The Wisconsin Collaborative

COLLABORATION

Diabetes Quality Improvement Project

2012

The Wisconsin Collaborative Diabetes Quality Improvement Project is a collaborative partnership led by the Wisconsin Department of Health Services, Division of Public Health, Bureau of Community Health Promotion, Diabetes Prevention and Control Program.

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Mission

The Wisconsin Department of Health Services, Diabetes Prevention and Control Program (DPCP) is dedicated to improving the health of people at risk for or with diabetes.

Forming and maintaining strong, active partnerships is key to achieving this mission.

The DPCP uses a statewide approach to improve the health of people at risk for or with diabetes by:

- Working with health systems
- Designing population-based community interventions and health communications
- Outreach to high-risk populations and communities to reduce disparities
- Conducting surveillance and evaluation of the burden of diabetes
- Coordination of efforts through the Wisconsin Diabetes Advisory Group, chronic disease program integration activities, and community partnerships.

The Wisconsin Diabetes Advisory Group, convened by the Department of Health Services, DPCP, provides the foundation for active partnerships across the state. Members include over 80 diverse partners, including health care and professional organizations, minority groups, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry and public health representatives, and consumers.

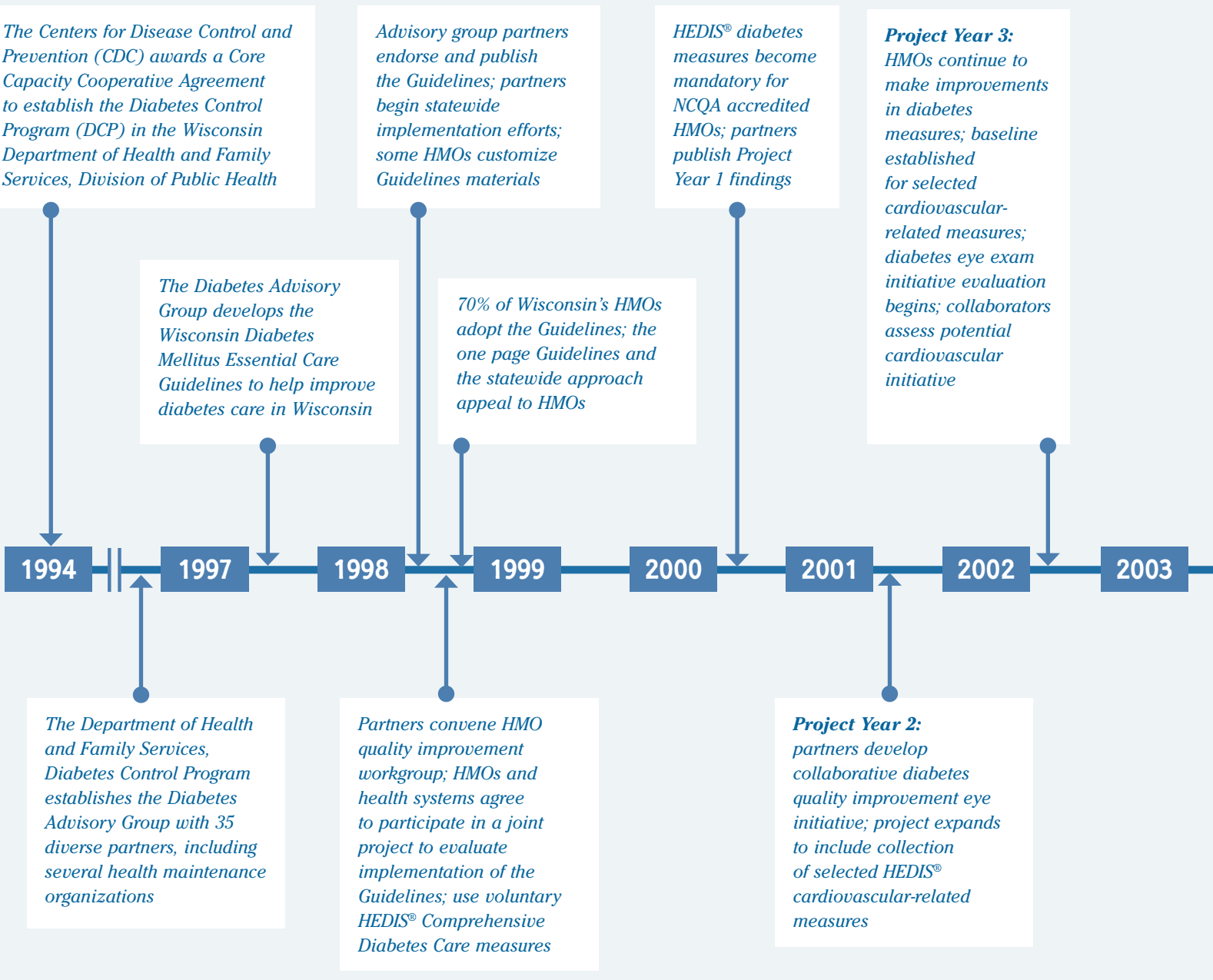
The Wisconsin Collaborative Diabetes Quality Improvement Project is a joint partnership. Members include the DPCP, the University of Wisconsin Population Health Institute, MetaStar (Wisconsin's Quality Improvement Organization), the Department of Health Services Division of Health Care Access and Accountability (Medicaid Program), health maintenance organizations (HMOs), and other health systems. The Project was established in 1998 as a forum to:

