Baby Boomers and Electronic Health Records:
Will PPACA’s Provisions Increase Adoption in Time to Meet Demand?

Alexander Mikulaschek*

With the implementation of the Patient Protection and Affordable Care Act (PPACA), the federal government declared that it would decrease the cost of health care, improve the quality of delivered care, and expand healthcare coverage to many uninsured Americans.¹ Much of the focus has been on the expansion of coverage and the individual mandate because of the legal battles and the PPACA’s financial implications;² meanwhile the aging baby boomers are looming on the horizon.³ Beginning in 2010, the roughly seventy-eight million baby boomers began turning sixty-five at a rate of three to four million per year leading to growing concerns over meeting their healthcare demands.⁴ This impending tide of elderly appears set to inundate the healthcare market and put pressure on an already-strained system.⁵ Through efforts such as the PPACA, the government is trying to gain control of healthcare costs now and maintain them going

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* Juris Doctor Candidate, Loyola University Chicago School of Law, Class of 2014. Mr. Mikulaschek is a staff member of Annals of Health Law.

3. Ardis Dee Hoven, Coping with Baby Boomers and Staggering Statistics, AMEDNEWS.COM (Sept. 20, 2010). Two-thirds of seniors at least sixty-five years old have one chronic disease and see seven different physicians, while as much as twenty percent of those over sixty-five have five chronic diseases and see fourteen doctors. Id.
4. Id.
forward. Until recently, health information technology, specifically electronic health records (EHRs), while greatly adopted throughout most of health care, was not widely promoted in long-term care, especially nursing homes. The PPACA has now changed this with a few provisions encouraging nursing homes to adopt EHR technology, but whether or not these efforts will be sufficient to help against the influx of baby boomers remains to be seen. Part I of this article will discuss how EHRs benefit nursing homes, while Part II will identify the reasons why nursing homes have not widely adopted EHRs. Part III will detail the PPACA’s efforts to promote EHR adoption in consideration of the costs of such implementation. Part IV will further analyze the effect of the PPACA on EHR adoption, specifically the necessity of nursing homes utilizing EHR technology to contribute in the new healthcare landscape. Finally Part V will consider the baby boomer’s impact on health care and conclude that the PPACA’s efforts to promote the use of EHRs in nursing homes may be insufficient to have a significant influence in the immediate future.

I. EHRs’ Benefit to Nursing Homes

EHRs, in general, refer to software with a full range of functionalities to store, access, and use patient medical information. For a variety of

6. Id. at 2.
10. An Introduction to Electronic Health Records, The McGraw-Hill Companies, Inc. 2 (2011), http://highered.mcgraw-hill.com/sites/dll/free/0077477553/805092/Chapter01rev19.pdf. EHRs provide various functions depending on the user and contain such information as patient demographics, medications, vital signs, past medical history, immunizations, laboratory data, radiology reports, scheduling, e-prescribing, evaluation and
reasons providers have been reluctant to switch from a paper-based system, but starting in the early 2000s the federal government began financially incentivizing providers to adopt EHRs. Congress recognized that EHRs lead to better clinical information, accessibility, patient safety, care, overall efficiency, and savings. Thus, Congress took great strides to increase the adoption of EHRs through the American Recovery and Reinvestment Act (ARRA) of 2009, specifically in the Health Information Technology for Economic and Clinical Health (HITECH) Act. Despite all the benefits that EHRs could provide to long-term care facilities, Congress did not include nursing homes as one of the providers that could receive bonuses upon adoption of the technology.

Numerous studies have been conducted on the costs and benefits of implementing an EHR system within nursing homes and various types of vendor software have been deemed beneficial for both patients and providers. The Agency for Healthcare Research and Quality (AHRQ), with the help of seven long-term care organizations, conducted a study on the influence of EHR technology in nursing homes. This project

management coding, care alerts, evidence-based decision support, and health maintenance.

