Healthcare System Expands Access to Remote Care through Telepresence

INTEGRIS
TeleStroke Network

INTEGRIS Health enhances patient care and medical collaboration by deploying Cisco TelePresence solutions.

EXECUTIVE SUMMARY

Customer Name: INTEGRIS Health
Industry: Healthcare
Location: Oklahoma City, Oklahoma
Number of Employees: 9000

Challenge:
· Connect and collaborate with hospitals across state and country
· Expand access to specialist care for stroke patients that need medical attention
· Implement video system with greater functionality and robustness

Solution:
· Cisco TelePresence helps enable two-way, interactive collaboration with user-friendly interface
· Cisco TelePresence Content Server and Cisco Show and Share allow recorded video sessions to be viewed on demand
· Cisco Digital Signs deliver external communications throughout hospitals

Results:
· 489 stroke patients were treated to-date through the INTEGRIS TeleStroke Program
· Expanded the INTEGRIS Hepatology Mentoring Program to rural physicians, healthcare providers and patients
· For academic year 2011, the INTEGRIS Speech TelePractice Program provided speech teletherapy services to 281 students from six school districts across Oklahoma

Challenge

A not-for-profit corporation founded in 1983, INTEGRIS Health is Oklahoma's largest health system, with 16 owned and affiliated hospitals and more than 9000 employees located throughout the state. Offering a wide range of inpatient, outpatient, and ancillary services, INTEGRIS Health strives to improve the health of the people and communities that it serves through excellence in medical care, research, staff education, support groups for patients and their families, and educational programs for the community.

An early adopter of telemedicine, INTEGRIS Health established its telehealth practice in the early 1990s. The healthcare system implemented videoconferencing technology to connect and collaborate with six partner hospitals in various U.S. locations. "I call this first phase of our deployment the 'build it and they will come' stage," says Pam Forducey, director of telehealth at INTEGRIS Health. "Initially, we used it for administrative and continuing education purposes. When federal and state reimbursement became available a few years later, we were able to use video technologies in the clinical setting."

When funding was approved in the late 1990s, INTEGRIS Health was able to pursue additional clinical goals using telemedicine, including delivering speech therapy through video. A more pressing problem that the Telehealth Team wanted to address, however, was the high stroke-rate in Oklahoma. "Many people fail to recognize the signs and symptoms of a stroke, and therefore, are not getting the medical attention they need," says Forducey. "Oklahoma is one of the top five states with the highest stroke-related mortality rate in America."

In 2010, INTEGRIS Health received a large federal grant to fund its telemedicine and distance learning initiatives. Forducey and her team seized the opportunity to upgrade their existing video infrastructure with a more robust solution to help enable the envisioned medical collaboration.

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Pam Forducey
Director of Telehealth
INTEGRIS Health

Solution

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In Cisco TelePresence®, INTEGRIS Health found not only a user-friendly video solution, but also a robust video bridge and features that simplified scheduling and coordination. "Add to that the fact that we were already a Cisco shop in terms of infrastructure and networking, and it only made sense to go with Cisco," says Forducey. "This way, we would have an integrated, seamless solution across our health system."

Clinical use cases

INTEGRIS Health deployed roughly 30 Cisco® TelePresence units to its affiliated hospitals, rural schools, and distance learning sites. Today, the INTEGRIS health system's TeleHealth Department offers a number of telehealth services, including INTEGRIS TeleStroke Program, INTEGRIS TeleHepatology Program, INTEGRIS TeleMental Health Program, and INTEGRIS TeleRehabilition Program with a primary focus on Speech TelePractice. Of its most successful, Forducey points to two examples: The INTEGRIS TeleStroke and TeleHepatology Programs.

Due to its high mortality rate, Oklahoma developed a statewide task force to identify hospitals not certified by The Joint Commission as a primary stroke center to have 24-hour access to a neurologist providing evidence-based stroke care. The INTEGRIS TeleStroke Network Program provides two-way, real-time interactive consultations between neurologists from two hospitals in Oklahoma City and medical practitioners at 15 hospitals in rural and metropolitan locations. "Research studies demonstrate that TeleStroke care is comparable to that of traditional in-person consultations," says Forducey. "It's been a very effective and efficient way of ensuring the right patient gets the right treatment at exactly the right time."

Cisco Jabber™ Video for TelePresence, a soft client that works with PCs and Macs to keep users connected to the INTEGRIS video community, is key to helping enable this anytime, anywhere access. "Using Cisco Jabber Video for TelePresence, our physicians, medical staff, and patients can attend telepresence sessions from their home or office settings," says Forducey. "The application increases access to our experts."

In the field of hepatology, TelePresence allows specialty physicians to mentor rural practitioners to treat Hepatitis C patients using evidence-based protocols. Sites for the INTEGRIS TeleHepatology Program include the Oklahoma Department of Corrections and Indian Health Services. The Oklahoma Department of Corrections (ODOC) has long been challenged by a population that requires good management of chronic liver disease.

Treatment of Hepatitis C is increasingly a complex and costly process, which requires expert management. Partnering with INTEGRIS, ODOC has found an excellent solution to the management of Hepatitis C. By avoiding transportation from the prison to the specialist and back, ODOC will save approximately US$100,000 for each 20 patients managed through telehealth annually.