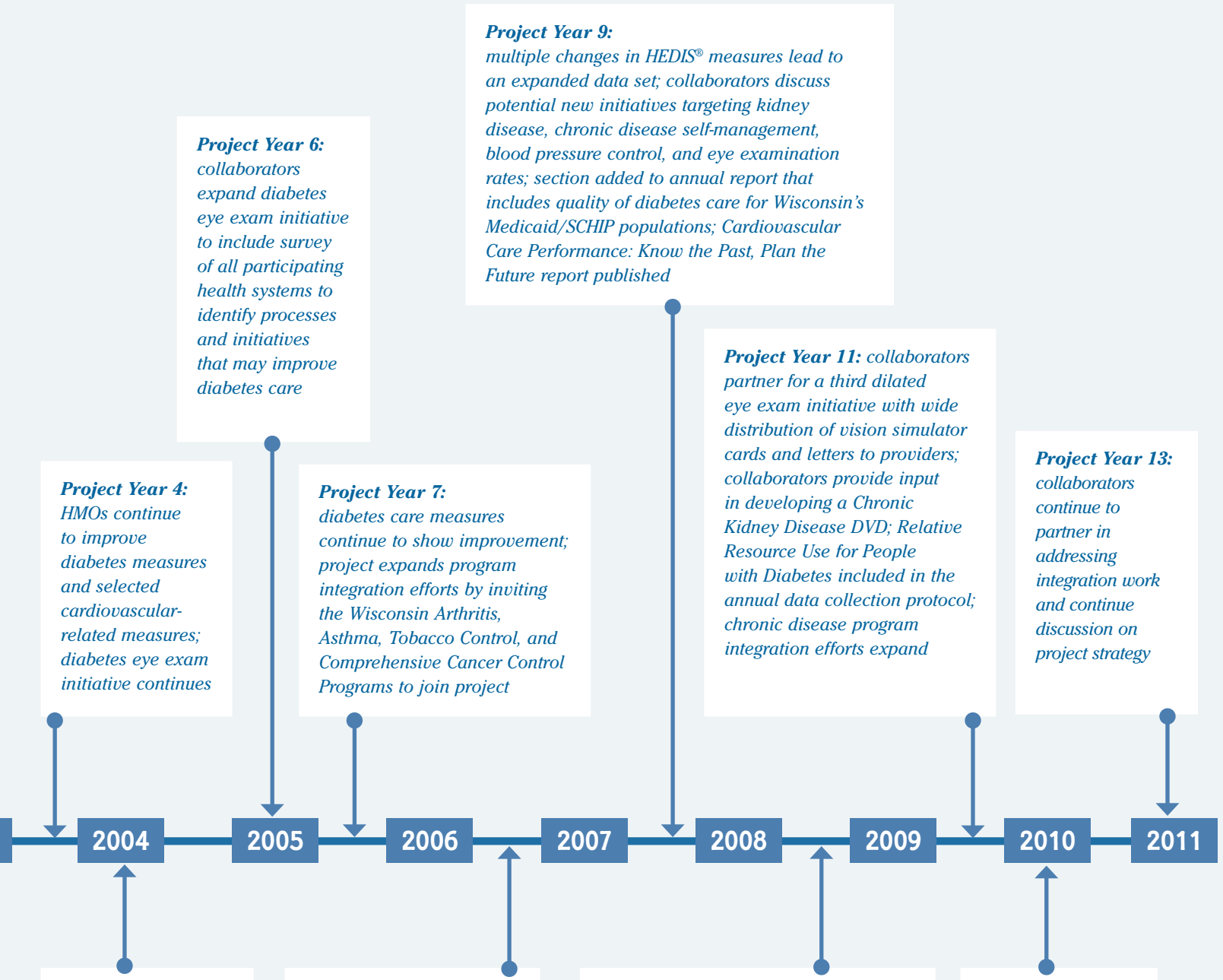
- Evaluate and implement the *Wisconsin Diabetes Mellitus Essential Care Guidelines*
- Share resources, population-based strategies and best practices
- Improve diabetes care through collaborative quality improvement initiatives

"As a Wisconsin Diabetes Advisory Group member, as well as being actively involved with the Wisconsin Diabetes HMO Collaborative, I am proud to be part of an organization that has and continues to impact the lives of Wisconsinites with diabetes."