Id. at 4.
11. See infra Part II.
13. Id. at 8-11.
14. Id.
17. Melanie Au et al., at 11, 13.
evaluated the impact of adopting the “On-Time Quality Prevention Program for Long-Term Care” in fifteen nursing homes. The program provided closer bed monitoring which led to a decrease in pressure ulcers and improved supervision for skin condition, nutrition, and incontinence in patients. Not only did the patients benefit, but the staff also reported improved job satisfaction. Another study conducted by the U.S. Department of Health and Human Services reported numerous improvements from EHR software utilization in nursing homes. The nursing homes reported such advantages as: simultaneous anytime and anywhere access to patient information by multiple care team members, enhanced quality in care coordination and communication, improved decision-making, reduced response time to negative events, reduced duplicative diagnostic tests, and potentially reduced ER visits and re-hospitalizations. EHRs also improved billing efficiency, provided physicians off-site access, allowed more information recording than the previous paper charts and enabled the staff to spend more time with residents thus leading to better care experience for patients. Seeing the positive results from studies such as these has led to increased adoption of EHR technology among healthcare providers and has allowed vendors to create testimonials for their own unique software which can meet the specific needs of individual nursing homes. For instance, the Fort Hudson Nursing Center in New York adopted the PointClickCare system and eliminated seventy-five to eighty percent of its paper-based processes,

18. Id. at 11.
19. Id.
20. Id.
21. Andrew Kramer et al., supra note 16, at 15. The study recorded the influence of EHR technology in four different nursing homes. Id.
22. Id.
23. Id. at 15-16.
improved its medication administration by having quick access to all residents’ information, increased efficiency with twenty-four hour reports, and even noted faster reimbursement for Medicare Part A and B submissions due to the quick and accurate automatic billing process.25 Given the benefits that EHRs can provide to most of the nation’s nursing homes, it begs the question, “why has there been a delay in embracing such technology?”

II. BARRIERS TO ADOPTION

Based upon the studies and testimonials,26 one would think that providers would be eager to implement EHRs in their organizations. However, this is not the case, as many physicians believe EHRs adversely affect the quality of patient care.27 While most nursing homes have some form of a computer system, these are limited to mainly administrative tasks, such as billing and reporting patients’ “minimum data sets” to the federal government.28 Concerns over implementing and maintaining an EHR system (in addition to planning and instituting new care procedures) cause providers to hesitate in implementing such software.29 Also, the necessity and amount of training for staff may deter facilities considering the technology.30 Additionally, the costs for hardware, data storage, software licenses, and hiring additional information systems personnel may deter providers from

26. See supra Part I.
changing over to EHRs. Furthermore, concerns regarding ineffectiveness during system downtime or surveyor’s reluctance to read electronic records (preferring instead the paper system) were cited as problems with EHR adoption within nursing homes.

While the costs, both monetary and otherwise, of EHRs are a major hurdle for nursing homes to overcome in implementing an EHR system, all of these barriers cannot take the sole blame for the lack of adoption. The federal government can be held responsible in part for enacting legislation focusing on other sectors and leaving nursing homes to fend for themselves. As mentioned earlier, the HITECH Act provided incentives for hospitals and physicians to adopt EHR systems while ignoring nursing homes completely. By not including the nursing homes as eligible providers, Congress left nursing homes completely responsible for the cost of the installing such technologies, while certain eligible providers received reimbursement for their expenses. While it may not be the sole responsibility of the federal government to force nursing homes to adopt new beneficial technology, aiding the process through financial incentives has promoted adoption in other areas of the healthcare market.

32. Id. at 22-23.
34. Terry, supra note 7; Health Information Technology for Economic and Clinical Health Act, 42 U.S.C. §§17901-39 (2009) [hereinafter HITECH]; CMS, supra note 15; Neville M. Bilimoria, ACOs and Long-Term Care: Don’t Get Left Behind, JD SUPRA LAW NEWS (Dec. 28, 2012), http://www.jdsupra.com/legalnews/acos-and-long-term-care-dont-get-left-09413/. The federal government did not recognize certifications for long-term and post-acute care facilities because they were unable to receive reimbursement under the ARRA’s HITECH Act provisions. Terry, supra note 7.
36. See Press Release, CMS, More Than 100,000 Health Care Providers Paid For Using
III. LEGISLATION AND COST

The PPACA does promote some EHR adoption in nursing homes through a couple provisions.\(^{37}\) However, when compared to the reimbursement incentives within the HITECH Act, the PPACA provisions appear woefully insufficient.\(^{38}\) The PPACA first states that the Secretary of Health and Human Services shall conduct two demonstration projects to determine the “best practices” for the use of technology and grant awards to skilled nursing facilities that are either “involved in the culture change movement” or use “information technology to improve resident care.”\(^{39}\) Furthermore, the PPACA will provide 67.5 million dollars over the four-year term of the grant program.\(^{40}\) While this will certainly help to a degree, it may not be enough for the nursing homes to catch up with the other providers, who, through the HITECH Act, already invested in their own EHRs and are currently forming Accountable Care Organizations (ACOs).\(^{41}\)

