

For Immediate Release

Contact: Roger Downey
Communications Manager
+1.480.922.0044 ext. 245

Case Study: Telemedicine technology solves healthcare disparity issue in rural Arizona community

*Bisbee's Copper Queen Community Hospital implements successful telemedicine program,
drastically reducing cost and time spent on patient care*

Background

Founded in 1880, Bisbee is located in the rolling hills of the Mule Mountains in southeastern Arizona, some 85 miles from Tucson, and within three miles of the border with Mexico. The region's rich mineral deposits of copper, gold and silver first attracted miners who hoped to strike it rich. The town that developed around the mines was named for DeWitt Bisbee, a San Francisco Judge and investor in the Copper Queen Mine who, ironically, never set foot in his namesake.

Nearly as old as Bisbee, the Copper Queen Hospital got its start in a mine tunnel as part of the mining community. Now known as the Copper Queen Community Hospital (CQCH), it has served the town for over 125 years. In more recent times, CQCH has become an acute care critical access hospital for the more than 6,000-plus Bisbee residents and for many of the county's 140,000 residents. The hospital's mission is to maintain and support access to basic primary healthcare throughout southeastern Cochise County and to evolve rural health care and provide patients with the highest quality services.



Challenge

Among the primary challenges of CQCH was how to provide care for patients who needed specialists. For years, emergency department patients with possible cardiac or stroke problems had to be transferred to Tucson and Phoenix hospitals by ambulance, or – in more life-threatening situations – by helicopter. CQCH patients often discovered after the fact that, although healthcare was warranted, the expense of emergency transfer was not.

“Cardiology disease is the number one killer of people in rural areas,” said CQCH CEO, James Dickson. “And in Bisbee, we lacked consistent care to treat it. We lacked access to a cardiologist and to the ongoing maintenance care required after initial treatment. We decided we needed a way to solve the physician misdistribution and disease management problems that occur in a rural area like Bisbee.”



In 2009, CQCH received a grant to begin a telemedicine cardiology program. Dickson set out to find a system that would essentially bring specialists into Bisbee and CQCH without requiring that they physically be on site. This would eliminate the costly transfer of patients to Tucson and Phoenix. It would also minimize the trauma involved for family members of those being transported far distances. Overall, the implementation of a telemedicine program would shrink the disparity in healthcare experienced by the people of Bisbee by making specialists vastly more within reach without the price tag of on site consultations.

Solution

Dickson and CQCH worked with telemedicine solutions provider, GlobalMedia, to build a tele-cardiology system using GlobalMedia's i8500 Series Mobile Video Cart. The wireless, telemedicine videoconferencing system includes EasyShare videoconferencing technology that uses the public Internet, enabling specialists to visit with patients on a virtual basis. It also includes a large, flat-panel touch screen PC for fast communications, as well as a high quality camera providing remote pan, tilt and optical zoom. Currently in the first phase of its tele-cardiology program, CQCH has connected its system and those of other, small Cochise County hospitals with the larger Tucson medical centers.



From December 2009 to June 2010, 36 patients in the Emergency Department with suspected heart problems required cardiology consultation. Using the Mobile Telemedicine Cart equipped with a digital stethoscope, healthcare providers in Bisbee were able to provide cardiologists in Tucson with the ability to see and speak to the patients in real-time, hear their heart sounds clearly and review their electro-cardiograms via fax at the same time. These consultations confirmed that only nine of the 36 patients needed transport by ambulance or helicopter to another facility. The 27 patients who stayed in Bisbee were discharged from CQCH with prescriptions and/or heart monitors. The cost savings to patients and insurers was approximately \$540,000 based on a \$10,000 transfer cost and an additional \$10,000 hospital stay per patient who instead had their care provided by CQCH and were able to remain in Bisbee.

“The cost savings patients see as a result of the remote consultations is immense,” said Dickson. “The cost for a helicopter transport is between \$10,000 and \$12,000. Additionally, the cost for treatment in a Tucson hospital is roughly \$10,000 more per visit than it is here in Bisbee. So we’re looking at a savings of about \$20,000 per patient just by having the ability to consult with a specialist remotely, utilizing the telemedicine system, instead of having to be on-site where the doctor is.”



