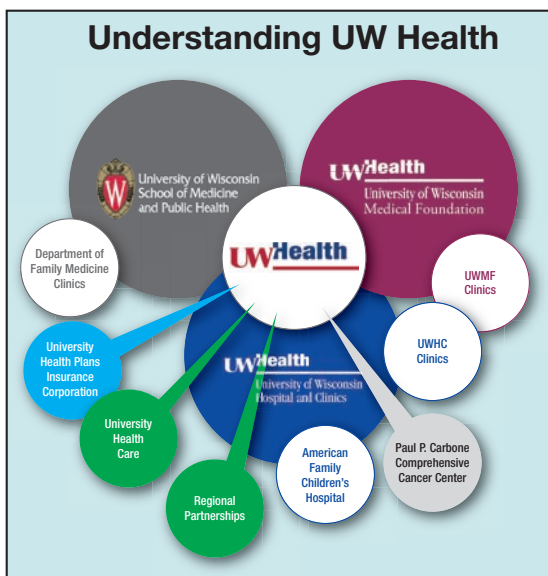


CASE STUDY FOR QUALITY IMPROVEMENT

Diabetes Initiative

UNIVERSITY OF WISCONSIN HEALTH SYSTEM/ UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION



Organization Profile

Founded in 1996, the University of Wisconsin Medical Foundation (UWMF) is the clinical practice organization for the 1,090 faculty physicians of the UW School of Medicine and Public Health, an academic, multi-specialty physician group in Wisconsin.

A multifaceted organization, UWMF provides 48 clinical practice sites and 27 locations around Madison and south central Wisconsin. In FY 2008, the UWMF staff saw 2,233,320 outpatient visits and 391,800 unique patients.

The organization is dedicated to helping those physicians meet the UW School of Medicine and Public Health's missions of quality patient care, medical education, and research.

In 1998, UWMF merged with Physicians Plus Medical Group and with the University Community Clinics in 2003. UWMF uses EPIC as their EMR.

Project Summary

UW Medicine Neighborhood Clinics last year launched an initiative to improve diabetes care for patients. The initiative ties in with goals set by the Puget Sound Health Alliance, a regional effort established in 2004, with the vision of developing a state-of-the-art health care system that provides better care at a more affordable cost in the Puget Sound region. The UWMF Diabetes Initiative was built using key guidelines from the WI Essential Care Guidelines and the ADA. UWMF follows the Collaborative's guidance for the collection, validation, and analysis of data to assess the quality of healthcare services. Through the collaborative use of measures, UWMF can compare itself to the other WI provider groups reporting each year.

Goals and Objectives

The goal of this initiative is to improve management of adult patients receiving their primary care at UW Health. This would in turn improve UW Health diabetes testing and control rates as reported to the Wisconsin Collaborative for Healthcare Quality (WCHQ).⁴ These include:

- Increasing A1C, LDL, and kidney testing by >5% within 3 years

- Improving A1C and LDL control rates to be in >90th percentile of WI provider groups within 5 years

	Process Measures	Outcome Measures
A1C Blood Sugar	≥2 tests/year	<7.0%
LDL Cholesterol	≥1 test/year	<100 mg/dL
Kidney Function	>1 MA/Cr test/year	
Blood Pressure		<130/80 mmHg

WCHQ Diabetes process and outcome measures established for 18- to 75-year-olds with diabetes.

