# The Wisconsin Collaborative

COLLABORATION

# Diabetes Quality Improvement Project 2006

**Members represent over 90 diverse partners, including:**

health care and professional organizations, minority groups, public health, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry representatives, and consumers.

## INTRODUCTION

In 1999, the Wisconsin Collaborative Diabetes Quality Improvement Project began as a collaborative effort involving the Wisconsin Diabetes Prevention and Control Program (DPCP; Wisconsin Department of Health and Family Services, Division of Public Health); the Division of Health Care Financing; the Diabetes Advisory Group Quality Improvement Workgroup; MetaStar, Inc.; the University of Wisconsin Population Health Institute (UW PHI); and a statewide group of health maintenance organizations (HMOs) and health systems.

The Collaborative Project was established as a forum to:

- Evaluate implementation of the *Wisconsin Essential Diabetes Mellitus Care Guidelines*
- Share resources, strategies and best practices
- Improve diabetes care through collaborative quality improvement initiatives

## METHODS

Collaborators selected the Health Plan Employer Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures to track progress in improving diabetes care. HEDIS® was developed by the National Committee for Quality Assurance (NCQA) in order to accredit HMOs and provides standardized data collection to assess quality of care. The Wisconsin DPCP contracts with the UW PHI for confidential analysis and reporting. Specific HEDIS® data are sent to the UW PHI by each participating HMO and health system. Each participating organization is given a unique, confidential identifying code to track its own performance relative to the other participating organizations. The Project uses HEDIS® results cooperatively, not competitively, to share both successful strategies and lessons learned, with a goal of improving diabetes care in Wisconsin. The NCQA requires accredited health plans to collect HEDIS® measures for care provided in the previous calendar year (e.g., HEDIS® 2006 reflects care provided in 2005). Average HMO values are presented in the following figures and tables.

Data include:

- HEDIS® Comprehensive Diabetes Care measures for care provided from 1999 to 2005.
- Selected HEDIS® cardiovascular care measures for care provided from 2000 to 2005.
- Selected HEDIS® cancer screening measures for care provided from 2001 to 2005.
- Selected HEDIS® asthma care measures for care provided from 2004 to 2005.

## RESULTS:

### *Performance on HEDIS® Comprehensive Diabetes Care Measures, 1999-2005*

Performance on all Comprehensive Diabetes Care measures has improved since the Project began in 1999. These data reflect all participating HMOs. Similar trends exist for the 12 continuously participating HMOs.

↑ LDL Screening improved by 34% since 1999 (24 percentage points from 70% to 94%)

↑ LDL Controlled <130 mg/dL improved by 68% since 1999 (30 percentage points from 44% to 74%)

↑ LDL Controlled <100 mg/dL improved by 9% since 2004 (4 percentage points from 47% to 51%)

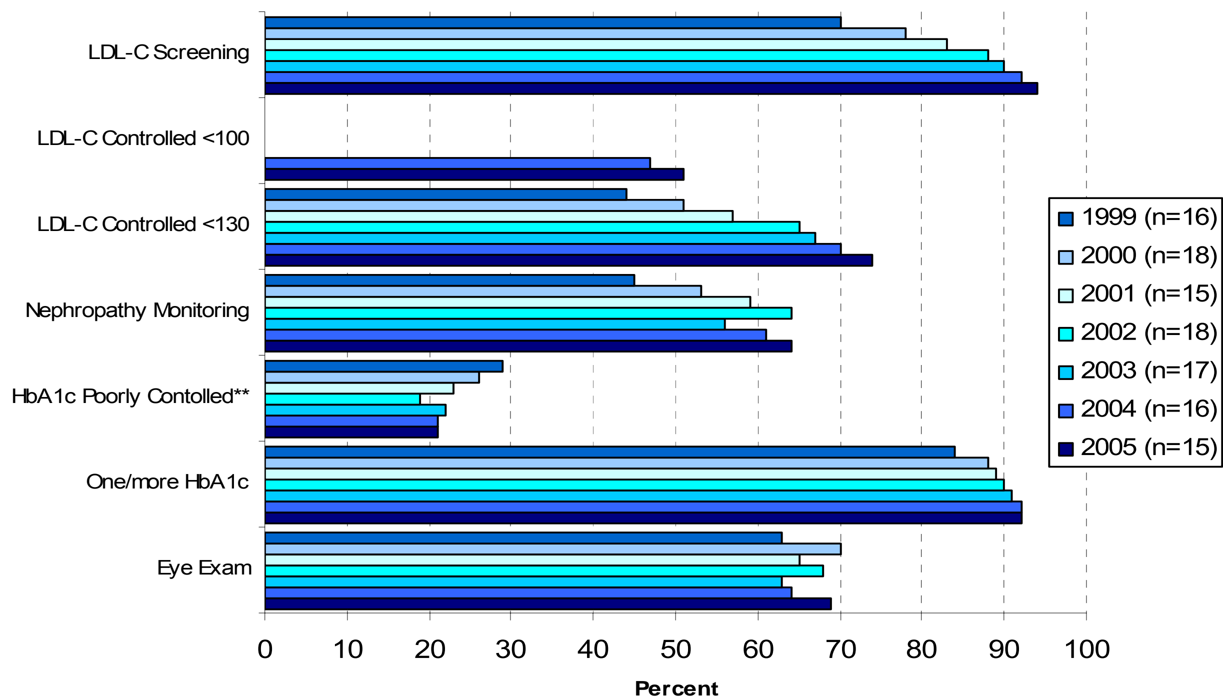
↑ Nephropathy Monitoring improved by 42% since 1999 (19 percentage points from 45% to 64%)

