Exchanging health information has become increasingly vital in recent years and with good reason. State and bi-state health information networks and exchanges have formed to meet guidelines established by the 2009 American Recovery and Reinvestment Act (ARRA) signed into law by President Obama.

Regarding healthcare, the intent of ARRA is to spur development of information technology, based on federal standards, in three overall areas:

- **The uses and exchange of electronic health data**
- **To provide Medicare and Medicaid fiscal incentives to encourage doctors, hospitals and other providers to use electronic health records**
- **To strengthen privacy laws to protect health information**

Specifically, ARRA would provide 100% federal funding (phased-down over time) to help providers that serve a high volume of Medicaid and patients that are uninsured or underinsured.

In order for healthcare providers to get any incentive payments, they must meet the following provisions: “Meaningful use” of certified electronic health record technology, use of an information exchange to improve the quality of care and report on clinical measures.

Healthcare exchanges use standardized electronic health records (EHRs) that transmit data between care providers, saving time and costs while improving healthcare quality and safety. EHRs facilitate seamless coordination and continuity of a patient's care among caregivers. Such records also enable patients and consumers to take a more active role in their treatment.

Other benefits include reducing preventable medical errors and avoiding duplication of treatments and procedures; lowering administrative costs and reducing clerical errors; aiding research by facilitating the collection of standardized data to evaluate promising medical techniques, devices and drugs; and reducing the time it takes to bring safe, effective products and practices to the marketplace.

These sweeping changes affect the bottom line of healthcare systems. The eHealth Initiative (eHI) released a report entitled “The State of Health Information Exchange in 2010: Connecting the Nation to Achieve Meaningful Use.” (See chart.)

For example, 50 percent of respondents reported a reduction in cost of clerical administration time from 2009 to 2010; 30 percent saw a reduction in lab and radiology staff time; 75 percent reported a reduction in redundant tests; 78 percent realized a reduction in medical errors; and 133 percent reported a reduction in write-offs or accounts receivables for providers.

Several business models exist for health information exchanges (HIEs), according to eHealth Initiative’s 2012 report on HIEs. The fees paid by participants model includes assessment and membership fees, usage or transaction fees and service fees. The costs savings model includes payments based on projected operational costs saved or avoided by each stakeholder from their participation in the HIE. Public funding through state or federal government includes government grants or appropriations and taxation. In 2012, a majority of HIEs stated that participant-paid fees represented the most viable business model.

What local and state health information exchanges and networks (HIEs and HINs) are available within the current profit and non-profit marketplace?

CareEntrust, an independent, not-for-profit HIE, represents two-dozen Kansas City-based employers and over 100,000 employees and their dependents. Participating employers include Burns and McDonnell, American Century and JE Dunn. CareEntrust’s health record is a secure application that aggregates relevant health care information, including clinical, claims and customer-entered data, and delivers it to healthcare providers when and where they need it.

The KC Bi-State Health Information Exchange (KC-BHIE), formed in 2008, is a non-profit coalition with more than 20 participants, such as Blue Cross and Blue Shield of Kansas City, Children’s Mercy Hospitals and Clinics, Kansas University Medical Center and St. Luke’s Health System. The network’s initial focus is on Wyandotte and Johnson County but will eventually provide service in the bi-state area.

KC-BHIE launched with support from the Mid-America Regional Council (MARC). This exchange connects safety net healthcare
providers in the bi-state area so that they can deliver better patient care and take advantage of the exchange’s efficiencies. Safety net clinics serve uninsured or underinsured patients in the community.

“The safety net clinics wanted the connection. MARC helped get start-up money and line up IT consulting to develop the workflow,” Scott Lakin, Director of MARC’s Regional Health Care Initiative, says. “We’re breaking down barriers for safety net clinics and helping them through the first year or two. They are responsible after that.”

The private Lewis and Clark Information Exchange (LACIE), based in Kansas City and in operation for three years, is a service that is provider-led—three physicians sit on its executive committee.

Non-profit Missouri Health Connection (MHC), based in Columbia, Mo., was awarded $13.8 million in federal funding to underwrite the planning and implementation process. Launched in September 2012, the network now comprises more than 30 health care organizations. BJC Healthcare, Mercy and SSM Healthcare, all based in St. Louis, signed onto MHC’s network as early adopters. Butler, Mo.-based Bates County Memorial Hospital, the first independent rural hospital, is the most recent hospital to join.

The network serves nearly 60 percent of patient care in Missouri. MHC has also gained traction with its expansion plans.

Mary Kasal, MHC President and CEO, wrote in the non-profit’s April newsletter, “MHC continues to move ahead with the implementation of the statewide health information network. The level of effort and spirit of collaboration among MHC participants has been incredible.”

In January 2013, MHC announced that it had connected its HIN with the Nebraska Health Information Initiative (NeHII) and Kansas Health Information Network (KHIN). The connection enables the networks to exchange direct secure messages across state lines.

“By connecting with Kansas and Nebraska, Missouri Health Connection is leading the way towards improved care for patients who cross state lines for medical care,” Kasal says. “We look forward to connecting with all our border states.”

“This is an exciting achievement that will help streamline communication, particularly for patients who live near the Kansas/Missouri and Kansas/Nebraska state lines. Many patients see health care providers in Kansas and then receive additional care in surrounding states. It is vital that providers have a safe, secure method to communicate critical patient information across state lines,” says Laura McCrary EdD, KHIN’s Executive Director.

KHIN, based in Topeka, Kan., has 34 health care organizations signed on statewide as network participants. KHIN uses CareAlign’s information technology for the entire state of Kansas and portions of western Missouri.

Jon Rosell PhD, Executive Director of the Medical Society of Sedgwick County in Wichita, Kan. states, “CareAlign technology enables KHIN to accomplish its key goals of improving quality of care while protecting privacy, sharing costs among all stakeholders, minimizing barriers to provider participation, extending health information exchange into rural and underserved areas of Kansas and western Missouri and achieving greater efficiencies of scale and capitalizing on the unique strengths of local communities.”

Today, healthcare systems and other caregivers have access to a range of HIEs in Missouri and Kansas; however, not all exchanges have flourished. eHealthAlign and KCCarelink have folded or have been absorbed into other entities. Meanwhile, existing HIEs in the bi-state area continue to evolve as each organization consolidates its resources and signs up participants. Hospitals and clinics are growing more connected in ways that conform to ARRA, coordinate services between healthcare providers and benefit the patients they serve. KCB