

ORIGINAL ARTICLE

The Effect of Health Sector Evolution Plan on the Performance Indices of Emergency Department in Hospitals of Tehran & Iran Universities of Medical Sciences: Interrupted Time Series Analysis

Sara Emamgholipour, Ebrahim Jaafariipooyan, Marita Mohammadshahi, Esmaeil Mohammadi Yazani*

Management and Health Economics Department, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

*Corresponding author: Esmaeil Mohammadi Yazani. Management and Health Economics Department, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. Email: esmaeilmohammadi92@gmail.com.

Abstract

Introduction: The health sector evolution (HSE) plan has been implemented since 2014 and includes seven programs. Since one of the goals of this plan was to improve the condition of emergency departments, in this study we evaluated the effect of HSE plan on performance indices of emergency department in hospitals affiliated with Tehran and Iran Universities of Medical Sciences, Tehran, Iran. **Methods:** The present cross-sectional study was conducted in all Hospitals affiliated with Tehran and Iran Universities of Medical Sciences. Six performance indices of emergency department were collected monthly in two 12-month periods before and after implementation of the HSE plan by referring to the hospitals' statistics unit. Data were analyzed via SPSS 22 using paired T-test and Interrupted Time Series (ITS) model. **Results:** The results of ITS showed that implementation of HSE plan had no significant effect on the rate and trend of indices such as percentage of patients who left the emergency department within 12 hours and percentage of patients discharged against medical advice ($p > 0.05$). On the other hand, HSE plan implementation affected the rate and trend of indices such as percentage of patients who were decided upon within 6 hours and the average response time for emergency tests significantly ($p < 0.05$). The rate of both indices has increased but their trend has decreased. **Conclusion:** Implementation of HSE plan has resulted in improved percentage of patients who were decided upon within 6 hours and increased average response time for emergency tests. In addition, although it has significantly increased the trend of successful CPR percentage, it has decreased the rate of successful CPR.

Key words: Health policy; health care reform; emergency service, hospital; interrupted time series analysis; employee performance appraisal
