

White Paper EMR, EHR, HIE and PHR Is there a global interactive structure and system?

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The issue behind the development of EMR's, EHR's, HIE's and PHR's is the ability to reduce medical costs, medical errors, save lives and provide a means for medical professionals to have pertinent information on a patient and a global interoperability in emergency situations, when timely medical information is needed most. Fortunately, there is available technology (LifeSaver App™) that provides the solution to the following known issues.

There have been many studies done to show the cost of medical errors based on the United States of America. The report given by Senator Bernie Sanders, Health, Education, Labor, and Pensions Subcommittee, SD - 430, (Thursday, 17 July 2014, @ 10:00 am, 430 Dirkson Senate Office Building, Subcommittee on Primary Health and Aging); concludes that "the third leading cause of deaths in the United States is Death due to preventable medical errors. The estimated cost in 2008 was \$17 Billion per year and the cost including indirect cost is \$1 Trillion per year."

(<http://www.help.senate.gov/hearings/more-than-1-000-preventable-deaths-a-day-is-too-many-the-need-to-improve-patient-safety>)

In the American Medical Association, JAMA, 13 March 2013 - Vol. 309, No. 10. Viewpoint: Putting Health IT on the Path to Success. The following statement was made: "Comprehensive records require more than having every physician and hospital use an electronic health record (EHR) system. There must also be an effective, efficient, and trust- worthy mechanism for health information exchange (HIE) to aggregate each patient's scattered records into a complete whole when needed. This mechanism must also be accurate and reliable, protect patient privacy, and ensure that medical record access is transparent and accountable to patients." The following observation was made: "However, when it comes to HIE, often implemented by regional health information organizations (RHIOs), the lack of progress is particularly discouraging. In December 2010, the President's Council of Advisors on Science and Technology noted that HIE efforts through the states "will not solve the fundamental need for data to be universally accessed, integrated, and understood while also being protected."¹ A survey of 179 HIEs found only 13 (covering just 3% of hospitals and 0.9% of physician practices) were capable of meeting stage 1 meaningful use criteria (which do not guarantee comprehensive records). Of those 13, only 6 were reported to be financially viable. More importantly, none of the HIEs surveyed has the capabilities of a comprehensive system as specified by an expert panel, calling "into question whether RHIOs in their current form can be self- sustaining and effective." (Adler-Milstein J, Bates DW, Jha AK. A survey of health information exchange organizations in the United States: implications for meaningful use. Ann Intern Med. 2011;154(10):666-671.)

http://privacytools.seas.harvard.edu/files/privacytools/files/jvp130032_989_990.pdf

In the Reuters Report on Monday 26 October 2009, 6:10pm EDT "Healthcare system wastes up to \$800 billion a year" By [Maggie Fox](#), [Health](#) and [Science Editor](#) | WASHINGTON.

The U.S. healthcare system wastes between \$505 billion and \$850 billion every year, the report from Robert Kelley, vice president of healthcare analytics at Thomson Reuters, found.

"America's healthcare system is indeed hemorrhaging billions of dollars, and the opportunities to slow the fiscal bleeding are substantial," the report reads."

"The bad news is that an estimated \$700 billion is wasted annually. That's one-third of the nation's healthcare bill," Kelley said in a statement." <http://www.reuters.com/article/us-usa-healthcare-waste-idUSTR59P0L320091026>

Harvard Business Review "How the U.S. Can Reduce Waste in Health Care Spending by \$1 Trillion" by Nikhil Sahni, Anuraag Chigurupati, Bob Kocher, MD, and David M. Cutler, 13 October 2015. This article describes the types of waste in the U.S. Health Care Spending by categories: Clinical Waste, Administrative Complexity, Excessive Prices and Fraud and abuse utilizing information from "Eliminating Waste in the U.S. Health Care." By Donald M. Berwick and Andrew D. Hackbarth, 2012.

"Therefore, in addition to implementing everything that have been proven to work, the United States should create an environment that encourages innovations that can address areas of waste such as administrative complexity that known strategies cannot eliminate. Finding ways to address these

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challenges will help unleash unprecedented productivity increases in the health care system, extend the viability of the Medicare trust fund by years, allow employers to use money that would otherwise go to health care to raise wages, and, by reducing state and federal expenditures on health care, permit governments to lower taxes.” <https://hbr.org/2015/10/how-the-u-s-can-reduce-waste-in-health-care-spending-by-1-trillion>

PricewaterhouseCoopers' Health Research Institute - The price of excess* - Identifying waste in healthcare spending. (*connected thinking

Key findings:

