

Abstract:

Robert Bond Malone is currently pursuing a J.D. at The University of Oklahoma College of Law as part of the Class of 2007. Below, Mr. Malone begins the first of a three-part series of articles discussing Health Information Technology. Here, he considers the effects Health Information Technology could have on the healthcare industry taken as a whole. He focuses on the benefits this technology could have in improving and streamlining the provision of healthcare services. Mr. Malone concludes that in an industry experiencing soaring costs and increasing levels of inefficiency, Health Information Technology could be an effective remedy.

**HEALTH INFORMATION TECHNOLOGY: TRANSFORMING THE  
HEALTHCARE INDUSTRY FOR THE 21<sup>ST</sup> CENTURY**

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**I. Introduction**

One of the key elements of President George W. Bush's health care agenda is what is called "Health Information Technology" (HIT). Under the guidance of the Department of Health and Human Resources, the Bush administration believes that developing this technology will lead to lower overall health care costs, fewer medical errors, and general improvement in the quality of health care available.<sup>1</sup> This e-brief, the first in a series of three, will provide an overview of the available implementation strategies and the activities currently underway to bring this technology into being.

**II. Setting the Context**

Most Americans are well aware of the problems facing the health care industry today. While we can expect the latest technology when it comes to life-saving treatments and surgical techniques, that same level of technology does not carry over to the administration of these medical services. No one can argue that massive inefficiencies and bureaucratic roadblocks cause the industry to waste millions of dollars. In fact, the

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<sup>1</sup> *Health Information Technology: The Federal Role and Budget Implications: Hearing Before the S. Comm. on the Budget, 109th Cong. 2 (2005)* (statement of Michael O. Leavitt, Sec'y, Dep't of Health & Human Services.) [hereinafter Leavitt Testimony]

Department of Health and Human Services (HHS) states that the U.S. spends nearly 16% of its Gross Domestic Product (GDP) on health care.<sup>2</sup> This amounts to around \$1.8 trillion a year.<sup>3</sup> In 1960, only 5.1% of the GDP went towards health care, and current estimates are that 19.1%, roughly one fifth of the GDP, will be spent on health care by 2014.<sup>4</sup> If you consider these numbers to be three points on a curve, its easy to see that for decades, spending on health care has gone up at an ever increasing rate. In relation to other industrialized nations, the U.S. spends about twice the average of the countries that comprise the European Union.<sup>5</sup>

Given these facts, the Bush administration would like to utilize technology that has revolutionized industries such as banking, shipping and retail to change the way the health care industry operates. While much of the spending is unavoidable, especially given the aging of America, the current system is "saturated with inefficiency."<sup>6</sup> The HHS states that economists estimate more than half a trillion dollars a year, or a third of health care spending, is wasted due to poor or redundant administrative policies.<sup>7</sup> The loss of money is not the only pressing issue, however. The Institute of Medicine estimates that 44,000 to 98,000 Americans die each year due to hospital medical errors.<sup>8</sup> HHS attributes much of these deaths to a lack of information necessary for doctors to treat their patients.<sup>9</sup> The combined economic and humanitarian factors at play call for changes in the health care industry, changes which modern technology makes possible.

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<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id. at 3.*

### III. Obstacles to Implementation

The biggest impediment to the widespread use of health information technology is what HHS calls "interoperability."<sup>10</sup> On April 27, 2004, President Bush signed Executive Order 13335, which proclaimed a commitment to the promotion of HIT as a means to lower costs, reduce medical mishaps, improve the quality of care provided, and increase the level of information available for doctors and their patients.<sup>11</sup> In particular, the order called for universal adoption of interoperable electronic health records (EHRs) over the following ten years.<sup>12</sup> The goal is to have medical information available to the right people at the right time, while maintaining the level of privacy expected with medical records.<sup>13</sup> If this goal is to be met, "the path forward requires a concentrated nationwide effort to achieve widespread adoption of interoperable EHRs."<sup>14</sup>

Interoperability is of utmost importance because without it, the ability to exchange proprietary data would be severely limited. This data cannot flow freely if hospitals are employing different systems for the administration of health care. This would defeat the main purpose of HIT, which is to create a unified system of medical histories and information to facilitate physicians in their handling of patients. Michael O. Leavitt, Secretary of the Department of HHS, compares the current U.S. health care system to the railroad system that existed in this country during the 1850's.<sup>15</sup> In making this analogy, he notes that the health care system is "complex, fragmented, and uses

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<sup>10</sup> *Id. at 4.*

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id. at 5.*

multiple standards for the use of technology."<sup>16</sup> The proposed adoption of HIT is similar to the railroad system of the nineteenth century in that back then, the rail gauges used by different railroad companies in laying tracks varied, so that trains from different companies could not switch from one network to another.<sup>17</sup> This is, in effect, what the obstacle of interoperability present to us today with our health care system. The rail gauges are not aligned. As a result, patient information exchange is restricted and cannot be electronically conveyed from one setting to another.<sup>18</sup> The true promise of HIT cannot be realized until a standardized system that is open, adaptable, and most importantly, interoperable, is in place.

