Health Information Technology in Massachusetts:
A Public/Private Partnership?
What Should the State’s Role be in Facilitating Health IT Adoption?

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March 2008

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Introduction

On December 5, 2007, the Massachusetts Health Policy Forum and the Massachusetts Health Data Consortium convened more than 300 health leaders to discuss opportunities for the advancement of health information technology in the Commonwealth. State and national experts presented on the potential value of using health information exchange and electronic medical records to improve health care quality and better control costs. The conclusion was that realizing the full benefit of health information technology will require a broader public/private partnership. Key policy issues were identified, including the need for standards, privacy protections and increased private and public investment. Senator Richard T. Moore, Senate Chair, Joint Committee on Health Care Financing made a key suggestion to further expansion of HIT through shared public/private responsibility modeled on the state’s approach to health care reform. Since the forum, President of the Senate Therese Murray introduced a major initiative to fund a public/private partnership with the goal of implementing statewide electronic medical records by 2015.

Philip W. Johnston, Chairman, the Massachusetts Health Policy Forum, pointed to the success of the Massachusetts eHealth Collaborative pilot...
of interconnected HIT in three communities in the Commonwealth. This pilot, funded through an investment of $50 million by Blue Cross Blue Shield of Massachusetts, was designed to demonstrate the feasibility of electronic health records interconnected by community-wide health information exchange. The three pilot sites are in operation and have provided valuable lessons but the initial funding is running out and critical decisions need to be made on next steps. Chris Gabrieli, Chairman of the Board of the Massachusetts Health Data Consortium, asked “Where do we go from here?” and expressed the concern that the full value of HIT investment will not be realized until interconnected electronic medical records are used in all provider settings throughout the Commonwealth. “Will we continue to see individual sites and private networks without connectivity and no systems benefits?” Or, alternatively, will Massachusetts capitalize on our history of innovation and collaboration and form a public/private partnership to reap statewide benefits?

Janet Marchibroda, CEO of the eHealth Initiative and Foundation in Washington, DC, observed that many in the US and around the world look to Massachusetts’ experience in the integration of technology and health services as a path forward. She stated that Massachusetts offers valuable leadership to tackle the greatest challenges to the adoption of HIT. The barriers to broad diffusion of HIT are not technical issues but are issues of policy and finance, and will be resolved through political paths.

Detailed information on the state of HIT in Massachusetts can be found in our issue brief at http://masshealthpolicyforum.brandeis.edu/forums/forum-pages/Health%20IT.html. This policy brief presents the findings of the December 5th 2007 forum, highlighting the policy issues that face Massachusetts on its path to achieve effective statewide use of health information exchange.
Key Policy Themes

Building on a history of statewide public/private collaboration

Massachusetts has the advantage of 30 years’ experience in health information technology and a collaborative environment with several successful multi-stakeholder organizations focused on HIT expansion. Many panelists agreed that a statewide public/private partnership is pivotal to achieving the benefits of statewide HIT. Secretary JudyAnn Bigby, MD, Secretary of the Massachusetts Executive Office of Health and Human Services, hailed HIT as an opportunity to integrate medical care and public health, and as an important opportunity for public/private collaboration. James Roosevelt, Jr., President and CEO of Tufts Health Plan, asserted that there is no question that the foundation of this partnership exists, and can be built upon to form the necessary alliances.

Markers of the Commonwealth’s success include the Massachusetts eHealth Collaborative (MAeHC), which Micky Tripathi, MAeHC CEO, credited as the first community-wide implementation of full cross-institutional HIT in the country. The Massachusetts Health Data Consortium (MHDC) has successfully convened hospitals to share data, and spawned the New England Healthcare Electronic Data Interchange Network (NEHEN) to implement a secure administrative data exchange among more than 30 regional payers and providers. MA-SHARE, headed by CEO John Halamka, MD, operates a sustainable regional health information exchange to share clinical information and provide an electronic prescribing gateway.

James Roosevelt, Jr.:
“There is no question that the foundation for a partnership exists.”

