

The Kentucky e-Health Network Board

Second Annual Report

**Presented to
The Office of the Governor,
The Kentucky General Assembly,
The Finance Cabinet,
The Economic Development Cabinet, and
The Cabinet for Health and Family Services**

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Introduction

The American health care system lags behind nearly every other sector of the national economy in its adoption of information technology. In an era characterized by instantaneous mobile communications, unprecedented access to information through the Internet, and a booming virtual marketplace, most American clinicians still rely on handwritten notes, paper prescriptions, and incomplete patient histories stored in file cabinets. Even though patients and physicians benefit from extremely sophisticated diagnostic technology, the relatively basic information technology necessary to store and share critical health information electronically remains largely unavailable.

Health care is the only industry of its size still characterized by repeated and costly phone calls, faxes, mailings, and multiple, non-standardized, information transactions and access points. All of this administrative work involves a great deal of costly staff time and does not relate directly to patient care or improve the patient experience. The need for the health care industry to move to electronic systems has been well established in the past decade. Most recently, the mass evacuations necessitated by Hurricane Katrina that resulted in the loss of millions of patient records showed the vulnerability of our current paper-based system.

A number of forces are converging in the health sector and driving it toward greater use of information technology. Forces especially relevant to Kentucky include rising health care costs, variable quality and safety, unfavorable health outcomes, and opportunities for economic development.

Kentucky spends roughly 16 percent of its gross state product – more than \$22.6 billion overall -- on health care (Kaiser Statehealthfacts.org, 2007). But, like the rest of the nation, Kentucky suffers from uneven quality of care, especially for chronic conditions, where meeting recommended care guidelines is so critical to preventing expensive complications. Based on national estimates of 10-30% annual savings from widespread adoption of health information technology, Kentucky could save \$2-6 billion a year through reduced hospitalizations, fewer medical errors and preventable complications, greater efficiencies and more appropriate care (RAND Corporation, 2005; Dept. of Health and Human Services, 2004) States like Florida that have provided electronic access to patient medication history have seen \$5 in savings for every dollar invested in health information technology.

Kentucky simply can't afford to continue with its health care business as usual.

In 2005, the Kentucky General Assembly passed legislation co-sponsored by Senator Dan Mongiardo and Senate President David Williams, known as Senate Bill 2, which called for the creation of a secure, interoperable statewide electronic health network. On March 8, 2005, Governor Fletcher signed SB2 into law.

The passage of SB2 in 2005 ignited interest and established the structures for furthering e-Health. This legislation created the Kentucky e-Health Network (KeHN) Board to

oversee e-Health efforts in the state. It also established the Healthcare Infrastructure Authority, a partnership of Kentucky's two major research universities – the University of Kentucky (UK) and the University of Louisville (U of L) – to provide leadership for the Board. The Cabinet for Health and Family Services took a leading role in fostering e-Health in the state by providing staff support to the Board and working with the Board leadership from UK and U of L.

Three Statewide e-Health Entities With Distinct Roles:

Kentucky has three entities recognized in statute that are responsible for assisting with the creation of the Kentucky e-Health Network (KEHN). Each one has a distinct but interrelated role and governing structure:

- 1. The Kentucky e-Health Network Board** (Role: policy & oversight) - 22 member appointed board with University of Kentucky and University of Louisville representatives who serve as co-chairs; the KeHN Board is attached to the Cabinet for Health and Family Services for administrative and technical support purposes.
- 2. The Kentucky Healthcare Infrastructure Authority** (Role: research, evaluation and guidance) - a partnership between the University of Kentucky and the University of Louisville to provide leadership and guidance to Kentucky's e-Health efforts
- 3. The Kentucky e-Health Corporation** (Role: Operations) - a nonprofit organization created to facilitate public-private partnerships necessary to develop and operate the KeHN

For more information on these organizations, visit ehealth.ky.gov

KeHN Board Accomplishments and Activities in 2007

Celebrating its second year, the KeHN Board has seen its level of activity and number of accomplishments grow enormously over the past year. Provided below is a description of the major accomplishments and projects undertaken by the Board.

