NBR CENTER FOR HEALTH AND AGING
Health Information Technology and Policy Lab

United States HIT Case Study

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Summary

U.S. adoption of health information technology (HIT) has been stymied for a myriad of reasons. Many observers expect that it will be at least a decade before the majority of U.S. providers use electronic health records (EHRs). Efforts to bolster the diffusion of EHRs include plans to create a national infrastructure, develop standards, and promote public-private partnerships to develop regional HIT organizations. Pockets of high quality, widely-adopted EHRs have developed at the Veterans Administration (VA), Intermountain Healthcare, Partners Healthcare, and elsewhere in the country, but these successes remain the exceptions to the rule of relatively low adoption by providers, particularly doctors who practice in one- to five-physician settings. The key challenge in the United States remains driving broad-based adoption in a nation where health is financed by a wide variety of payers, all of whom have different visions, priorities, and budgets.

HIT Adoption

U.S. providers have been experimenting with HIT since at least the 1960s. However, providers have been slow to adopt HIT for a variety of reasons, including:

- high cost of initial investment and ongoing maintenance
- short-term loss of productivity due to adoption of new systems
- fear of and difficulty in changing workflow

Though high-quality data about HIT adoption is fairly thin, the best studies indicate that about 17–24% of physicians in outpatient settings use EHRs. The outlook in the hospital sector is considerably brighter. According to a 2007 American Hospital Association survey of its members, 68% reported fully or partially implemented EHRs in 2006. However, only about 11% reported fully implemented EHRs. Hospitals in the second category are likely to be large, urban, or teaching hospitals.

Government Policy

Only in the last few years has Washington, D.C., attempted to create any HIT policy. A timeline of selected government HIT developments is outlined below:

2007	• FY2008 U.S. HHS Budget Proposal includes $118 million for ONCHIT • The Personalized Health Information Act (H.R.6289) bill introduced on March 1st, offering financial incentives to providers that contribute to PHRs sectors (not passed)
2006	• AHIC delivered first set of recommendations to HHS Secretary addressing consumer empowerment, chronic care, EHRs, and biosurveillance. • CCHIT certified 37 ambulatory EHR products. • U.S. House of Representatives approved the "Better Health Information System Act" (HR 4157) to establish a National Coordinator to implement a nationwide plan that organizes and manages federal government activities relating to health information technology for both private and public
2005	• Establishment of the Office of the National Coordinator for Health IT (ONCHIT) • Formation of American Health Information Community (AHIC), a federally-chartered advisory committee that makes recommendations to the HHS Secretary on how to make health records digital and interoperable, encourage market-led adoption, and ensure that the privacy and security of those records are protected at all times • ONCHIT awarded nine contracts to conduct work on related HIT issues: security, standards, EHR adoption, etc. • Certification Commission on Health Information Technology (CCHIT) established
2004	• State of the Union Address, President Bush called for EHRs for all Americans by 2014 • Presidential Executive Order 13335 to establish the National Coordinator for HIT to provide counsel to the Secretary of the Department of Health and Human Services for the development of a nationwide, interoperable HIT infrastructure

Congress, for its part, has taken up a wide variety of bills in both the House and Senate on HIT. In 2006 the House and Senate separately passed HIT legislation, but the legislation ended up dying in a conference committee made up of House and Senate negotiators. The 110th Congress has several proposed bills on health IT and personalized health records; it is unclear whether a comprehensive HIT bill will be passed by the House and Senate, but given a variety of other key health legislation being considered prospects for HIT legislation are not bright.[1]

Who Drives HIT?

Efforts by both Congress and the Administration have accelerated in the past few years, and there is clear momentum across the country to enable Americans to enjoy EHRs. Neither Congress nor the Administration, however, has moved very far in terms of passing legislation and funding HIT efforts. Instead, individual providers, payers, states, regional organizations, and others are engaged in a wide variety of separate efforts. It should be noted, however, that the Department of Veterans Affairs, the Department of Defense, and the Indian Health Service maintain robust EHR systems.

There are five key factors that drive HIT adoption in the United States:

- financial incentives
- laws/regulations

[1] For information on specific HIT-related legislation in the United States, please visit the "Policy Landscape" page on the eHealth Initiative website, http://www.ehealthinitiative.org/ initiatives/policy/.

- increasing demands on providers to improve quality and report quality metrics to payors
- the state of the technology
- organizational culture/influences

Who Pays For HIT?

