

Letter to the Editors

eHealth solutions and nonurgent visits in emergency departments

Mohammadkarim Bahadori^a, Ehsan Teymourzadeh^a and Seyyed Meysam Mousavi^{b,*}

^a*Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran*

^b*Department of Health Management and Economics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran*

Received 4 April 2018

Accepted 11 April 2018

eHealth solutions have the potential to decrease the incidence rate of adverse events, cost of care, hospitalization, and improve access to healthcare services [1–3]. World Health Organization (WHO) has defined eHealth as “the cost-effective and secure use of ICT in support of health and health-related fields, including health-care services, health surveillance, health literature, and health education, knowledge and research” [4]. eHealth system as a vital component for building strong health systems can facilitate and accelerate achieving the universal health coverage (UHC) and sustainable development goals (SDGs). eHealth solutions have great opportunities to alleviate the healthcare resource constraints and reduce transactional costs. The resource constraints by itself is a serious issue in health systems, but it will become complicated in which inappropriate use of services take place in various departments especially in emergency departments (EDs), which is open and operating 24/7.

Although EDs are a place for provision of primary interventions to urgent and semi-urgent (USU) patients, EDs have been used by patients with nonurgent (NU) problems [5]. The pressures of patient demand for utilizing EDs for common care are reported globally. The literature revealed that approximately 32% of EDs visits are for NU problems. The pressures of NU visits cited as a key contributor to negative consequences of crowding, long waiting times, patients dissatisfaction due to increasing the waiting times, and reducing the efficacy of medical treatment [6–9]. But the consequences of this dilemma would become more complicated when NU visits take place in low and middle-income settings. In a region or a country which is facing resources constraint, in addition to all of the above-mentioned negative consequences of NU visits, another main important negative consequence of NU visits is the waste of resources. Unfortunately, because of receiving low cost of services in EDs in compared to other clinics or offices, NU visits are common in low and middle-income countries and have imposed

*Corresponding author: Seyyed Meysam Mousavi, Department of Health Management and Economics, School of Public Health, Tehran University of Medical Sciences, New Building, 4th Floor, Tehran, Iran. Tel.: +98 21 88989129; E-mail: m-mousavi@razi.tums.ac.ir.

a financial burden to EDs and health systems at the national level. Therefore, policymakers need to deeply scrutinize the problem and also identify the main causes of country own NU visits to design and implement appropriate policy interventions.

Meanwhile, eHealth solutions could potentially play a key role in reducing the NU visits in EDs at different levels such individual and organizational level and finally reducing in waste of resources. At the individual level, eHealth solutions can create commitment and accountability in physicians to follow-up and prevent inappropriate referring patients to EDs. Also, supporting adequate self-management of diseases eHealth solutions will promote the awareness of the community about their conditions to prevent EDs use for NU conditions. This can be done through telemedicine and teleconsultation capabilities or giving the advice to refer to healthcare centers in an appropriate time.

At the organizational level, eHealth solutions through data sharing which is to be shared and/or interoperable across healthcare settings can effectively connect to other for referring NU cases to centers with the low workload. Referring the NU cases will foster the reducing of burnout in ED staff, and as well as improve the effectiveness of healthcare delivery and improve access to resources for USU conditions.

Conflict of interest

The authors have no conflict of interest to report.

References

- [1] Henriquez-Camacho C, Losa J, Miranda JJ, Cheyne NE. Addressing healthy aging populations in developing countries: unlocking the opportunity of eHealth and mHealth. *Emerging Themes in Epidemiology*. 2014; 11(1): 1-8.
- [2] Dünnebeil S, Sunyaev A, Blohm I, Leimeister JM, Kremer H. Determinants of physicians' technology acceptance for e-health in ambulatory care. *International Journal of Medical Informatics*. 2012; 81(11): 746-60.
- [3] Takian A, Sheikh A, Barber N. We are bitter, but we are better off: case study of the implementation of an electronic health record system into a mental health hospital in England. *BMC Health Services Research*. 2012; 12(1): 484.
- [4] Baroud RM. How Ready are the Stakeholders in the Palestinian Health Care System in the Gaza Strip to Adopt e-Health? 2008.
- [5] Gulacti U, Lok U, Celik M, Aktas N, Polat H. The ED use and non-urgent visits of elderly patients. *Turkish Journal of Emergency Medicine*. 2016; 16(4): 141-5.
- [6] O'Keeffe C, Mason S, Jacques R, Nicholl J. Characterising non-urgent users of the emergency department (ED): A retrospective analysis of routine ED data. *PloS One*. 2018; 13(2): e0192855.
- [7] Yang HJ, Jeon W, Yang HJ, Kwak JR, Seo HY, Lee JS. The Clinical Differences between Urgent Visits and Non-Urgent Visits in Emergency Department During the Neonatal Period. *Journal of Korean Medical Science*. 2017; 32(11): 1870-5.
- [8] Williams RM. The costs of visits to emergency departments. *New England Journal of Medicine*. 1996; 334(10): 642-6.
- [9] Bernstein SL, Aronsky D, Duseja R, Epstein S, Handel D, Hwang U, et al. The effect of emergency department crowding on clinically oriented outcomes. *Academic Emergency Medicine*. 2009; 16(1): 1-10.