

WORKFORCE WELLNESS INDEX

March 2011

The *Thomson Reuters Workforce Wellness Index* measures the healthcare cost impact of six behavioral risk factors in employed populations. The *U.S. Workforce Wellness Index* is based on importance weights derived from the *Thomson Reuters MarketScan® Research Databases* and national behavioral risk prevalence rates from the Behavioral Risk Factor Surveillance System and the National Health and Nutrition Examination Survey public use files. In addition, we have constructed the companion *MarketScan Workforce Wellness Index*, using *MarketScan* claims and health risk assessment data, to compare against the *U.S. Workforce Wellness Index*.

The six behavioral risk factors¹ used to measure employee wellness include:

Biometric Factors:

- Body Mass Index (BMI)
- Blood Pressure
- Total Cholesterol
- Blood Glucose

Other Risk Factors:

- Tobacco Use
- Alcohol Use

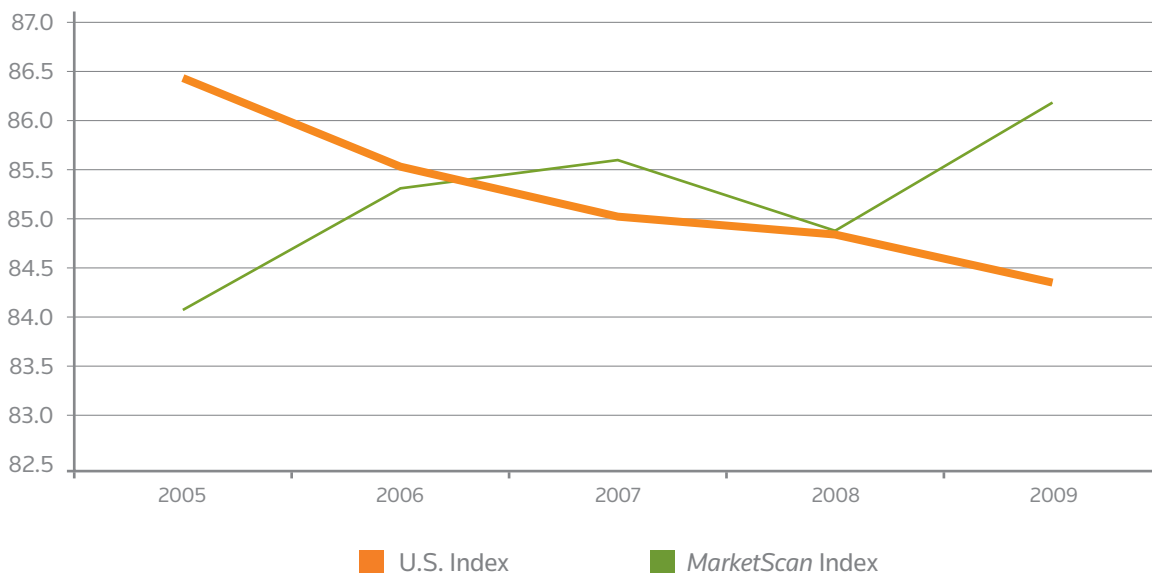
BACKGROUND

The *MarketScan Databases* are a large dataset containing paid claims for medical and prescription drugs. A portion of the *MarketScan Databases* can be matched to behavioral risk assessment data. Thomson Reuters stores claim and HRA information for large, self-insured employer customers as part of our products and services to help manage the costs and health of their workforces.

INDEX TRENDS, 2005–2009

Between 2005 and 2009, the *U.S. Workforce Wellness Index* worsened, declining from 86.4 to 84.4, while the *MarketScan* sample improved, increasing from 84.1 to 86.2. An index of 100 represents the ideal state where there are no behavioral risk factors present in the employed population and, therefore, no healthcare costs due to these risks. Figure 1 displays the index values for 2005–2009 and makes clear the differences in direction for estimates based on the *MarketScan* dataset and the U.S. workforce as a whole².