↑ Poorly Controlled HbA1c (>9.0%) improved by 28% since 1999 (8 percentage points from 29% to 21%; lower value desired)

↑ One/more HbA1c Tests improved by 10% since 1999 (8 percentage points from 84% to 92%)

↑ Eye Exam improved by 10% since 1999 (6 percentage points from 63% to 69%)

**Figure 1:** Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures (for care provided in 1999-2005)*




* For all HMOs that submitted data in a given year. Similar trends exist for the 12 continuously participating plans.

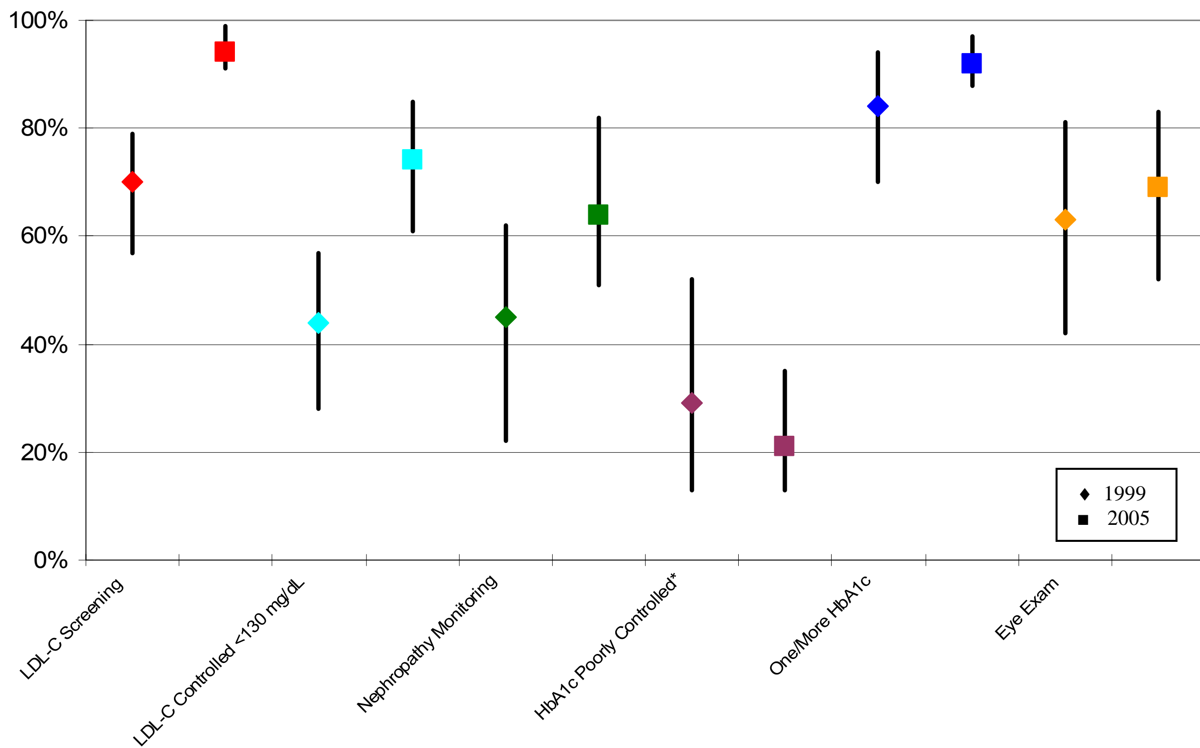
** The "HbA1c Poorly Controlled" measure changed from >9.5% to >9.0% in 2003. The "Nephropathy Monitoring" and "Eye Exam" measures also changed in 2003.