From left, John Glaser, PhD, VP and CIO, Partners HealthCare; John Halamka, MD, CIO, CareGrou pand CEO, MA-SHARE; Janet Marchibroda, CEO, eHealth Initiative and Foundation; Micky Tripathi, PhD, CEO, MAeHC; and Ray Campbell, CEO, Massachusetts Health Data Consortium.
However, statewide diffusion has been slow. Overall, electronic health record adoption within provider practices and institutions has reached just 19 percent among hospitals and 23 percent among physicians, far short of statewide use. Population-wide quality, safety and efficiency gains will only be reaped through community-wide health information exchange and patient-centered electronic health records, so that health information can follow consumers wherever they receive care. We have the beginnings of a statewide infrastructure in place: through the MAeHC, three communities in the state are in the process of adopting intra-provider connectivity, and NEHEN and MA-SHARE provide regional administrative and clinical information exchange, respectively. A public/private coalition is needed to expand statewide.

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**Evaluation of return on public and private HIT investment**

Secretary JudyAnn Bigby stated that technology holds great promise, but that accountability and return on investment are primary considera-
tions. Secretary Bigby pointed to the potential for HIT to transform care delivery as a possible return on investment, but noted that there are currently no consensus measures of HIT’s success. “We need to hold people accountable to measurable results to justify the public in-
vestment in these efforts,” Secretary Bigby urged, underscoring the im-
portance of measuring the value of HIT.

The difficulty of showing return on HIT investment arises because the costs tend to be concentrated while the benefits are dispersed. David Blumenthal, MD, Director of the Institute for Health Policy at Massa-
chusetts General Hospital, suggested that the cost of technology adop-
tion falls disproportionately to providers who must purchase the sys-
tems and incur training, implementation and lost productivity costs. James Roosevelt observed that the benefits of HIT include improving health and safety, reducing waste and cutting unnecessary costs, and
that these benefits accrue to all: patients, providers and all those who pay the bill including individuals, employers, health plans and the state.

Micky Tripathi pointed to the potential for HIT to effect cost savings that could help address the “affordability crisis” that faces Massachusetts as universal coverage is mandated and health care costs continue to be higher than the US average. Tripathi cautioned against the expectation of immediate financial gains from the adoption of HIT, offering the illustration of the financial services sector which initially saw only cost and little benefit from adoption of information technology. According to Chris Gabrieli, return on investment in HIT will not be realized in the first year, but can be large over five to fifteen years.

Community-wide connectivity and patient-centered electronic records can bridge health care settings, span institutional boundaries, and has the potential to de-fragment the health care delivery and financing system, promote quality and safety, and save money. Senator Moore proposed that administrative efficiencies have been gained through standardized billing practices among health care providers, further suggesting that the Division of Health Care Finance and Policy develop a state-wide industry consensus on standardization.

Although return on investment in electronic health records might be arguable and difficult to quantify, a February 2008 report by New England Healthcare Institute (NEHI) and the Massachusetts Technology Collaborative found that implementation of computerized physician order entry systems would save Massachusetts hospitals and payers $170 million and 55,000 adverse drug events every year, and return full payback in about 26 months. John Glaser, Vice President and CIO of Partners HealthCare System, provided examples of how technology, thoughtfully applied, can lead to remarkable quality and safety gains. For example, at Partners, an e-prescribing gateway resulted in an increase in follow-up visits resulting in a medication change from 15 percent to 53 percent.
Providers in the audience pointed out the importance of considering training and setup costs in models for ROI. John Halamka, who also serves as CIO, CareGroup Healthcare and Harvard Medical School, agreed that the difficulty of getting data into electronic systems should not be minimized nor should the frustration of physicians new to the task. While standards will help the automation of patient information, time constraints, human resource limitations and lost productivity must be factored into the costs.

As with other medical and health innovations, diffusion is slowed in the absence of incentives for physicians to adopt technology that improves quality but increases costs. “Altering the incentive structure is key to making the investment pay,” according to Glaser. Offering adequate reimbursement to providers for quality gains and the use of technology can help build the case for return on investment.

Secretary Bigby said that while she sought strong justification for public investment, “It’s more than funding the Massachusetts eHealth Collaborative – it’s about improving and maintaining health.” She added that expansion of HIT should include the public health system, with increased attention to population health and decreasing disparities. Blu-menthal suggested that we shouldn’t wait for a demonstrated ROI to advance. If quality, safety, health status and efficiency gains are possible, then the benefits can be assumed as a worthy goal to be adopted broadly. If there is a consensus that HIT brings public value, then return on investment becomes not a matter of cost benefit, but cost effectiveness: What is the most cost effective way to move forward?

