Evaluating the relationship between financial well-being and healthcare utilization
Introduction

In 2017, IBM Watson Health released a research brief “Quantifying the impact of stress on your employee population’s health” that evaluated the relationship between stress and resiliency on individuals’ healthcare costs and utilization. These findings indicated higher healthcare costs and utilization as well as higher prevalence of chronic diseases among employees reporting high levels of stress.

According to the American Psychological Association, money is the leading cause of stress in Americans, with 72% indicating feeling stressed about money at least some of the time. Additionally, more than one in five consumers has forgone or reduced healthcare based on their financial situation. Given these findings and the increasing questions being asked about the affordability of healthcare for the working population, IBM Watson Health set out to further explore the relationship between financial well-being and healthcare utilization.

Study objective and data source

The goal of this study was to examine the relationship between self-reported financial well-being and healthcare costs, utilization, preventive care and chronic disease prevalence.

This research uses data from the proprietary IBM® MarketScan® Commercial Database, which contains the healthcare experience of more than 245 million privately insured individuals spanning 23 years. The database includes information on enrollment, outpatient services, inpatient services, and hospital admissions, as well as prescription drug usage. Data from the MarketScan Health Risk Assessment (HRA) database was utilized to define financial well-being.
Population criteria and time period
- Active employees age <65 years with valid self-reported data on financial well-being
- Continuously enrolled with medical and prescription drug coverage during the study time frame
- Incurred 2016 data

Financial well-being definitions
As questions regarding financial well-being are worded differently across HRAs, three questions were utilized to categorize employees as financially well or financially stressed for this study (Figure 1). Note that each individual was assigned based on their response to the single version of the question asked in their HRA.

Figure 1. Three questions used to categorize employees as financially well or financially stressed

<table>
<thead>
<tr>
<th>Question</th>
<th>Financially well</th>
<th>Financially stressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have an emergency fund?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>How often do you feel stressed about money?</td>
<td>Rarely, Never</td>
<td>Sometimes, Often, Always</td>
</tr>
<tr>
<td>Did you worry about money yesterday?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Methods
Results show the adjusted relationship between key outcomes and financial well-being. Adjustment was done based on regression models that controlled for age, gender, geography (by region), plan type (for example, a preferred provider organization (PPO) or consumer-driven health plan), union indicator, employer, whether the employee was paid on an hourly or salaried basis.

Key takeaway: Compared to those who reported financial wellness, employees who reported financial stress were more likely to be under 45 years old, female, paid hourly, non-unionized, and reside in the west.
**Results**

Figure 4. Allowed amount per member per year (PMPY)*

Key takeaway: Compared to financially-well employees, financially-stressed employees had 21% higher medical and prescription drug costs, with higher costs across all places of service.

Figure 5. Utilization rates*

Key takeaway: Utilization rates were higher among the financially stressed than the financially well (41% higher for non-maternity admissions, 47% higher for ER visits, 15% higher for office visits, and 18% higher for prescription drug days’ supply).
**Key takeaway**: Employees reporting financial stress were less likely to receive recommended preventive care than those reporting financial wellness across all four metrics evaluated.

**Figure 7. Condition prevalence (patients per 1,000 members)**

**Key takeaway**: Prevalence rates for a variety of conditions were higher among the financially stressed population than among the financially-well population, with the exception of cancer. The largest differences were for depression (77% higher), anxiety (54% higher), diabetes (39% higher) and headache/migraine (39% higher).

*Adjusted for demographic differences, including age, gender, region, plan type, union indicator, employer, and salaried indicator*
What does this mean for your population?
These findings reveal that populations experiencing financial stress have higher healthcare costs and utilization, a higher illness burden, and are less likely to receive preventive care than those who report being financially well.

These results suggest that employees with financial stress may need additional support in navigating their healthcare benefits. Expenses related to managing a higher illness burden may also be impacting their financial well-being.

Potential actions for employers

- Evaluate root-causes of financial stress in your population to best target appropriate solutions
- Educate employees regarding the impact of financial stress and the importance of monitoring and managing their financial stress levels
- Offer financial well-being tools and programs to help alleviate stress related to finances
- Offer tools to ensure employees can optimize their benefits (including healthcare, retirement, etc.) and properly plan for expenses
- Evaluate affordability of healthcare coverage for all employees
- Communicate that preventive care is covered at no charge to employees and that it can prevent future healthcare costs
- Consider value-based benefits with reduced costs for high-value care
- Determine the sociodemographic factors of the financially-stressed employees in your population to pinpoint their specific needs and tailor your communication style to their preferences
- Ensure employees are informed about all their site-of-care options and how they may influence their point-of-service costs – including on-site clinics and telemedicine
- Alleviate barriers, including financial, to receiving appropriate mental health care
Notes


For more information

If you’d like to learn more about this study, our healthcare-related solutions for employers or how our specialists can use MarketScan Databases to provide evidence-based insights to support your organization’s healthcare decisions, contact us here.

About IBM Watson Health

Each day, professionals throughout the health ecosystem make powerful progress toward a healthier future. At IBM Watson Health, we help them remove obstacles, optimize efforts and reveal new insights to support the people they serve. Working across the landscape, from payers and providers to governments and life sciences, we bring together deep health expertise; proven innovation; and the power of artificial intelligence to enable our customers to uncover, connect and act — as they work to solve health challenges for people everywhere.

For more information on IBM Watson Health, visit ibm.com/watsonhealth.