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 concludes his three-part series on Health Information Technology. This article follows the second installment, entitled *Health Information Technology and HIPAA: Can We Satisfy Security and Privacy Standards in the Digital Age?* In that article he considered whether this technology can co-exist with HIPAA and its concerns regarding privacy over sensitive health records. Refer to 3 Okla. J.L. & Tech. 36 and 3 Okla. J.L. & Tech. 37 for a full copy of the first two parts in this series. Here, Mr. Malone considers the possible benefits of employing this technology, specifically "E-Prescribing," in a situation such as the one confronted in the aftermath of Hurricane Katrina. Mr. Malone concludes that disasters such as hurricanes show how poorly equipped the healthcare industry is to handle catastrophic situations and how valuable Health Information Technology could have been.

HEALTH INFORMATION TECHNOLOGY, E-PRESCRIBING AND HURRICANE KATRINA: COULD ELECTRONIC HEALTH RECORDS HAVE MADE A DIFFERENCE?

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I. Introduction

Hurricane Katrina affected the lives of those living on the Gulf Coast in many ways, scattering families and destroying their property. One particular type of property destroyed were medical records and prescriptions. Large numbers of paper medical records maintained by physicians, hospitals, nursing homes and other health care facilities in the Gulf Coast region were ruined.[1] According to the Department of Health and Human Services (HHS) however, providers and payers using electronic medical records were able to preserve their systems and patient information in the wake of the destruction.[2] Given this information, the question to ask is what difference could a fully

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[1] Press Release, U.S. Dep't of Health & Human Servs., HHS Enters into Agreements to Support Digital Health Recovery for the Gulf Coast: Partnerships Will Accelerate Electronic Health Records in Gulf States (Nov. 17, 2005), *available at* http://hhs.gov/news/press/2005pres/20051117.html [hereinafter HHS Press Release].

[2] *Id.*

interoperable system of electronic health records have made in the days and weeks

following the landfall of Hurricane Katrina?

II. Applying Health Information Technology to a Disaster

As mentioned in the two briefs that precede this one, Health Information

Technology (HIT) is the government's attempt to create a unified system of medical

histories and information to facilitate the delivery of healthcare through the use of

Electronic Health Records (EHR). One of the main obstacles to the implementation of

such a system is what is termed "the Adoption Gap."[3] For HIT to work, health care

providers must be convinced to adopt the technology. Up until now, the industry has

been slow to implement EHRs, but Hurricane Katrina might open some eyes as to how

vital HIT can be. Following the tragedy, HHS Secretary Michael O. Leavitt stated that

"[r]ecent hurricanes in the Gulf Coast exposed up-close the real vulnerabilities of the

American health care system … [a] system based upon paper which in an instant was

destroyed … [t]he effect of these hurricanes has been to demonstrate the real need for

health records that are both electronic and interoperable."[4]

As physicians, hospitals and other healthcare facilities return to operation, they

will have the task of rebuilding the destroyed paper medical records of their patients.[5]

The HHS hopes that the Gulf Coast will use this disaster as an opportunity to turn to EHR

as the industry rebuilds.[6] In effect, it is anticipated that healthcare providers in the

affected area can use this disaster as a stage to begin implementation of EHR. As

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[3] 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).
[4] HHS Press Release, *supra* note 1.
[5] *Id.*
[6] *Id.*

National Coordinator for Health Information Technology Dr. David Brailer has said: "Making patient data accessible to authorized physicians, whether it is following a hurricane or as part of routine care, remains a challenge that must be addressed."[7]

III. The Benefits of HIT in The Face of a Tragedy

As mentioned previously, hundreds of thousands of evacuees from areas affected by Hurricane Katrina have been relocated. For many of these people, an important need is to identify what prescriptions they require and provide medication. From a legal standpoint, how can healthcare providers distribute prescription medicines to those who have lost their paper medical records without violating the HIPAA Privacy Rule? The answer appears to be that without a unified system of EHR, the only method of dealing with this situation is to bend the rules. The Department of HHS has released bulletins emphasizing how patient information is to be shared to assist in disaster relief efforts, and how to assist patients in receiving the care they need.[8] Some of the methods allow health care providers to share patient information as necessary to provide treatment.[9] With little alternatives in the current paper-based medical record system, the government has allowed providers to share patient information in order to identify, locate and notify family members of an individual's location, general condition, or even death.[10] All that is required is verbal permission from the individual, if possible.[11] If the individual is incapacitated or not available, providers can even share information if, in their