- **\$4.9 million in Federal Funding Secured for the Kentucky Health Information Partnership Project** – The Kentucky Health Information Partnership (K-HIP) is a project facilitated by the Cabinet for Health and Family Services to bring together major health care organizations in Kentucky around a critical breakthrough e-Health project that would involve collaboration among diverse health care organizations.

In February 2007, The Centers for Medicare and Medicaid Services awarded Kentucky a \$4.9 million Medicaid Transformation grant to develop a statewide web portal for providers that will allow access to a medication history, major diagnoses, as well as lab and diagnostic tests history and other critical health information. The portal will have a clinical site for providers to search for and access a patient health summary based on claims data from multiple payors and an administrative site for handling common administrative transactions electronically. Through this portal, health care providers would have secure access to health information on more than 50 percent of the patients in Kentucky and administrative tasks would be simplified and standardized. The project is slated to be completed early in 2009.

- **Passage of HB185** – In March 2007, the General Assembly on the recommendation of CHFS and the KeHN Board passed HB185 which gave the KeHN Board the authority to establish a non-profit organization under its authority to assist with the development and implementation of the Kentucky e-Health Network. National experts have consistently advised states to utilize non-profit organizations to further e-Health collaboration.
- **Release of the Kentucky e-Health Action Plan** - On April 17, 2007, the Cabinet for Health and Family Services (CHFS) and the Kentucky e-Health Network Board released a road map for developing Kentucky's future electronic health network. Developed in conjunction with the e-Health Advisory Group, the Action Plan lays out the objectives and action items that are necessary for the Kentucky e-Health Network to develop over time. SB2 required the KeHN Board to oversee the development of comparative business cases for the development of the Kentucky e-Health Network and choose a model to be implemented in this Commonwealth. The model recommended in the e-Health Action Plan was designed to facilitate distinct but interrelated roles for local, state and national actors in e-Health and to ensure interoperability among these efforts. For more information, see <http://ehealth.ky.gov/NR/rdonlyres/0AC2A0FA-86B9-40EC-AD7C-9873C7400D2C/0/eHealthActionPlan.pdf>.
- **Appointment of Four (4) New e-Health Board Committees** – In conjunction with the release of the e-Health Action Plan, the KEHN Board appointed four committees to assist with implementation of the objectives and action items from the Action Plan. Senate Bill 2 specifies that four committees that should be created in addition to the Advisory Group. The Board engaged more than 50 volunteers from a variety of stakeholder groups to participate in the following four committees to assist with its work:
 - **The Privacy and Security Committee**
 - **The Health Information Technology Adoption Committee**
 - **The Health Information Exchange Committee**
 - **The Economic Development Committee**

- **Award of E-Prescribing Partnerships in Kentucky Grants Round I and II** - The e-Prescribing Partnerships in Kentucky (ePPIK) Grant Program is a grant program that assists with adoption of health information technology to advance the e-Prescribing in the Commonwealth. Offered by the Cabinet for Health and Family Services in partnership with the Kentucky e-Health Network Board and the Governor's Office for Local Development, the ePPIK Grant program will promote the formation of partnerships within a community between physician's offices, hospitals, pharmacies and other health care entities to facilitate true end-to-end electronic prescription processing. Awarded in January 2007, the \$300,000 funding for Round I came from the Foundation for a Healthy Kentucky and the Hal Roger's Grant Program that supports the Kentucky All Schedule Prescription Electronic Reporting (eKASPER), the nation's premier program of to monitor prescription drug abuse of controlled substances. In Round I, five (5) grantees with partnerships in 14 communities received awards ranging from \$10,000-\$81,000. All ePPIK grant recipients were successful in implementing electronic systems and sending prescriptions electronically to pharmacies in their community. Most grantees now process the majority of prescriptions electronically, thereby reducing errors, improving quality and improving efficiency.

