

CONNECTIONS™

Where public health meets,
exchanges new ideas and
solves public health problems.

Integrated Child Health Information Systems Community of Practice

ON-SITE LEARNING

Connections' Integrated Child Health Information Systems community of practice held its second quarterly meeting October 29-30 in Jefferson City, MO. Thirty people representing nine integration projects, All Kids Count staff, and visitors attended the intensive two-day site visit to the Missouri Department of Health and Senior Services to learn about MOHSAIC, Missouri's tightly integrated health information system. Thank you to Garland Land, Nancy Hoffman and MOHSAIC staff for hosting this visit.

The New York City Department of Health will host the next site visit, February 25-27, 2002. The three-day visit will focus on the integration of the city's immunization registry and lead poisoning prevention program.

THE MISSOURI EXPERIENCE

From Fragmentation to Integration

Ten years ago, health data in Missouri came from 67 different categorical state databases serving over 100 autonomous local public health agencies, all of which collected data different ways.

Together they comprised a robust store of data, but there were no central inventories of systems or data collected. No architecture. No standards. No LANs or Internet access at the local health departments. The system was replete with redundancy.

Recalls Garland Land, director, Center for Health Information Management and Evaluation, Missouri Department of Health and Senior Services (MODHSS), "We had data, but no information. We could not tell you the health status of Missouri. We were burying ourselves in data."

The system had developed piecemeal over the years, in part because of the categorical nature of federal funding that resulted in information systems that did not support the health needs of the department's clients in a coordinated fashion.

"We had data, but no information. We could not tell you the health status of Missouri. We were burying ourselves in data."

Fast forward to today. MODHSS has developed the Missouri Health Strategic Architectures and Information Cooperative (MOHSAIC), an integrated public health information system that supports state and local public health information needs.

Costing almost \$24 million over 10 years, the highly centralized MOHSAIC system is a model that holds wide interest for state and community health departments developing integrated systems. But it would not have developed as it did without intensive strategic planning and unwavering adherence to a large vision. And without these, the funding that made MOHSAIC possible would not have followed.

Factors for Success

The MOHSAIC experience demonstrated why key factors must be in place or developed in the process in order for an information systems initiative to succeed.

1. Sufficient monetary resources.
2. Political support.
3. Top level sponsorship within the health department.
4. A strategic plan.
5. Technical competence.
6. Centralized information systems.
7. Active program involvement.
8. Accessible data for users.
9. New functionalities.

continued on page 2



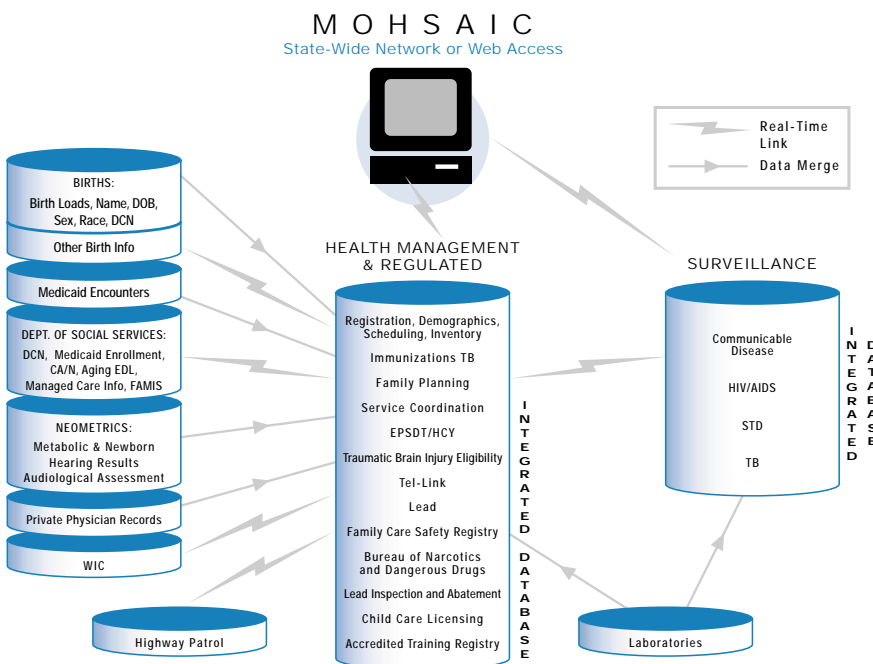
The Missouri Experience – continued from page 1

Hindsight is, of course, 20/20. Garland Land is the first to caution that the road to 2001 was not without bumps and detours. "Our product is still in progress, but I can't overemphasize how much hard work is involved. We had to learn from our mistakes."

