

CASE STUDY FOR QUALITY IMPROVEMENT

Managing Diabetes

THEDACARE

Organization Profile

Located in NE Wisconsin, ThedaCare is the third largest health care employer in Wisconsin and the largest employer in the state's second largest economic market, Northeast Wisconsin with nearly 5,400 employees. The system includes 4 hospitals, home health, senior services, behavioral health, employee wellness, all primary care (FP, IM, Peds), 22 clinic sites, 132 physicians; 69 midlevels (PAs, NPs) and provides 420,477 office visits per year.

ThedaCare is a founding member of the Wisconsin Collaborative for Healthcare Quality (WCHQ), a voluntary consortium of 9 quality-improvement driven healthcare organizations and 10 representatives of major employers, consumers, and business groups from around the state.

EPIC is the system EMR. An early adopter of EMR in 1999, the system has gone completely paperless.

In 2003, ThedaCare embarked on a journey to apply the principles and tools of lean manufacturing and the Toyota Production System (TPS) to healthcare. The result was the ThedaCare Improvement System (TIS)—an organization-wide quality improvement initiative. Through TIS, ThedaCare exponentially reduced the number of defects in its processes, improved patient outcomes, eliminated waste, and developed revolutionary new models of clinical care based on these principles.

Project Summary

ThedaCare approaches diabetes care utilizing a multidisciplinary team, including the primary care physician and the ThedaCare Diabetes Education Program staff. The physician may refer the patient to the Diabetes Education Program to assist in providing the patient with knowledge on how to manage his/her diabetes and to develop a self-management program. The health system started a Touchpoint Health Plan based Diabetes Disease Management program in 1997 with 1,600 patients, 56% of whom had an A1C <8.0%.

Measure	ThedaCare Current Rate	Goal	WCHQ
A1C <7.0%	59%	72%	#2
LDL <100 mg/dL	68%	69%	#1
BP <130/80 mmHg	54%		#4
Nephropathy screening	84%		#2
A1C testing (2/year)	82%		#1
LDL testing (1/year)	96%		#1
90th percentile in WCHQ: Goal set by Senior Leadership			

Diabetes Goals and Objectives

ThedaCare strives to meet the Healthcare Effectiveness Data and Information Set (HEDIS) measure set used by more than 90% of US health plans to evaluate performance on important dimensions of care and service.

Diabetes Intervention and Population Baseline

ThedaCare identified a diabetes population of approximately 10,000 patients through encounters or the problem list. For encounters the patient must have 1 acute inpatient or emergency room visit with a qualifying diagnosis or 2 ambulatory or non-acute inpatient visits with a qualifying diagnosis.

Rates are based on patients ages 18-85 with the qualifying office visit criteria of 2 office visits in the last 24 months with one of those visits in the past 12 months. (Note: patients with system denominator are increasing by 30-50 patients monthly.)

Diabetes Registry

The ThedaCare Disease/Prevention Registry, established in 2001, enters personal information for every patient with diabetes and documents chronic care needs, such as diabetes, immunizations, and hypertension.

Every patient with diabetes is also logged into a chronic disease worksheet that documents office visits, lab appointments, yearly eye exams and nephropathy screening, smoking status, and recent measures for BP, A1C, and LDL. The worksheet IDs new patients to prompt office staff to double check.

And, there is a rates report (updated monthly) for documentation of the number of patients reaching measurement goals.

Diabetes / Prevention Registry

SEARCH: PERSON, PREEBY 123888 REVERSIDE DRIVE SE PCP: ANDERSON, DAVID DOB: 11/11/1959 Member: 81610

Personal

List Name: ROUSE Suffix: Suffix
 First Name: PREEBY Middle: Middle
 Birth Date: 11/11/1959
 Gender: Male
 SSN: [REDACTED]
 Address 1: 123888 REVERSIDE DRIVE SE
 Address 2: 123888 REVERSIDE DRIVE SE
 City: WAUWATONA State: WI Zip: 53091
 County: WAUWATONA
 Phone (Home): 718-258-1008 (Automated)
 Lives Out of State:

Registries

CAD
 Diabetes
 Immunization
 Hypertension
 Cervical Cancer
 Colorectal Cancer
 Hypertension

