



## Health Information Exchange Strategic and Operational Plan Profile

### Overview

The U.S. Census Bureau estimates Kentucky's population to be 4.3 million. Largely rural, 98 of the state's 120 counties are categorized as non-metropolitan; 54 are designated by federal statute as Appalachian. Eighty five (85) counties are designated as being all, or partially, medically underserved.

In 2009, the Kentucky Medicaid program provided coverage to nearly 800,000 members. Another 300,000 are expected to join the program in response to the Affordable Care Act. There are approximately 4,200 primary care physicians statewide. The state has 124 hospitals, of which 101 are acute care, including 30 designated as Critical Access Hospitals (CAH). The majority of these are small community hospitals. Consequently, the state has a number of extremely active medical trading partnerships supported by regional medical centers and the state's two university-affiliated medical centers. Additionally, with approximately 16 percent of the population without health insurance, federally qualified health centers, public health departments, and other safety net providers are an important source of preventive and primary care for many.

### Model and Services

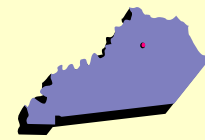
Initially funded through a \$4.9 million Medicaid Transformation Grant, the Kentucky Health Information Exchange (KHIE) became operational in six hospital systems and one clinic April 1, 2010. The early core components already developed by KHIE to enable statewide exchange include: a master patient/person index (data collected from participating providers and Medicaid), a record locator service, provider/user authentication, and other services such as logging audits and alerts, supporting electronic prescribing, patient demographics, laboratory and imaging reports, past medical diagnoses, dates of services, hospital stays, a statewide immunization registry, and a provider portal.

KHIE offers participating healthcare providers three options for exchange based on their current practices and technical capabilities. The first option is the ability to "push" information from one provider to another, using KHIE's secure messaging capabilities and provider directories, both available at no cost to providers through the end of 2012, after which time user fees will be assessed. As of January 21, 2011, secure messaging capabilities are in live production for registered users of KHIE's clinician portal. KHIE offers secure messaging at three levels:

1. The capacity to "look-up"
2. The capacity to send a secure email
3. The capacity to send a secure message through the Elysium Framework



Office of the National Coordinator for Health Information Technology  
State Health Information Exchange Cooperative Agreement Program  
HealthIT.hhs.gov



State: Kentucky

### HIT Coordinator:

Jeff Brady

### Statewide HIE:

Kentucky Health Information Exchange (KHIE)

### Award Amount:

\$9,750,000

### Contact:

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### Website:

### Other Related ONC funding in Kentucky:

Kentucky Regional Extension Center  
\$6,005,467

The second option for connectivity is through a direct interface to the provider's EMR system, in those cases where the EMR solution is capable of sending and receiving a record in CCD format. While not all EHR solutions have this capability, a large percentage of ambulatory EHRs currently present in the market have this capability. The KHIE will offer three levels of connectivity for hospitals and providers who have CCD capabilities. Healthcare providers that have the capacity to send or receive CCDs can choose to connect via the web services provided by the KHIE. At the *silver level*, a CCD will be pulled from the KHIE by the participant. The *gold level* allows for a push and pull of the CCD and the *platinum level* uses an XDS repository.

The third option is for those providers whose EHR system is not yet capable of sending or receiving a CCD, or for those who prefer to have an edge server connected to KHIE via VPN, in order to avoid having their production system impacted by heavy transaction volume or who prefer not to keep their system online at all times.

Kentucky's plan emphasizes outreach to and registration of Kentucky's physicians and other eligible providers, concurrently updating information for the provider directories while also enrolling them as registered users of KHIE's clinician portal. This service will be offered at no cost for the first two years by leveraging funds from Kentucky's Medicaid Transformation program funds. Coordination with Kentucky's RECs (HealthBridge and University of Kentucky), as well as a KHIE intake coordinator, has allowed KHIE to meet aggressive targets in connecting hospitals in the first quarter of operations, a record which they plan to repeat quarterly through 2011 in order to assure access for any willing participant.