Round II grant funding totaling \$335,000 came from CHFS. The Round II ePPIK Awards will be made in December 2007 at the Kentucky e-Health Summit to 5 grantees across Kentucky with awards ranging from \$25,000 to \$90,000.

- **Creation of the Kentucky e-Health Corporation** – The Kentucky e-Health Corporation (KeHC) is a non-profit corporation under the auspices of the Kentucky e-Health Network Board. The creation of this nonprofit e-Health corporation was a part of the grant proposal for which Kentucky received a two year \$4.9 million federal Medicaid Transformation Grant and was authorized by the passage of HB185. The Kentucky e-Health Corporation will be responsible for the development and implementation of the Kentucky Health Information Partnership (K-HIP) proposed in the grant. The corporation will improve collaboration between the public and private sectors around e-Health, ensuring multiple funding mechanisms for e-Health projects and services.

With the authority granted by HB185, the Kentucky e-Health Network Board approved in August 2007 the regulations and articles of incorporation for the Kentucky e-Health Corporation. The Articles of Incorporation were filed with the Kentucky Secretary of State's Office and the Franklin County Clerk on September 5, 2007, legally establishing the Kentucky e-Health Corporation. Governor Fletcher signed an emergency administrative regulation on September 17, 2007, to govern the operations of the Kentucky e-Health Corporation (KeHC). On September 18, the KEHN Board approved a slate of nominees for the corporation's board of directors. The first meeting of the new corporation's board was in October 2007.

- **Implementation of Kentucky e-Health Privacy and Security Project** - Kentucky is one of 33 states participating in the The Health Information Security and Privacy

Collaboration. The goal of this federally-funded collaboration to assess how privacy and security practices and policies affect health information exchange (HIE). The Cabinet for Health and Family Services has served as the project manager and has partnered with the University of Louisville and the University of Kentucky Schools of Public Health on this project.

In April 2007, CHFS released two reports titled *Kentucky e-Health Privacy and Security Final Report and Implementation Plan*. The reports provide an assessment of privacy and security issues in law and practice in Kentucky health sector and give recommendations for how to ensure that patient privacy and confidentiality can be maintained when using an electronic health record system. The Implementation Plan outlines the approaches and functional steps that Kentucky's Privacy and Security Collaboration can take to address the privacy and security issues that were identified and that may affect and impede health information exchange in Kentucky. Kentucky received funding for Phase II of the project which began in July and ends in December 2007. During this time, Board staff participated in multi-state collaborations that examined state law and regulation and provider education issues. CHFS, UK and UofL staff worked together with the Privacy and Security Committee

- **Convening Kentucky e-Health Summit** – In January 2007 and then again in December 2007, the Board hosted a statewide e-Health Summit. The e-Health Summit provides a unique opportunity for Kentuckians from the health care, public health, business, technology, academic, and policy communities to discuss the progress we've made and opportunities we face as we work together to develop and implement e-Health in Kentucky. A mix of national e-Health champions, state-level leadership and local innovators served as speakers and moderators. Each Summit had more than 250 people in attendance.
- **Conducting Statewide e-Health Study** – CHFS, UK and UofL are working together to conduct a statewide assessment to give the KEHN Board some baseline data for its work. University of Louisville faculty will perform a comprehensive analysis of Kentucky's medical trading areas to determine where patients go for care. This data will be useful in determining the natural patterns of health information exchange across Kentucky currently and will inform the development of the Kentucky e-Health Network. With support from CHFS and the KEHN Board, UofL and the Louisville Health Information Exchange (LouHIE) conducted in a community-wide e-Health research study on public opinion about e-Health in the Fall of 2007. The research results will be utilized by the CHFS and university research team. UK will be responsible for collecting data to determine the level of electronic health record adoption in Kentucky, the primary vendors used in health care settings and the barriers and needs related to e-Health adoption. UK will perform an analysis of existing research and gather some primary data for its work. Both universities have begun their research and expect to finalize their analyses and publish their results by June 2008.

