

Issue Brief

Information Technology: A Key Strategy for Transforming Health Care

There is an increasing sense of urgency around efforts to transform our health care delivery system---to find ways to make health care more affordable without jeopardizing quality and patient safety. Nearly all health care and public policy leaders now believe that health information technology will be one of the most important tools we have available to moderate the growth of health spending---and simultaneously improve patient safety and quality of care. This transformation will require substantial improvements to Maine's – and the nation's – electronic information infrastructure:

- More doctors and other providers must acquire electronic medical records (EMRs);
- Better access to broadband connections is needed to effectively support improved communications among providers, especially in rural areas, and
- Clinical data (lab results, diagnostic test reports and medication profiles) must be uniformly organized and shared across hospitals, laboratories and providers so doctors, nurses and other health care providers can make effective and responsive decisions about treatment and care.

Over time, interconnected electronic systems will help reduce duplicate, and potentially dangerous, prescriptions, medical procedures and tests. These systems will also help Maine collect, measure and report clinical outcomes information, an increasingly important step in improving care.

Health Information Technology (HIT): A National Priority

The federal government has been promoting the adoption of electronic health information

systems and “interoperability” - which is the capacity to share secure electronic information across systems - for a number of years. Natural disasters such as Hurricane Katrina forcefully reminded elected leaders and many Americans about the risks of relying on paper medical records that can be destroyed and lost forever. Yet relatively little federal funding has been made available thus far to help states build an interconnected health information infrastructure.

“We must ensure that our hospitals are connected to each other through the internet. This won't just save jobs, it will save lives. We will make sure that every doctor's office and hospital in this country is using cutting edge technology and electronic medical records so that we can cut red tape, prevent medical mistakes, and help save billions of dollars each year.”
- President Barack Obama.

The federal government now appears poised to make major new investments in the nation's health information infrastructure. The Obama Administration clearly supports advancing this infrastructure, and indicated HIT investments will be a part of its economic stimulus package. HIT investments are supported by leading Republicans and Democrats, making early passage of spending measures more likely. Preliminary plans call for \$10 billion per year to be invested in HIT over the next five years, however, federal funding for state HIT initiatives have typically required that states contribute local matching funds.

Fast Facts

- Nearly 60% of Maine residents believe coordination of health care information among providers is a significant problem.
- In 2006, MaineCare paid over \$12 million for hospital care associated with “adverse drug events,” many of which could have been prevented by providing more complete information to doctors, nurses, and other providers.
- *HealthInfoNet*, could initially save \$40 million to \$50 million per year in health care costs as caregivers order fewer unnecessary and duplicative tests, procedures, and prescriptions.
- Maine was recently awarded a federal grant to transition small physician practices from paper to electronic medical records (EMRs).

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Maine is well positioned to compete for its share of federal funding, particularly if public and private state resources are identified to meet local match or funding requirements. These resources would further advance Maine's work as a national leader in a major transformation of our own HIT infrastructure, and capitalize on recent federal support of more than \$25 million to extend broadband access to rural and remote parts of Maine.

Health Information Technology Terminology

- **Health Information Technology (HIT):** The broad term describing many levels of use of technology in storing, organizing, retrieving, and sharing information about health.
- **Electronic Medical Records (EMRs) or Electronic Health Records (EHRs):** Electronic systems that store information about an individual patient's medical care. Notes from office visits or specialists, diagnoses, prescriptions, immunization records, test results such as x-rays or ultrasounds, and laboratory tests are stored electronically. These systems are based in individual doctors' offices or hospitals.
- **Health Information Exchange (HIE) or Health Information Networks (HIN):** Highly secure electronic systems that quickly and efficiently gather existing clinical information from EMRs, hospital-based systems and laboratories so medical care teams have complete and up to date information to guide clinical decisions.
- **Personal Health Record (PHR):** These records store information about an individual's medical care, but they are held by individuals rather than health care providers.

Maine's Progress in HIT: Challenges and Leadership

Despite substantial progress in building Maine's health information systems, much work remains to be done to achieve an integrated, interconnected electronic health care system. In Maine, less than 25% of practicing physicians have transitioned from paper to electronic medical records (EMRs), and our HIT infrastructure is still a patchwork of mostly local and regional systems that are not connected. However, we know what our HIT infrastructure should look like, and groups from all sectors of the state are working together to achieve important changes.