The KHIE will serve as the on-ramp to the state immunization registry, laboratory reporting, and syndromic surveillance. As of January 2011, Kentucky's state public health lab is connected to KHIE and is delivering lab results to both hospitals and individual clinicians. Registered users can access immunization records in the statewide registry, and can also submit immunization records and updates electronically via KHIE. State officials responsible for administration of the immunization registry have determined to use KHIE as the sole option for electronic submission of immunization records.



## Highlights

- **State Health Policy Consortium Project:** Kentucky is participating in the State Health Policy Consortium Project, a multi-state effort to work toward agreement on health information organization patient authorization policies and the harmonization of authorization forms in use or proposed for use in project states. Its members include representation from Kentucky, Alabama, Florida, Michigan, New Mexico, and Texas. The project will focus on the use of a universal patient authorization form that addresses providers obtaining patient authorization for the exchange of data related to sensitive conditions that frequently require explicit authorization under various state laws. A deliverable of the project will be a recommended universal authorization form designed for the five States participating in the project. The project will also address options for states to promote the use of the universal patient authorization form such as legislation that offers liability protections, recommended use by state designated entities for health information exchange and adoption of the form by state Medicaid agencies.
- **KY-CHILD:** The Kentucky Division of Laboratory Services (DLS) tests for 44 metabolic disorders for over 55,000 live births annually. In 2006, CHFS launched the KY-CHILD (Certificate of Birth, Hearing, Immunization and Lab Data), a Web-based application for the collection and submission of data related to birth certificates and newborn metabolic and hearing screenings. Each newborn is assigned a unique identifier and all information about the child is available through a single, integrated Web application. With the launch of the KHIE in April 2010, the DLS initiated an effort in collaboration with GOEHI and OATS to expand the capacity of KY-CHILD to connect the NBS program to the KHIE. The anticipated go-live for sending NBS results to the KHIE is January 2011 at which time the newborn metabolic screening results will be available to the pediatric medical home and other care providers and become part of the child's electronic health record. The integration of the NBS program into the KHIE was made possible through the diverse collaboration of a number of state and national entities.
- **Connectivity Assistance Program:** To incentivize early connectivity, the KHIE Connectivity Assistance Program will cover the following costs for participating hospitals and clinics through January 2012, using funds leveraged through the Medicaid Transformation Grant program:
  - Cost of Initial Connectivity/Maintenance: One-time cost for interface development and purchase of an Edge Server for each participating hospital
  - Annual Licensing & Maintenance Cost



# Meaningful Use

## Landscape

## Strategy

### E-Prescribing

85% of community pharmacies accept electronic prescribing refill requests.

Surescripts reports a gradual increase in the percentage of prescriptions routed electronically in Kentucky; however the rate of use is still very low. Similarly, while the number of physicians routing prescriptions electronically has increased, less than one in five physicians are reported to be doing so.

The KHIE Framework supports e-prescribing. It is a core service of the KHIE available at go-live date for users.

KHIE is working closely with RECs to conduct outreach and education to providers in order to encourage use of e-prescribing services and modules.

### Structured Lab Results

70% of the 10 clinical laboratories (which account for 88% of Medicaid payment for labs) surveyed send results electronically.

GOEHI obtained a list from the Kentucky Medicaid program of payments made to clinical laboratories over the previous twelve month period. From the list, the ten laboratories receiving the highest amount of Medicaid payments were identified. (The combined total of receipts for the ten labs was 88 percent of the total payments made to laboratories during that period.) In a telephone survey of the labs, 7 of the 10 (70%) reported currently producing and delivering structured lab results to physicians and hospitals and hospitals in Kentucky.

Earlier this year the Cabinet for Health and Family Services leadership worked with the Kentucky General Assembly during the 2010 Session to revise the Kentucky Revised Statutes to permit medical laboratory results to be transmitted to an electronic health information exchange or network for specified purposes with patient consent and compliance with HIPAA. Prior to the revisions, KRS 333.150 specified that the results of the laboratory test could only be provided to the clinician or authorized person who requested the test. With this change in statute, laboratory test results may be exchanged electronically. This change opens the door for the state public health laboratory to exchange lab results through the KHIE.

