





CONNECT SI:

Broadband to enhance health care

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Anyone who has ever driven to southern Illinois knows there's no direct route. A drive from Springfield to Carbondale is filled with off-highway secondary roads, twists and turns.

Health care in southern Illinois can be difficult to access, too, but a new initiative will unite the region and provide clearer paths to health-care access through broadband.

This vision for making health-care connections is just one goal of the ambitious, far-reaching initiative called Connect SI, a collective venture of the citizens and industries of southern Illinois. Underway since 2005, Connect SI aims to build broadband infrastructure for business transactions, educational opportunities, and health-care information access to connect the assets and make the southernmost 20 counties competitors in the global market.

"The goal is to change how we do business in southern Illinois," says Rex Duncan, SIU's liaison for Connect SI. High-speed Internet access will build an infrastructure to "improve the quality of lives of southern Illinoisans by changing the way we work, live, and communicate with the world." More than 30 network providers are helping establish the broadband connections.

The vision is big. By 2012, the strategy hopes to develop more than 27,000 new, high-wage jobs; increase wages of more than 40,000 jobs by \$5,000 or more; equip 4,500 families with health-care coverage; lift 10,000 citizens above the poverty level; and invest \$200 million in information technology.

To complete these ambitious tasks, leaders have called upon businesses, government, industry and education to help. More than 1,000 people are actively involved in the initiative from industry, government, development groups and educational institutions, notably Southern Illinois University. Under the leadership of SIU President Glenn Poshard, SIU has had an important role. "The university is crucial to Connect SI because of the respect in the region for SIU," says Kathy Lively of Man-Tra-Con Corp., and executive director of Connect SI.

Dr. Poshard explains the philosophy of the project. "In many respects, southern Illinois is connected to the rest of the world through an information technology straw. Our goal through Connect SI is to expand that connection to a pipeline. This will enable us to take full advantage of the international World Wide Web in expanding our business and other opportunities."

SIU School of Medicine plays a vital role, too. Health care, a major economic engine for southern Illinois, employs 27,000 people directly and indirectly with a \$1.6 billion regional impact. "Health care is one of the largest employers in the region," Duncan says. "From a socioeconomic standpoint, it's one of our most important, if not the most important in the region." Some of the 20 counties of Connect SI historically are among the

most medically underserved counties in the state. Nearly 100 graduates of SIU School of Medicine and the SIU Carbondale residency program are practicing in the region, serving 425,000 people.



Connect SI has formulated an aggressive plan to tackle its number one priority: improving health-care access in the region. “We want to build the strongest possible health-care network in rural America using technology to bring people together,” Lively says. The Health-care Communities of Interest (COI) Group is leading this task.

The goal is for organizations to come together to solve problems they otherwise couldn't. “We're talking about a culture shift,” says Deborah Seale, director of the SIU School of Medicine Telehealth Program. “The challenge of any community development activity like Connect SI is to educate at the grass-roots level so local providers can be advocates for their own population.”

The SIU Telehealth program is helping to network the existing assets for the counties. “Telehealth is the foundation for the initiative,” Duncan says. The SIU Telehealth program, established in 2001, links health-care providers around the state using videoconference equipment. A standard system costs about \$25,000.

Seale also directs the Healthcare COI Connectivity Group. “All the hospitals and clinics in southern Illinois are interested in how technology will change their future,” she says. “We plan to connect all of southern Illinois' critical access hospitals and federally qualified health care centers.” Connecting resources will mean better communication and coordination among health-care providers and ultimately better health outcomes for patients, Seale says.

Already, electronic health records, tele-radiology programs and online prescriptions are improving health care. Broadband access will give health-care professionals easier access to patient records, allow for medical consultations, and give access to online education programs.

Upgrading the infrastructure will further expand the technical abilities of downstate health-care facilities. For example, Quincy's Blessing Hospital regional network has improved bandwidth



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to Springfield for faster and easier radiograph transmission and consults. A connected health-care system also may help attract businesses to the area by ensuring that health care is available for their employees, Seale says.



In addition to linking the network of providers, subcommittees of the Health-care COI are working on specific health-care issues in southern Illinois communities.

One subcommittee is addressing the growing problem of drug seekers who go from doctor to doctor seeking multiple prescriptions for narcotics and pain killers for use or resale on the streets. “Drug seekers are successful because people aren't communicating,” Seale notes. The state has developed a drug tracking software program, currently undergoing beta testing through the Healthcare COI. A seminar on the state's new prescription monitoring system was held in October in Carbondale. SIU School of Medicine provided continuing education credits for attendees.

To improve educational opportunities for medical professionals, the Workforce Education subcommittee organizes other continuing medical education courses via videoconferencing. That series will begin this year.

For patients seeing multiple physicians, the Electronic Master Person Index under development will allow medical professionals to share information and increase accuracy and efficiency when treating the same patient. Ideally, health-care entities throughout the region will

agree on a common identifier for patients, allowing efficient access to patient records when patients visit more than one provider.

A fourth area of focus is children's mental health. A severe shortage of child and adolescent psychiatrists exists nationwide, and a 2006 study in the *Journal of the American Academy of Child and Adolescent Psychiatry* showed that poor youth and those living in rural areas are most affected by the dearth of resources. In southern Illinois, there are only two child psychiatrists in the Connect SI region. Technology can help them communicate more effectively so they don't feel isolated, Seale says.