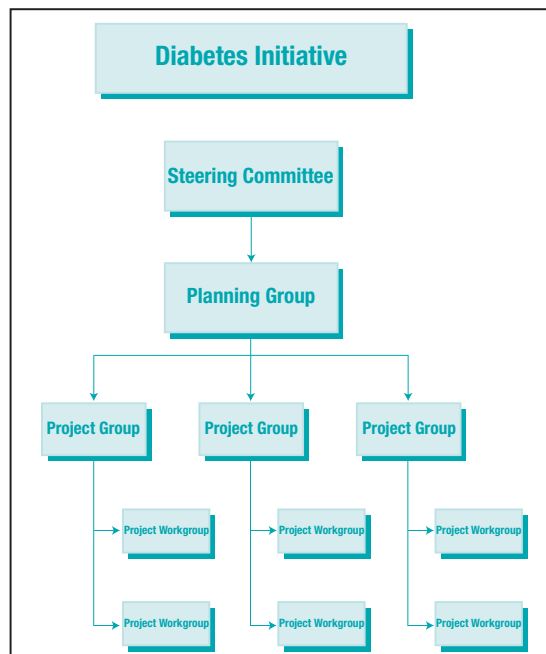
^aUWMF is a member of the Wisconsin Collaborative for Healthcare Quality (WCHQ), a voluntary consortium of 29 healthcare organizations in Wisconsin, publicly reporting organization-level performance on quality measures since 2003.

Team Composition

The Diabetes Steering Committee provides oversight to the UWMF Diabetes Initiative.

Membership:

- Primary care physicians
- Endocrinologist
- Nurse practitioner
- Lab practitioner
- Health education staff
- Senior operational staff
- Key insurance partners
- Quality improvement staff
- Data management staff



Diabetes Intervention and Population Baseline

UW Health Diabetes Populations: UWMF has 2 populations to consider:

- UW Health diabetes initiative population based on project denominator algorithm
- WCHQ population, which is a subset of the UW Health denominator

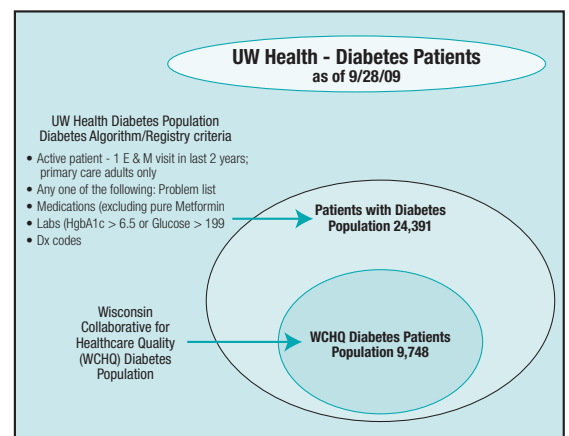
Improvement Interventions Measures Used

The UWMF Diabetes Initiative was built using key guidelines from the WI Essential Care Guidelines and the ADA. One of the largest members of the WCHQ, UWMF follows the Collaborative's guidance for the collection, validation, and analysis of data to assess the quality of healthcare services. Through the collaborative use of measures, UWMF can compare itself to the other WI provider groups reporting each year.

Specific data used for public and internal use are the key measures used by WCHQ. These data are reported every 12 months for WCHQ:

- HgbA1C testing and control
- LDL testing and control

Data collection is achieved through EMR (EPIC) for WCHQ collection, although some clinics utilize chart abstraction from paper charts.



Wisconsin Collaborative for Healthcare Quality (WCHQ) Project Details

A voluntary consortium of 29 healthcare organizations in Wisconsin learning and working together to improve the quality and cost-effectiveness of healthcare for the people of Wisconsin, WCHQ has been publicly reporting organization-level performance on quality measures since 2003. Of the 45 outpatient and inpatient measures provided by WCHQ, 6 outpatient measures pertain to diabetes. WCHQ also provides specific criteria to identify patients with diabetes who are currently managed by a physician group. Through the collaborative use of measures, UWMF can compare itself to the other WI provider groups reporting each year.

WCHQ A1C Ranking by WI Provider Group: UWMF measures its standing in relationship to all other reporting organizations in WCHQ.

