



# CREATING A CULTURE OF QUALITY

## Meeting the Challenge: Decreasing Vascular Access Infections in Puerto Rico

*According to the USRDS, vascular access infection rates in Puerto Rico were significantly higher than the national average between 2007-2012. QIRN3 began working with 35 facilities in Puerto Rico in September 2011 to decrease these infection rates. The poster will describe the interventions, barriers, partners and positive outcomes achieved.*

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The United States Renal Data System (USRDS) reported facility-specific vascular access infection rates for the first time in July of 2011. The four year average vascular access infection rate across all facilities in Puerto Rico (Quality Insights Renal Network 3 [QIRN3] territory) was nearly three times the national rate (8.0/100 patient months and 2.85/100 patient months, respectively). In addition, several individual facility rates were as much as seven times the national rate. The result was a Standardized Mortality Ratio (SMR) 61% higher than expected. Mortality rates varied significantly between facilities with the highest rate 211% greater than the expected value and the lowest mortality rate 14% higher. A territory-wide collaboration with a national Large Dialysis Organization (LDO) chain and a local Small Dialysis Organization (SDO) resulted in a comprehensive root cause analysis that uncovered several regional practices that were non-standard. An improvement plan targeted 12 lower performing facilities but incorporated interventions into each of the 35 facilities. Data entry into the National Healthcare Safety Network (NHSN) was required and an intensive education program for staff and patients was implemented. A Best Demonstrated Practice Webinar was the first step in the improvement process. QIRN3 recommended the facilities incorporate the Centers for Disease Control (CDC) Collaborative Interventions into their routine practice. Monthly documentation was submitted to QIRN3 for review and monthly Webinars were held to review documentation, discuss issues and suggest recommendations. Monthly infection control audits demonstrated steady improvement with facility level remediation and termination of staff, as needed.

### **Conclusion:**

In July 2012, the USRD reported a 13.8% decrease in the vascular access infection rate in 2011. Based on current NHSN data, there has been a relative improvement of 38.6% in the first two quarters of 2012 over 4th quarter 2011 baseline data. This project will continue until the regional average vascular access infection rate is at or below the national level. It is projected that this will occur within 1-2 years.