THEDACARE PHYSICIANS BLACK CRK

Patient Name	DOB	Phone	Smoking Status (Y/N/NE/OT)	Scheduled Appt	2 Most Recent Date	1 Most Recent Date	2 Most Recent Date	1 Most Recent Date	GOALS:		1st Conc	2nd Conc
									LDL	Hypertension		
ANDERSON, DAVID	11/11/1959	718-258-1008	N	11/11/2008	11/11/2008	11/11/2008	11/11/2008	11/11/2008	11/11/2008	11/11/2008	11/11/2008	11/11/2008

How Am I Performing on Monthly WCHQ Diabetic A1C Level < 7.0?

September 01, 2008 - Report as of August 31, 2008
 Goal: 71%







The following table are used for the calculation of COMPENSATION INDICATORS
 The percentage of diabetic patients 18-85 years of age with a most recent A1C level less than 7.0% within the 12 months immediately prior.

CASE GROUP	Total Count/Total Members	Total Eligible Members	Total Rate	Selected For Review
CASE GROUP	276	645	47%	85,348
Location	285	645	47%	85,348
Prostate	97	393	25%	88,848
Prostate	2	2	0%	38,000
Prostate	88	190	46%	87,848
Prostate	3	6	50%	40,000
Prostate	1	1	100%	0
Prostate	47	107	44%	40,000
CASE GROUP	285	645	47%	424,001
Location	285	645	47%	424,001
Prostate	97	393	25%	460,001
Prostate	88	191	46%	354,008
Prostate	83	164	51%	447,008
Prostate	72	124	58%	462,008

Diabetes: All-or-None Process Measure (Optimal Testing)

Rates Reporting

WCHQ-yearly rates are posted on the web by organization (www.wchq.org). Internally rates are reported monthly, with total data transparency across the organization. There are tracking centers at each site.

Mercy Health System N=5275 n=333		36.34%
Monroe Clinic N=2119		54.93%
Prevea Health N=4301		43.73%
ProHealth Care Medical Associates N=6727		54.91 %
ThedaCare Physicians N=7004		69.59%
UW Health Physicians N=7468		48.00%

Q3 2008 to Q2 2009

Improvement Interventions

Many of the improvement interventions used were incorporated techniques from lean management (ThedaCare Improvement System [TIS] and EMR).

- Lean work (minimizing time, cost and human labor) at low-performing sites (e.g., blood is drawn by the Medical Assistant in the exam room)
- Process improvement at clinics
- Quality on the agenda at every provider meeting
- Medical Director involvement
- Protocols developed by Evidence-Based Medicine Committee and posted on the EMR system

References Used

- ADA Clinical Practice Guidelines (<http://care.diabetesjournals.org>)
- Wisconsin Diabetes Guidelines (<http://dhs.wisconsin.gov/health/diabetes/guidelines.htm>)
- All data are pulled from the EMR

Challenges or Obstacles

The ThedaCare team faces 3 types of challenges:

Clinical

- Obesity: Known as the “Land of brats, beer, and cheese,” recent research from the Wisconsin Department of Health and Human Services showed 2/3 of adults in NE Wisconsin are obese.
- Economy: Recession obesity, a new by-product of a bad economy¹
- Exercise

Outcomes and Successes

- Leadership support, which has developed a culture of quality improvement
- Standard use of HMs and best practice alerts and evidence-based problem list with goals listed
- EBM Committee made up of providers, assistant medical director, and clinical experts
- Lean work A4's at low-performing clinics (enhances logical thinking, provides a standardized method of communication, focuses problem-solving activities, enhances decision making)
- Tracking centers and transparent data
- Pay-for-Performance



Operational

Education: Use rapid improvement events and e-learning modules

- Communication is always a challenge
- Variation of practices: need to standardize data
- Results from other facilities require standardized processes
- Audits to verify accuracy
- A1C trend dipped from October 2008 through May 2009, but has started to improve in the past few months

Lessons Learned

- The key is changing our mindset from benchmarking to process improvement and focus on the patient.
- Goals may be met, but with a goal of 73% it still means that 27% of patients are at risk.
- Communication is key—cannot communicate enough.

1. http://www.associatedcontent.com/article/1548159/recession_obesity_a_new_byproduct_of.html