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Dr. Don Sutmiller
CMO
Oklahoma Department of Corrections (ODOC)

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Indian Health Services uses the INTEGRIS TeleHepatology Program to treat patients who must ordinarily travel from remote locations because the number of clinics that offer treatment is limited. In addition, treatment lasts from 24 to 48 months, an additional burden for many patients. "So we connect our hepatologists with rural practitioners to provide teleconsultations and telesupervison to treat HepC cases early. Not only does this give patients the treatment they need, but it also educates practitioners via evidence-based care."

INTEGRIS Telehealth was the first program in the United States to pilot a Speech TelePractice Program in 1998 as a part of the federal Telemedicine Demonstration Program, funded by the Health and Resources Services Administration's (HRSA) Office of Advancement of Telehealth (OAT). The program provides speech-language pathology (SLP) services via videoconferencing to underserved areas of Oklahoma, where recruiting and retaining qualified SLPs have been challenging for rural public schools across the state.

Program services include speech and language screenings; group and individual speech therapy; standardized assessment; individualized education plans (IEPs); and parent/teacher conferences. To date, INTEGRIS has provided over 100,000 Speech TelePractice sessions to students with language, communication, developmental, and articulation disabilities.

For the 2011– 2012 academic year, the program provided speech teletherapy services to 281 students from six school districts across Oklahoma. "We are in our second year using Telespeech through INTEGRIS Health, and they have been two of the best years for our speech therapy program. Our students have a positive attitude about participating in the Speech TelePractice program, and the speech teletherapists provide top quality care," said Wesley C. Bryson, director of special education for the Guymon Public Schools.

Distance learning, administration, and patient communications
Wishing to take full advantage of video capabilities, INTEGRIS Health deployed a full suite of Cisco Business Video solutions, including Cisco Digital Signs, Cisco Show and Share®, the Cisco TelePresence Content Server, and the Cisco Media Experience Engine. "We currently have about 20 digital signs displayed in the public areas of our hospital to share communications regarding special programs and events taking place at the facility," says Forducey, who envisions the signs being used for internal corporate communications as well.

From an administrative standpoint, Cisco TelePresence has improved productivity by helping enable face-to-face collaboration between physicians and staff in various locations. INTEGRIS Health began using Cisco video solutions to deliver distance learning to medical professionals for training and development sessions. "We conduct the training through telepresence and record the sessions using the Cisco TelePresence Content Server," says Forducey. "Recently, we started posting these recordings to our Cisco Show and Share portal so that physicians, nurses, and therapists can view the sessions on demand at their convenience."

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Director of Telehealth
INTEGRIS Health

Results

For Forducey, the greatest impact of telehealth has been the successful outcomes in the INTEGRIS Telestroke Consultation Program. "With faster access to specialists that we can provide through Cisco TelePresence, last year 397 stroke patients received care, says Forducey.

Mental health is another clinical area that has benefited from Cisco video solutions. INTEGRIS Health has had a mobile assessment team (MAT) since 1996, which provides 24-hour onsite clinical assessments to patients with chronic mental conditions and/or chemical dependency needing triage to a specialist or a referral. Approximately 4000 mental health assessments take place annually by the MAT team across five metropolitan hospitals and one psychiatric hospital. Previously, these assessments were conducted face-to-face, requiring the assessment team to travel where the patient was located. But now, these assessments can occur through telepresence, benefiting all parties. Between 2011 and 2012, 537 TeleMAT consults were performed by 13 therapists.

"With Cisco TelePresence, we can provide a much faster turnaround and response time, which gets the patient treated sooner, and saves law enforcement time as well, as they are often required to stay with a patient who may be harmful or disruptive to themselves or others," says Forducey. "It also saves money for the hospitals and our mobile assessment team by removing travel time and expenses."

INTEGRIS Advanced Cardiac Care (IACC) is recognized as one of the nation's top-ten Left Ventricular Assistive Device (LVAD) implanting centers. Using Cisco Jabber, the VAD and congestive heart failure (CHF) medical specialists can connect with cardiologists and consult with the primary care physicians, and mid-level practitioners of patients from across the region, as well as surrounding states, including from Kansas, Arkansas, and Texas. Since the program inception, 200 patients have received LVADs.

INTEGRIS Health is reaping significant cost and time savings from the telepresence deployment. "Last year, we conducted 1251 scheduled point-to-point videoconferences across our system," says Forducey. "This decreased travel for INTEGRIS employees by 114,220 miles, yielding USD $62,712 in system-wide savings."

It's not just about cost savings for INTEGRIS Health, however. More important, telehealth makes it easier and more convenient for patients to receive medical treatment and for students with disabilities to receive speech therapy when they need it, without having to travel hours to see a specialist. "We are providing a service to people who wouldn't have access to it otherwise. And to me, that is priceless," says Forducey.

Next Steps

Forducey foresees a number of additional clinical use cases to improve medical collaboration. INTEGRIS Health is evaluating TeleOncology to connect oncologists from INTEGRIS' Cancer Institute to rural practitioners to enhance collaboration. "As long as we have a clinical champion asking for it, our goal is to provide that telehealth service," says Forducey.

For More Information

· To find out more about Cisco TelePresence solutions, visit:
www.cisco.com/go/telepresence.

· To learn more about Cisco solutions for the Healthcare industry, visit:
www.cisco.com/go/healthcare.

Product List

· Cisco TelePresence

· Cisco TelePresence Content Server

· Cisco Show and Share

· Cisco Digital Signs

· Cisco Media Experience Engine (MXE)

· Cisco Jabber

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