

CASE STUDY FOR QUALITY IMPROVEMENT

Following the Golden Cord

WENATCHEE VALLEY MEDICAL CENTER

Organization Profile

Wenatchee Valley Medical Center (WVMC), established in 1940, is a large rural health care delivery system located in Washington State. The Center's 183 physicians, 63 midlevel practitioners provide primary care to area residents and also draw patients from throughout the region for specialty care, resulting in 464,384 outpatient visits in 2008.

Based on the philosophy that patients are best served when they have easy access to multiple specialties under the same roof, WVMC offers 34 specialties through its clinics in 8 communities and a small hospital on the Wenatchee campus. Wenatchee Valley Hospital is a licensed 20-bed facility that serves medical, surgical, and acute rehabilitation patients.

A comprehensive health care delivery system encompassing a region of roughly 12,000 square miles, 60% of the clinic's business comes from outside the greater Wenatchee area and WVMC specialists drive over 130,000 miles annually to provide outreach clinics in North Central Washington communities.

The Clinical Desktop EMR used by WVMC was developed internally.

Project Description

The WVMC team adopted a Planned Care Model to bring about fundamental and incremental improvement in the health of their diabetic patients through a proactive team approach that eliminates gaps, empowers patients, and strengthens the provider-patient relationship. The effort centered around 2 specific actions: team changes and process improvements.

Goals and Objectives

As per the chart below, Wenatchee set goals to have its diabetic patients participate in regular screenings recommended for patients 18+ with diabetes. In addition to being faithful to the recommended screenings, a specified percentage was projected to measure the number of patients reaching preferred levels on each test.

Wenatchee Valley Medical Center		
	Goal	Yearly screening or visit for the following year (except HbA1C):
Diabetic Care Patient 18 years and older <i>(Note: No upper age cap.)</i>	75%	HbA1C testing (2 or more tests in a 12-month period)
	60%	HbA1C result <7.0
	88%	LDL
	60%	LDL result <100
	51%	Urine microalbuminuria testing (nephropathy screening) <i>(Note: Patients on dialysis are excluded from this measure.)</i>
	45%	Blood pressure <130/80
	90%	Diabetic-coded outpatient visit
	-	Retinal eye exam
	-	Diabetic foot exam

Team Composition

- Scheduler: diagnosis in Plus system
- Reception: confirms tools/questionnaires
- Roomer: reviews patient agenda/meds/forms
- Provider: uses data for decision support; prepares visit summary with next visit, diagnosis, previsit studies
- Closer: reviews plan/answers questions
- Reception: schedules follow-up appointment; enters diagnosis in Plus system

WVMC registered nurses and dietitians work with the health care providers as a team to provide comprehensive diabetes care and education.

Together the team addresses knowledge, skills, attitude, and motivation that will support long-term health of patients with diabetes.

Diabetes Intervention and Population Baseline

The project targeted Type 1 and Type 2 adult patients (18+) with one or more diabetic-coded outpatient visits. Using the WVMC diabetes registry (in place since 1999), diabetic patients are identified before their appointments to allow for completion of visit preparation in advance. The Physician Toolbox mentioned earlier provides access to proactive reports.

Improvement Interventions

To ensure attention to detail and accountability among the diabetes patient care team members and commitment of the Clinic's diabetes patients, a number of information and reporting tools were introduced:

- Quarterly Quality Dashboard reports including measurement goals
- Proactive weekly reports produced for diabetic patients with future appointments
- Midyear reports distributed to providers of their diabetic panel with overdue labs and/or visits flagged
- Bundled/composite score illustrating top performing and underperforming providers in meeting diabetic care goals
- Improved marketing of community resources, events, and diabetes support groups via intranet and Internet postings
- Flyers distributed to primary care departments and endocrinology

A Diabetes Care Pathway is used to ensure consistency in patient care. The Diabetes Care Pathway is intended to help plan for and guide visits—the provider ultimately determines the specific content of each visit.

Measures Used

To ensure consistency, WVMC uses a combination of Healthcare Effectiveness Data and Information Set (HEDIS), Premera Quality Scorecard specifications, and CMS guidelines for the majority of clinic measurement parameters. Auto-run reports from Accounts Receivable billing data of diabetic patient visits are imported into Access databases and run through queries to produce reports. Eye exam data and diabetic foot exam can also be manually input via the diabetes registry. Billing data from visits within the system auto-feed updates into the Diabetes Registry.