*Variation in HEDIS® Comprehensive Diabetes Care Measures, 1999-2005*

Variation in performance has decreased for all Comprehensive Diabetes Care measures since 1999. This can be seen graphically in the Figure 2. These data include all health plans submitting data in a given year.

The quality of diabetes care was least variable for LDL-C Screening and for HbA1c Testing. More variation exists for the other diabetes care measures. For example, data from 2005 illustrates that the Eye Exam rate for one plan was 52%, while another plan's rate was 83%.

**Figure 2:** Range and Mean for HEDIS® Comprehensive Diabetes Care Measures (all plans submitting data in 1999 and 2005)




* Lower percentage desired for "HbA1c Poorly Controlled" measure.

***Performance on Selected HEDIS® Cardiovascular Care Measures, 2000-2005***

Performance on selected cardiovascular care measures has improved since 2000. These data reflect all plans participating in a given year. Similar trends exist for the 12 continuously participating HMOs.

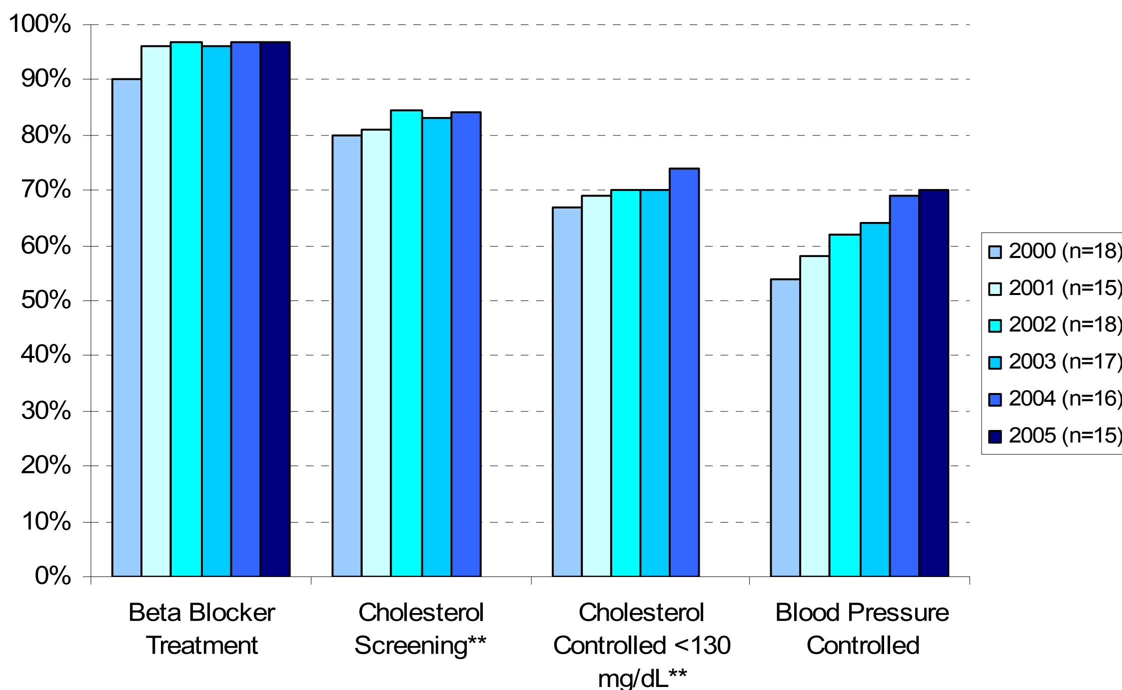
↑ High blood pressure control improved by 30% since 2000 (16 percentage points from 54% to 70%)

↑ Beta-blocker treatment after heart attack improved by 8% since 2000 (7 percentage points from 90% to 97%)

In year eight, data were collected for the Persistence of Beta-blocker Treatment after Heart Attack measure. Because this is the first year of data collection for this measure, no trends can be analyzed. The mean was 70%.

