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## The (IT) Doctor Is In: The Role of the State CIO in Health IT

### Introduction

The emerging national effort to modernize the healthcare system—both in terms of administrative efficiency and improved quality of service—promises to be high-profile and to eventually draw many, if not all, state chief information officers (CIOs) into the mix. A recent report by the eHealth Initiative (eHI), a non-profit alliance of a wide variety of health information exchange (HIE) stakeholders, recently declared that “State and local government



entities are critical to the success of HIE efforts.”<sup>1</sup> Moreover, several state CIOs have already been appointed to their states’ health IT efforts. By recognizing early opportunities to make important contributions to this effort, the state CIO will be able to prove his or her relevance to key state executives and to frontline healthcare interests. This brief is intended to point state CIOs in the right direction for immediate engagement within their own states and to lay out a near-term agenda for the National Association of State Chief Information Officers (NASCIO) in health IT.

### Background

First, state CIOs, health and human services IT directors, and other state health IT policy makers will need to keep in mind the distinction between the major types of health technologies. Administrative or management health IT systems tend to be those intended for business process improvement, including billing, fraud/error reduction, business intelligence, electronic prescribing, customer relationship management, and so forth. Clinical decision support (CDS) technologies are designed combine a medical knowledge base with multiple data points (such as e-prescriptions) relating to a specific patient in order to generate case-specific advice for the doctor or nurse.<sup>2</sup>

Personal health records (PHRs) represent a patient-oriented presentation of administrative and service-related information contained in that patient’s all-encompassing healthcare history. As technologies converge and the national and international health IT efforts hit their stride, it is

<sup>1</sup> eHealth Initiative (eHI), “Emerging Trends and Issues in Health Information Exchange,” 2005, 16.

<sup>2</sup> --, “Decision Support Systems,” *OpenClinical.org*, n.d., <<http://www.openclinical.org/dss.html#definition>> (8 December 2005).

expected that every American will have a completely electronic health record (EHR), thus, allowing for a fully electronic PHR. Finally, diagnostic healthcare technology is used to gather information about a patient (often through various types of imaging), which then becomes part of a patient's PHR.

Various demographic, political, and economic factors—particularly the aging of the Baby Boomers—have converged to make healthcare modernization in the United States a rapidly emerging issue. State governments, which are among the largest payers, providers, and purchasers of healthcare within their borders, are being driven to address this issue from every angle, including that of market driver. Healthcare spending (including Medicaid) amounts to nearly one-third of all state spending.<sup>3</sup>

Role of state government:

- Payer: Increased reimbursement costs for citizens using healthcare services as part of Medicaid and state children's health insurance programs (SCHIPs)
- Provider: A national shift toward outcomes and quality of service will require public-sector healthcare providers to show measurable improvement
- Purchaser: Increased premium costs for providing health insurance to the more than five million full- and part-time state employees nationwide

The U.S. Department of Health and Human Services (HHS) has created the Office of the National Coordinator for Health IT to lead the national effort. The Office of the National Coordinator, which is led by David Brailer, M.D., Ph.D., has created the American Health Information Community (AHIC), a 17-member panel, including a state-government representative (Mitch Roob, Jr., Indiana Family and Social Services Administration Secretary) and HHS Secretary Michael Leavitt to advise the federal government on the full range of health IT issues. So, state CIOs can be reasonably sure that this national effort will have attention at the highest levels of the Bush administration. However, funding levels will likely remain an issue given the tight federal budget. The AHIC's priorities will include consumer empowerment (e.g., PHRs), health improvement (e.g., immunization registries and chronic disease monitoring), and public health protection (i.e., bio-surveillance).<sup>4</sup> (See the "Federal Health IT Strategic Framework (July 2004)" diagram below.) NASCIO will work with the AHIC to determine how state CIOs can best plug-in to this conduit.