Quality Improvement Coordinator, Managed Health Services

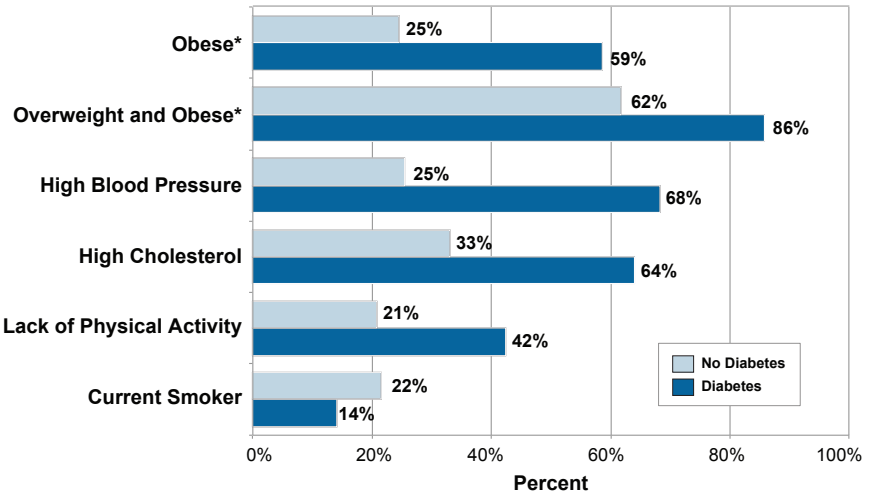
Collaboration is Key




2004
2005
2006
2007
2008
2009
2010
2011
Project Year 4: HMOs continue to improve diabetes measures and selected cardiovascular-related measures; diabetes eye exam initiative continues
Project Year 6: collaborators expand diabetes eye exam initiative to include survey of all participating health systems to identify processes and initiatives that may improve diabetes care
Project Year 7: diabetes care measures continue to show improvement; project expands program integration efforts by inviting the Wisconsin Arthritis, Asthma, Tobacco Control, and Comprehensive Cancer Control Programs to join project
Project Year 9: multiple changes in HEDIS® measures lead to an expanded data set; collaborators discuss potential new initiatives targeting kidney disease, chronic disease self-management, blood pressure control, and eye examination rates; section added to annual report that includes quality of diabetes care for Wisconsin's Medicaid/SCHIP populations; Cardiovascular Care Performance: Know the Past, Plan the Future report published
Project Year 11: collaborators partner for a third dilated eye exam initiative with wide distribution of vision simulator cards and letters to providers; collaborators provide input in developing a Chronic Kidney Disease DVD; Relative Resource Use for People with Diabetes included in the annual data collection protocol; chronic disease program integration efforts expand
Project Year 13: collaborators continue to partner in addressing integration work and continue discussion on project strategy
Project Year 5: diabetes care measures continue to show improvement; cardiovascular risk reduction initiative introduced
Project Year 8: Wisconsin recognized as top-performing state in the nation on three of seven Comprehensive Diabetes Care measures; collaborators partner with the Wisconsin Lions Foundation to produce and distribute an educational DVD encouraging annual dilated eye exams
Project Year 10: various collaborators participate in expanding the dilated eye exam initiative with distribution of vision simulator cards to providers; several collaborators implement Living Well with Chronic Conditions, the Stanford Chronic Disease Self-Management Program; the Wisconsin Diabetes Mellitus Essential Care Guidelines are updated; Wisconsin is above the national average for all Comprehensive Diabetes Care measures and all selected cardiovascular, cancer screening, asthma, and anti-rheumatic drug therapy measures
Project Year 12: collaborators partner to continue year 11 initiatives; program integration activities continue; Wisconsin continues to exceed national averages for all Comprehensive Diabetes Care measures

Diabetes
Facts and Figures

FIGURE 1: Percent of Wisconsin Adults with Risk Factors Related to Diabetes, 2011



Source: Wisconsin Behavioral Risk Factor Survey, 2011

*Overweight is defined as body mass index (BMI) 25.0 - 29.9 kg/m^2 and obese is defined as BMI ≥ 30.0 kg/m^2

Diabetes is Serious

People with diabetes are at increased risk of numerous complications, including cardiovascular disease, stroke, kidney failure, eye disease, nerve disease, and amputations. These complications can be disabling and lead to substantial morbidity, mortality, and cost. Many complications can be slowed or delayed by an aggressive program of screening, early detection, and optimal treatment.

