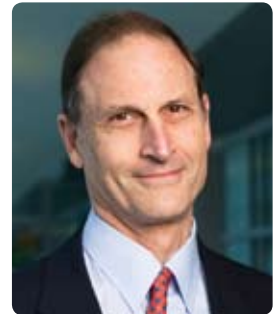




The Federal Role in Promoting Health Information Technology

Modern health care systems need health information technology (HIT), including electronic health record systems, to perform to their full potential. Getting doctors and hospitals to adopt HIT, however, will require overcoming a host of financial, technical, and logistical obstacles. Through the power of policymaking, there are a number of actions the federal government can take to ease providers' fears and help pave the way.



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U.S. health care providers make minimal use of health information technology (HIT), especially compared with other health systems in the industrialized world. Right now, for example, about 17 percent of U.S. physicians and perhaps 8 percent to 10 percent of U.S. hospitals have at least a basic electronic health record (EHR) system. In most European countries, as well as in New Zealand and Australia, 80 percent to 100 percent of primary care physicians have EHRs (although adoption rates for specialists and hospitals are far lower). Virtually every developed country has made a national commitment to increasing use of EHRs by their clinicians.

In the United States, there is widespread agreement that wiring the health care system is fundamental to enhancing quality and containing cost—and thus improving overall system efficiency. There is also increasing agreement that the federal government has a role to play in realizing the potential of HIT. What follows is a brief review of the critical challenges facing federal policymakers, an outline of policy options, and a discussion of the continuing controversies surrounding the push for expanded adoption of HIT.

Critical Policy Challenges

To increase the effective use of electronic health systems, private and public agencies and groups must accomplish, at a minimum, the following tasks:

1. Get doctors, hospitals, and other health care providers to acquire and use electronic health records.
2. Get those electronic health records to “talk to one another” by becoming interoperable.
3. Get providers to use EHRs to improve quality and efficiency in the provision of health care services.

Convincing doctors and hospitals to adopt HIT requires overcoming financial, technical, and logistical obstacles. Doctors and hospitals are unsure they will realize any financial gains from EHRs, and the systems are expensive: about \$40,000 per physician, and roughly \$5 million to \$10 million for the typical, average-sized hospital. Providers are also afraid they might pick the wrong system—one that is outdated or clunky. And they often lack the trained personnel and know-how to support and maintain HIT.

The obstacles to making systems interoperable are more fundamental. Though sharing information is good for patients and for the health system as a whole, doctors and hospitals don’t themselves gain much by sharing health information with other providers: indeed, they are afraid they will lose patients by making it easier to move among the competing clinicians in a community. Therefore, from the perspective of providers, there appears to be no business case for exchanging health information—it is a public good.

Still another major challenge faces government and private advocates of HIT: It is one thing to get a computerized workstation onto a doctor’s desk, but it is quite another to ensure that the computing capability and software make the providers smarter, more efficient, higher-quality clinicians. The payoff from HIT comes from what is called computerized decision support, which, in its simplest form, reminds clinicians to get needed tests or provide certain treatments (‘don’t

forget that flu shot,’ or ‘it’s time for a mammogram’). But decision support can do even more. It can let a doctor know which diabetics need to increase their insulin or get their eyes checked, or tell a doctor how to adjust drug dosages in special situations (for patients with kidney failure, or patients on anticoagulants) that require nonstandard dosing or frequent dosage changes.

Unfortunately, many existing commercial software systems lack such capabilities. And even when systems have them, doctors still need help learning how to use various functions. Unless the systems providers buy have all necessary capabilities, and unless clinicians are motivated and able to use them, a nationwide effort to promote HIT could be doomed.

What Can Government Do?

To see what the federal government’s options are, it is helpful to divide up the problems and their solutions.

1. Stimulating adoption of electronic health records.

As noted, the barriers to adoption are financial, technical, and logistic. Federal funding—especially for financially weak or troubled providers such as solo physicians, community health centers, safety-net hospitals, and critical-access hospitals—could help overcome these obstacles. Support could take the form of Medicare and Medicaid incentives (extra payments for adopters) or grants and loans made directly by the federal government or channeled through state- or community-level organizations.

Many experts prefer the idea of using grants and loans and creating state or local HIT-support organizations, because this approach may help address technical and logistical problems. Community-based groups or HIT agencies could organize “geek squads” to help doctors and hospitals implement and maintain their systems. They could also provide training to help providers make use of the quality and efficiency improvement functions of the records. Under this scenario, the federal government could invite states or local communities to submit applications that would be reviewed and approved on a competitive basis.

For some fearful doctors and hospitals, however, no amount of support or funding may be sufficient to spur adoption in a timely manner. It may be necessary, therefore, to make receipt of Medicare payment conditional on adoption of EHRs—or, less drastically, to reduce payments for providers without them. Finally, to prevent physicians from buying substandard EHRs that lack the capability to perform essential functions, a federally chartered group could review and certify records to ensure that physicians and hospitals know they were getting their money's worth. The Bush administration created such an entity, the Certification Commission for Healthcare Information Technology, which is a private sector group working on contract with the federal government. Its track record and support will clearly be important policy issues for the Obama administration and the new Congress.