The Office of the National Coordinator recently awarded several contracts totaling \$17.5 million to advance health IT over the next ten years. Each of the contracts will affect state governments' use of health IT. First, the American National Standards Institute (ANSI) will be developing information exchange standards for health IT software. Second, the Certification Commission for Health Information Technology will be developing certification standards for EHRs. Finally, the Health Information Security and Privacy Collaboration (led by RTI International who will be supported by the National Governors Association) will be evaluating 40 states' and territories business policies along with privacy and security laws in order to identify barriers to health information exchange.<sup>5</sup>

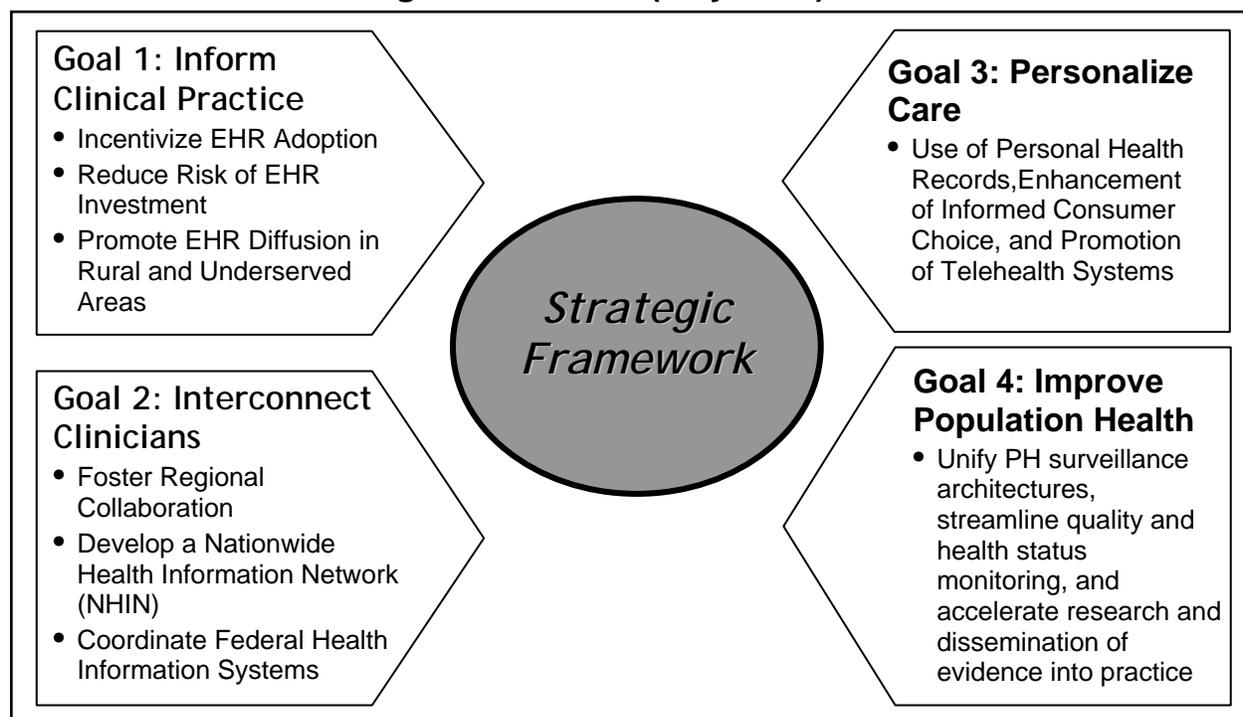
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<sup>3</sup> National Governors Association (NGA) and the National Association of State Budget Officers (NASBO), "The Fiscal Survey of the States," December 2005, 3.

<sup>4</sup> Caroline Broder, "AHIC gets down to work," *Healthcare IT News*, 10 November 2005, <<http://www.healthcareitnews.com/story.cms?id=3880>> (4 January 2006).

<sup>5</sup> --, "Contracts go to...", *Healthcare IT News*, November 2005, 1.

## Federal Health IT Strategic Framework (July 2004)<sup>6</sup>



### Short-Term Outlook

Over the next year to 18 months, state CIOs should watch how the PHR discussion is shaping in their states. They should also evaluate the federal health architecture (FHA) and Medicaid Information Technology Architecture (MITA) against their state's enterprise architecture (EA) and any architecture they might have in the health domain. Finally, they will want to evaluate their larger infrastructure for health IT readiness against the National Health Information Infrastructure (NHII) paying particular attention to telemedicine opportunities.