Several panelists suggested that the Massachusetts eHealth Collaborative offers a model with forward momentum along the HIT adoption curve. Tripathi is certain that the initiative has achieved economies of scale and scope, and that the ability of the Massachusetts eHealth Collaborative to centrally manage implementation, technical support and funding has helped them to meet aggressive timelines.
**Government’s role: in the public interest**

Janet Marchibroda indicated that government at the state and federal level is becoming more involved in HIT adoption initiatives. Thirty bills were passed in 19 states in the past year, and 20 governors have issued executive orders relating to HIT. Half of the states play a convening role and half provide some funds and/or promote standards. Micky Tripathi posited that until now we have not needed a lead state government role in Massachusetts, as this role has been filled by the multi-stakeholder collaborations that developed and are working together effectively.

Tripathi suggested that further progress requires the state to orchestrate levers to address key market failures, such as the lack of reimbursement incentives and the dispersion of cost and quality benefits among direct investors and non-investors. John Halamka agreed that although Massachusetts has been successful in implementing HIT compared to the rest of the country, we are still just on the cusp of real success and sustainability, and that state and community support and a public/private partnership is required to move forward.

Most panelists agreed with Chris Gabrieli’s comment that the public role includes leadership, regulatory and financial components to protect the public interest. Tripathi called for the public sector to lead from the “bully pulpit” by motivating and potentially mandating public and private sector organizations to move forward, and to provide leadership by example. According to Tripathi, there are no signs that the federal government will fill all current policy gaps, and the state may not want federal solutions to Massachusetts’ challenges.

Senator Richard T. Moore, Senate Chair, Joint Committee on Health Care Financing, staked out the key role of the state as a convener and regulator through credentialing and licensing. The Senator suggested that this role could be leveraged by including HIT competency as a component of physician or pharmacist credentialing.
Secretary Bigby said that the role of the state is to provide leadership, convene the parties, develop the roadmap and set the standards for protections and data sharing, and to require appropriate return on investment. Importantly, she said that Massachusetts should seize this opportunity to use technology to reduce disparities and improve population health. States have the potential to use interconnected HIT to support public health initiatives, like Connecticut’s data sharing among acute and long-term care hospitals to control and prevent infections caused by drug-resistant organisms. Secretary Bigby has established an Electronic Record System Task Force to develop a system for enrollees in public health insurance programs including Medicaid, Commonwealth Care and SCHIP. James Roosevelt agreed with the Secretary and added that protecting privacy, developing standards and providing leadership must be supported with the efficient use of the dollars that are invested. David Blumenthal observed that we won’t have a truly “wired” system without real government involvement in each of these roles.

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**Privacy and security of consumers’ personal health information**

John McDonough, Executive Director of Health Care For All, expressed his organization’s strong support of personal health records and HIT because the benefits are ultimately passed on to consumers. However, there are policy challenges to overcome to guarantee the privacy and security of personal health information, and to assure the public that their information is private and safe. McDonough said that efforts to promote HIT could be derailed by public concerns about breaches of health data security. John Glaser pointed to the need for policy that engages the consumer through outreach and education about health information technology, for the public and providers. Barbra Rabson, Executive Director of the Massachusetts Health Quality Partners, spoke from the audience to echo the importance of increasing public understanding of the potential of HIT to improve quality and
safety, and suggested that the burden is on health leaders to clarify to consumers the connection between HIT and quality.

John Halamka discussed the need for state regulation to protect information exchange with proper patient consent. Halamka said that federal efforts can be built upon, pointing to the promise of the federal ANSI Health Information Technology Standards Panel, of which he is chair, to deliver national interoperability standards, which he said will enable significant new adoption in the next 2 to 3 years. These standards were delivered and recognized by US Health and Human Services Secretary Michael Leavitt on January 22, 2008 and include standards for laboratory electronic health record interoperability and consumer empowerment, allowing consumers to control providers’ access to their personal health information.

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**State financing of health information technology**

Financing of investment in HIT adoption, and sustainability of community-wide connectivity projects, is a major policy issue that can not be addressed by the private sector alone. Some HIT implementations are sustainable, such as large institutions’ infrastructures which are sustained through institutional revenue streams. According to John Halamka, MA-SHARE, the large Massachusetts regional health information exchange collaboration, is financially sustainable, delivering projects that have high value to its community stakeholders. John McDonough stated that it is the role of government to finance the aspects of HIT that are public goods and that promote the public welfare. Public investment in HIT could have large payback: John Halamka pointed to return on investment models that he developed for MassHealth that indicated a $3 million investment for a MassHealth e-prescribing project through MA-SHARE would result in $30 million in savings for the Commonwealth.