MOHSAIC developed incrementally, as funding became available. From the start it included three modules: Health Management, which fulfills the health assurance function of public health; Surveillance, which supports the mandated reports of communicable diseases, STDs, HIV/AIDS, lead and TB; and Regulatory, which supports licensing/certification functions. All new information systems are incorporated into these modules.

MISSOURI SITE VISIT RESOURCES

- A project brief for MOHSAIC and other Integrated Child Health Information Systems projects are online at www.allkidscount.org/connections-akc.html
- Presentations from the Missouri site visit are available at www.allkidscount.org/connections-akc.html and on CD-ROM from All Kids Count.
- Read more about Missouri Information for Community Assessment (MICA): Asaro PV, Land GH, and Hales JW. (2001, September). Making public health data available to community-level decision makers – goals, issues, and a case report. *Journal of Public Health Management and Practice*, 7(5):58-63.
- A description of MOHSAIC, including details of its intensive strategic planning process, will be included in a book titled *Public Health Informatics and Information Systems*, to be published by Springer-Verlag in 2002.



New Applications, Better Care

Missouri also has developed an interactive assessment tool called Missouri Information for Community Assessment (MICA). Available on the Internet, it allows public health agencies, Medicaid, community groups and policymakers to custom design reports using outcome data. Several other states and communities have adopted the free application. Missouri also has a surveillance application, called MOHSIS, and PROFILE, a prototype of a child information record that displays all information MOHSAIC has on an individual child.

Notes Garland, "We're just touching the surface of what these systems can do. It just keeps expanding. It's not enough to automate all business processes. We need to find new uses and applications for the information in the system in order to provide better care."

FINDING INNOVATIVE SOLUTIONS FOR DATA QUALITY PROBLEMS

Data quality ranks high atop the list of thorny, intractable issues facing public health information systems. At its first meeting in June 2001, members of the Integrated Child Health Information Systems community of practice identified data quality as the top issue they wanted to address as a group. At the Missouri site visit, they broke into groups to tease out the problems.

We know that health care information systems are not alone in grappling with data quality concerns. What might we learn from other industries' approaches? In early 2002, All Kids Count will facilitate an online discussion (see *New Tool for Collaboration*, below) that connects the Integrated Information Systems group with data quality experts from other industries, as well as other health data experts, to brainstorm innovative solutions to common problems. Look for more information on this upcoming event.

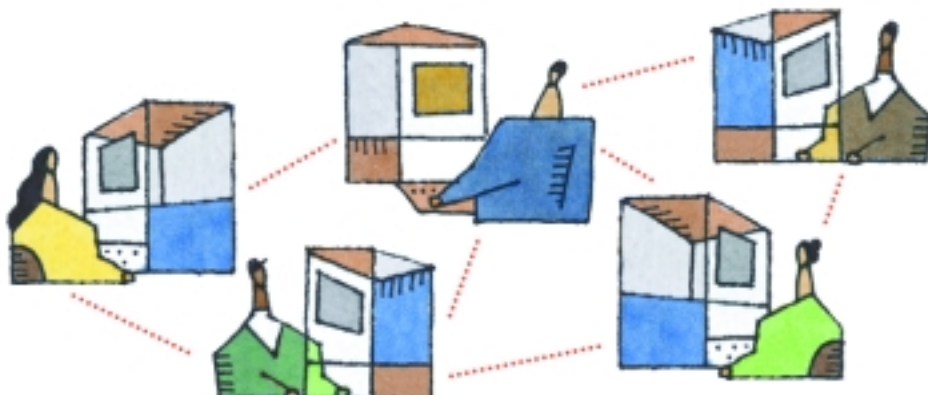
NEW TOOL FOR COLLABORATION

Recognizing that people communicate and learn in different ways, Connections is developing new channels to augment the face-to-face learning that occurs at site visits.