Healthcare providers pay for virtually all HIT adoption and implementation in the United States. Payors, such as Medicare and health insurance plans, generally believe that HIT should be treated like any other cost of doing business, such as labor, rent, and capital equipment. They argue that healthcare providers should adopt HIT because it can make them more efficient and hence more profitable. It should be noted, however, that there are a variety of experiments taking place throughout the country whereby payors incentivize providers to purchase and maintain HIT through one-time grants, slightly increased reimbursement, and other methods. Congress is also considering the possibility of increasing Medicare reimbursement for a limited period (five years or less) to increase HIT adoption among physicians as well as making HIT one measure in a pay-for-performance reimbursement scheme.

Challenges

Financial

Challenges	Proposed Solutions & Current Measure
Misaligned financial incentives remain.	Share investment among all parties (e.g., gainsharing and federal funding for HIT).

Legal

Challenges	Proposed Solutions & Current Measure
Concerns about newly created liability and actual or perceived legal burden of compliance with regulations.	Increase education for physicians, including advising them that liability with EHRs is relatively unchanged compared with current paper-based records.

Standards

Challenges	Proposed Solutions & Current Measure
General lack of standards that lead to inconsistent and unreliable mechanisms for matching patients to their records.	Certification should increase confidence among potential buyers and accelerate adoption: • AHIC and the Health Information Technology Standards Panel (HITSP) are working to create a wide variety of standards, including those that concern interoperability. (HITSP is a cooperative partnership between the public and private sectors.) • The Certification Commission on Health Information Technology (CCHIT) certifies such standards and will certify Inpatient EHR products in 2007. (CCHIT is a voluntary, private-sector organization.)

Technology

Challenges	Proposed Solutions & Current Measure
EHRs do not integrate with other provider software, are difficult to use, do not passively report quality metrics, and suffer from a variety of other issues.	Gradually increase certification requirements to drive EHR vendors to improve their products

Workflow

Challenges	Proposed Solutions & Current Measure
Providers have been trained to conduct medicine based on decades-old workflow, which is not conducive to new technologies.	Modify financial incentives and bolster training and management, including redesigning workflow so that EHR adoption is easier for physicians and other healthcare professionals

Education & Leadership

Challenges	Proposed Solutions & Current Measure
Multiple payors, disparate provider settings, and cultural bias toward market solutions have all resulted in a lack of national direction, a situation that is exacerbated by a relative lack of engagement by consumers. (The "consumer" includes individual beneficiaries, patients, family members, and the general public.)	Federal government, providers, and health plans must engage in a long-term education campaign.

Current Exemplars

My HealtheVet (MHV) U.S. Veterans Health Affairs	• MHV, the Veterans Health Administration's EHR system built on its Vista platform, provides access to health information and links to Federal and VA benefits and resources, as well as patients' Personal Health Journal. This closed provider system also allows patients to refill prescriptions online. • After Hurricane Katrina in 2006, the thousands of veterans who had been displaced by the storm still retained fully intact medical records. The VA's progressive Computerized Patient Record System enabled all patient records, prescriptions, and laboratory and radiology results from all New Orleans, VA patients to be accessed by any VA physician nationwide.
Systemized Nomenclature of Medicine, Clinical Terms (SNOMED CT)	• SNOMED CT is a standardized medical vocabulary available for download as part of the National Library of Medicine's Unified Medical Language System Metathesaurus (please see *http://umlsinfo.nlm.nih.gov*). The vocabulary is available free for anyone in the United States, but users must register online to receive information. • With terms for more than 300,000 current medical concepts, SNOMED CT is a comprehensive clinical terminology database that many hope will provide uniform terminology incorporation into the information systems of healthcare providers, hospitals, insurance companies, public health departments, and medical research facilities.

