Executive Summary of the Mississippi Diabetes Telehealth Network

Diabetes is Mississippi’s most burdensome health challenge. With the support of Mississippi Governor Phil Bryant, a public-private partnership between the state’s academic medical center and agreements with a telecommunication provider and a technology vendor, we were able to create The Mississippi Diabetes Telehealth Network.

In August 2014, we deployed a pilot program in Sunflower County due to the high prevalence of diabetes in the area. The University of Mississippi Medical Center partnered with the county’s rural health clinic to tackle the health challenges associated with diabetes. The Mississippi Diabetes Telehealth Network focused on a coordinated approach to diabetes management where a multidisciplinary team of diabetes educators, specialty physicians and pharmacists were able to deliver specialized care via telemedicine.

A mobile tablet was provided for the patient to connect at home, allowing the patient to track his or her health data while clinicians were able to remotely monitor and provide support in real-time. Patients were enrolled in our home monitoring program for twelve months. By using the tablet, patients shared physical, emotional and psychological updates through daily health sessions with his or her clinician. In addition, the tablet allows the patient to capture health data, such as weight, blood pressure and glucose levels, and transmit daily to clinicians. Patients had four visits to the rural health clinic for physical assessments, lab work and other specialty test related to diabetes.

Outcome measures such as HbA1c were measured at baseline and twelve months. 180 patients were enrolled into the program. Success of the study, according to protocol, would mean a reduction in HbA1c levels by a 1% point in 75% of the participants receiving care. Preliminary study results of the first 100 patients have shown a decrease in HbA1c of 1.7 % and 70 pounds weight loss. Additionally, we found 9 cases of retinopathy and saved patients nearly 10,000 miles in travel. The program proved to reduce hospital admissions with zero hospitalization among the first 100 program participants. The Mississippi Diabetes Telehealth Network finished on September 30, 2016. We plan to release program results in early 2017.

Because of the success demonstrated in the Diabetes Telehealth Network, UMMC has ramped up this program to include monitoring for patients across multiple chronic diseases. Projections indicate significant cost savings in chronic care medical expenses because of this technology. It is estimated that the state will save approximately $189 million each year with the use of remote patient monitoring. We are offering this service to patients in Mississippi as well as those outside of the state. We also work with local employers to provide assistance to their employees who are diagnosed with a chronic disease. Our program continues to focus on decreasing health disparities; managing chronic diseases; reducing emergency room visits, hospital admissions and readmissions; and improving health quality while reducing the overall cost of care.