MIT SLOAN HEALTH SYSTEMS INITIATIVE

HSI Lab on Employee Population Health Progress Report

Improving population health management and engagement through behavioral economics: a collaboration with Quest Diagnostics

Motivation

Despite the potential benefits of wellness and disease-management programs, their effectiveness for both employers and employees remains uncertain. Employee engagement in such programs is often low, and assessing their true impact is hindered by selection bias. This HSI Lab research project with Quest Diagnostics aims to uncover novel insights and strategies to improve health engagement my focusing on: (1) root causes of low engagement and (2) demonstrable ROI of engaging in employee health programs.

Approaches

Retrospective Analysis We started by collecting linked historical data from (1) annual risk assessments, (2) eligibility for and engagement in a digital wellness program including health coaching focused on diabetes prevention, (3) healthcare claims, and we are close to receiving (4) productivity measures including sick days, retention, and job performance.

We first analyzed potential **drivers of healthcare spending and program engagement**. This included demographics, measures of risk aversion, income level, job category, prior preventive-care behavior, mental health, and the trajectory of health metrics prior to becoming eligible. With human resources data, we can examine spillovers of health shocks and program engagement on co-worker health and productivity.

We also calculated large potential **returns on investment** in terms of lower healthcare costs and a proxy for increased retention; however, it is difficult to fully control for the bias inherent in comparing those who choose to participate with those who choose not to do so, which brings us to the prospective analysis:

Prospective Analysis We are in the midst of planning outreach campaigns informed by **behavioral economics** to boost engagement in the fall of 2024. Starting with 5,000 eligible employees, we plan to re-frame outreach campaigns into opt-in vs. opt-out conditions. Prior work in employee wellness and retirement savings suggest that such "default effects" can be large. In addition, flexibility at work to complete wellness activities, such as 30 minute coaching sessions over 12 weeks, may overcome a time friction and communicate the importance of the program to employees. Using a **cross-randomized evaluation** framework, we will then study whether such conditions boost enrollment, longer-term engagement, and ultimately improve healthcare utilization and productivity.

Bottom Line

Just 6 weeks after receiving the historical dataset, we were able to clean and analyze linked anonymized data to generate insights into drivers of healthcare spending and wellness-program engagement, as well as potential returns. With analysis of HR data this spring, and a prospective, randomized evaluation planned for this fall, we can generate even greater insights. By publishing our findings over the coming year, we hope to push the frontier of knowledge and boost employee health and wellbeing.

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