



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

journal homepage: [www.elsevier.com/locate/hlpt](http://www.elsevier.com/locate/hlpt)



# Evaluating the Health Information Technology Regional Extension Center in South Carolina



Grishma Patel Bhavsar<sup>a,\*</sup>,<sup>1</sup>, Amy Brock Martin<sup>a</sup>,  
Kevin J. Bennett<sup>a,b</sup>, J. Todd Thornburg<sup>c</sup>

<sup>a</sup>South Carolina Rural Health Research Center, Department of Health Services Policy and Management, Arnold School of Public Health, Columbia, SC, USA

<sup>b</sup>Department of Family and Preventive Medicine, University of South Carolina School of Medicine, Columbia, SC, USA

<sup>c</sup>Center for Information Technology Implementation Assistance South Carolina, Health Sciences South Carolina, Columbia, SC, USA

Available online 2 May 2014

## KEYWORDS

Regional Extension Center (REC);  
Health Information Technology;  
Electronic medical records;  
Adoption

## Abstract

**Objective:** To determine the impact of the South Carolina Regional Extension Center, Center for Information Technology Implementation Assistance (CITIA-SC), on physician practices engaged in the process of electronic medical record (EMR) adoption.

**Data sources:** Data from a cross-sectional survey distributed in March 2011 to 1310 primary care practice groups throughout South Carolina was used to determine the degree of EMR adoption throughout the state ( $n=452$  respondents; 34.5% response rate). Participation in CITIA-SC was determined by obtaining a list of practices from CITIA-SC.

**Study design:** A posttest-only design with nonequivalent groups was used to estimate the degree of EMR implementation, plans for and perceived barriers to implementation based on CITIA-SC participation.

**Results:** CITIA-SC practice sites faced similar barriers to EMR implementation as non-CITIA-SC participants, including initial or recurring cost of an EMR, low staff expertise with EMRs or computers, and productivity disruption. Additionally, CITIA-SC practice sites had fewer IT personnel on staff ( $p=0.0358$ ) and were considering EMR implementation without a plan ( $p=0.0125$ ). Despite these barriers, more practices participating in the CITIA-SC program were preparing to invest in an EMR system within one year when compared to nonparticipants (75.9% versus 28.3%,  $p<0.0001$ ).

**Conclusion:** Our results indicated that the practice sites that participate in the REC had fewer IT resources and more perceived barriers to implementation. These results suggest that REC participant practice sites intend to implement an EMR, but recognize the need for technical assistance in the preparation and implementation of an EMR system.

© 2014 Fellowship of Postgraduate Medicine. Published by Elsevier Ltd. All rights reserved.

\*Corresponding author. Tel.: +1 803 251 6317; fax: +1 803 251 6399.

E-mail address: [gpatel.usc@gmail.com](mailto:gpatel.usc@gmail.com) (G.P. Bhavsar).

<sup>1</sup>University of South Carolina, 220 Stoneridge Drive, Suite 204, Columbia, SC 29210, USA.

## Introduction

In the spring of 2009, Congress passed the American Recovery and Reinvestment Act (ARRA). A key component of this act, the Health Information Technology for Economic and Clinical Health (HITECH) Act, sought to encourage health care to become more evidence-based, efficient, and effective. One mechanism for this was to provide incentives and penalties to promote the use of Health Information Technology (HIT) and health information exchange (HIE) in health care settings. In 2011, approximately 52% of physicians reported interest in applying for these incentives provided through Medicare and Medicaid [1]. To that end, the Office of the National Coordinator of Health Information Technology (ONC), within the U.S. Department of Health and Human Services (DHHS), has offered state-level initiatives to align state HIT efforts with federal requirement [2]. The efforts to facilitate these requirements led to the funding of Regional Extension Centers (RECs), which will provide technical assistance, education, outreach and guidance to healthcare providers [3].

While these federal initiatives seek to encourage the implementation of electronic medical records (EMR) in physician practices, the adoption rate has previously been estimated to linger between 13 and 61%, depending on the definition of EMR used [4-14]. However, estimates from the 2010 and 2011 National Ambulatory Medical Care Surveys (NAMCS) estimate 57% of office-based physicians reported using an EMR system [1]. These percentages are certain to change, as between 25 and 37% of physician practices have reported plans to adopt an EMR within the next three years [6,9,15-18].