### PHRs

Until some sort of national consensus on core data standards/schematics emerges, any discussion of PHRs at the state level will likely be driven by a local Regional Health Information Organization (RHIO). The term "RHIO" is a catch all for a variety of health IT efforts. RHIOs will be found in all shapes and sizes with a wide range of formality as well as geographic and stakeholder inclusiveness. To this point, RHIOs have lacked private-sector CIO participation to this point due to a perception that RHIO participation will diminish the competitive advantage of EHR/PHR deployments and the of ROI justifications for participation.<sup>7</sup> So, state CIOs, coming from a citizen-centric perspective, might be a much-needed addition to their states' RHIO community.

<sup>6</sup> Adapted from a February 10, 2006 presentation "Office of the National Coordinator for Health Information Technology – Overview of Initiatives" made by Jodi G. Daniel, JD, MPH, Director, Office of Policy and Research, Office of the National Coordinator for Health Information Technology, to the National Governors Association.

<sup>7</sup> Brian Robinson, "RHIO Resistance," *Government Health IT*, 14 November 2005, s26-s30.

State CIOs will need to make sure their state's HIT concerns are represented in any RHIO(s) found in his or her state. The primary motivation here will be to prevent a local RHIO from duplicating existing state infrastructures or ignoring state PHR holdings and public-private linkages as result of providing Medicaid services to citizens. (More than 40 million Americans are served by state Medicaid programs alone.<sup>8</sup>) State CIOs will also want to ensure that state government has considered the implications of EHRs for all of the relevant stakeholders, including state and county health and human/social services agencies, corrections, education, and any other public sector payers, providers, and purchasers. Also, given that RHIOs are so diverse, state CIOs will want to assess how effective a given RHIO will be as national trends emerge.



Given the sizeable role that state governments play as payers, providers, and insurers, governors will have a significant center of health IT gravity at their disposal to help guide their states. For example, would a governor prefer to have one or several RHIOs developing PHR indexes when the state could operate one master index as a neutral (or, at least, publicly accountable) third party? Should state and local governmental healthcare interests form a sort of “public-sector” RHIO that can interface with and other RHIO(s) in the state?

## Federal Health Architecture and MITA

A domain of the Federal Enterprise Architecture (FEA), the Federal Health Architecture (FHA) will have downstream impact on HHS's state programmatic partners. Much more highly evolved is the Medicaid Information Technology Architecture (MITA). With its historic requirements for state data warehouses and Medicaid Management Information Systems (MMIS), the MITA will be introducing new standards for data sharing, component reuse, modularity, open architecture, collaboration, and security that are sure to exercise significant influence on state systems and, in turn, the entire national health IT effort. Given that Medicaid spending amounts to 22% of all state spending, state CIOs should ensure that whoever in their state is engaged on the MITA is also engaged in developing the state's health architectural domain.<sup>9</sup> Finally, the Office of the National Coordinator has awarded contracts totaling \$18.6 million to four groups of health care and health information technology organizations to develop prototypes for a Nationwide Health Information Network (NHIN) architecture.<sup>10</sup>

## Infrastructure/Telemedicine

The Office of the National Coordinator recently announced plans for a “digital health recovery” for the Gulf Coast. This effort, along with the NHIN prototypes, should give all state CIOs and health IT stakeholders a look at the ideal infrastructure that will be needed to support a fully

<sup>8</sup> Kaiser Commission on Medicaid Facts, “State Fiscal Conditions and Medicaid,” November 2005, <<http://www.kff.org/medicaid/upload/4087-04.pdf>> (4 January 2006).

<sup>9</sup> NGA and NASBO, *Ibid.*

<sup>10</sup> U.S. Department of Health and Human Services, “HHS Awards Contracts to Develop Nationwide Health Information Network,” 10 November 2005, <<http://www.hhs.gov/news/press/2005pres/20051110.html>> (21 February 2006).

digitized system. Of particular interest will be the privacy and security demands required for pointing millions of state-held EHRs toward larger electronic indexes intended to provide citizens with access to their PHRs. States will also need to ensure that state-owned and operated clinics and hospitals are able to seamlessly exchange information, including diagnostic images such as MRI scans, across public and private healthcare entities. These needs will translate into significant data warehousing and telecommunications concerns with all of the associated privacy and security requirements. State CIOs will also want to know how well the current state health IT infrastructure will support citizen's PHRs, clinical decision support, as well as state and national bio-surveillance of epidemics and pandemics.