The KHIE will provide the technical platform for electronic exchange of health information statewide and a mechanism for bi-directional exchange through which hospitals and clinicians can electronically submit reportable lab results to the Department for Public Health, Division of Laboratory Services (DLS) and satisfy stage 1 meaningful use criteria. Financed through the Medicaid Transformation Grant and the Division of Laboratory Services, lab results delivery services through KHIE's clinician portal and / or EHR interfaces were implemented at a production level in December 2010. Each year in excess of 3 million tests are performed by the State Lab. The results will be delivered through the KHIE through direct EMR interfaces, the VHR and other means. Mapping to LOINC coding has resulted in mapping tables which have been reviewed by the National Library of Medicine. Kentucky has offered to share the coding with other states, and is participating on ONC's Community of Practice for lab interoperability.

The statewide immunization registry, housing 85 percent of immunizations records for the state, is maintained by the Department for Public Health. Pilot connectivity to the KHIE began in August 2010. It is expected to go-live supporting bi-directional exchange by March 31, 2011, expanding access from current users (limited to local health departments) to any registered user of KHIE. The goal is to increase the number of immunizations recorded in the immunization registry to 90-95 percent through interoperability to the KHIE, as well as enabling access to any clinician with authorized access.

### Patient Care Summary

Only a small percentage of providers are exchanging patient care summaries.

Less than one percent of hospitals have the current capacity to electronically exchange health information across unaffiliated networks to meet MU requirements.

The HIE Framework supports exchange of patient information via HL7 v2 through which clinical messages can be sent and received; it does not, at present, support a CCD. The KHIE Framework architecture supports the user in extracting, storing, and viewing a CCD in a viewer; however, many EHRs are not mature enough, at present, to handle CCDs.

The Exchange Hub will be configured to send patient data to a KHIE repository which will contain all available patient data regardless of entry point (maximum retention of 24 hours) and orchestrate production of a CCD which will be sent to the requesting user through the KHIE Framework Exchange Hub. By December 2011, connectivity of the KHIE web-based HIE framework to the VPN environment will support the extraction, storing, and viewing of a complete patient summary (CCD) for all KHIE users.



## HIE Inventory

Standards		Quality Improvement	
Nationwide Health Information Network Exchange Specifications	<b>X</b>	Care Coordination	<b>X</b>
Nationwide Health Information Network CONNECT		Quality Reporting	<b>X</b>
Nationwide Health Information Network DIRECT	<b>X</b>	Behavioral Health Information Exchange	<b>X</b>
Plans to exchange with federal agencies or other states via Nationwide Health Information specifications	<b>X</b>		
Public Health		Lab Strategy	
Electronic lab reporting of notifiable conditions	<b>X</b>	Translation services	<b>X</b>
Syndromic surveillance	<b>X</b>	EHR interface	<b>X</b>
Immunization data to an immunization registry	<b>X</b>	Policy strategy	<b>X</b>
Patient Engagement		Order Compendium	
Patient Access/PHR	<b>X</b>	Bi-Directional	<b>X</b>
Blue Button		Alignment with CLIA	
Patient Outreach	<b>X</b>	E-Prescribing	
Privacy and Security		Medication History	
Privacy and Security Framework based on FIPS		Incentive or grants to independents	
Individual choice (Opt In/Opt Out/hybrid)	Opt Out	Plan for controlled substance	<b>X</b>
Authentication Services	<b>X</b>	Set goal for 100% participation	
Audit Log	<b>X</b>	Controlled substance strategy	<b>X</b>
Administrative Simplification			
Electronic eligibility verification	<b>X</b>	Care Summaries	
Electronic claims transactions	<b>X</b>	Translation services	
Vendor		CCD/CCR Repository	<b>X</b>
Planning		Directories	
Core Services	Axolotl	Provider Directory	
		Master Patient Index	<b>X</b>
		Record Locator Services	<b>X</b>
		Health Plan Directory	
		Directory of licensed clinical laboratories	

*Information for this profile was obtained from the approved Operational and Strategic Plan submitted to the National Coordinator for Health Information Technology as a condition of the Health Information Exchange Cooperative Agreement. The complete plan can be downloaded at: [www.statehieresources.org](http://www.statehieresources.org)*



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