adherence, some factors associated with better diabetes control were identified.

**PDB10**

**ECONOMIC BURDEN OF DIABETIC RETINOPATHY IN FLORIDA: A PILOT STUDY EXPLORING THE AMOUNT SPENT USING PRINCIPLE DIAGNOSES**

Basile L, Xiao H
Florida A & M University, Tallahassee, FL, USA

**OBJECTIVE:** The objective of this study is to determine the direct medical costs associated with patients who have diabetic retinopathy and their co-morbidities in the state of Florida.

**METHODS:** The study was a non-randomized, secondary data analysis using the Florida Ambulatory Patient Data from 2001. It was a cross-sectional analysis using the individual patient as the unit of analysis. The ICD-9 Code 362.02 was used to extract patients with a principle diagnosis of proliferative diabetic retinopathy (PDR). The ICD-9 Codes 362.01 and 362.10 were used to extract patients with a principle diagnosis of nonproliferative diabetic retinopathy (NDR). ICD-9 Code 362.83 was used to extract patients with macular edema (ME). Patient characteristics along with total charges were extracted for each of these patients.

**RESULTS:** The total charges for Asian, African American, and White Hispanic are significantly lower than the total charges for Caucasians. However, Black Hispanics have a statistically significant higher total charge than Caucasians. Patients with Medicare, Medicare HMO, Medicaid, commercial HMO, and commercial PPO, have statistically significant higher total charges than patients with commercial insurance. Both PDR and BDR are associated with statistically significant greater total charges than patients with NDR. Yet, the total charges for ME are significantly lower than those for NDR. This model is statistically significant.

**CONCLUSIONS:** Total charges are affected by patient characteristics and severity of diabetic retinopathy. In the state of Florida for 2001, $3,885,952 were spent on treating patients with diabetic retinopathy and their co-morbidities in the ambulatory setting.

**PDB11**

**EVALUATION OF THE CLINICAL OUTCOME AND FINANCIAL COSTS OF DELAYING THE ONSET OF FRANK TYPE-2 DIABETES**

McEwan P1, Peters JR2, Currie CJ1
1Cardiff University, Cardiff, UK; 2University Hospital of Wales, Cardiff, UK

**OBJECTIVE:** Type-2 diabetes (T2DM) is associated with increased morbidity and mortality; however, the onset can be delayed. This study quantified the impact of delaying the onset of frank diabetes on the rate of progression to vascular complications and all associated costs.

**METHODS:** The Cardiff Diabetes Simulation Model was run over a 20-year time horizon following a cohort of 1000 newly diagnosed T2DM patients compared to a cohort whose T2DM was delayed by two or ten years. The model utilised the Framingham equations to predict cardiovascular events before diabetes and the UKPDS equations following diagnosis. The transition of predicted risk from Framingham to the UKPDS risk level was modelled assuming an instantaneous switch (Scenario 1) or a linear-progression between risk equations (Scenario 2). Direct health care costs (2004, GBP) and outcomes were each discounted at 3.5%.

**RESULTS:** Assuming no delay in diabetes, the model predicted 501 myocardial infarctions (MI’s), 252 strokes and 2305 microvascular events. Mean costs and quality adjusted life years (QALY’s) per subject were £11,972 and 7.3 years, respectively. Mean costs savings ranged from –£2376 to –£4791 (Scenario 1) and –£123 to –£573 (Scenario 2) through delaying diabetes by two and ten years, respectively. Mean change in QALY’s ranged from 0.6 to 1.7 years (Scenario 1) and 0.1 to 1.2 (Scenario 2), respectively. The number of MI’s avoided ranged from 40 to 224; while the predicted number of strokes avoided ranged from 37 to 147 for a two-year and ten-year delay, respectively.

**CONCLUSIONS:** This study demonstrated that even modest delays in the onset of diabetes can have a substantial impact on predicted vascular events and financial costs. However, the magnitude of this impact was highly dependent upon the modelling assumption employed relating to the change in cardiovascular risk as people progress to frank T2DM.