Considering the funding that the nursing homes will now be able to receive under the PPACA,\(^{42}\) an analysis of the actual financial burden that implementing an EHR system places on a nursing home is necessary. Two studies (one conducted by the Texas Tech University Health Sciences

\(^{38}\)  Id.; HITECH, 42 U.S.C. §§17901-39 (2009); THE McGRAW-HILL COMPANIES, INC., supra note 10, at 11. Nineteen billion was invested in the EHR incentive program.  Id.
\(^{39}\)  PPACA § 124 Stat. at 602.
\(^{40}\)  PPACA § 124 Stat. at 676.
\(^{41}\)  CMS, ACCOUNTABLE CARE ORGANIZATIONS (Mar. 22, 2013), http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO/index.html?redirect=/aco/.  ACOs are formed by groups of doctors, hospitals, and other healthcare providers who come together to deliver coordinated care to patients.  Id.  The theory is that through coordination proper care can be delivered on time while simultaneously saving money by avoiding duplication of services and preventing errors.  Id.; HITECH, 42 U.S.C. §§17901-39 (2009); Neville M. Bilimoria, supra note 34.
\(^{42}\)  § 124 Stat. 602, 676 (2010).
Center and the other conducted by the Chief Information Officer Consortium (CIOC) help demonstrate the actual costs of investing in an EHR system.\textsuperscript{43} The CIOC study, in anticipation of the HITECH Act, designed a hypothetical, for-profit long-term care system based out of North Carolina and Florida and projected the five-year costs for such an organization.\textsuperscript{44} The results were based upon the implementation of one of three different EHR systems: a third-party hosted solution, a vendor-hosted software as service, and an in-house hosted solution.\textsuperscript{45} Over the course of five years, CIOC estimated that the cost per patient per day for a third-party hosted option would be $1.35, the vendor software option would cost $1.38, and finally the in-house solution would total $1.89.\textsuperscript{46}

The Texas Tech University Health Sciences Center study also evaluated the implications of adopting EHR technology in long-term care facilities.\textsuperscript{47} The study only incorporated two different adoption models: a remotely-hosted business model and a locally-hosted business model.\textsuperscript{48} While the locally-hosted business model required a greater up front payment, the study reported that the long-term costs per patient day would be roughly one dollar for both systems.\textsuperscript{49}

When evaluating the results of these studies, it is hard to determine the significance of these low costs per patient day in relation to the PPACA’s

\textsuperscript{43} CIO CONSORTIUM, ELECTRONIC MEDICAL RECORDS (EMR) COST STUDY FINAL REPORT 1 (2011), http://www.leadingage.org/uploadedFiles/Content/About/CAST/Resources/CIO_Consortium_EMR_CostStudy.pdf; Barbara Cherry, Long-Term Care Facilities Adoption of Electronic Health Record Technology: A Qualitative Assessment of Early Adopters’ Experiences Final Report, TX, TECH UNIV., 6 (2009).
\textsuperscript{44} Id. at 6.  
\textsuperscript{45} Id. at 9.  
\textsuperscript{46} Id. at 6.  
\textsuperscript{47} Cherry, supra note 43, at 6.  A qualitative assessments was conducted to provide a comprehensive description of the experiences, challenges, and benefits of EHR adoption in Texas and to identify the EHR functionalities currently being used in adopter facilities; and address policy implications related to EHR adoption and HIT in Texas LTC facilities. Id.  
\textsuperscript{48} Id. at 25-26.  
\textsuperscript{49} Id. at 25.
allocation of $67.5 million dollars nationally over a four-year period. Even when using the estimated cost of implementing EHR technology within a single facility, the precise effectiveness of the PPACA’s monetary distribution towards EHR adoption cannot be determined until more time has passed. Undoubtedly the grants will help, although they may be insufficient to incentivize enough long-term care providers to make the change to the EHR technology. This change is critical, though, if the nursing homes wish to coordinate with those providers who have access to the nineteen billion dollars allocated by the HITECH Act. This is a cause for concern as the American healthcare system aims to change to a preventive philosophy where coordinated care will be critical in keeping costs to a minimum.