Diabetes is Common

Diabetes affects an estimated 475,090 adults in Wisconsin, or 10.1% of the population. Some groups of people are at higher risk for developing diabetes. African American, American Indian, and older populations often have the highest rates of diabetes. (Source: The 2011 Burden of Diabetes in Wisconsin).

Diabetes is Costly

The cost of diabetes in Wisconsin is staggering. In 2009, estimated direct costs for diabetes were $4.12 billion and estimated indirect costs were $2.04 billion, totaling $6.15 billion (Source: The 2011 Burden of Diabetes in Wisconsin). In 2007, estimated medical expenditures for people with diabetes averaged $11,744 per person, compared with $2,935 per person without diabetes. After correcting for demographic factors, medical expenditures for people with diabetes were approximately 2.3 times the expenditures of those without diabetes (Source: Diabetes Care. 2008;31(3):1-20).

Diabetes is Controllable

Much of the morbidity, mortality, and cost associated with diabetes is due to potentially preventable long-term complications. Management of risk factors can lead to better outcomes. Complications of diabetes include eye disease, kidney failure, cardiovascular disease, stroke, nerve damage, and amputations. Control of blood glucose, blood pressure, and cholesterol are essential and can decrease the risk of developing these complications. Regular physical activity and a healthy diet are also crucial for both prevention of type 2 diabetes and treatment of all types of diabetes to reduce risk of complications.

Project Description

The Wisconsin Collaborative Diabetes Quality Improvement Project

Goal: To improve the quality of diabetes care in Wisconsin's HMOs

Three Project Components

Evaluate implementation of the Wisconsin Diabetes Mellitus Essential Care Guidelines

- To assess Guideline implementation in Wisconsin's commercially-insured population, collaborators selected the Healthcare Effectiveness Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA).
- The Project also collects other chronic disease-related HEDIS® data. HMO collaborators partnered to begin providing data from selected cardiovascular-related measures in 2000, select cancer screening measures in 2001, select asthma care measures in 2004, arthritis and smoking cessation measures in 2006, weight assessment and antidepressant medication management measures in 2010.
- NCQA uses HEDIS® to accredit HMOs. The use of HEDIS® criteria provides standardized data collection at the population level to assess quality of care.
- The Department of Health Services, Diabetes Prevention and Control Program contracts with the University of Wisconsin Population Health Institute for confidential analysis and reporting of HMO HEDIS® data.

Share resources, population-based strategies, and best practices

- The Diabetes Prevention and Control Program continues to engage interest of project partners through various communication tools, such as the Wisconsin Diabetes Weekly newsletter.
- Collaborators meet quarterly to discuss issues and strategies, such as quality improvement activities, data collection and analysis, and plans for future initiatives.

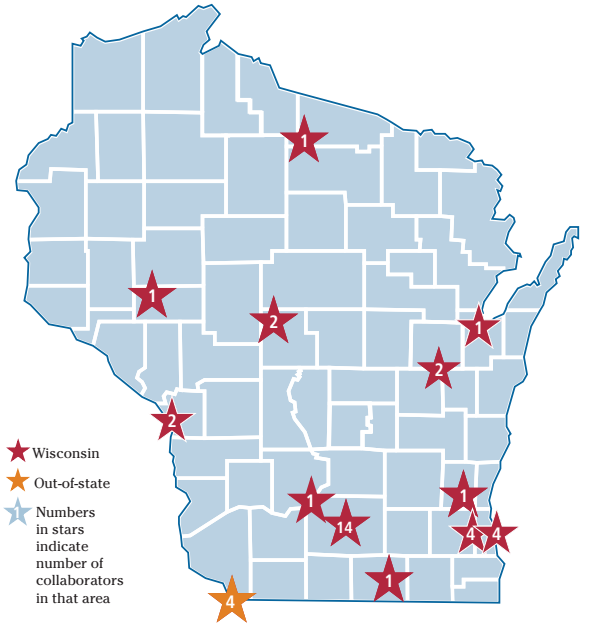


FIGURE 2: Locations of Project Collaborators, Including 4 Located Outside Wisconsin - 2011

Improve diabetes care through collaborative quality improvement initiatives

- The Collaborative continues the Diabetes Eye Care Initiative to encourage eye exams with quality improvement activities, including distribution of a DVD, as well as vision simulator cards, a new teaching tool that explains diabetic eye disease.
- A growing initiative focuses on expanding the scope of Living Well with Chronic Disease, an evidence-based self-management program.
- An educational DVD was released in 2009: "The Links to Chronic Kidney Disease: Diabetes, High Blood Pressure, and Family History." Collaborators joined the Wisconsin Lions Foundation, the National Kidney Foundation of Wisconsin, and the Diabetes Prevention and Control Program to roll out and implement this initiative.

