Regional Obstetrical Consultants (ROC) is a group of Maternal Fetal Medicine specialists and other health care professionals who provide state-of-the-art care for women with high-risk pregnancies. Located in Chattanooga, Tennessee, ROC’s mission is to improve the care and outcome for mothers and babies, as well as to eliminate unexpected complications during delivery. However, for high-risk mothers-to-be living in rural areas of Eastern Tennessee, getting to ROC’s office means a lengthy drive over mountains, including Monteagle Mountain on Interstate 24, often referred to as one of the most treacherous stretches of interstate in the United States.

To improve access to high-risk pregnancy care in rural areas, ROC partnered with the non-profit Community Health Network (CHN) to form Solutions to Obstetrics in Rural Counties (STORC). STORC’s goal is to use video conferencing technology to connect mothers-to-be in remote parts of Eastern Tennessee with ROC specialists in Chattanooga and Knoxville. Thanks to a $1.8 million grant from the BlueCross BlueShield of Tennessee Healthcare Foundation, STORC is currently undertaking a three-year pilot program that will add 11 rural sites to a network of 55 sites already linked to specialists through CHN’s telehealth network.

As Debbie Lance, STORC Director, recalls, “The BlueCross BlueShield Tennessee Foundation was willing to fund the program because telehealth has been shown to improve outcomes. I was hired to build relationships with hospitals and clinics in various rural areas, and to get them to participate in the program.” Now, less than one year later, STORC has already installed equipment in six sites, and is well on its way to meeting the goal of improving access to care for high-risk mothers-to-be.
When ROC and CHN partnered, both organizations indicated a preference for TANDBERG equipment.

“Even before we started talking with CHN,” says Lance, “we met with ISI, a TANDBERG reseller. It turned out that CHN already had TANDBERG equipment installed at its 55 sites, so it was a great fit. For example, the Rural Medical Services Clinic in Newport already had TANDBERG installed as part of CHN, so we didn’t have to purchase new equipment for that site. It’s a beneficial partnership in several ways.”

So far, STORC has equipment at two hub sites where ROC physicians are located — Chattanooga and Knoxville — and at four remote sites: Newport, Tullahoma, McMinnville and Cookeville. Each remote site is equipped with a cart containing a TANDBERG endpoint, display monitor and laptop. A sonographer and a nurse practitioner from ROC go to the remote site to see the patient and perform the sonogram. They then transmit the ultrasound images to one of the hub sites, where the physician views the images with a TANDBERG endpoint on an oversized screen in an exam room.

“The doctor sees the images on a big screen or directly on the computer, while the mom is at the remote site with our sonographer and nurse practitioner,” remarks Lance. “The doctor can explain to the mom what’s going on and answer any questions she has. The main thing the mom wants to see is the ultrasound, and she has a beautiful screen on which to view it. A split screen feature shows both the ultrasound image and the patient’s face for the physician to view, while the patient’s split screen images show the ultrasound and the physician’s face. The fact that she is face-to-face with the doctor on a television screen, versus in the same room, doesn’t faze her a bit. Both patients and physicians really like the system.”

Lance says STORC also uses the equipment for diabetes education and genetic counseling, with specialists in Chattanooga connecting to patients at rural sites.

“As you can imagine, the conversation between a genetic counselor and patient can touch on some very sensitive issues,” Lance comments. “With the TANDBERG equipment, the distance is ‘non-existent’. It looks like they are in the same room. The quality of the equipment does help — the image is clear as a bell. It is really incredible.”
RESULTS

In the short amount of time since STORC was launched, says Lance, “We have been incredibly successful in getting patients to see specialists in cases that would have gotten so bad that they would have had no choice but to be transported here. We’ve only had one transport since the program started, and we consider that a success story, because although we are able to keep most patients delivering at their home hospitals, when it really is warranted we can still get the patient here.”

Before STORC, Lance observes, “Patients often did not follow up when they were referred. For example, if an obstetrician in Tullahoma referred a patient to a maternal fetal medical specialist in Chattanooga, the patient would have to drive over Monteagle Mountain — which is not a pleasant drive. It takes 90 minutes one way, so the patient would have to take time off from work, and probably get someone else to come with her because it’s such a dangerous drive. And in winter, it’s even worse. Nine times out of ten, they wouldn’t come.”

Now, she continues, “With the well over 100-plus patient encounters we’ve had over video thus far, we have only logged five no-shows — and a couple of those didn’t come because they had already delivered. Such a low no-show rate is really incredible.”

Further, Lance remarks, “Now these high-risk babies are being delivered in their hometown hospitals instead of having to be transported here, because the mothers are getting the care they need during the pregnancy.”

Commenting on the reaction of patients, Lance says, “They love it. It’s not costing them any more to be seen in their hometowns than it would for them to come here, and they don’t have to travel and take time off from work. They get the same care as if they were physically in the specialist’s office.”

While STORC does provide some cost savings for the patients by eliminating the need for them to travel, the real benefits, says Lance, are “providing accessibility to high-risk specialists and improving outcomes. Our goal is to have an impact on issues such as infant mortality and low birth weight, by giving patients access to the care they need and educating them on diet and healthy lifestyles. Video allows us to make a difference and reduce the ‘risk’ in ‘high-risk.’”