- Maine has drawn national attention for developing one of the nation's first pilot statewide health information exchanges (HIEs), which is a key element of a state's electronic health information infrastructure. Maine's new

statewide medical information-sharing network is an independent, nonprofit network called *HealthInfoNet* (www.hinfonet.org).

- Maine hospitals have invested well over \$100 million in new and updated HIT systems in the past five years, and physician practices and other providers in every corner of the state are transitioning from paper to electronic systems. Currently two of every ten primary care practices in the state have installed EMRs. If additional financial support can be secured, HIT leaders believe eight of every ten practices in the next seven years will move to electronic records.
- The Finance Authority of Maine and the Maine Health Access Foundation have partnered to establish a \$750,000 low-interest loan fund that is dedicated to helping small primary care practices participating in a new federal Center for Medicare and Medicaid Services (CMS) demonstration project purchase EMRs for their offices so they can be eligible for future federal CMS bonus payments for better quality care.
- A goal has been set to provide every Maine resident with an electronic medical record by the year 2020---just over a decade away.

Connecting Caregivers Across Maine through *HealthInfoNet*

While health information exchanges (HIE) such as *HealthInfoNet* are a fairly new concept in this country, HIEs are already in use in a number of countries, such as New Zealand, Australia and in some Canadian provinces. Nearly every state in this country is in the process of building its own exchange. Long term plans call for connecting states through a national network of HIEs.

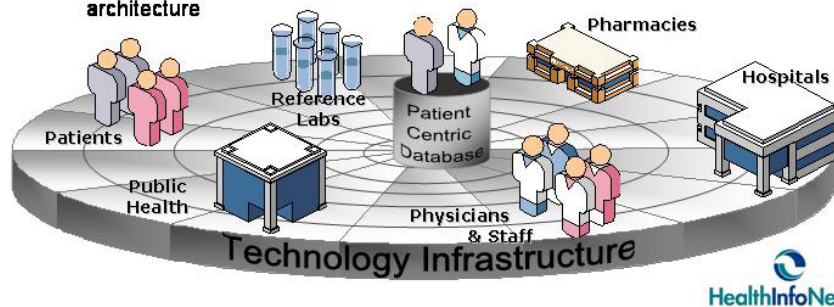
Organized as a public-private partnership, Maine's *HealthInfoNet* was established as a nonprofit corporation in 2006. As an independent nonprofit organization, *HealthInfoNet* is not owned by hospitals, insurance companies, employers, industry or the government. *HealthInfoNet*'s board of directors includes doctors, hospital officials, consumers, insurers, public health, business leaders, and representatives of state government.

Under development for the past five years, *HealthInfoNet*'s goal is to bring the most current and comprehensive electronic clinical information to all caregivers in Maine at the point of service so doctors, nurses and other providers can provide the best, most timely and efficient care for their patients. Electronic networks of this kind are expected to help reduce medical errors and lead to better, more informed treatment decisions. This advance will save lives and money. Over time, the *HealthInfoNet* network will also enable individual Maine residents to have greater access to their own medical records.

Early in 2008, *HealthInfoNet* kicked off a 24-month statewide Demonstration Phase. More than 2,000 healthcare providers, including 15 rural and urban hospitals across Maine and one-

HealthInfoNet Places The Patient At The Center Of A Coordinated Statewide Information-Sharing System

- Key clinical information from many sources stored in secure database
- Disparate IT systems are unified through a shared information architecture
- Collaborative Care Model
- All providers have access to up-to-date patient information



third of practicing physicians are currently part of this Demonstration Phase. Hospitals and physician practices taking part in this Phase oversee more than half of the state's annual inpatient hospital admissions, half the annual emergency department visits, and nearly 40% of Maine's outpatient visits each year. As this Phase enters its second year in 2009, many hospitals, physicians and other caregivers across Maine will---for the first time ever---have access to a more complete and up-to-date clinical profile of their patients. Armed with more complete and timely information, caregivers say they can provide better quality care and improve the coordination of care, particularly for those patients who see several providers and receive care in more than one community or care setting.