Results: HEDIS® Comprehensive Diabetes Care Measures

The following HEDIS® data are compiled for collaborating HMOs and are reported by the University of Wisconsin Population Health Institute with funding from the Diabetes Prevention and Control Program.

Table 1 summarizes performance on HEDIS® Comprehensive Diabetes Care measures, for care provided in 2010.

- **Group Mean:** This is the mean percentage of all participating plans for care provided in the year indicated. It is calculated as the unweighted average of each plan's percentage.
- **Direction of Trend:** This states whether the group mean increased, decreased, or stayed the same from 2009 to 2010.
- **Variation among Plans:** The amount of variation among plans' performance is shown in each measure's range. Range is the difference between the highest and lowest percentages for each measure. A smaller range is desired, because it means less variation among plans.
- **National Mean:** This is the nationwide mean percentage for care provided in 2010.[1]
- **Group vs. National Mean:** This column compares the group mean with the national mean.

TABLE 1: Performance on 2011 HEDIS® Comprehensive Diabetes Care Measures (care provided in 2010)

	Group Mean (2009)	Group Mean (2010)	Direction of Trend (2009 – 2010)	Variation among Plans*	National Mean (2010)[1]	Group vs. National Mean
HbA1c Poor Control (>9.0%) (Lower percentage desired)	22%	19%	Increase	**High** Range=25	27%	**Better** than National
HbA1c Control (<8.0%)	67%	69%	Increase	**Medium** Range=22	62%	**Better** than National
HbA1c Good Control (<7.0%)	47%	46%	Decrease	**High** Range=27	43%	**Better** than National
HbA1c Testing Performed	92%	94%	Increase	**Low** Range=6	90%	**Better** than National
Eye Exam Performed	68%	69%	Increase	**High** Range=32	58%	**Better** than National
LDL Cholesterol Screening Peformed	87%	88%	Increase	**Low** Range=9	86%	**Better** than National
LDL Cholesterol Control (<100 mg/dL)	52%	53%	Increase	**Medium** Range=21	48%	**Better** than National
Blood Pressure Control (<140/90 mm Hg)	72%	73%	Increase	**High** Range=31	66%	**Better** than National
Medical Attention for Nephropathy	88%	88%	No Change	**Low** Range=9	84%	**Better** than National

* Categories are: Low <15 percentage points, Medium 15-24 percentage points, and High ≥25 percentage points.

[1] Source: *The State of Health Care Quality Report 2011*

Results: HEDIS® Comprehensive Diabetes Care Measures continued

Table 2 shows the group mean for each measure, by year. For these measures, the group mean is calculated as the unweighted average of all participating plans in each given year. The unweighted average is calculated as the sum of the plans' individual percentages for that measure, divided by the number of participating plans that year.

TABLE 2: Group Means, HEDIS® Comprehensive Diabetes Care Measures (care provided in 1999-2010)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
HbA1c Poor Control (>9.0%)*	---	---	---	---	22%	21%	21%	21%	21%	21%	22%	19%
HbA1c Control (<8.0%)	---	---	---	---	---	---	---	---	---	---	67%	69%
HbA1c Good Control (<7.0%)	---	---	---	---	---	---	---	---	48%	44%	47%	46%
HbA1c Testing Performed	84%	88%	89%	90%	91%	92%	92%	92%	93%	93%	92%	94%
Eye Exam Performed	63%	66%	63%	66%	63%◆	64%	69%	69%	67%	68%	68%	69%
LDL-Cholesterol Screening Performed	70%	78%	81%	88%	90%	92%	94%	84%◆	85%	86%	87%	88%
LDL-Cholesterol Control <100 mg/dL	---	---	---	---	---	47%	51%	48%◆	51%	51%	52%	53%
Blood Pressure Control <140/90 mm Hg	---	---	---	---	---	---	---	69%	70%	71%	72%	73%
Blood Pressure Control <130/80 mm Hg	---	---	---	---	---	---	---	38%	40%	41%	42%	---
Medical Attention for Nephropathy	---	---	---	---	---	---	---	85%	87%	88%	88%	88%

* Lower percentage desired for HbA1c Poor Control measure.
◆ Measure specifications changed.