Results

Dickson points to one case in particular as a perfect example of what tele-cardiology means to the town of Bisbee. An 81-year old man arrived at CQCH with apparent atrial fibrillation. A Tucson cardiologist saw the patient via video-conference, listened to his heart sounds and studied his EKG before determining that there was no need to move him to Tucson. The patient was admitted to CQCH, treated overnight and was discharged the next day with a halter monitor. In his case, the patient was spared an unnecessary transfer to a facility two hours away. He also avoided having to experience a lengthy hospital stay, as well as the hefty hospital bill for services that weren't needed.

CQCH had similar success after partnering with Mayo Clinic Scottsdale for its tele-stroke program. More than three years ago, the Mayo Clinic started the Stroke Telemedicine Program for Arizona Rural Residents with a grant from the Arizona Department of Health Services. Medical studies have shown that stroke victims face a three-hour window in which the initiation of Tissue Plasminogen Activator, or TPA, can mean the difference between recovery and permanent paralysis. The phrase used in stroke programs is "Time is Brain." Jack Porter, the Mayor of Bisbee, can testify to TPA's effectiveness. When Porter appeared to have suffered a stroke, he went to the CQCH. A telemedicine consultation with a Mayo neurologist in Scottsdale less than a half hour later confirmed the stroke diagnosis, and he ordered that Porter be started on a course of TPA. The timely treatment prevented any lasting debilitating effects, and Porter continues to lead the town as its mayor.

When other rural hospitals in Cochise County recognized the advantages of telemedicine, they and CQCH formed the Southeast Arizona Telemedicine Association, or SATA, which includes the following hospitals: Northern Cochise Community Hospital in Willcox, Benson Community Hospital, Mount Graham Regional Medical Center in Safford and Southeast Arizona Medical Center in Douglas.

Dickson says his hospital has not cut care in the wake of rising healthcare costs, but rather has increased it by making it more efficient. "By not having the transportation fees and the excessive cost of re-evaluation at another hospital, we have really spawned a cost reduction and quality increase in the delivery system," Dickson says. "Given our success with telemedicine at CQCH, I envision a virtual hospital in every rural area in America in the near future so that people will have the care they need and so that physician misdistribution becomes a problem of the past."

About GlobalMedia

Scottsdale, Arizona based GlobalMedia designs, manufactures and markets telemedicine solutions and medical image automation systems that provide superior image quality, unmatched versatility and unsurpassed simplicity for the healthcare industry. GlobalMedia's camera, image management, store-and-forward, videoconferencing and video streaming technologies enable leading pathologists, dermatologists, pediatricians, neurologists, surgeons, pharmacists, forensic MDs, emergency medicine departments and other caregivers to be more effective in providing patient care, and more productive and efficient in managing patient information. Products include the TotalExam™ camera, the most versatile and easy to use exam camera on the market,



CapSure® store-and-forward imaging and image management software with DICOM output, which provides automated workflow capabilities for seamless integration into a provider's network and fully integrated mobile video cart systems for primary care applications.

For more information, visit www.globalmedia.com or call +1.480.922.0044.

© 2002-2011 GlobalMedia Group, LLC. All Rights Reserved. iREZ, CapSure, EasyShare, WallDoc and RAMpage are registered trademarks, GlobalMedia, GlobalMedia, Innovative Telemedicine, CONi, WebCast AV8R, TotalExam, TransportAV, FirstAV, i8500 MVC, DesktopDoc, i5770, i5770HD, TotalENT, ClearProbe, StethOne, ClearSteth, StethIP, ClearMic, iVESA, Undeniable Value, Kritter, TES, K2r, USBLive!, IdealMic, Reel-Eyes, Reel-Edit, iNSPECX, USB TV!, USBMicroCam, StealthFire, Vid5e and Perfecting Advanced Communications are trademarks of GlobalMedia Group, LLC. CareTone used with permission by ATI. All other trademarks are the property of their respective holders. One or more GlobalMedia products are covered under U.S. Patent(s) with other patents pending. We are not responsible for typographical errors and all specifications are subject to change without notice. Our products do not diagnose, cure or prevent any disease. The testimonials contained within this document are individual cases and do not guarantee that you will get the same results. Rev. 12102010