In order to help advance efforts to attain President Bush's goal for most Americans to have EHRs over the next ten years, HHS Secretary Mike Leavitt created the "Office of the National Coordinator for Health Information Technology," or ONCHIT.<sup>19</sup> The community is federally-chartered, and was organized to provide input and make recommendations to HHS on creating a system of digital health records which is interoperable.<sup>20</sup> ONCHIT is initially chartered for two years, with an option to renew for a duration of no more than five years.<sup>21</sup> The ultimate goal is for ONCHIT to facilitate the creation of an interoperable system and then for it to be succeeded by a private-sector health information community initiative.<sup>22</sup> The private-sector would then set any additional standards that might be needed, certify new HIT, and provide long-term

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<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id. at 6.*

<sup>19</sup> Office of the Nat'l Coordinator for Health Info. Tech. (ONCHIT), American Health Information Community (Sept. 24, 2005), <http://www.hhs.gov/healthit/ahic.html>.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

governance of the transformation to EHRs.<sup>23</sup> Initiatives such as ONCHIT show just how serious an issue interoperability is, and how dedicated the Bush administration is to establishing a digital health record system.

A second obstacle to overcome is what is termed "the Adoption Gap."<sup>24</sup> For HIT to work, health care providers must be convinced to adopt the technology. And while low EHR adoption is a concern, of greater concern is the varying rates of EHR adoption.<sup>25</sup> Practices of different sizes will adopt EHRs at different rates, leading to an adoption gap based on the size of the practice.<sup>26</sup> This could hinder the natural effects that competition and market forces have on improving the healthcare industry. According to the HHS, "57% of large group practices of 50 or more physicians are using an EHR, but only 13% of solo practitioners are doing so."<sup>27</sup> This is probably due to large practices having more resources and more ability to obtain and implement information technology to their benefit.<sup>28</sup> While it's good that large practices are ahead of the curve in implementing HIT, it is imperative that solutions are developed that assist EHR adoption throughout the health care industry. In light of the fact that small practices make up around 70% of the industry, focus needs to be on the needs of small practitioners and their adoption of HIT technology, if we are to have a truly unified health care system.<sup>29</sup>

#### **IV. Congressional Resolutions: Similar Plans, Similar Goals**

As of now, there have been at least six Senate and House resolutions forwarded in the past few months concerning HIT. All of them have different ideas on how to initiate

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<sup>23</sup> *Id.*

<sup>24</sup> Leavitt Testimony, *supra* note 1, at 5.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

the process, secure funding, maintain quality standards, prevent fraud or abuse and protect privacy, but they share a common goal in wanting to see this technology set in place.

Of all the resolutions enacted since the beginning of 2005, I feel that two Senate resolutions from June of 2005 are presently the most comprehensive and can best handle the task of implementing HIT. The first of these is the "Health Information Technology Act of 2005" co-authored by Senators Stabenow and Snowe.<sup>30</sup> This resolution, in my opinion, excels at the setting of initial standards for HIT and the sources of funding to be used. However, it is less comprehensive in its approach to handling Medicare and Medicaid, and has no provision regarding standards for fraud and abuse or protection of privacy. To tackle these issues where the Stabenow/Snowe resolution falters, I feel that the "Health Technology to Enhance Quality Act of 2005," co-authored by the unlikely pairing of Senators Frist and Clinton, is the most inclusive.<sup>31</sup>

The Stabenow/Snowe collaboration goes into great detail with regard to the standards to be set. It sets out specific deadlines for each phase of the process in establishing HIT. For example, it mandates that within two years, the Secretary of HHS shall provide for the development and adoption of a national data and communication standard for HIT.<sup>32</sup> It also states that by January 1, 2008, the Secretary will implement procedures to enable HHS to integrate data derived from reporting requirements established after the enactment of the bill, and by the first day of 2010, the Secretary

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<sup>30</sup> S. 1227, 109th Cong. (2005).

<sup>31</sup> S. 1262, 109th Cong. (2005).

<sup>32</sup> S. 1227 § 4(a).

should be able to integrate data derived from all health care reporting requirements.<sup>33</sup> Not only are these standards detailed, but they are also realistic. In contrast, the "Better Healthcare Through Information Technology Act" offered by Senators Enzi and Kennedy calls for a public/private health information collaborative within sixty days of enactment of the bill.<sup>34</sup> A provision such as this seems unlikely to be achieved.