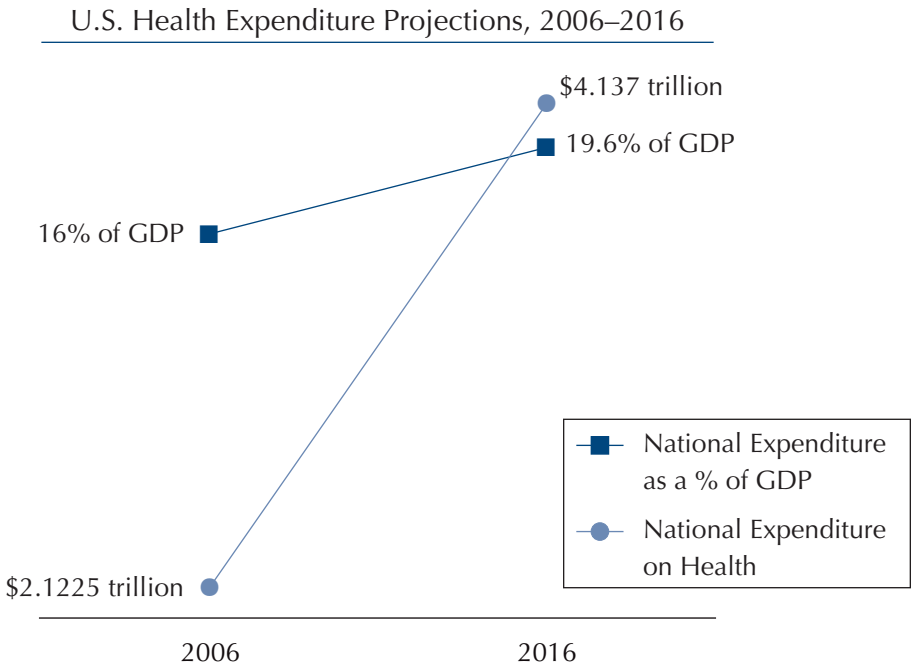
Future Direction

There is no question that EHR adoption has gained significant mindshare among U.S. providers and are generally moving in a positive direction. Undoubtedly, EHR diffusion will grow as physicians and hospitals increasingly come to see them as part of a standard of care. But without significant financial incentives, broad use of EHRs will take many years to achieve.

Advocates on all sides of the issue are also struggling to resolve ways to assure that privacy, security, and confidentiality are assured. Some consumer advocates are concerned that sensitive health information can be more easily compromised in electronic form. Until advocates reach a consensus, adoption will remain limited.

Healthcare Landscape[2]

Expenditure

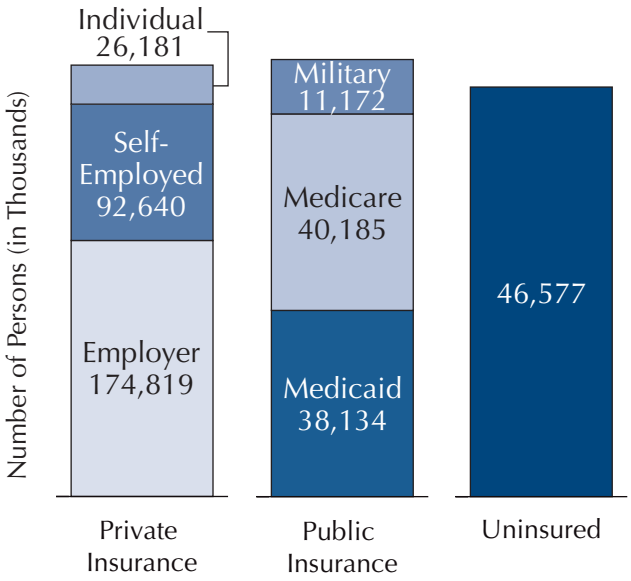


[2] U.S. Census Bureau, "Current Population Survey 2006," Annual Social and Economic Supplement, Table HI05, Health Insurance Coverage Status and Type of Coverage by State and Age for All People, 2005; and Centers for Medicare and Medicaid Services, "National Health Expenditure Projects 2006–2016," http://www.cms.hhs.gov/NationalHealthExpendData/03_NationalHealthAccountsProjected.asp#TopOfPage.

Coverage

Unlike most industrialized countries, the United States does not have a national healthcare system. As the U.S. Insurance Type figure illustrates below, 67.7% of the U.S. population receives private insurance, 27.3% of the population is covered by public insurance schemes, and the remaining 15.9% is uninsured.[3] Insurance coverage is not mutually exclusive; as a result, some individuals are covered by multiple types of health insurance.

U.S. Health Insurance Type Disaggregated, 2005



Infrastructure

Two-thirds of doctors practice independently or in small groups. There are more than 4,000 hospitals in the United States, which vary from ten- and twenty-bed rural hospitals to massively large university hospitals with 1,000 beds or more. In addition, there are a myriad of outpatient facilities, such as surgery centers and dialysis clinics.

[3] Medicare is the government health insurance program for people over age 65 and for those who are on Social Security disability. Medicare is a medical insurance program, and except for a limited short-term nursing home benefit, is not coverage for nursing home or other long-term care. Medicaid, by contrast, is funded jointly by the Federal Government and individual states and provides benefits for long-term care. Military healthcare programs are provided by the U.S. Department of Defense and the Department of Veterans Affairs.