Also of interest will be the expansion of bandwidth-intensive telemedical services. Care for the chronically ill accounts for more than 75% of healthcare costs. Rapid advances in remote chronic-disease monitoring and related technologies promise up to 30% savings amounting to hundreds of billions of dollars per year.<sup>11</sup> But, this can happen only if healthcare consumers and



providers—especially the elderly and rural doctors—are connected by true broadband connections.<sup>12</sup> State CIOs will want to ensure that A) state infrastructure, including any unlit fiber or other excess capacity is leveraged to boost the statewide rollout of telemedical services wherever possible and B) the state's enterprise architecture will foster the use of these technologies by state-funded healthcare service providers. Again, this points to the need for a health domain within the larger enterprise architecture.

### ***The Role of NASCIO***

As the national health IT effort continues to evolve, NASCIO will watch developments and report back to the states on their implications. NASCIO also intends to publish a health IT “value chain” that builds on the previously published enterprise architecture (EA) value chain and will help state CIOs and other state health IT policy makers understand the spectrum of issues ranging from the strategic drivers down to tactical examples of how states are achieving health IT gains. In all cases, NASCIO will strive to help state CIOs find a place in the health IT debate that is seen as vital by all of the relevant stakeholders.

### ***From the Sideline to Primetime: A Checklist for State CIOs***

The following is a sequential list intended to help state CIOs and their staffs prepare for engagement in health IT activities.

#### **Get Prepared**

- Read *Governing* magazine's report: “The Great eHealth Hope”  
<http://www.governing.com/medicaid/tech.htm>

<sup>11</sup> Robert E. Litan, “Great Expectation: Potential Economic Benefits to the Nation from Accelerated Broadband Deployment to Older Americans and Americans with Disabilities,” December 2005, 17.

<sup>12</sup> NOTE: For more information about the role the state CIO in broadband, please see NASCIO's 2004 “Bowling for Broadband” report, which can be found at the following link:  
<[http://www.nascio.org/nascioCommittees/economic\\_development/NASCIO\\_CIO\\_and\\_Broadband.pdf](http://www.nascio.org/nascioCommittees/economic_development/NASCIO_CIO_and_Broadband.pdf)>.

- Read RAND’s summary report “Health Information Technology: Can HIT Lower Costs and Improve Quality?”  
[http://rand.org/pubs/research\\_briefs/RB9136/index1.html](http://rand.org/pubs/research_briefs/RB9136/index1.html)
- Learn about your state at the Kaiser Family Foundation’s “State Health Facts” site  
<http://www.statehealthfacts.org/cgi-bin/healthfacts.cgi>
- Learn about PHRs at AHIMA’s consumer-oriented “myPHR” site  
<http://www.myphr.com>
- Read an analysis of your state’s current health IT legislation at the eHealth Initiative’s “State Legislation Tracking Center”  
<http://ccbh.ehealthinitiative.org/communities/community.aspx?Section=288>
- Review CMS’s Medicaid Information Technology Architecture (MITA)  
<http://www.cms.hhs.gov/medicaid/mmis/mita.asp>
- Get familiar with the Office of the National Coordinator for Health Information Technology  
<http://www.hhs.gov/healthit/>

## Get Involved

- Determine whether your state is participating in the Office of the National Coordinator-funded Health Information Security and Privacy Collaboration (HISPC), and, if so, find out how you can support the effort.  
<http://www.rti.org/hispc>
- Reach out to your state government’s health IT leadership and try to answer the following questions:
  - Has an inventory been conducted of all the health IT stakeholders across state government? Have they been convened to develop a health IT domain as part of the larger enterprise architecture?
  - Does your state have a health IT plan/strategy? If so, does your state’s health IT plan/strategy adequately address the spectrum of stakeholders across state government or is it private-sector focused?
  - Have your state government’s internal business processes and policies been reviewed to identify any barriers to a comprehensive enterprise-wide health IT modernization?
  - Are your state’s enterprise-wide health IT concerns being represented in the various RHIOs around your state? [NOTE: Currently, only 32% of RHIOs report having participation by the state public health department!<sup>13</sup>]
  - Are existing state-owned infrastructure assets (e.g., portal, telecommunications, data center, etc.) being considered as resources to support the statewide health IT modernization effort for the public at large as well as for state employees and recipients of public healthcare services and benefits?

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<sup>13</sup> eHealth Initiative (eHI), 16.