- Wasteful spending in the health system has been calculated at up to \$1.2 trillion of the \$2.2 trillion spent nationally, more than half of all health spending.
- Spending can be classified into three waste “baskets”: behavioral, clinical and operational. These baskets cross all of the health sectors and include consumers, government and industry.
- The top three areas of wasted spending are defensive medicine (\$210 billion annually), inefficient claims processing (up to \$210 billion annually), and care spent on preventable conditions related to obesity and overweight (\$200 billion annually).
- Eight out of 10 consumers surveyed by PricewaterhouseCoopers' Health Research Institute (HRI) said that inefficiency in the healthcare system is not only driving up healthcare costs, but impacting the quality of care.
- Consumers see themselves, government and the industry at fault for wasteful spending. For example, 86% of consumers surveyed by HRI agreed that patients going to emergency rooms for non-emergency care drives up healthcare costs. Two-thirds said that they personally had received excessive medical testing.
- When U.S. consumers were asked why they believe the U.S. healthcare system has inefficiencies that have not been resolved, nearly half said “because it is not a priority for the government.” More than a third said it was due to the health industry not being willing to change business practices.
- Key barriers to eliminating waste are culture, politics, funding and incentives, and lack of a coordinated focus.

Solving inefficiencies means developing system-wide incentives to encourage partnerships and networks that work toward shared value. PricewaterhouseCoopers' <http://phibetaiota.net/2010/10/2010-reference-health-the-price-of-excess-pwc/>

The above objective information shows the necessity for a global interoperability of health records. The problem is the EHR's, EMR's and HIE's are typically in a finite environment due to software providers and protectionism. The technology is available to provide these records on a global interoperable basis to hospitals, medical provider offices, first responders (EMS, Fire, Police). My research has shown that a PHR exists which provides the means for the standard for simple interoperability.

The technology in the PHR goes beyond the surface technology by providing an extensive resource to the Medical Community by providing medical personnel with the accurate personal medical history they need in critical life saving situations on a timely basis, when it is needed most. The PHR which has developed the technology to bring a global solution for interoperability is LifeSaver App™.

LifeSaver App™ can structure their technology to accommodate access to Electronic Medical Records (EMR's), Electronic Health Records (EHR's) and Health Information Exchange (HIE's). With the cooperation and sharing of information of the disparate EHR's, EMR's and HIE's, LifeSaver App™ could become the standard for simple interoperability - the ability for a patient-centric data repository that instantly displays the most critical information. Where EMR's, EHR's and HIE's are confined record

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structures, LifeSaver App™ is a global solution allowing access to the information worldwide via the internet. LifeSaver App™ is a secure 256 bit encrypted technology.

LifeSaver App™ is the premier online medical record that provides immediate access for emergency responders using a QR code on a smart phone or laptop PC. When the patient is transported to the hospital, emergency room physicians can access the complete medical report which includes medication history, diagnosed conditions, latest test results, allergies, emergency contacts, insurance coverage plus copies of DNR, medical power of attorney, etc. Because the information is available on the Internet or on any browser-based device, immediate access to complete medical information can transform the tragic results of a medical emergency into lifesaving emergency care.

In addition to emergency medical information, LifeSaver App™ coordinates care provided by all healthcare providers using a physician's portal to upload information to a patient's online medical record. Lab tests, EKGs, MRIs, CAT scans can all be uploaded giving the interoperability currently missing in the healthcare industry and through EHR's. Using current technology, each Electronic Health Record creates a unique patient portal for that provider. Unfortunately, data is not shared amongst multiple providers yielding a continuity of care. As a result, a patient's care is fragmented when they have multiple physicians and specialties involved in their ongoing care. In order for a patient to take control of their health care, they have to access multiple patient portals when they have multiple health problems. LifeSaver App™ is a patient-centric model. As long as healthcare relies on a provider-centric model, true interoperability cannot be achieved.

LifeSaver App™ provides the vehicle for fixing the broken healthcare system by achieving the ability to consolidate a patient's record in one place. When a new physician accesses the record, he/she can view all previous relevant medical encounters. The ability to have instant access behind a secure and encrypted database gives emergency department physicians and first responders to save the patient's life. The issue behind the development of EMR's, EHR's, HIE's and PHR's is the ability to reduce medical costs, medical errors, save lives and provide a means for medical professionals to have the pertinent information on a patient and a global interoperability.

I have found that when presented with the sheer magnitude of the costs and potential savings, that people get lost in the numbers; because even conservative numbers are so large (billions). When medical and business professionals get lost in the numbers, they always seem to overlook the fact that this technology "saves lives". What is the value of saving lives these days?