Results: HEDIS® Comprehensive Diabetes Care Measures continued

Figures 3-11 illustrate the group mean percentage (black markers) and each individual plan's percentage (blue markers). Breaks in the black line indicate years when measure specifications changed significantly. It is important to note that the relative performance of each plan varies from year to year and from measure to measure. For example, the highest performer in 2010 was not necessarily the highest performer in 2009.

Figures 3-6: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures (care provided in 1999-2010)

Figure 3: HbA1c Poor Control (>9.0%)*

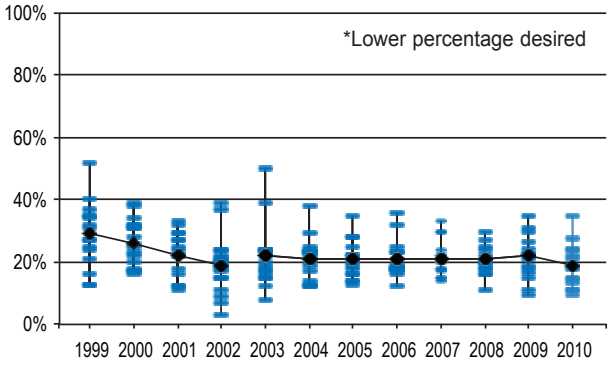


Figure 4: HbA1c Control (<8.0%)

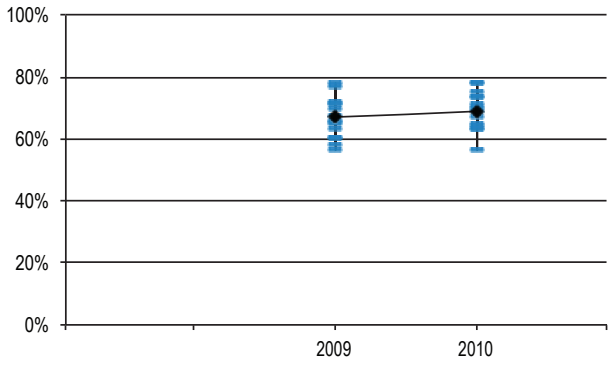


Figure 5: HbA1c Good Control (<7.0%)

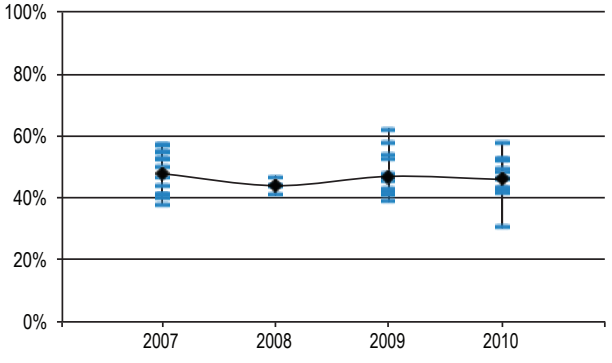
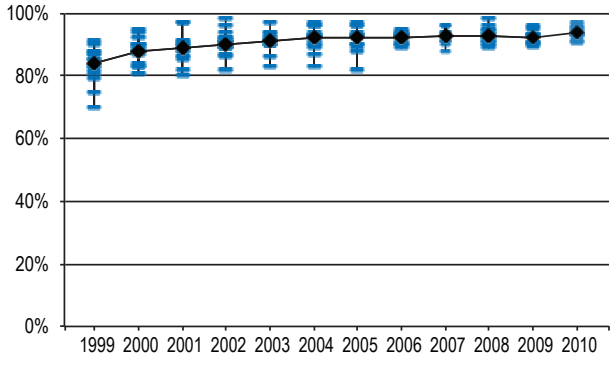


Figure 6: HbA1c Testing Performed



Results: HEDIS® Comprehensive Diabetes Care Measures continued

Figures 7-11: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures (care provided in 1999-2010)

