

## Diabetes Mellitus QUERI: Impacts, Contributions and Products

Description	Project Label and Center Goal
<b>IMPACTS</b>	
<b>Process-of-care / performance improvements</b>	
<ul style="list-style-type: none"> <li>Currently, most VHA patients with diabetes are meeting diabetes-related quality standards due to the combined efforts of many, including OQP, PCS and Diabetes QUERI. For example, data collected through the VA External Peer Review Program (EPRP) show that in FY 2007 approximately 77% of VA diabetes patients had a blood pressure less than or equal to 140/90 (compared with 71% in 2003); 96% had an A1c test and only 7% were considered to have very poor glycemic control (A1c &gt; 11%) or no measure in the past year; 98% had a lipid profile in the past two years, 84% had an outpatient LDL-C &lt; 130 mg/dl and 84% also had a dilated retinal exam that was timely according to disease status. [source: OQP <a href="http://vawww.ogp.med.va.gov/">http://vawww.ogp.med.va.gov/</a>] These improvements translate into the prevention of serious adverse events and lives saved as demonstrated below through the use of simulation techniques.</li> </ul>	Core <b>CV risk diabetes complications</b>
<ul style="list-style-type: none"> <li>Lower extremity amputations in VA have decreased significantly, also due to combined efforts from operations and research. From FY 1999 to FY 2006 the age-adjusted cross-sectional rate of total diabetes-related amputations performed in the VHA has decreased from 7.94 per 1,000 veteran clinical users to 3.31. Major amputations decreased from 3.61 per 1,000 veteran clinical users to 1.33, and minor amputations decreased from 4.33 per 1,000 veteran clinical users to 1.97.</li> </ul>	Amputations Foot Care <b>diabetes complications</b>
<b>Morbidity performance improvements</b>	
<ul style="list-style-type: none"> <li>In FY96 the mean hemoglobin A1c value, a measure of average glycemic control, in VA was 8.3%, improving to 7.8% in FY98 and 7.4% in FY01. Simulation results suggest that a decrease in mean A1c from 8.2% in FY94 to 7.4% in FY01, as observed at some VA facilities, results in a 7 percent reduction in risk of blindness due to retinopathy. In FY05, the mean A1c value was 7.3%, although it appears that average A1c values are higher among younger veterans with diabetes compared to their older counterparts.</li> </ul>	Core <b>diabetes complications</b>
<ul style="list-style-type: none"> <li>Improvements in LDL and blood pressure control have been shown to lead to fewer cardiac incidents, fewer strokes, and fewer deaths due to these conditions. Based on changes observed in one VISN from FY99-FY01, we estimated an absolute reduction in risk of cardiovascular (CV) events and CV mortality of 6.5% and 4.4% respectively. If these results are applied to the approximately 10,400 veterans with diabetes in that VISN alone, cardiovascular events would be prevented for nearly 680 individuals over a 20 year period and almost 460 lives would be saved. Since this time we have continued to observe improvements in both LDL and blood pressure</li> </ul>	Core <b>CV risk</b>

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control as noted above, which likely have produced additional morbidity and mortality benefits.	
<b>Mortality performance improvements</b>	
<ul style="list-style-type: none"> <li>Please see Morbidity section – Improvements in treatments of cardiovascular risk factors should translate to thousands of lives saved.</li> </ul>	
<b>Quality of life improvements</b>	
<ul style="list-style-type: none"> <li>Please see Morbidity section – Improvements achieved in A1c control should lead to significant decrease in incidence of blindness, and improvements in foot care should lead to decreased amputations.</li> </ul>	
<b>Cost/utilization savings</b>	
<ul style="list-style-type: none"> <li>Based on recommendations from the NQF Diabetes Measure Maintenance Subcommittee, chaired by Dr. Pogach, NQF has maintained current thresholds for A1c and blood pressure quality monitoring, which are consistent with the National Diabetes Quality Improvement Alliance. Measures based on lower thresholds of A1c &lt;7% and BP&lt;130 mmHg were not endorsed. Adoption of the NCQA measures will lead to increased pharmaceutical expenditure for many patients who are likely to receive little benefit (and may incur harm) from medication intensification.</li> </ul>	Quality Measurement Conference <b>quality measurement/improvement</b>
<ul style="list-style-type: none"> <li>Every other year eye screening may be more than adequate for many, if not most, patients with diabetes. Diabetes QUERI members and others successfully advocated for changing the specification of the eye care screening measure by NCQA and OQP. Screening patients at low risk every other year, rather than yearly (combined with close follow-up for patients at high risk) is estimated to result in approximately \$430/patient/lifetime cost savings for VHA due to reduction of unneeded screening tests.</li> </ul>	Eye Screening <b>diabetes complications</b>
<ul style="list-style-type: none"> <li>While trying to improve blood pressure control, we have also worked with other parts of VHA leadership to improve cost-effective treatment. In particular, we have highlighted and helped promote the importance of using thiazides, ACE-I's and beta-blockers and to reserve calcium channel blockers as third or fourth choice agents. Since this was a national effort without control groups we cannot estimate the cost savings, however, we have been very pleased at how treatment of blood pressure has intensified in VHA without substantial increases in the use of calcium channel blockers.</li> </ul>	Core <b>CV risk</b>