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[7] *Id.*
[8] Office for Civil Rights, U.S. Dep't of Health & Human Servs., Hurricane Katrina Bulletin: HIPAA Privacy and Disclosures in Emergency Situations (Sept. 2, 2005), *available at* http://hhs.gov/ocr/hipaa/KATRINAnHIPAA.pdf.
[9] *Id.*
[10] *Id.*
[11] *Id.*

professional judgment, doing so is in the patient's best interest.[12] All of this runs contrary

to the legal rights of a patient to be secure in the privacy of sensitive and personal

medical records, rights guaranteed by HIPAA, discussed in the second brief in this series.

The bulletin issued by HHS even goes on to allow disaster relief organizations to share

information without obtaining a patient's permission, if doing so would interfere with the

organization's ability to respond to the emergency.[13] However, perhaps the most

egregious bending of legal rights is that health care providers can actually share patient

information with anyone as necessary to prevent or lessen a serious and imminent threat

to the health and safety of a person or the public, so long as the provider feels it has not

violated its standards of ethical conduct.[14] All of this would appear to be capricious and

arbitrary, and in no way consistent with the goals of HIPAA.

A subsequent bulletin issued by HHS shows other ways in which Hurricane

Katrina has deteriorated the health care industry's standards. HHS has granted itself the

authority to extend the period within which a covered entity may cure any noncompliance

with HIPAA privacy regulations.[15] The HHS Office of Civil Rights will consider the

emergency circumstances arising from Hurricane Katrina, along with good faith efforts

by healthcare providers, both to protect the privacy of health information and to execute

properly the agreements required by the HIPAA Privacy Rule as soon as possible.[16] In

addition, the Office of Civil Rights will not take enforcement action or seek to impose

civil penalties where, as a result of the urgency of the circumstances arising from

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[12] *Id.*
[13] *Id.*
[14] *Id.*
[15] Office for Civil Rights, U.S. Dep't of Health & Human Servs., Hurricane Katrina Bulletin #2: HIPAA Privacy Rule Compliance Guidance and Enforcement Statement For Activities in Response to Hurricane Katrina (Sept. 9, 2005), *available at* http://hhs.gov/ocr/hipaa/EnforcementStatement.pdf.
[16] *Id.*

Hurricane Katrina, a healthcare provider is unable to act according to the requirements of the Privacy Rule in sufficient time to meet the immediate needs of the evacuees.[17]

These HHS bulletins show how the legal standards regarding private health information have been compromised by the emergency circumstances surrounding Hurricane Katrina. In addition to these governmental releases, independent organizations have sprung up which further emphasize the shortcomings of a paper-based healthcare system in an emergency situation. One such website, *KatrinaHealth.org*, attempts to create a database where authorized pharmacists and doctors can get records of medications evacuees were using before the storm hit.[18] However, even if this website is able to accomplish its goals without compromising privacy rights, it admits that the information provided by the website is meant to complement, not substitute, for complete information provided by a patient to a doctor.[19] In fact, in an effort to protect the privacy rights of patients, medication information about certain sensitive health care conditions is not available through the website.[20]

In light of the problems that can occur when thousands of people are displaced, many with just the clothes on their backs and without access to their medical history and prescription information, it would seem that an interoperable system of EHR could make a difference when physical evidence has been destroyed. The question becomes how it would do so, and could it prevent the bending of the rules relating to individual privacy under HIPAA?

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[17] *Id.*
[18] KatrinaHealth, http://www.katrinahealth.org (last visited Nov. 25, 2005).
[19] *Id.*
[20] *Id.*

IV. E-Prescribing: A Solution to Paper Medical Record Shortcomings?

Given the shortcomings of our current method of compiling health care records in an emergency situation like the one created by Hurricane Katrina, the question becomes whether HIT could improve things, and how would it go about doing so? One possible solution to the problem of displaced patients without record of their prescriptions is called "e-prescribing." E-prescribing involves the transmission of prescription information through electronic media.[21] This information can be sent between a prescriber, such as a physician, and a dispenser, such as a pharmacy, through an e-prescribing network.[22] E-prescribing provides for the electronic transmittal of information on eligibility and benefits, as well as other drugs listed on the individual's medication history.[23] It would go a long ways toward eliminating the infringements on the HIPAA Privacy Rule mentioned above by only disclosing information which is permitted under HIPAA, concerning the privacy of individually identifiable health information.[24]

