

Improvement in the Rate of Full Implementation of Electronic Advanced Directives
in Acute Care Hospitals after the HITECH Act: Chapter 3: Methodology

DHA Project Proposal



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Chapter 3: Methodology

Design

This study will rely on a quantitative methodology that pulls statistical data from the 2009 to 2018 versions of the American Hospital Association (AHA) Annual Survey, Information Technology Survey. The data pulled from these survey responses will help answer the four research questions that were created for this study. These research questions are:

1. What are the reported FI rates for AD in 2009 and 2018?
2. Are there differences in this change by hospital characteristics (bed size, ownership, state, region)?
3. Are there differences in this change by primary inpatient EHR/EMR system in place in 2010?
4. Did this change differ by a hospital's stated intent in 2010 to apply for Medicare or Medicaid incentive payments for meaningful use of health IT?

Subjects

The primary subjects of study will be the hospitals and other healthcare facilities that are either using EHRs or are in need of implementing new EHRs within their facilities. Multiple papers referenced in the literature included research on academic medical centers and medical center alliances. Data related to these entities could be used to create generalizations since academic medical centers and medical alliances often try to match industry standards. Secondary subjects of this study will be the health care executives and administrators that lead these facilities. A key detail about the AHA surveys is that they were created with CIOs and principal information technology support workers in mind. Specifically, the 2009 AHA Annual Survey Information Technology Supplement (2009) hints that the CIO or "person responsible for

information technology” should have either completed the survey or at least reviewed the answers given on the survey by whoever completed it before it was submitted to the AHA (p. 8).

Data Collection Process

The data from the 2009 to 2018 AHA survey responses will be used to create a statistical picture and narrative that will help to determine whether or not hospitals and other medical facilities have been able to reach FI rates of EHR use within their facilities since 2009. The year 2009 will be used as a starting point for this study’s timeframe because 2009 was the year in which the HITECH Act was legislated. The HITECH Act was enacted in order to improve the adoption and meaningful use of EHRs in hospitals (CDC, 2019). Knowing this, this study will rely on the data, responses, and research of various health care facilities, researchers, and authors that work in the health care industry and research and report on it.

The information and data retrieved from the 2009 to 2018 surveys will be categorized into categories similar to those used in the surveys themselves. One data category will be “rate of implementation.” Having this data category will allow for the organization and proper display of the implementation rates that were shown in the 2009 to 2018 survey results. The 2009 AHA Annual Survey Information Technology Supplement (2009) includes a six-tier scale of implementation that facilities can use when self-evaluating their own rates of EHR implementation in various areas. Due to this study having to compile data from the AHA’s published responses for a decade long period, categorization will need to be used in order to pare down response data that is not relevant to the four research questions of this study and help future readers better interpret the AHA surveys’ results.

Qualitative data from published research will be used to help answer the four research questions as well. While the AHA surveys are a very valuable primary source of information,

secondary research and data about how the HITECH Act has affected the health care industry will be valuable as well. Seghal and Wachter's (2007) article uses a similar methodology to this study, as their research primarily relied on the administration of a survey that requested responses from 127 nursing executives within the UHSC. A large scale survey like this helps because it collects data from executives that must examine the financial, clinical, and political related consequences of fully implementing EHRs into their facilities. Along with Seghal and Wachter's (2007) research, the methodologies of Sullivan et al. (2017), Bhatia et al. (2015), and Weinerman et al. (2015) all provide data that is relevant to this study's research questions and gives information about how the recommendations and requirements of the HITECH Act have been affecting the health care industry at a macro level. So, data found during this study's literature review will be analyzed and categorized accordingly as well.

Analysis

Data from published literature and the 2009 to 2018 AHA surveys will be used to analyze and determine whether or not the HITECH Act has led to higher rates of EHR implementation, whether or not Medicaid and Medicare affected these rates of implementation, and which types of hospitals implemented changes within their facilities. By analyzing the data on these changes, research question #3, which relates to changes in a facility's primary method of health record keeping, will be answered as well. There are numerous health care facilities that are currently using paper only or paper-digital hybrid systems to take care of their health record keeping needs. Published literature has given examples of where facilities and academic medical centers realized the need to switch from paper only record keeping methods for a variety of reasons (Bhatia et al., 2015). Reviewing the collected data from papers and surveys that have been

published both before and after 2009 should help discover whether or not the HITECH Act has been the main motivator for industry wide changes in EHR implementation.



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