"As a rural healthcare resource, access to patient information from the major medical centers can make all the difference in caring for our patients. Immediate access to critical patient data is paramount to safe patient care and in this day and age of advanced technology we need to participate in this program for our patients' sake."
 - Rick Batt, Former President and CEO, Franklin Community Health Network, Farmington

Many of Maine's other community hospitals and clinics have been involved in *HealthInfoNet's* planning process. They are expected to become part of the statewide network following the Demonstration Phase if additional funding and support can be identified. With the successful completion of the Demonstration Phase, plans call for *HealthInfoNet* to be expanded to include other providers who care for Maine's entire 1.3 million residents.

Since its inception, *HealthInfoNet* has been planned as a unifying system for all health and health care information. *HealthInfoNet* has worked closely with the Maine Center for Disease Control (CDC) and Prevention (which is part of the Depart-

ment of Health and Human Services) to insure this state-wide electronic information exchange gathers vital public health information in addition to the clinical information needed for patient care. This linkage will support automating the laboratory reporting requirements mandated by Maine law for disease outbreak management purposes. *HealthInfoNet* will help laboratories more quickly report certain conditions, such as food poisoning, Lyme disease, and tuberculosis to public health experts at Maine CDC. This capacity will be highly valuable in the event of a natural disaster or bioterrorism incident. Over time, the health data collected through *HealthInfoNet* will enhance and guide more targeted efforts by the Maine CDC to improve the health of all Maine people.

Protections Address Patient Privacy Concerns

Many people are concerned that electronic systems are not secure enough to protect their private medical information from inappropriate disclosure. *HealthInfoNet* is being built as a secure private network. This means that only a patient's medical care team can see their electronic record. The organization's board of directors is charged with ensuring that the system operates in full compliance with rigorous state and federal laws and regulations that are designed to protect the privacy of personal medical information. Patients can choose not to take part in *HealthInfoNet* at any time.

HealthInfoNet has studied existing state and federal confidentiality laws and has carefully structured its operations to comply with existing law and mirror well-established health information exchanges such as the Indiana Health Information Exchange. Maine also has participated in a national project organized by the federal government to identify and address differences in privacy and confidentiality laws, regulations and practices.

Funding Reflects Public-Private Partnership

Over the last four years, *HealthInfoNet* has received start-up funding from a wide range of private foundations, provider organizations and state and federal government agencies. In 2006, the Maine legislature appropriated \$265,000 so *HealthInfoNet* could secure a \$1 million matching grant opportunity. Funding for the two-year Demonstration Phase that is now under way has come primarily from private foundations, state and federal government, as well as providers. As part of the vital start up funding, Maine's four largest health care delivery systems (MaineHealth, Eastern Maine Healthcare Systems, MaineGeneral and Central Maine Healthcare, and Martin's Point Health Care) have provided more than \$1 million to *HealthInfoNet* to streamline and connect their electronic health information. This work has contributed to the rapid development of an integrated statewide system.

HIT's Potential to Control Maine's Soaring Health Care Costs

It is now widely accepted that electronic information-sharing is the most powerful tool currently available in Maine and across the nation to moderate the soaring cost of health care. The potential of HIT to capture savings in Maine has been demonstrated in a recent analysis conducted by the University of Massachusetts Medical School that examined how a statewide HIE could impact health care costs. This analysis projected that:

- *HealthInfoNet* Demonstration Phase annual savings are estimated to range from \$10.6 - \$12.5 million in calendar years 2009-2010 and, if *HealthInfoNet* becomes fully operational, this figure could increase to about \$20 million annually by 2011;
- If *HealthInfoNet* can extend to other providers beyond those in the Demonstration Phase, between \$40 million and \$52 million in annual health care savings could be realized;
- Through *HealthInfoNet*, MaineCare is projected to realize annual savings of between \$900,000 and \$1.3 million in 2009 and 2010. This figure is projected to nearly double in 2011.
- Maine's four largest public employers are projected to experience annual cost reductions of \$740,000 in 2009-2010 as a result of the *HealthInfoNet* Demonstration Phase.

The data from the UMASS study was based exclusively on calculating cost savings based on the narrow range of clinical content that is included in *HealthInfoNet*'s Demonstration Phase, with just six participating provider organizations. If providers continue to adopt EMRs and *HealthInfoNet* can continue its expansion, the clinical content and the number of participating providers will grow substantially over the next five years. This means that the UMASS study understates the potential savings during *HealthInfoNet*'s Demonstration Phase and beyond.