FIGURE 1: U.S. Workforce Wellness Index and MarketScan Sample, 2005-2009



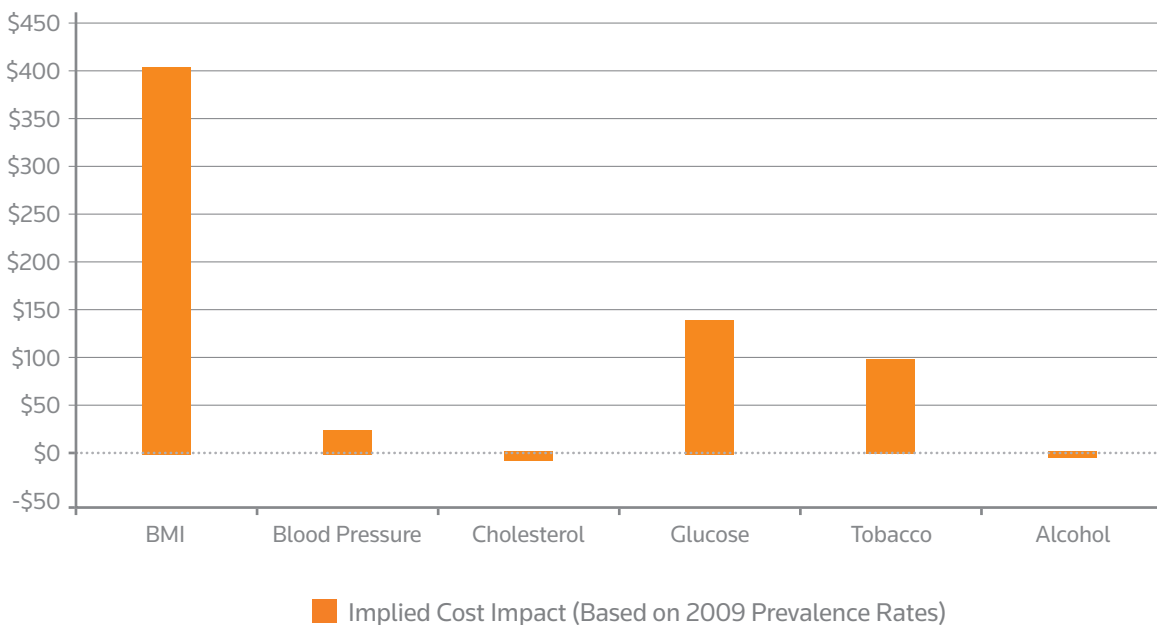
Obesity prevalence rate increases (high BMI) had negative impacts on both the U.S. index and *MarketScan* sample over this time period. However, employees in the *MarketScan* database experienced greater declines in prevalence of high blood pressure, high cholesterol, and high blood glucose and greater declines in tobacco use and heavy alcohol use than the U.S. workforce as a whole. These trends explain the favorable improvement in the *MarketScan* sample versus the U.S. index between 2005 and 2009.

DISCUSSION

Our research for the *Workforce Wellness Index* indicates that, in 2009, approximately 14 percent of incremental direct healthcare cost in the employed, privately insured workforce is attributable to the six behavioral risk factors for which we have reliable national measurements.³ Using per capita spending estimates developed for the *Thomson Reuters Healthcare Spending Index for Private Insurance* for the third quarter of 2010, this represents approximately \$670 in incremental healthcare costs annually per worker.⁴

For both the U.S. and *MarketScan* populations, the risk factor with the most impact on healthcare cost is high Body Mass Index (BMI). High BMI accounts for approximately \$400 of the cost associated with measured behavioral risk factors in 2009. High blood glucose level is the second most significant factor, accounting for nearly \$150 of these costs. Tobacco use, high blood pressure, and lack of exercise had less impact (see Figure 2). High cholesterol and heavy alcohol use had essentially no impact on cost.

FIGURE 2: Estimated Incremental Annual Cost Impact by Risk Factor



The *Workforce Wellness Index* trends for the U.S. differ from those based on our *MarketScan* behavioral risk assessment database. One possible explanation is that employers submitting health risk assessment information for the database are self-selected as organizations that measure behavioral risks and have programs in place to promote workforce wellness. Because we have adjusted the demographics of our *MarketScan* sample to match the U.S. privately insured workforce, it is unlikely that workforce characteristics of the *MarketScan* sample explain the differences in the index trends that we observe.

NOTES

¹ High risk factor levels were defined as follows:

Risk Factor	High Risk Definition
Obesity	Body Mass Index (BMI) ≥ 30
Blood Pressure	Systolic ≥ 140 mm Hg or diastolic ≥ 90 mm Hg
Cholesterol	Total Cholesterol ≥ 240 mg/dL
Blood Glucose	Total Blood Glucose ≥ 126 mg/dL
Tobacco	Currently smoke cigarettes or use any form of tobacco
Alcohol	More than 2 drinks per day

² National behavioral risk factor prevalence rate sources:

- Behavioral Risk Factor Surveillance System (BRFSS) (BMI, tobacco use, and heavy alcohol use)
- National Health and Nutrition Examination Survey (NHANES) (Blood pressure, cholesterol, and blood glucose)

³ A description of the data sources and methods used to develop the indexes, along with more on findings, is available in the *Thomson Reuters Workforce Wellness Index Research Brief*, available at <http://healthcarescience.thomsonreuters.com/Indexes/>

⁴ For more information on the *Thomson Reuters Healthcare Spending Index for Private Insurance*, visit <http://healthcarescience.thomsonreuters.com/Indexes/>

FOR MORE INFORMATION

Visit healthcarescience.thomsonreuters.com/indexes/ to read the details of our findings each month. Additional analyses by demographic characteristics, geography, or specific healthcare segments can be developed as custom datasets. To request information, contact:

Julie Shook

Product Director, Center for Healthcare Analytics
Thomson Reuters
+1 734 913 3706
healthcare.indexes@thomsonreuters.com

ABOUT THOMSON REUTERS

Thomson Reuters is the world's leading source of intelligent information for businesses and professionals. We combine industry expertise with innovative technology to deliver critical information to leading decision makers in the financial, legal, tax and accounting, healthcare and science, and media markets, powered by the world's most trusted news organization. With headquarters in New York and major operations in London and Eagan, Minnesota, Thomson Reuters employs 55,000 people and operates in over 100 countries.

thomsonreuters.com

Thomson Reuters
777 E. Eisenhower Parkway
Ann Arbor, MI 48108 USA
Phone +1 734 913 3000

©2011 Thomson Reuters.
All rights reserved.



THOMSON REUTERS™