To raise awareness about children's mental health issues, the Mental Health Action Team hosts video conferences for primary care providers. “The goal is to help primary care providers understand how to independently take care of common mental health issues to reserve the scarce resource of child psychiatrists who can work on the most severe problems,” Seale explains. “This expands the network of people who can deal with complex issues.”

Telepsychiatry services and a mobile system to help mental health professionals assess children in their homes or schools are both in the works. The team is working with the Department of Human Services and the Department of Mental Health on these projects and consultation services.

Another subcommittee, the Critical Skill Shortages Group, seeks to boost the numbers of health-care professionals in the area. Registered nurses are greatly needed in the area as well as nurses with master's degrees. “We don't have enough

nurse educators for colleges to be able to increase capacity,” Lively says. The team plans to add 60 more RNs to the region annually to offset expected nursing shortages. A sub-cabinet of the governor’s office, including state-level directors of all programs involved in addressing the shortage, is assisting with this pilot project.

Family practice physicians, child psychiatrists, radiologists, and psychiatrists are also among the top priorities of the group, as are aides, pharmacists, and lab technologists.

In the 20-county area, deaths from cardiovascular disease are about 34 percent higher than the rest of the state. The Outcomes Team of the Healthcare COI is collaborating with county and regional health departments to reduce cardiovascular disease mortality in the region. Together they are developing a social marketing program to increase awareness about risk factors for cardiovascular disease. Proposals have been submitted to the Robert Wood Johnson Foundation and the Health Resources and Services Administration for this project.

Tess D. Ford, R.N., Ph.D., is director of the SIUC Center for Rural Health and Social Services Development who chairs the Outcomes team. She notes that building partnerships will help develop infrastructure, online technology, training, and networking to address other health risk factors.

Connect SI wants to bring health-care providers to the region and also urge southern Illinois residents choosing to go out of the area for care (referred to as “patient out-migration”) to use the excellent health care available locally. “There are a variety of reasons for out-migration,” says Robert Wesley of SIU School of Medicine, “including tradition, convenience, physician referrals, and others.” But it means lost revenue for the region.

Wesley, who convenes a section of the Healthcare COI aiming to improve profitability for providers, has visited some of the 20 hospitals in the Connect SI network to generate interest in Connect SI.

This group’s goal is to boost hospital revenues by retaining an additional 5 percent of out-migrating patients in cardiology, oncology, and orthopaedics, with the potential to add millions of dollars in revenue to the hospitals’ — and the communities’ — bottom lines.

“Connect SI is an exceptionally ambi-

tious and very important project,” notes Wesley. “It’s a wonderful example of academic and community cooperation.”

In addition to addressing the needs of hospitals, John Record of the SIU Rural Health Initiative has helped introduce individual physicians to the Connect SI Initiative to make sure that physicians’ needs will be met.

“Placing physicians in a community solves only one part of the health system puzzle,” says Record, assistant dean for rural and alumni affairs at the School of Medicine. “There is an inter-relationship between the economic health of region, community health, and individual health. People’s ability to access health care will improve through acquiring jobs with health insurance, and the system of health-care service delivery will expand when the overall economic health of an area is strong.”

With Connect SI, SIU School of Medicine is working with rural entities it has partnered with for many years through the SIU Rural Health Initiative, based at the School of Medicine. Partners include Shawnee Health Service and the Southern Illinois Behavioral Health Consortium. The SIU Rural Health Initiative provided a \$25,000 grant to Connect SI for health asset mapping, studying the 20-county region to determine where existing health assets were and identifying the needs of the area.



The Connect SI vision extends beyond health care. Improving educational opportunities can broaden the spectrum of good-paying jobs in the counties and build on the existing assets of good quality of life, recreational opportunities and natural resources. Proponents also hope to keep young people from moving away from the region. “Our greatest export from southern Illinois is our educated young people,” Duncan says. “Eighty to ninety percent get their degree and leave because of the limited job opportunities. We want them to be part of the solution and start businesses here.”

The leaders believe Connect SI has great potential to help the economically depressed southern Illinois. Duncan explains that over a 25-year period, the global economy grew 5 percent a year, the national economy grew 3 percent a year, and southern Illinois’ growth was

just 1.5 percent a year. “No one is going to save us; we have to fuel the economy by working together,” Duncan says. “If we in southern Illinois are only selling to one another, we don’t have any new money coming into the area. Using high-speed broadband infrastructure to connect our assets makes us one large community, thereby enabling us to compete on a larger scale. Broadband makes it possible for southern Illinois businesses to operate globally instead of locally. The potential market goes from a few thousand prospects to potentially a few billion.”

From businesses, hospitals, and schools down to each rural resident, Connect SI believes broadband will make a difference when community resources work together.

While small collaborations are usual in small pockets of the region, Connect SI is uniting and expanding those partnerships. “We want to transform the region into believing that collaboration is the first way to solve problems and bring disparate activities together,” Lively says. “This has to become a way of life. Our whole world can change.”

SIU School of Medicine was at the table during the first inklings of Connect SI in 2005 and continues as a vital partner to help our southern neighbors shine as a technologically-advanced region. “SIU is central to our success, and the School of Medicine is critical,” notes Lively. “In our experience, a major university with the commitment to outreach and economic development is unprecedented.”

Duncan agrees. “The School of Medicine has been a terrific partner from day one — and remains so to this day. We couldn’t have begun Connect SI without the School of Medicine. It is our shared vision to create a prosperous southern Illinois.” ●●●