognize the location of the requests all the recorded addresses were mapped into a single number representing the municipality region of the address. To express the relationship between the predictors, correlation coefficient has been employed.

Results: 154528 calls in a city wide registry from March 21, 2013 to March 20, 2014 were investigated. The average of age was 42.43 years (S.D = 21.7) with 50.5% male, 40.7% female and 8.8% of the sex were not registered. 64% of the calls were medical related and the remaining 36% were trauma related requests. Aside from traffic accident that was the top most in all regions, other top five reasons for ambulance request including weakness, seizure, unconsciousness, nervous stress, and dyspnea were recognized. Although the regions with lower socioeconomic status are more vulnerable, they request ambulances less frequently than the regions with higher socioeconomic status.

Conclusion: There is a relationship between the socioeconomic status of people and their calls to EMS. The results of this study can help policy makers in finding people in potentially high risk locations and provide facilities to reduce mortality and morbidity.

KEYWORDS: Socioeconomic status, Emergency medical services, Mashhad, Region, Ambulance

1. Declaration of conflicts

This abstract is selected from the First International Congress of Diseases and Health Outcomes Registry and First National Congress of Medical Informatics, 14-17 February 2017, Mashhad, Iran

2. Authors' biography

No biography.

3. References

No references.