For HEDIS® 2006, the Cholesterol Management after Acute Cardiovascular Event measures changed significantly and were renamed Cholesterol Management for Patients with Cardiovascular Conditions. The NCQA chose not to use or report data from the Cholesterol Management for Patients with Cardiovascular Conditions measures this year, due to problems with the denominator. The Wisconsin Collaborative Diabetes Quality Improvement Project also will not use or report data from these measures for year eight.

**Figure 3:** Percent of Patients Receiving Selected HEDIS® Cardiovascular Care Measures (for care provided in 2000-2005)*




* For all HMOs that submitted data in a given year with a denominator of at least 30. Similar trends exist for the 12 continuously participating plans.
** Data from the Cholesterol Management measures was not used or reported in 2005.

***Summary of Performance on HEDIS® Measures for Care Provided in 2005***

- Wisconsin performed better than the national average on all HEDIS® Comprehensive Diabetes Care measures.
- The NCQA report "The State of Health Care Quality, 2006" revealed that Wisconsin was the **top-performing state in the nation** for three of the seven HEDIS® Comprehensive Diabetes Care measures:
    - ► LDL-C Controlled <130 mg/dL
    - ► LDL-C Controlled <100 mg/dL
    - ► Poorly Controlled HbA1c
- Wisconsin's performance was similar to the national average on the selected HEDIS® cardiovascular care measures.
- Wisconsin performed better than the national average on the selected HEDIS® cancer screening measures.
- Wisconsin's performance was similar to the national average on the selected HEDIS® asthma care measures.

**Table 1:** Comparison of National and Project Populations Receiving Selected HEDIS® Measures. Care Provided in 2005. Data includes all systems participating in a given year.

| Measure | System with Highest Percentage | System with Lowest Percentage | Wisconsin Average of Systems | National Average* |
|---|---|---|---|---|
| **DIABETES** | | | | |
| LDL-C Screening | 99% | 91% | 94% | 92% |
| LDL-C <130 mg/dL | 85% | 61% | 74% | 68% |
| LDL-C <100 mg/dL | 61% | 41% | 51% | 44% |
| Nephropathy Monitored | 82% | 51% | 64% | 55% |
| Poorly Controlled HbA1c | 13% | 35% | 21% | 30% |
| One/More HbA1c | 97% | 88% | 92% | 88% |
| Eye Exam | 83% | 52% | 69% | 55% |
| **CARDIOVASCULAR** | | | | |
| Control High Blood Pressure | 78% | 61% | 70% | 69% |
| Beta-blocker after CV Event | 100% | 91% | 97% | 97% |
| Persistence of Beta-blocker | 81% | 58% | 70% | 70% |
| **CANCER** | | | | |
| Breast Cancer Screening | 82% | 72% | 78% | 72% |
| Cervical Cancer Screening | 92% | 80% | 85% | 82% |
| Colorectal Cancer Screening | 66% | 47% | 58% | 52% |
| **ASTHMA** | | | | |
| Asthma Care (5-9 yrs) | 100% | 95% | 98% | 96% |
| Asthma Care (10-17 yrs) | 98% | 85% | 92% | 92% |
| Asthma Care (18-56 yrs) | 94% | 87% | 90% | 89% |
| Asthma Care (5-56 yrs) | 94% | 89% | 91% | 90% |

*Source: The State of Health Care Quality 2006: Industry Trends and Analysis, NCQA.

## CONCLUSIONS

Results from year eight of the Wisconsin Collaborative Diabetes Quality Improvement Project showed continued improvement in performance on all Comprehensive Diabetes Care HEDIS® measures. Wisconsin's performance exceeded national averages for all Comprehensive Diabetes Care measures, and Wisconsin was the top-performing state in the nation for three of the seven Comprehensive Diabetes Care measures (LDL-C Controlled <130 mg/dL, LDL-C Controlled <100 mg/dL, and Poorly Controlled HbA1c).