2. Stimulating interoperability.

Because of the public-good nature of health information exchange, many experts believe that governmental support will be necessary to create and sustain mechanisms for EHR interoperability within and between local markets. There are two essential elements to making this data exchange happen. The first is to make sure all certified records have the capacity to exchange information—meaning that some group must set standards for packaging information and then require that EHRs conform to those standards. The second requirement is the development of an agency or group in local markets that forges connections among doctors, hospitals, laboratories, pharmacies, and other health care groups, and then facilitates the flow of information among these entities. Such a local body is necessary because the providers themselves have no financial incentive to make data exchange happen and, therefore, to sustain the capability for that exchange. Other alternatives: Medicare could compensate providers more for participating in data exchange, which would create a business case for doing so, or refuse to compensate them unless they participated in data exchange.

3. Creating incentives to use EHRs to improve quality and efficiency.

Even supporters of HIT have one overriding fear: that the nation will invest billions of taxpayer dollars in EHRs and data exchange, and nothing will happen—the nation's health will not improve, costs will not go down, public satisfaction will not increase. How might this occur? The great dangers are that providers will acquire EHRs, but those EHRs will not have the computerized decision support that makes them effective. Or they may have the necessary capabilities, but providers won't know how, or be motivated, to use them.

To avoid this, at least three things must happen. First, the vendors of records must produce user-friendly systems that have the ability to improve provider performance; federal certification would help in this regard. Second, providers will need a lot of hand-holding, through the “geek squads” mentioned above and other means. Third, and perhaps most important, the health care system will have to reward—or force—providers to improve their performance, so that they will be motivated to buy capable systems, get the help they need, and use the systems to their full capacity. Changes in payment systems to incent quality and efficiency improvements are thus a vital part of HIT policy.

4. Stimulating technical progress.

Much remains to be learned about the best ways to computerize health care processes, stimulate the spread of HIT, and measure its benefits and risks. A commitment to research and development in this area is an essential part of any national policy.

Continuing Controversies

1. Top-down or bottom-up?

Debate continues about whether it would be better for the federal government to directly support the adoption of HIT—with grants, loans, incentives, and penalties—or merely fund research and development that would stimulate innovation and adoption by individual doctors and hospitals. Some experts believe that the EHRs now available on the market are too costly and complex and lack essential features to ensure quality. These

observers fear that by spending large sums on subsidizing currently available technology—such as the billions discussed in the context of the Obama stimulus package—the federal government may encourage providers to adopt records that are imperfect and expensive and will soon be outdated. Better for the government, they say, to support researchers to develop innovative new products that might be available free to all clinicians (so-called open-source software)—a cheaper and better approach that would prevent the existing software companies from gaining a chokehold on the market and stifling technical progress.

A counterargument is that doing this amounts to letting the perfect be the enemy of the good. Countries around the world are adopting existing systems to good effect, and here in the United States a number of health care organizations, such as Kaiser Permanente, Geisinger Health System, and the Marshfield Clinic, have done the same thing. Existing EHRs could be better, but while we wait for a bottom-up approach to work (if it does), we will sacrifice important opportunities to save money and improve quality of care. Furthermore, if we change incentives in our payment system to reward quality and efficiency, doctors and hospitals will demand improved and more capable systems from vendors.

2. Do EHRs really improve health system performance?

The evidence that wiring the U.S health system would actually save money and improve quality of care is fragmentary, which heightens fears that a big HIT push will be disappointing. At the same time, the limited information available suggests that EHRs and other HIT applications do, indeed, improve quality and efficiency. A RAND study (challenged by some experts) projects that the health system would save \$77 billion annually upon full implementation of an HIT system. The Congressional Budget Office recently estimated that requiring physicians and hospitals to have EHRs as a condition of participation in Medicare would save the federal government \$33 billion over 10 years, a number that does not include private sector savings.

Most physicians with EHRs are very satisfied with them and can point to specific instances in which these devices improved the quality of care they provide. Similarly, the leaders of organizations that have implemented EHRs find them an enormous aide to improving quality of care. Beyond this, it is almost inconceivable that, 20 years from now, we would be satisfied with a health care system that does not take full advantage of the power of electronic technologies.

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The Bottom Line

Though imperfect, the evidence is strong enough to validate the common-sense conviction—bolstered by international experience—that modern health care systems need HIT to perform to their full potential. The question is what the federal government should and can do to speed HIT’s adoption and effective use.

To begin with, financial support of health information technology seems appropriate through several mechanisms. First, the federal government should provide assistance with purchase and implementation of HIT systems for providers that lack the financial means to do so; these include safety-net and critical-access facilities and small physician practices, especially primary care providers. A preferred method of providing this support may be through local entities—state and local governments, local nonprofits—that would be tasked not only with dispensing the funds but also with organizing technical support and training for providers.

Second, the federal government should provide financial support for information exchange in local communities. This support should probably consist of a combination of direct grants to organizations that

manage information exchange and incentives for providers to share information.

Third, federal authorities should support research and development designed to improve the capabilities of HIT, evaluate its effects on health care quality and efficiency, and improve the effectiveness of its implementation.

Fourth, government can hasten the adoption and effective use of HIT by focusing attention, through payment reform, on the ultimate purpose of this technology: the improvement of health system performance. Payment reform is a vital catalyst to almost every effort to solve the nation’s health care problems, and HIT is no exception.

Finally, federal authorities can encourage HIT adoption by creating national regulations and standards in several areas that will improve the confidence of doctors and patients alike in the electronic management of health information. These areas include the development of sound guarantees of data security and patient privacy, as well as the certification of records that have the capability necessary to support health system improvement.

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