Figure 7: Eye Exam Performed

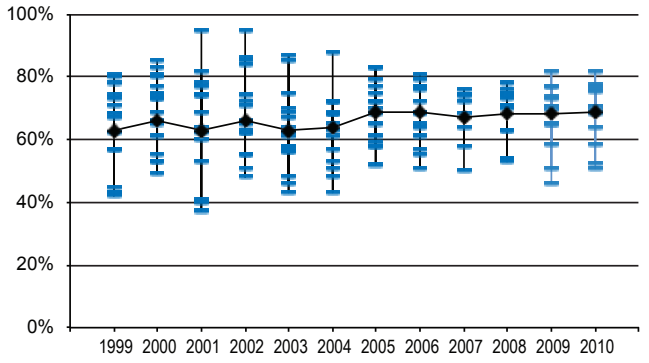


Figure 8: LDL Cholesterol Screening Performed

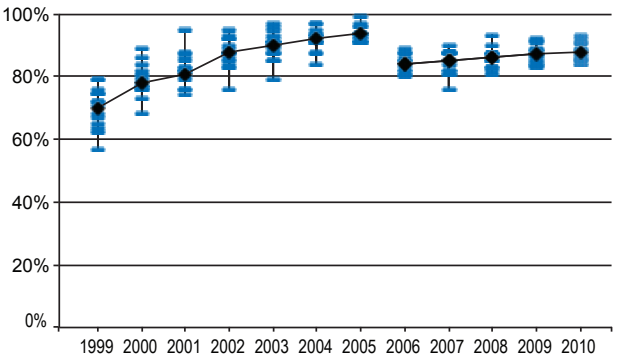


Figure 9: LDL Cholesterol Control (<100 mg/dL)

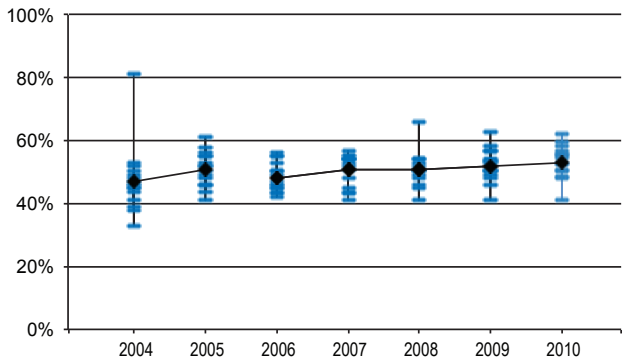


Figure 10: Blood Pressure Control (<140/90 mmHg)

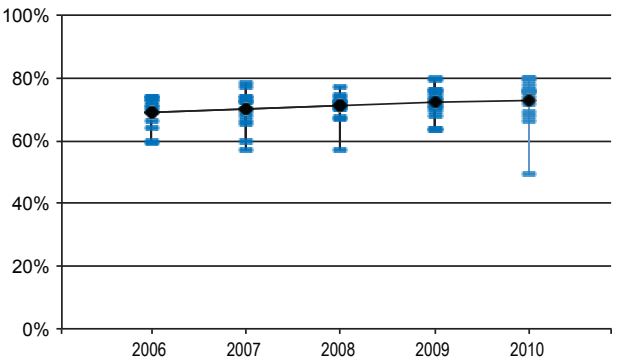
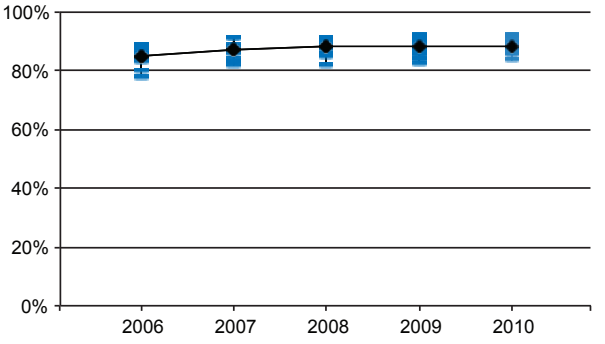


Figure 11: Medical Attention for Nephropathy



Conclusions

Project Advantages

- Over time, collective performance has improved on diabetes care measures in Wisconsin.
- People with diabetes in Wisconsin benefit from improvements in care.
- Collaborators use data reports to discuss barriers, problem-solve, and identify potential quality improvement initiatives.
- HMOs receive local benchmarking data, reports to share with managers and community stakeholders, and a forum to address mutual concerns and best practices.
- Plans receive individual confidential yearly historical comparison reports.
- The Diabetes Prevention and Control Program receives valuable data for surveillance and evaluation, as well as vital support toward their mission to improve the health of people at risk for or with diabetes.
- Quarterly meetings serve to:
  - Communicate and share information
  - Distribute new research and resources
  - Promote dynamic brainstorming and project planning
  - Coordinate sharing of quality improvement strategies
- The Collaborative is a state-specific project unique to Wisconsin and nationally recognized.
- Wisconsin's diverse group of HMOs are engaged and continue to participate in this collaborative project. Collaborators remain motivated and committed to the Project's success.