IV. CARE COORDINATION AND EHR

The PPACA has proposed several programs that focus upon controlling costs by increasing care coordination throughout the healthcare system and key among those efforts will be ACOs. Coordinated care requires timely exchange of accurate information between providers and the increased implementation of health information technology, such as EHRs, is

50. CIO CONSORTIUM, supra note 43, at 8. The report estimated that the installation cost for a single facility would be roughly $254,279. Id.
51. LEGIS. ANALYSTS OFF., supra note 9.
52. Leslie Schwalbe, Behavioral Health Providers: Expenditures, Methods and Sources of Payment, Electronic Health Record Incentive Payments for Certain Behavioral Health Providers Policy Descriptions, DEP’T HEALTH AND HUMAN SERVS. 18 (2010), http://aspe.hhs.gov/daltcp/reports/2010/behlp.pdf. Health providers in the past have noted that insufficient reimbursement led to reluctance to adopt health information technology. Id.
53. THE McGRAW-HILL COMPANIES, INC., supra note 10, at 11.
54. Terry, supra note 28.
facilitating this exchange.\textsuperscript{56} Nursing homes will need to exchange data with those providers who have already met the meaningful use standards of the HITECH Act, if they want to function successfully in the future healthcare market, especially among the ACOs.\textsuperscript{57} The initial proposed rule from the Centers for Medicare and Medicaid Services (CMS) for ACOs stated that nursing homes would not be designated as eligible participants in the ACOs.\textsuperscript{58} This proposed rule caused hospitals to neglect nursing homes in deliberations, as hospital CEOs and physician groups focused on their own partnerships in anticipation of the final regulations.\textsuperscript{59} While it was later ruled that nursing homes could participate in the ACOs, the level of collaboration between nursing homes and other providers does not compare to that of hospitals and physician practices.\textsuperscript{60}

Hospitals’ and physicians’ unwillingness to include nursing homes within ACOs may stem from a number of factors. One thought is that the hospitals and physician practices are focused upon creating the best possible ACOs at the physician level in order to acquire the savings that the ACO payment plans provide.\textsuperscript{61} This approach could prove foolish as nursing homes may be able to provide the necessary care that can reduce expensive hospital readmissions, thus saving an ACO money overall.\textsuperscript{62}

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\item \textsuperscript{56} J. of AHIMA, \textit{supra} note 30.
\item \textsuperscript{57} Neil Versel, \textit{Long Term Care Providers Still Need Data Exchange}, \textit{INFORMATION WEEK} (June 25, 2012), \url{http://www.informationweek.com/healthcare/interoperability/long-term-care-providers-still-need-data/240002624}.
\item \textsuperscript{58} Bilimoria, \textit{supra} note 34.
\item \textsuperscript{59} Id.
\item \textsuperscript{60} Id.
\item \textsuperscript{61} Id.
\item \textsuperscript{62} Id. It is estimated that forty-five percent of the readmissions of Medicare and Medicaid patients receiving care in nursing homes could be avoided, and for 2011 these costs were estimated to be between seven and eight billion dollars. Ken Terry, \textit{Feds Bet on Health IT For Nursing Homes}, \textit{INFORMATION WEEK} (Oct. 8, 2012), \url{http://www.informationweek.com/healthcare/interoperability/feds-bet-on-health-it-for-nursing-homes/240008675}.
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Another possibility is the lack of compatibility in EHR technology. Not all vendors’ software is compatible; therefore, a nursing home or ACO may be reluctant to go to the expense of implementing a new system to ensure coordination throughout the organization. Software that would convert the data sets and allow nursing facilities to exchange information between care settings has yet to become widespread in post-acute care. Whether it comes through government plans or providers’ own efforts, coordination between nursing homes and other healthcare providers certainly needs to continue to improve, and EHR technology will be critical in these efforts.

V. MEETING THE DEMANDS OF BABY BOOMERS

After reviewing the factors influencing the adoption of EHR technology in nursing homes, one must now consider them in relation to the incoming wave of baby boomers. Reports from the Administration on Aging project that the population of Americans over the age of sixty-five will increase from about forty million in 2010 to seventy-two million in 2030. This is an increase in the percentage of total population makeup from twelve to nineteen percent, and due to the current state of the nation’s health as well