With regard to funding, the Stabenow/Snowe resolution again rises to the top. The number of funding provisions are too numerous to cover completely, but I will mention a few I feel illustrate how complete this effort is. The bill starts out by laying out a source for funding with the establishing of grant program, developed by the Secretary of HHS, which takes its funds from the Federal Hospital Insurance Trust Fund and the Supplemental Medical Insurance Trust Fund.<sup>35</sup> The bill then sets out the total authorization allowed, which is \$4.05 billion over five years.<sup>36</sup> It then proceeds to show exactly how the funds will be divided among the varying medical institutions, such as \$250 million for hospitals from 2006-2010, \$250 million to Critical Access Hospitals over the same time period, and \$800 million to physicians and physician group practices.<sup>37</sup> What I feel is especially intriguing about this proposal is that it, in effect, addresses the "adoption gap" issue mentioned earlier by mandating that at least 20% of funds must be given to entities in shortage areas or rural areas.<sup>38</sup> No other resolution appears to go into such detail regarding funding as the Stabenow/Snowe effort.

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<sup>33</sup> *Id.* § 4(b).

<sup>34</sup> S. 1355, 109th Cong. § 2904(a) (2005).

<sup>35</sup> S. 1227 § 2(i).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.* § 2(d).

However, the Frist/Clinton resolution is the one I feel best deals with how HIT will handle the Medicare/Medicaid system. It also addresses fraud and abuse standards, and the protection of individual privacy concerns. In dealing with Medicare/Medicaid, which is a crucial part of the health care system overall, the Frist/Clinton bill calls for the Secretary of HHS to establish a "pilot program" which will make value-based purchases based on the reporting of quality measures.<sup>39</sup> After two years, the pilot program may, at the Secretary's discretion, give way to value-based purchasing on a national level.<sup>40</sup> It also sets out funding for the purchasing from the Federal Hospital Insurance Trust Fund and the Federal Supplementary Insurance Trust Fund, the same trust funds mentioned by the Stabenow/Snowe resolution.<sup>41</sup> The bill then gets more specific by including provisions calling for the reporting of the quality of physician's services, and a system which will review claims data to improve the quality and efficiency of items and services provided under Medicare.<sup>42</sup> In creating all these provisions, the Frist/Clinton act recognizes the importance of integrating Medicare and Medicaid into the HIT system, as well as the need for regulation to ensure efficiency and quality of care received under a digital health record arrangement.

The Frist/Clinton resolution is also one of the few that addresses fraud, abuse, and privacy concerns. With regard to potential fraud and abuse, the bill provides an exemption from Stark and safe harbor under the Anti-Kickback Statute for permitted support, so long as there is compliance with the HIT standards adopted by the Secretary

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<sup>39</sup> S. 1262, 109th Cong. § 302 (2005).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*



of HHS.<sup>43</sup> In doing so, the resolution relaxes the stringent standards set out by Stark and the Anti-Kickback Statute which prevents abuse of Medicare and Medicaid. This would allow HIT more breathing room during the initial implementation period, until the kinks can be worked out. The Frist/Clinton resolution would also amend the Health Insurance Portability and Accountability Act (HIPAA) to include health information stored or transmitted in an electronic format upon enactment of the Act.<sup>44</sup> Also, no later than two years after enactment, the Secretary shall conduct a study that scrutinizes the integration of the standards espoused under the Frist/Clinton Act with the standards adopted under HIPAA.<sup>45</sup> Finally, not later than three years after enactment of the Frist/Clinton resolution, the Secretary shall take the results of the study just mentioned and develop a plan to integrate the standards of HIPAA with the resolution, and give a report to Congress describing this plan.<sup>46</sup> By setting out these provisions, the Frist/Clinton resolution attempts to take on the massive privacy concerns raised by HIT. These concerns will be discussed in greater detail in the second part of this series.

## V. Conclusion

It's plain to see that while the implementation of Health Information Technology is at this point in time far from being realized, its importance for the future of the healthcare system in America is unparalleled. In an industry experiencing soaring costs and increasing levels of inefficiency, the need to employ the technological advances which have revolutionized the way other industries have conducted themselves cannot be overstated. Conquering issues such as interoperability and adoption gaps in the course of

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<sup>43</sup> *Id.* § 203.

<sup>44</sup> *Id.* § 2910.

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

3 OKLA. J. L. & TECH. 36 (2007)

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establishing a unified electronic health record system will go a long way towards healing an ailing industry.