Future Directions

- **Eye Exam Initiative:** In 2009, the Collaborative distributed vision simulator cards, an educational tool about eye disease. The Collaborative continues to evaluate this initiative and plan future initiatives to increase eye exam rates.
- **Chronic Disease Self-Management:** Living Well with Chronic Conditions is an evidence-based self-management program from Stanford University for people with chronic diseases, including diabetes. The Collaborative is working to increase patient access to this chronic disease self-management program. Several health plans currently use this evidence-based program.
- **Program Integration to Coordinated Chronic Disease:** Wisconsin was a Program Integration Demonstration through the Centers for Disease Control and Prevention (CDC) for several years. Recently several chronic disease programs (including Arthritis; Asthma; Cancer; Heart Disease and Stroke Prevention; Tobacco Prevention and Control; Diabetes; and Nutrition, Physical Activity and Obesity) and others developed an Coordinated Chronic Disease Work plan. This HMO project remains committed to collecting HEDIS® data. Encouraging chronic disease and other programs to use the analyzed reports for new project design and implementation of initiatives to improve care.
- **Chronic Kidney Disease:** The collaborative continues to support and promote education and increased awareness of Chronic Kidney Disease (CKD) in WI through the use of an educational DVD titled: The Links to Chronic Kidney Disease and the Diabetes Leadership Initiative which is implementing chronic kidney disease communication tools.
- **Relative Resource Use:** The Collaborative collected baseline data for a new Relative Resource Use HEDIS® utilization measure and is planning how to report and use this information.
- **Ongoing Collaboration:** Collaborators continue to work together on these and other initiatives to improve the quality of diabetes care in Wisconsin.

Technical Specifications

Commercial Population: HEDIS® Measures

To evaluate the quality of diabetes care in Wisconsin's commercially-insured population, collaborators chose the Healthcare Effectiveness Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA). The NCQA uses HEDIS® data to accredit HMOs and to evaluate the quality of care regionally and nationally.

NCQA's programs are voluntary, but HEDIS® measures are widely used to evaluate the quality of care provided to patients. In 2011, collaborators submitted HEDIS® data for nearly 100% of Wisconsin's commercially-insured population. Because collaborators already collect this data, it was readily available for the Collaborative to use.

HEDIS® measure definitions are standardized, specific, and audited by third party auditors using an NCQA-designed process. Standardization allows comparison of plans' performance with each other, regionally, and nationally. Clear specifications allow direct comparisons, offer standardized definitions for data collection, and allow examination of trends in the group's performance.

HMOs can choose whether to publicly report their HEDIS® data. Because some collaborators do not publicly report their data, the University of Wisconsin Population Health Institute provides confidential data analysis and reporting of plans' HEDIS® data. By protecting confidentiality, collaboration is encouraged between health plans that are competitors in other settings.

HEDIS® Comprehensive Diabetes Care measures apply to people with diabetes, age 18-75 years, with the exception of the HbA1c Control <7% measure, which applies to a special population of people with diabetes, age 18-64, without certain co-morbidities. The population with diabetes is defined using pharmacy and claims/encounter data. For HEDIS® measures, health plans can submit administrative data or hybrid data. Administrative data comes from electronic records of services, such as insurance claims or registration systems. Hybrid data comes from a random sample of the patient population and allows claims data to be supplemented with medical records data. HEDIS® Comprehensive Diabetes Care measures are usually reported as hybrid data. Use of the hybrid method may lead to different outcomes than administrative data and measures dependent upon lab values or vital signs must be done with medical record review in most clinical settings.

The Wisconsin Collaborative Diabetes Quality Improvement Project highlights an extraordinary level of cooperation among diverse, competitive health maintenance organizations to improve diabetes care in Wisconsin. Collaboration is imperative to this project's successes. This collaborative model may serve as the springboard for the expansion to other statewide quality improvement initiatives.

We would like to recognize the following organizations for their interest and participation in this project: Advanced Health Care, Anthem Blue Cross Blue Shield of Wisconsin, Arise Health Plan, Dean Health Plan, Inc., Great Lakes Inter-Tribal Council, Inc., Group Health Cooperative of Eau Claire, Group Health Cooperative of South Central Wisconsin, Gundersen Lutheran Health Plan, Health Tradition Health Plan, Humana, Inc., Independent Care Health Plan (*i*Care), Innovative Resource Group/APS Healthcare, Managed Health Services, Marshfield Clinic/Family Health Center, Medical Associates Health Plan, MercyCare Health Plans Insurance Company, Network Health Plan, Pfizer, Physicians Plus Insurance Corporation, Security Health Plan of Wisconsin, Thedacare, UnitedHealthcare of Wisconsin, Inc., and Unity Health Insurance.

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