WCHQ Performance: A1C Control in UW Health Clinics: An inside look at how each clinic within UW Health is doing with A1C control based on the WCHQ algorithm for this measure tells us that the number of patients with an A1C below 7.0% varies by clinic from slightly more than 35% to slightly more than 55%. The takeaway is that the UWMF clinics have many opportunities for improvement; the ones doing the poorest should look at their peer clinics that are doing better to find out why.

Trend in UW Health A1C Good Control Rate	
July 2005-June 2006	41.2% (N=6195)
July 2006-June 2007	43.5% (N=7019)
July 2007-June 2008	46.4% (N=7976)

UW Health Ranking in WCHQ	
2006	15th of 17 provider groups
2007	18th of 20 provider groups
2008	16th of 21 provider groups

Plan for Improvement Interventions

The UWMF plan to achieve “Optimal Diabetes Management” follows a continuum that begins with:

1. Identifying UW Health patients with diabetes
2. Identifying patients requiring specific services (e.g., not tested, poorly controlled)
3. Ensuring patients receive needed services

The services include:

Lab Testing

What: A1C, LDL, MA/Cr ratio per guidelines

Who: Patient aware of guidelines; nonclinical staff reminds if overdue

How: Outreach (letters, phone calls, etc.), inreach (at visit)

Education and Lifestyle Management

What: Basic facts, meter training, goal setting, continuing education

Who: CDE or clinic staff

How: Individual or group appointments

Medication Management

What: Titrate per algorithm based upon FBS

Who: Provider or other clinical staff

How: Diabetes-focused appointment, telephone titration, etc.

Periodic Clinical Exams

What: Diabetes-focused and ophthalmology appointments

The UWMF Diabetes Initiative Team identified the following 5 steps for diabetes population management:

Pre-Work: Form diabetes care team

Step 1 – Clean your registry (outreach)

Step 2 – Deliver reminders to patients overdue for testing (outreach)

Step 3 – Manage patients who have elevated results (outreach)

Step 4 – Provide consistent/optimal diabetes care at clinic visits (inreach)

Step 5 – Establish process for nonprovider staff to deliver protocol-based basic patient education and medication titration (outreach)

Challenges or Obstacles

The UWMF Diabetes Initiative team encountered challenges on a number of fronts:

Patient – Influencing patients on the importance of self-management

Clinic – Clinics in the system vary in size, staff, and affiliation (foundation clinics and hospital clinics). Flexibility is called for to meet their individual needs to ensure program success.

Organization – Multiple management structures, reimbursement = physicians paid fee-for-service for outpatient visits, and difficulty defining the patient population as a provider group.

IT – Transitioning EHR tools and care processes from episodic care to population management; have dual system of paper and EMR for care team functions as Health Link support tools for clinic practice slow to be developed.

Future Steps

As the initiative moves from a pilot to system-wide implementation, several steps are necessary:

- Continual refinement of initial pilot with chronic care model design
- Standardization of workflows and protocols
- Identification of additional clinics and/or physician practices for implementation of diabetes care team model
- Refinement of tools to assist clinic staff in care team functions (i.e., reporting workbench [RWB], best practice advisories [BPA], and health maintenance [HM])

Outcomes and Successes

Odana Atrium Clinic is the only one in the UW system to demonstrate significant improvement in their care for patients with diabetes. This can be directly related to their model of medication management, which is done by RN care managers who titrate medications with patients referred by 20+ physicians within that clinic under direct supervision of a nurse practitioner. There is a direct link to health education by an hour of very basic patient education by the RN care manager to jump-start the patient's knowledge of diabetes; a referral occurs at that visit to group and/or individual health education sessions.

Odana Atrium's A1C Control Rank (among 25 clinics) moved from 6th in September 2007 to 1st in June 2009. Odana Atrium's A1C Control Rate progressed from a low of 47% in September 2007, to a high of 54% in March of 2009, dropping back to 53% in June of 2009. The overall UW A1C control rate started at 45% in September 2007, rose to a high of 47% in June 2008, and leveled at 46% in March of 2008, continuing at this rate through June 2008.