- **Collaboration and Joint Planning with National and Community e-Health Efforts** - In the same way that our transportation system involves both the public and private sectors and local, state and national level efforts, so too e-Health is a multifaceted effort with roles and responsibilities for each sector and level of our society. Currently, Dr. William Hacker, Undersecretary for Health at CHFS and a KEHN Board member, serves as co-chair of the Health Information Protection Task Force of the National Governors Association's State Alliance for e-Health. Kentucky is also a charter member of the Medicaid Transformation Grant Collaboration of the National Association of State Medicaid Directors. CHFS staff serves on several committees for this national collaboration aimed at sharing information and networking among states that have health information technology related Medicaid initiatives underway.

In addition to work with national organizations, the KEHN Board and CHFS have worked with community health information exchange organizations in Kentucky, including HealthBridge, LouHIE, and the Northeast Kentucky RHIO. HealthBridge, located in the Greater Cincinnati-Northern Kentucky region, is currently the nation's largest health information exchange and is one of the few nationwide that is financially self-supporting. Formed in 1998, HealthBridge has a secure clinical messaging system that allows hospitals and physicians to exchange a range of health information securely. LouHIE is a multi-stakeholder community e-Health effort with plans to develop a health record bank for the Louisville community. LouHIE is currently developing a business plan based on a community-wide study conducted in the Fall of 2007 and anticipates that its business plan will be finalized early in 2008. The Northeast Kentucky RHIO is currently in the planning and outreach stage of development.

Through its committees and ad hoc discussions among state and local e-Health leadership, the KEHN Board and its CHFS staff have worked to ensure a collaboration, mutual support and alignment among state and local e-Health efforts in Kentucky.

Challenges Ahead

As the KEHN Board, CHFS and the universities have worked together on advancing e-Health in Kentucky, a number of challenges have emerged in Kentucky that could put at risk the progress that has been made to date.

- **Continuing Momentum** – Kentucky's e-Health efforts are still in an early stage of development. The change in administration due to the recent statewide election has put on hold a number of KEHN Board projects that were in critical stages of development. In addition, key private sector organizations have been taken a "wait and see" approach due to the political changes. Support from state government leadership is absolutely essential for e-Health efforts to continue to move forward in Kentucky.

- Continuing to Cultivate Cooperation and Engagement Among Diverse and Often Competing Interests** – Few efforts engage such a cross-section of stakeholders as e-Health does. Hospitals, practitioners, health insurers and consumers among others have a tremendous interest in the development of this initiative. However, it is absolutely essential over time that these often competing organizations and interests lay aside purely proprietary concerns in order to champion the greater good that can result from e-Health. Continual communication with all affected stakeholders must occur to develop the trust necessary to move beyond just protecting one’s interests. But trust is fragile. Over the next year, Kentucky needs to move beyond the planning stages into implementation of some of its breakthrough projects to ensure continued engagement among stakeholders involved or it will put at risk the progress made to date.
- Connecting Various Communities and Ensuring Interoperability** - It is not enough for action to occur at the state level. Kentucky also needs to be connected to national level e-Health efforts, private sector efforts as well as local e-Health initiatives. As more local efforts come online, it is necessary for ensuring interoperability that the statewide e-Health network interfaces and share information with local e-Health organizations and among them. Community health information exchanges can simplify the work of the KEHN Board and the development of the Kentucky e-Health network by serving as local aggregators of data, engaging local stakeholders and supporting services that could not be offered statewide. On the other hand, as the Advisory Group and e-Health Action Plan determined, many areas of Kentucky may have difficulty sustaining a local health information exchange effort due to competing priorities among health care organizations, lack of sufficient population base, and lack of sufficient resources to sustain a local e-Health effort. Finding the right mix among local, nationwide, private sector and statewide e-Health networks and ensuring interoperability among these efforts is a critical challenge facing the KEHN Board in the next phase of its work.

