



Assessing Quality and Cost of Type 2 Diabetes Care In Podkarpacie Region of Poland



John Idso, BS¹, Greg Telega, MD¹, Mariusz Dabrowski, MD²
Medical College of Wisconsin¹, University of Rzeszow²

Introduction

Type 2 Diabetes Mellitus (T2DM) is a chronic disorder responsible for a significant proportion of overall healthcare cost.

According to the Organization for Economic Cooperation and Development, Poland spent 6.4% of its Gross Domestic Product on healthcare in 2013, while the United States spent 16.9%.¹

Specific Aim

Determine if there is an appreciable difference in quality and cost between Wisconsin and the Podkarpacie region in Poland for a specific disease, T2DM.

Methods

Institutional Review Board (IRB) approval was obtained by both Rzeszow University and the Medical College of Wisconsin.

T2DM quality data from Podkarpacie was abstracted from a random sampling of 199 patients from 2013 and 2014 at a regional referral outpatient diabetes clinic in Rzeszow, the capital of Podkarpacie.

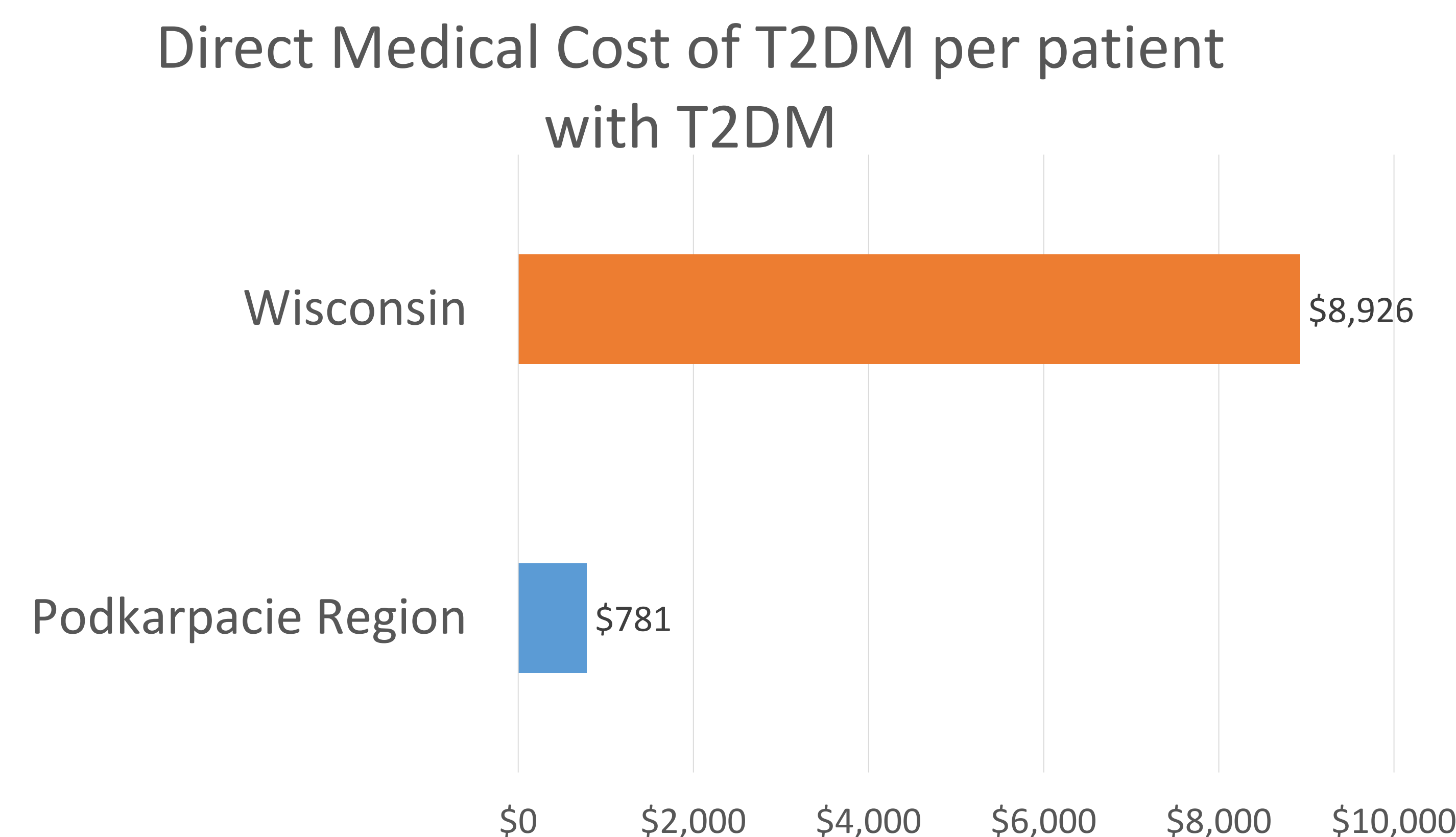
The Podkarpacie regional cost data for T2DM was attained in aggregate from the National Health Fund, which is the national healthcare organization in Poland.

Quality data from Podkarpacie was compared to publicly available data describing Froedtert & the Medical College of Wisconsin (FMCW) from the Wisconsin Collaborative for Healthcare Quality along with statewide Wisconsin data.