Senator Moore agreed that states should make available grants and no-
interest loans to help hospitals and physicians adopt electronic health records, but underscored two important needs: a state-wide plan and a way to pay for the investment. Costs should be spread among all stakeholders with the government doing its share. The Senator suggested that the history of the Massachusetts uncompensated care pool offers a model for financing that could be adapted to encourage providers and communities to implement HIT.

Senator Moore said that any legislation to propose state financing would be most viable and effective if it is based on stakeholder consensus. He suggested that a proposal be developed through the existing network of consensus-based HIT organizations, enabling him to bring forward a stakeholder-driven legislative funding proposal, similar to the approach that resulted in the enactment of Chapter 58. To be effective the consensus must engage a diverse coalition of large and small stakeholders, rural and urban communities, profit and nonprofit organizations, public and private institutions, health plans, employers and advocacy groups.

**Sustaining the Massachusetts eHealth Collaborative to reap maximum value from the $50 million private sector investment**

John McDonough observed that there is a risk of losing the intellectual capital built through the eHealth Collaborative if further investment is not made in time to ensure sustainability, and asked, “Are we smart enough to take this to the next level, or will it all be an exercise in nothing?” Other states are beginning to invest far more than Massachusetts has to date. Louisiana, for example, has appropriated $30 million to a

From left, Senator Richard Moore; Secretary JudyAnn Bigby, MD, EOHHS; James Roosevelt Jr., President and CEO, Tufts Health Plan; John McDonough, PhD, Executive Director, Health Care for All; David Blumenthal, MD, Director, Institute for Health Policy, MGH; and Jay Himmelman, MD, Center for Health Policy and Research, UMass Medical School.
statewide electronic medical records system. The state of New York has launched a comprehensive HIT effort with an initial $106 million to develop a statewide strategic implementation plan to create an interoperable infrastructure. New York’s plan uses the public/private partnership model, establishing an executive level Health IT Coordinating Council coordinated by the New York eHealth Collaborative.

On March 3, 2008, Massachusetts Senate President Therese Murray proposed legislation to promote cost containment, transparency and efficiency in the delivery of quality health care. Senate bill 2526 calls for $25 million a year to total $175 million in public funds, to establish a Massachusetts e-Health Institute to implement statewide electronic health records and health information exchange by 2015. The bill specifies a collaborative approach, calling for cooperation with the Massachusetts eHealth Initiative, the Massachusetts Health Data Consortium, MA-SHARE and other stakeholder organizations. Taking a carrots and sticks approach, the bill proposes regulatory requirements that hospitals and community health centers implement computerized physician order entry by 2012 and electronic health records by 2015. Although short of the $500 million estimate for statewide implementation projected by the Massachusetts eHealth Collaborative, if S. 2526 is passed it shows the willingness of the Commonwealth to take a strong funding and leadership role to advance HIT.

Conclusion

John Glaser observed that the December 5th policy forum might be regarded in a few years as a historic meeting. Whether or not this happens depends on if, as Gabrieli asked, we “answer the bell” of the current challenge to address important policy issues standing in the way of the effective use of this promising technology.

We are at a critical juncture where the costs and successes of the Massachusetts eHealth Collaborative are being measured, and investment is
needed if the effort is to be sustained. There is stakeholder agreement that the quality, safety and potential long term cost savings benefits are worth pursuing, and several strong suggestions were made for ways to address the challenges. Perhaps the most promising suggestion was Senator Moore’s shared responsibility approach, establishing a public/private funding mechanism modeled on the Commonwealth’s uncompensated care pool that evolved into landmark access expansions. A shared pool funded by public and private sources could provide a mechanism to realize the potential of HIT to help address the cost and quality challenges of the next wave of health reform. The Commonwealth’s many roles in the health sector, as purchaser, provider, regulator and promoter of the public health and welfare, offer leverage points to provide leadership to significantly advance HIT to improve health care cost and quality for the people of Massachusetts.

The next step requires state leadership, stakeholder consensus, and a coordinating group to organize this effort. To fail to do so puts at risk a significant investment in dollars and intellectual capital, and an opportunity to help meet quality and cost goals necessary to sustain Massachusetts health care reform.

Acknowledgements

The authors would like to thank all reviewers, presenters and support people for contributing to the policy forum on Health Information Technology in Massachusetts and to this policy brief. A special thanks to the Massachusetts Health Data Consortium for the technical expertise they contributed to the development of this event and this report.