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63. Terry, supra note 62. The vendors who supply EHR technology in hospitals often do not make similar technology available to nursing homes. Id.
64. Id. There is currently limited exchange of electronic data between hospitals and post-acute-facilities despite the frequency with which patients go between the two. Id.
65. Ken Terry, Long-Term Care Facilities Join the Health Information Exchange, INFORMATIONWEEK (Aug. 17, 2012), http://www.informationweek.com/healthcare/interoperability/long-term-care-facilities-join-health-in/240005757. For example, the Keystone Beacon Community in Pennsylvania has established a connection between hospitals and long-term care facilities through software that converts the data and allows for transfer to other facilities. Id.
66. Ken Terry, supra note 28. For ACOs to manage cost and quality of care for Medicare patients, they’ll have to monitor the status of patients in nursing homes, and therefore coordination between doctors caring for patients in hospitals and post-acute-care facilities is necessary. Id.
as chronic disease trends in older individuals this is a serious issue. The stress that the baby boomers will put on the healthcare system leads to financial concerns, especially because projections by the Congressional Budget Office (CBO) have such spending at higher levels than ever before.

The PPACA will hopefully provide a solution to this impending problem, but the PPACA’s provisions to promote EHRs in nursing homes may be too late to have a meaningful impact in the near future. The significance of the effect this technology will have in controlling the costs of treatment for the baby boomers is largely uncertain. Between the extreme demands of the baby boomers and the unknowns associated with EHR adoption, such efforts to address the situation should have been applied much sooner. Due to the close timing of the introduction of the PPACA’s provisions and the incoming baby boomers, the influence of the EHR technology may not be felt initially and could take some time to produce the desired results.

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68. Steve Yoder, The Coming Nursing Home Shortage, FISCALTIMES (Jan. 26, 2012), http://www.thefiscaltimes.com/Articles/2012/01/26/The-Coming-Nursing-Home-Shortage.aspx#page1. Fifty-five percent of all cancers are diagnosed in individuals sixty-five and older. Id. According to the Alzheimer’s Association, those sixty-five and older suffering from Alzheimer’s will increase fifty percent to nearly eight million by 2030. Id. Additionally, by 2025, the number of those sixty-five and older with diabetes is projected to almost double to nearly eleven million. Id.

69. CONG. BUDGET OFF., Pub. No. 4569, Choices for Deficit Reduction 6 (2012). In 2020, Social Security and other major health programs projected to be 11.5 percent of GDP, up from 9.6 in 2012 and 7.1 over past forty years. Id.

70. U.S. GOV’T ACCOUNTABILITY OFF., supra note 5, at 38. Estimating future costs of health care is difficult because the effect of drivers, such as technological change, are hard to predict due to the costs associated with implementation as well as their development and incorporation. Id.

71. Yoder, supra note 65.

72. U.S. GOV’T ACCOUNTABILITY OFF., supra note 5, at 38.

73. LEGIS. ANALYSTS OFF., supra note 9.
VI. CONCLUSION

Larry Minnix, the President and CEO of LeadingAge\(^{74}\) stated, “the current way we’re taking care of seniors in this country is unsustainable and unaffordable. . . the only way out is innovation.”\(^{75}\) If Mr. Minnix is correct, then innovations, such as EHR technology, will be critical to meet the demands of the baby boomers as they enter nursing homes.\(^{76}\) While the initial costs may appear significant, there is sufficient evidence to demonstrate that the benefits make the implementation of such a system worth the price.\(^{77}\) Over the past decade nursing homes have been slow to adopt such technology, but the rapidly approaching baby boomer population and their future needs have spawned efforts to improve future elder care.\(^{78}\) The PPACA looks to address many issues within the nation’s healthcare system in hopes of lowering the overall cost of care.\(^{79}\) One can only hope that the government’s efforts to encourage nursing homes to accept EHRs\(^{80}\) in collaboration with the other initiatives are sufficient to address the issues presented by the baby boomers. Otherwise, it seems the country will have to endure the hardships of paying for the baby boomers’ health care while it waits for the benefits of EHRs to eventually take effect.

\(^{74}\) LEADINGAGE, http://www.aging.org/About_LeadingAge.aspx (last visited Apr. 28, 2012). LeadingAge is an association of six thousand not-for-profit organizations that focus on advocacy, research, education, and in general support the well being of seniors, children, and those with special needs. Id.


\(^{76}\) Terry, supra note 62. It is difficult for physicians to visit patients in nursing homes when they are needed and to spend the time necessary to avoid patient hospitalization. Id.

\(^{77}\) See supra I-II.

\(^{78}\) See supra V.

\(^{79}\) O’Neil, supra note 1.