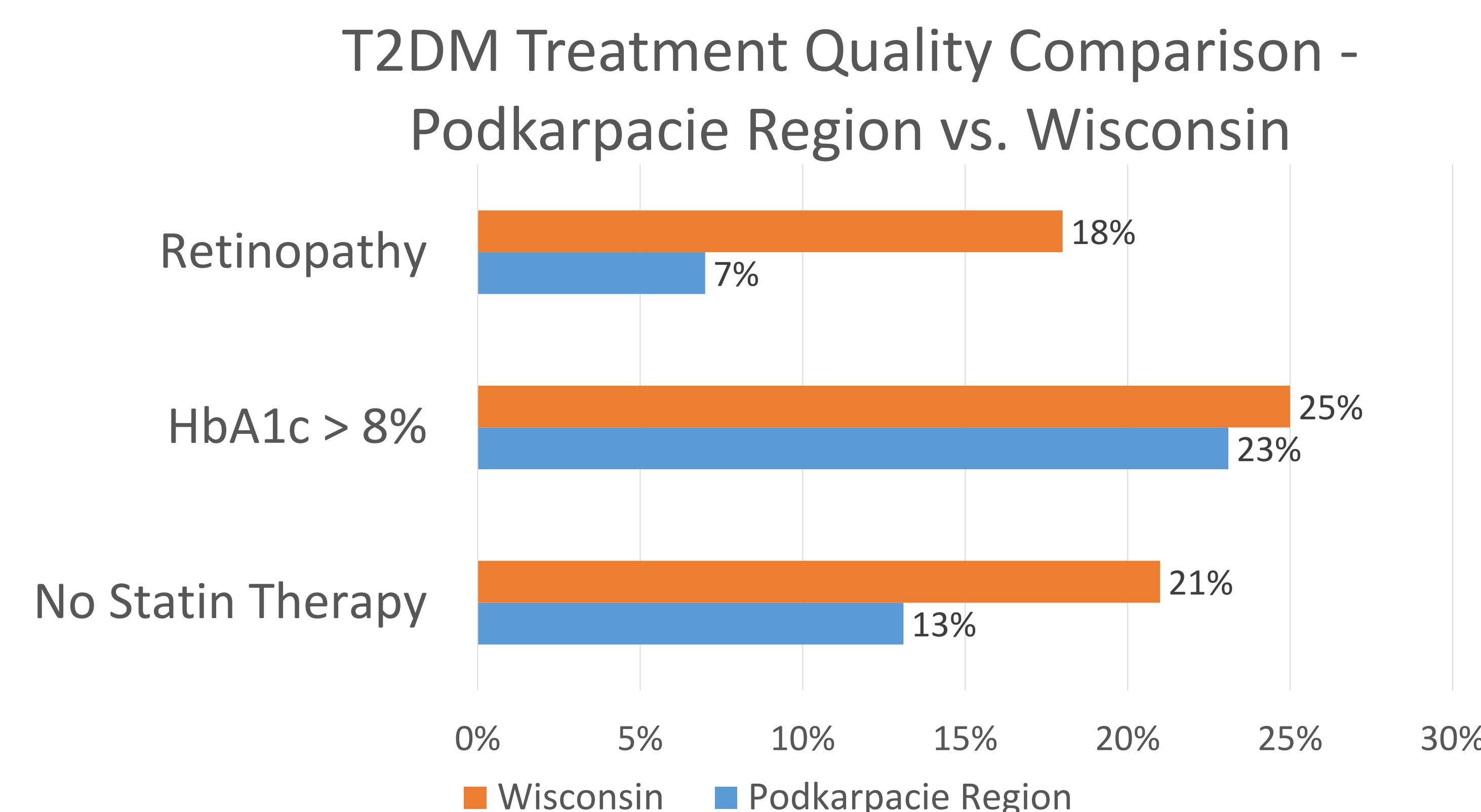
Results

Demographics		
	Podkarpacie	Wisconsin
Obese Diabetics	52%	53%
Diabetics age 18 - 44	2.5%	14%
Diabetics age 45 - 64	47%	45%
Diabetics age 65+	50%	41%

In Podkarpacie, on average, the cost of hospitalizations, outpatient care, and medications was \$780.97 per patient with T2DM in 2014.



In Podkarpacie, 13% of adults were not on statin therapy. 23% of patients had a HbA1c greater than 8%, 7% of patients had diabetic retinopathy.



Discussion

FMCW is a regional referral outpatient diabetes clinic.

- 25% of diabetic patients had an HbA1c of >8%²
- 21% were not on statin therapy²
- 18% reported diabetes affected their eyes, suggesting retinopathy³
- direct medical costs of T2DM in Wisconsin were \$8,926 per adult with T2DM⁴

According to this data, Podkarpacie region of Poland is able to attain a similar or better quality of T2DM care at a significantly reduced cost.

Thus, this study supports the hypothesis that Wisconsin can lower the cost of T2DM care without necessarily affecting the quality.

Next Steps

Future studies might identify the specific interventions utilized by the Polish system that are effective and low cost with a focus on interventions possible in the Wisconsin healthcare system.

Acknowledgement

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Citations

1 OECD (2016), Health spending (indicator). doi: 10.1787/8643de7e-en

2 Wisconsin Collaborative for Healthcare Quality [home page on the Internet]. Middleton (WI): WCHQ; [cited 2015 Oct 6]. Available from: <http://www.wchq.org>

3 Wisconsin Department of Health Services, Division of Public Health, Diabetes Prevention and Control Program. Wisconsin Diabetes Surveillance Report, 2012. September 2012.

4 Dall, Timothy M., Wenya Yang, Pragna Halder, Bo Pang, Marjan Massoudi, Neil Wintfeld, April P. Semilla, Jerry Franz, and Paul F. Hogan. "The Economic Burden of Elevated Blood Glucose Levels in 2012: Diagnosed and Undiagnosed Diabetes, Gestational Diabetes Mellitus, and Prediabetes." *Diabetes Care* 37.12 (2014): 3172-179. Web.