The benefits of e-prescribing are many. Physicians and other health care providers can only make their drug prescribing decisions using whatever medication and eligibility information that is available to them.[25] In a situation like the one that occurred after Katrina, that information was very limited. Many witnesses before the National Committee on Vital and Health Statistics (NCVHS) testified that the current, paper-based

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[21] 42 C.F.R. § 423.159 (2005).
[22] *Id.*
[23] Medicare Program: E-Prescribing and the Prescription Drug Program, 70 Fed. Reg. 6256, 6257 (Feb. 4, 2005) (to be codified at 42 C.F.R. pt. 423).
[24] *Id.*
[25] *Id. at 6260.*

prescribing process is prone to errors.[26]   Prescribers often do not have a completely accurate medication list or even a medical history for their patient.[27]   Pharmacists also have difficulty reading handwritten prescriptions and often have little or no information about the patient's condition for which the medicine was prescribed.[28]   Again, all of these limitations were exacerbated by the devastation of Hurricane Katrina.

With e-prescribing, prescriptions are reviewed, entered, managed and signed using a computerized system, instead of writing them on paper.[29]   This medication information is automatically linked to an EHR.[30]   The value of e-prescribing in preventing medication errors is that each prescription can be electronically checked.[31]   This would have been invaluable in the days following Katrina when paper prescriptions were lost and left behind.   Pharmacists in far away cities would only have to look up the patient's EHR to see what prescriptions the patient is authorized to receive.   E-prescribing could potentially have ameliorated the situation by improving quality, efficiency, and reducing costs by speeding up the process of renewing medications.[32]   Providing instant connectivity between the healthcare provider and the pharmacy would eliminate the need for paper prescriptions.

Another problem that could arise in a situation like Katrina presented is a general lack of information regarding the patient's medical history.   According to the Center for Information Technology Leadership (CITL), more than 8.8 million adverse drug events

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[26] *Id.*
[27] *Id.*
[28] *Id.*
[29] *Id.*
[30] *Id.*
[31] *Id.*
[32] *Id.*

occur each year in ambulatory care.[33] E-prescribing would create a critical first level of safety checks to occur when a medication is prescribed, and the CITL estimates that adoption of e-prescribing would eliminate around 2.1 million adverse drug events per year nationwide.[34] This would result in less civil liability for prescribing doctors, and in a situation like Katrina, where many people were injured and in need of emergency care, information regarding the patient's history could be readily obtained.

There is also anecdotal evidence that e-prescribing would result in time savings of one hour per nurse and 30 minutes per file clerk every day by streamlining the medication management process.[35] In addition, e-prescribing might cut in half the number of calls to and from a pharmacy because the information needed can be found in an EHR.[36] There is also testimony from pharmacists provided to the NCVHS that e-prescribing reduced time-consuming phone calls to physicians, improved accuracy and less time for refill authorizations, improved prescription communication between doctors and pharmacists, and improved turnaround time for refill authorizations.[37] With the influx of calls to the pharmacy that results from a catastrophe such as Katrina, where many hundreds of people were simultaneously injured, not having to field as many calls would save pharmacies and physicians valuable time, and the other efficiency benefits would allow medications to be dispensed quickly and accurately to patients who have been separated from their homes and family doctors.

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[33] Id. at 6268.
[34] Id.
[35] Id. at 6270.
[36] Id.
[37] Id. at 6271.

V. Conclusion

The government has gone to great lengths to push the implementation of Health Information Technology on the healthcare industry, but there has still been a general reluctance by providers to change the way they do business. After Hurricane Katrina, however, the need for Electronic Health Records has never been more evident. This tragedy has shown how poorly equipped the healthcare industry is to handle such devastation. Technological advances such as e-prescribing can go a long way towards remedying the shortcomings of a paper-based healthcare system. By making prescription information part of a comprehensive, interoperable electronic healthcare system, many of the problems that occurred after Katrina could have been avoided. If there is a silver-lining to the tragedy, it could be that the healthcare industry will finally take steps towards fully implementing Health Information Technology.