www.connectionszone.org is an online collaboration tool that enables community of practice members to continue discussions they begin at site visits or to initiate new ones. Registered users can participate in asynchronous and synchronous discussions, share and jointly author documents, chat and conduct polls. Discussions can be held among any number of members, on any number of issues. An expert facilitator will keep discussions rolling and synthesize discussions and conclusions at their completion.

Up to five staff from each of the organizations that is part of the Integrated Child Health Information Systems community of practice can register as users of www.connectionszone.org to participate in discussion topics of interest.

Although www.connectionszone.org is easy to use, training can help users tap into the full capability of the tool. Look for announcements of training opportunities in January.



OCTOBER 2001 SITE VISIT ATTENDEES

Representatives from the nine organizations that comprise the Integrated Child Health Information Systems community of practice attended the October site visits.

CalOptima (Medicaid managed care for Orange County, CA)

Kansas Integrated Public Health System

Michigan Department of Community Health

Missouri Department of Health and Senior Services

New York City Department of Health

Oregon Department of Human Services

Rhode Island Department of Health

Santa Clara County (CA) Department of Health

Utah Department of Health

The Maine Department of Human Services *also has joined the Integrated Child Health Information Systems community of practice, but did not attend the site visit.*

Also attending were representatives from the following:

American Academy of Pediatrics

Center for Medicare and Medicaid Services (CMS)

Genetic Services Branch, Maternal Child Health Bureau, Health Resources and Services Administration (HRSA)

National Immunization Program, Centers for Disease Control and Prevention (CDC).

The Integrated Child Health Information System community of practice is a program of All Kids Count, which is supported by the Robert Wood Johnson Foundation to foster development of integrated child health information systems.

Connections communities of practice bring public health practitioners together to meet, exchange new ideas and solve public health problems. They are a program of the Center for Innovation in Health Information Systems, which is committed to improving the health and well-being of individuals and communities, especially children, through strategic application and management of information technology.

The Center for Innovation is a component of The Task Force for Child Survival and Development.

Alan R. Hinman, *Principal Investigator*
David A. Ross, *Director*
Kristin N. Saarlans, *Deputy Director*

For information, call 404.687.5611

www.connectionszone.org
www.centerforinnovation.org
www.allkidscount.org



CLICK

The Sound Of CONNECTIONS

Missouri Site Visit Opens Up New Possibilities for Michigan

The Michigan Community Immunization Registry (MCIR) has achieved remarkable success: 71% of the state's providers use the registry to access up-to-date information on the immunizations of 2.2 million children. But what if they also had access to information about the lead screening status of these children? Or newborn metabolic and hearing screening? Therese Hoyle, MCIR coordinator, attended the Missouri site visit looking for ideas.

Just one month later, information systems integration is a hot topic at the Michigan Department of Community Health. Therese says the schematic of the MOHSAIC architecture (see page 2) that she brought back from the site visit revealed the possibilities to department senior management and technical staff alike. "There were so many things we had never thought of," she says, including using the information system for regulatory functions. The visit also opened their eyes to new ways of looking at data ownership

and the kinds of services that can be integrated. A study by the Michigan Public Health Institute is underway to explore the possibilities.

Enthusiasm for integrating multiple health information systems with the existing MCIR now extends beyond the department to Medicaid, which wants providers to have access to lead screening results. Currently, however, Michigan law allows the registry to collect immunization information only, up to age 20. Proposed legislation to change the public health code would broaden the scope to allow collecting and sharing of other health services and extend the age limit to include adults.

Moving from an immunization registry to a fully integrated health information system is a huge undertaking, but staff from the Michigan Department of Community Health are excited about the potential. They will be in touch with Missouri staff to enrich their understanding of the technical, administrative and policy issues they will confront.