Diabetes Care Pathway	
Intake visit	Previsit Diabetes questionnaire
	Diagnostic studies: Diabetes Mellitus (DM) Panel (yearly: HbA1C, lipid profile, CMP, MACR, ALT if on TZD, TSH if Type 1 DM)
	Initiate Diabetes Planner
1 st Provider Visit	Diagnostic studies: Provider review of Diabetes Panel with patient, monofilament exam
	Diabetes Planner update
	Patient education including Education Diagram, Diabetes Care Facts, and Diet and Exercise
	Treatments: Check status of appropriate adult vaccinations, ASA Tx, Smoking cessation—all per Diabetes Planner
	Prescriptions: Glucose meter, (medications)
	Appointments: Diabetes Educator, Eye Exam, F/U appts: 1 month, then every 3 months with labs prior per LabSets (every 3 months: HbA1C)
2 nd and 3 rd Visits	Previsit Diabetes Questionnaire
	Diagnostic studies: HbA1C review
	Forms: Diabetes Planner
4 th Visit	Appointments: F/U 3 months with HbA1C prior
	Previsit Diabetes Questionnaire
	Diagnostic studies: HbA1C review
	Forms: Diabetes Planner
Annual Visit	Appointments: F/U 3 months with yearly labs per LabSets prior
	Per 1 st Visit
	Appointments every 3–6 months with lab prior

Measurement data and data for the Quarterly Dashboard reports produced internally are based on the following methodology:

- Type 1 and Type 2 diabetic patients who had 1 or more diabetic-coded outpatient visits anytime from 2002 through the end of the reporting period
- Diabetic patients who had a visit with their primary care provider and/or internal medicine subspecialist during the reporting period

Challenges or Obstacles

As with any effort aimed at facilitating change, there were various challenges along the way:

- Motivating patients about their disease and required changes
- Reaching the noncompliant patients and getting them into the office
- Keeping providers and clinical staff within the organization updated
- Coordinating speakers for diabetes education classes
- Providing access to nutritionists

Outcomes and Successes

Focused diabetes goals were accepted by the organization. To help the team accomplish these goals, both the regular dashboard reports and Physicians Toolbox were critical tools and the Pathway to care allows staff to drive to evidence-based care.

As to the internal goals set out for the team, in 2009 (through 8/31/09) WVMC saw modest improvements with an increase in the number of patients in several areas.

The high-risk patients in the Medicare Demonstration project fared somewhat better.

Lessons Learned

The WVMC team took away many lessons from this initial team change and process improvement project that will continue to positively contribute to future patient care improvement efforts. Among these are

- Explore many options—good ideas are magnets
- Recruit the entire staff in process improvement
- Publicize and celebrate successes
- Standardize processes so that you can create the time to customize care and enjoy the experience—it's all about the relationship with patients and colleagues
- Strive to create a culture of learning and teaching
- Make work fun
- Leave work happy

Goal	Screening/Visit	N ^a	WVMC Overall 2007	N ^a	WVMC Overall 2009
75%	HbA1C testing 2 or more in 12 months	6,985	70.01%	8,320	72.86%
60%	HbA1C, 7.0 with 1 or more tests	6,148	65.99%	7,418	63.99%
88%	LDL	6,985	83.04%	8,320	85.75%
51%	Urine microalbuminuria testing	6,688	62.43%	8,168	64.32%
90%	Diabetic outpatient visit	6,985	87.97%	8,320	90.02%

^aN= number of patients.

Goal	Screening/Visit	N ^a	WVMC Overall 2009
75%	HbA1C testing 2 or more in 12 months	264	86.74%
60%	HbA1C, 7.0 with 1 or more tests	6,148	68.55%
88%	LDL	6,985	94.32%
51%	Urine microalbuminuria testing	6,688	74.23%
90%	Diabetic outpatient visit	6,985	91.67%

^aN= number of patients.

Future Steps

The WVMC team intends to continue to apply successful methods and to innovate as means of improving outcomes for their diabetic patients. To do so, they are committed to being more proactive in exploring ways to improve care.

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