Background
In January 2009, Arkansas's only academic medical center began developing a telemedicine-based fetal echocardiography clinic, while dually planning for statewide training and education of sonographers in fetal echocardiography and congenital heart disease.

The goal of the program is to utilize telemedicine in the provision of Fetal Echocardiograms to patients in rural areas of Arkansas, thereby reaching more high-risk maternity patients, diagnosing congenital heart disease earlier, decreasing medical costs, reducing patients' travel, and providing education to obstetricians and sonographers throughout the state.

Solution
In planning the initiative, technical evaluations and testing of fetal patients were performed with potential sites, and telemedicine equipment was installed in the echocardiographic lab at the state’s only children’s hospital. A nurse coordinator and pediatric cardiologist offer patient education and consultation over telemedicine to further aid understanding of high-risk conditions. This system has the capacity to view images in real time or store to an ultrasound digital imaging system, and fetal echo reports and consults will be documented and provided to referring obstetricians.

Outcomes
Since training has been initiated over the past 9 months, sonographers in the rural communities have improved their identification of congenital heart defects thus offering their patients new skills and technology in the identification of cardiologic conditions. Sonographers trained by the telemedicine sonography specialist scored a mean of 83% compared to the 78% mean score of those not trained by the specialist.

The first fetal echocardiographic clinic was successfully performed in August 2009. Since then, approximately 95 patients have been evaluated for congenital heart defects via telemedicine. Three Telemedicine Fetal Echocardiographic Clinics have been established since the beginning of the year.

Objectives
- Attendees will learn the steps necessary to plan and implement a pilot fetal echo program that unites pediatric cardiologists at a children’s hospital with outlying and rural hospitals.
- Attendees will learn the preliminary results of a fetal echo program and what milestones to expect in the first year of planning and implementation.