Recent Maine Legislative Activity and Future Opportunities

In 2007, the 123rd Legislature passed a *Resolve to Advance Maine's HealthInfoNet* Program. The resolve stipulated that a stakeholder process be convened and report be submitted to the Health and Human Services Committee by December 1, 2008.

The stakeholders, comprised of leaders from business, health care providers, hospitals, consumer representatives, insurers, policy experts and others agreed that the first priority is for *HealthInfoNet* to achieve success during the Demonstration Phase, and then expand its services and participation. Recommendations from this stakeholder group will be presented to the legislature early this session. In addition to calling for a General Fund appropriation to enable *HealthInfoNet* to complete its Demonstration Phase and offset a portion of its ongoing annual operating costs, the stakeholder group supports a General Obligation Bond to create a new statewide Health IT Fund. If approved by the Legislature and then by voters later in the year, this Fund would provide a way for Maine to raise dollars needed to match federal health information technology investments now taking shape as part of the Obama administration's stimulus package.

In addition, the proposed Health IT Fund would accelerate the development of key elements of Maine's health care infrastructure, including the acquisition of EMRs, promoting electronic prescribing, and supporting the development of a statewide health information exchange that will advance improved quality, better care coordination and efficiencies that can help moderate costs. Approximately \$20 million of the fund would be used over a seven-year period starting in 2009 to improve information technology infrastructure at the provider level. This will transform patient care management at the point of care and allow providers to effectively participate in the *HealthInfoNet* electronic information exchange. Providers eligible for initial assistance from the Health IT Fund will include primary care practices, which is consistent with the prioritization of primary care services in the State Health Plan. Over time, other providers would be eligible for funding.

An estimated \$4 million of the fund would be used to further develop the *HealthInfoNet* technical infrastructure. These funds would be used to pay for a portion of the capital investment projected for building out the exchange as a statewide resource over a five year period.

Issues and Action Steps To Strengthen Maine's Progress in Health IT

Through substantial investments in recent years, Maine has positioned itself as a national leader in the development of its health IT infrastructure. Hospitals across the state have invested well over \$100 million in information systems. Physicians and other providers are demonstrating a growing willingness to transition to electronic systems. Employers and payers have joined with the federal government in promoting greater adoption of these systems by providing financial incentives to

providers who acquire EMRs. However, despite this strong and growing support, funding remains a serious challenge at both the state-wide level and in local communities where many providers are struggling to afford these systems.

The business plan for *HealthInfoNet* assumes revenue from user fees/subscriptions, as well as technical services provided to other organizations. This is expected to provide approximately two-thirds of *HealthInfoNet*'s operating capital requirements. The stakeholder group created by the legislature concluded that because all Maine residents will benefit from a state-wide system, public funding for the remaining portion of operating and capital requirements is appropriate and needed. Given the uncertainty of federal funding, it's especially important for the state to identify funding strategies that insure that investments already made are not lost.

During this legislative session, elected officials will need to seriously consider actions that will:

- Identify HIT investment as a high priority strategy for improving quality and moderating costs;
- Establish specific state-wide goals for adopting HIT and assuring every Maine resident will have an electronic health record by 2020;
- Assure that the transition to electronic health records is supported by the continuing refinement of privacy laws, regulations, policies and practices;
- Create targeted funds and other approaches that will enable providers with limited resources to acquire electronic systems;
- Invest in integrating Medicaid systems with developing state-wide health information exchanges;
- Support matching funds that may be needed for federal funding that would help build-out health IT infrastructures;

References and Resources for More Information:

Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health Information Technology. Available at: http://healthit.ahrq.gov/portal/server.pi?open=512&objID=650&parentname=CommunityPage&parentid=1&mode=2&in_hi_userid=3882&cached=true

The Markle Foundation. *Connecting for Health*--a public-private collaborative. See: www.connectingforhealth.org

The Robert Wood Johnson Foundation. *Health Information Technology in the United States: Where We Stand, 2008*. Available from <http://www.rwjf.org/>

US Department of Health and Human Services: *Health Information Technology*. Go to: <http://www.hhs.gov/healthit/>