The quality of diabetes care provided in 2005 continued to vary among health systems, suggesting opportunities for continued improvement in the future. There has been a decrease in the amount of variation in performance between plans since the earlier years of this project, suggesting that the quality of diabetes care is more consistent from health system to health system than it was in the past.

Performance on the selected cardiovascular care measures also showed continued improvement. Wisconsin's performance on the selected cardiovascular care measures was similar to national averages.

In year eight, collaborators participated in a renewed initiative to improve the rate of eye exams in Wisconsin. This initiative included an updated eye exam form to enhance communication between providers as well as a DVD directed to the patient about dilated eye exams In addition, upcoming plans include a focus on cardiovascular health, in addition to diabetes.

These results demonstrate that the state's many different HMOs and health systems are willing to collaborate with multiple partners and the state health department on quality improvement projects.

The project clearly illustrates that an ongoing communication forum is essential to:

- Distribute new research and resources
- Promote dynamic brainstorming and planning
- Coordinate the sharing of quality improvement strategies
- Use the data to drive new quality improvement initiatives

These successful results were achieved due to a high level of commitment to the collaborative effort. Collaboration is key to the continued successes of this project.

## ACKNOWLEDGEMENTS

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## TECHNICAL NOTES

Invitations to participate in the Wisconsin Collaborative Diabetes Quality Improvement Project were mailed to 19 health plans/systems. Participants were asked to submit HEDIS® data from the comprehensive diabetes care measures, selected cardiovascular care measures, selected cancer screening measures, and selected asthma care measures. HEDIS® data reflects care provided in the previous calendar year (i.e., HEDIS® 2006 reflects care provided in 2005). The Project adopted NCQA's current HEDIS® definitions to maintain consistency in data collection.

HEDIS® Comprehensive Diabetes Care measures are limited to individuals with diabetes 18-75 years old and include: Eye Exam, LDL-C Screening Performed, LDL-C Controlled (<130 mg/dL); LDL-C Controlled (<100 mg/dL); HbA1c Testing Performed; HbA1c Poorly Controlled (>9.0%); and Nephropathy Monitoring. Selected cardiovascular care measures were: Beta-blocker Treatment after Heart Attack (35 years and older); Persistence of Beta-blocker Treatment after Heart Attack (35 years and older); and Controlling High Blood Pressure (ages 46-85 years). Selected cancer screening measures were: Breast Cancer Screening (women 52-69 years); Cervical Cancer Screening (women 21-64 years); and Colorectal Cancer Screening (51-80 years). Selected asthma care measures were: Asthma Care (ages 5-9 years), Asthma Care (ages 10-17 years), Asthma Care (ages 18-56 years), and Asthma Care (ages 5-56 years). Data were also collected for the Cholesterol Management in Patients with Cardiovascular Conditions measures. However, NCQA found evidence of denominator problems with these measures, and 2005 data were not used or reported.

Participating health systems submitted data for their commercial populations (excluding Medicaid or Medicare beneficiaries). They reported information on their method of data collection, sample size, eligible population, and percent of patients receiving the measure. Other submitted information included accreditation status, audit information, and diabetes registry use. Participants were assigned a unique, confidential code.

The eligible patient population for the HEDIS® Comprehensive Diabetes Care measures portion of this report was defined as any individual aged 18-75 years with a diabetes diagnosis meeting the continuous enrollment definition. The definition for eligible patient population for the selected cardiovascular care measures varied. The eligible patient population for breast and cervical cancer screening was the overall female health system population (not just those with diabetes) and varied by age in each measure. The eligible patient population for colorectal cancer screening was patients age 51 to 80 years old. The eligible patient population for the asthma care measures was stratified by age. Since relative eligibility numbers can be readily linked to specific systems, in the interest of continued confidentially, these figures are not published.

In Figure 2, the mean and range are shown. The mean is calculated by summing the observations and dividing by the number of observations. In the same figure, range is a measure of data spread. Range is the difference between the maximum point and the minimum point.

All HMOs participating in the Project in a given measurement year were included in the figures. Similar trends exist for the 12 continuously participating plans.