Non-adoption of EMRs is related to several factors, the most common of which are the start-up financial cost, on-going financial costs, and the loss of productivity during implementation [5-7,10,11,15,16,18-21]. The size of the practice also plays a role; larger practices are more likely to have an EMR, while solo or partner practices are the most likely to report not considering EMR adoption [5,7,9,10,12-15]. Other factors that are associated with a practice adopting an EMR include being affiliated with an academic institution [4,10,13], being in an urban area, and providing specialty care [5,9,10,16,18,19].

The objective of the REC program was to “provide technical assistance to support the adoption and meaningful use of health IT to improve care quality while protecting patient privacy” [3]. Anticipating disparate barriers to early electronic health record adoption, priority was given to primary care providers. These include providers in the following settings: individual and small group practices, public and critical access hospitals, community health centers, rural health clinics, and other settings that serve uninsured, underinsured, and medically underserved populations [22]. Part of this role required that RECs assist physician practices in overcoming many of their non-financial barriers to achieve EMR adoption and eventually meaningful use. In its role as a REC, CITIA-SC supports health care providers across South Carolina with direct, individualized, and on-site technical assistance in:

- Selecting a certified EMR product that offers best value for the providers’ needs;
- Achieving effective implementation and meaningful use of a certified EMR product;
- Enhancing clinical and administrative workflows to optimally leverage an EMR system’s potential to improve quality and value of care, including patient experience as well as outcome of care; and
- Observing and complying with applicable regulatory, professional, and ethical requirements to protect the integrity, privacy, and security of patients’ health information.

Since the REC program is still in its initial stages, there is little published evidence on the impact upon care delivery among practices participating in RECs.

This analysis sought to estimate the impact of the South Carolina’s Regional Extension Center program, Center for Information Technology Implementation Assistance (CITIA-SC), on the degree of implementation of EMR adoption throughout the state, given each practices’ demographic and organizational characteristics, their investment timeline and current barriers to EMR adoption.

## Methods

### Survey development and distribution

The South Carolina Department of Health and Human Services (SCDHHS), the state’s HITECH grantee and State Medicaid EHR Incentive Program administrator, contracted with the research team to conduct a survey to determine the degree of EMR adoption among physician practices in the state. The survey fulfilled the requirement in the HITECH State HIE Cooperative Agreement and State Medicaid EHR Incentive Program that called for the completion of an environmental scan on EMR adoption and HIE participation used to inform the state’s HIE strategic and operational plans and the State Medicaid HIT Plan (SMHP) [23].

The survey was first tested for face validity among SCDHHS consulting physicians and program staff, as well as leaders at the state’s hospital association, the State Office of Rural Health, and the South Carolina Primary Health Care Association for Federally Qualified Health Centers (FQHCs). Their feedback was instrumental in improving the survey, which contained thirty questions that addressed (a) general practice demographics; (b) knowledge of federal HIT initiatives; (c) current EMR adoption status and plans for adoption; (d) existing EMR functionality; (e) HIE readiness; (f) perceived barriers to implementing EMR systems; and (g) HIT training needs for practice staff (see [Appendix A](#) for the complete survey).

Although our unit of analysis was at the practice site-level, we mailed only one survey to a practice group and not individual practice sites. Said differently, if an organization owned 10 physician practice sites, only one survey was mailed on behalf of the 10 sites. The assumption behind this approach was practice policies for EMR and HIE would be consistent across practice sites within a group and hearing from multiple sites from one group would bias the interpretation of the findings.

We identified 1310 unique primary care practice groups from databases maintained by the South Carolina State Budget and Control Board, Office of Research and Statistics (ORS). Physician practice addresses were obtained by linking

Download English Version:

<https://daneshyari.com/en/article/3327301>

Download Persian Version:

<https://daneshyari.com/article/3327301>

[Daneshyari.com](https://daneshyari.com)