Critical Recommendations for the Future

In light of the progress made and the challenges identified, the KEHN Board, Kentucky Healthcare Infrastructure Authority, the Kentucky e-Health Corporation and CHFS forward the following recommendations for ensuring the success of Kentucky’s e-Health efforts over the next few years.

- Continue and Expand Critical Breakthrough Projects** – Much important groundwork has been laid over the past two years in e-Health. The KEHN Board stands ready to work with the new administration, the General Assembly and the private sector to advance e-Health in the Commonwealth of Kentucky. The KEHN Board believes the projects currently underway can provide real value to Kentucky.

Therefore, the KEHN Board recommends immediate prioritization and support for the KHIP project. This project can be quickly implemented and provide Kentucky with a critical success that will distinguish it from other states and lay the groundwork for the continued development of the Kentucky e-Health Network.

- **Increased Commitment to e-Health from the Public and Private Sectors** – Resources are critical to the success of Kentucky’s e-Health efforts, including leadership, support and funding from both the public and private sectors. Competitive interests often prevent the private sector from investing in collaborative e-Health efforts even though private sector organizations stand to benefit directly. Therefore, public sector funding and leadership is vital for providing the private sector with the incentive it needs to invest resources fully in a public-private partnership such as Kentucky’s e-Health Initiative.

The KEHN Board submitted through CHFS to the Governor and the General Assembly an additional budget request for e-Health of \$17.3 million for 2009-2010 biennium. The funding requested falls into three main categories:

- **Infrastructure Funding** – \$5.2 million to further the development of a common e-Health infrastructure in Kentucky including development of master indices for patients and providers, data mapping and an integration engine for connecting multiple diverse data sources.
- **Grant Funding** – \$9 million in grant funding to communities and health care organizations to promote health information technology adoption and health information exchange pilots
- **KeHN Board and Support Funding** – \$3.1 million for the KEHN Board, the e-Health corporation and committees for staffing and program costs for e-Health such as consumer information, an e-Health Center of Excellence, health IT mentoring assistance, national standards integration, and privacy and security work.

Beyond public sector funding, a comprehensive private sector fundraising effort must also occur. Health plans, hospitals, and health information technology partners among others are important sources of funding for the next phase of e-Health in Kentucky. The KEHC must play a critical role in facilitating this effort.

- **Connecting with Local, Multi-State and National Efforts** – It is critical that Kentucky’s e-Health infrastructure develops in a way that is flexible and scalable to local needs. There are many common technology elements that could be shared among local and statewide efforts, such as a master patient index, a master provider index, privacy and security policies and protocols and database mapping. Because technology is expensive and interoperability among local, state and nationwide efforts is essential, the KEHN Board recommends additional coordination among local and state efforts to ensure a common framework for functionality and integration of information systems and an efficient division of labor among state and local efforts.

In addition, it is important that the KEHN Board have sufficient staffing to ensure appropriate monitoring of multi-state and national e-Health efforts. Otherwise Kentucky runs the risk of duplicating efforts or missing opportunities.

- **Collaboration with Economic Development Efforts** – e-Health is a growing sector of the technology and health care markets and Kentucky could reap the benefits in jobs and economic development with the proper alignment of effort. The KEHN Board recommends multi-agency and public-private collaboration continue in e-Health to ensure that Kentucky is strategically positioned to grow this sector of its economy.

Conclusion

The mission of the KEHN Board is to champion the development of a secure, interoperable electronic health network in Kentucky with the goal of improving the quality and cost-effectiveness of health care and providing access to useful, timely and accurate health information. In the last year, the KEHN Board has made significant progress toward that goal, adding more than \$5 million in new funding, expanding projects to assist with the move to electronic technology and building the foundation for a Kentucky e-Health Network. But there is much more work to be done.

The KEHN Board is certain in the next year that Kentucky can move its e-Health efforts from planning to reality. But it needs additional public and private sector commitment and support to do so. The members of the KEHN Board and the entire e-Health community look forward to working with state government to advance health and health care in Kentucky through health information technology and exchange.