How do high deductibles influence consumer behavior?

Summary of research by Zarek C. Brot-Goldberg, Amitabh Chandra, Benjamin R. Handel, and Jonathan T. Kolstad

Background on Approaches Toward Curbing U.S. Healthcare Spending

In 1960, healthcare spending in the United States was equivalent to about 5% of the GDP. By 2014, that number had risen to over 17%. Policymakers continue to wrestle with how to constrain this dramatic increase in spending without reducing the quality of medical care. In recent years, the approach favored by employers and policymakers has been to focus on exposing those consumers *with* insurance to more of the cost of health care. As a result of these policy changes, for example, the percentage of consumers with employer-provided insurance who paid deductibles over $1,000 nearly doubled from 22% in 2009 to 41% in 2014.

The thinking behind these shifts toward high-deductible plans is that they will reduce overall spending by driving insured consumers to cut back on unneeded medical expenses. And indeed, prior evidence has indicated that higher health care costs do reduce spending on health care, but to date it hasn't been clear whether consumers *understand* the price incentives of their plans or whether they are reducing both needed as well as unneeded care. The fundamental theory of high-deductible plans rests on the assumption that the increased share of costs paid by consumers will cause them to make informed trade-offs – reducing lower-value care and "price shopping" for providers offering the same services at cheaper prices. But whether or not this actually occurs is unclear, and has crucial implications for the success of this type of plan.

The Research: How Do High Deductible Plans Affect Consumers?

To understand how high-deductible insurance plans influence consumer spending, O-Lab researchers Ben Handel and Jonathan Kolstad, along with colleagues Zarek C. Brot-Goldberg and Amitabh Chandra, examined a shift in health insurance options at one large U.S. firm. The firm in question had between 35,000 and 60,000 employees and between 105,000 and 200,000 people covered under its health care plans when dependents were counted. Originally, the firm offered a free insurance plan, which almost all employees enrolled in. But during the observation period, the firm discontinued this option and moved to a high-deductible insurance plan. Employees still had access to the same providers and medical services; the major shift under the new plan was in the pricing structure. The researchers observed extensive data on the firm's employees for four years before the switch and for two years after, including individual health claims, employee characteristics, and HSA and 401(k) contributions. Overall, employees of the firm were high-income, well-educated and tech-savvy. Following the shift in the firm's policy, they also had access to a sophisticated online search tool to find lower medical prices. In other words, this scenario was close to the "ideal" for educated consumer choices.

Findings: Consumers Do Not Price Shop

After the firm changed their insurance plan, consumers did reduce their health care spending. Overall, there was a spending reduction between 11.1 and 15.4%. However, the analysis found no evidence of consumer price shopping. Essentially, all consumer spending reduction was achieved through quantity reduction. In other words, consumers accessed fewer health care services overall, rather than spending less money on the services they accessed. To examine this in detail, the researchers observed total spending over time on consumers' top 30 procedures. Rather than seeing

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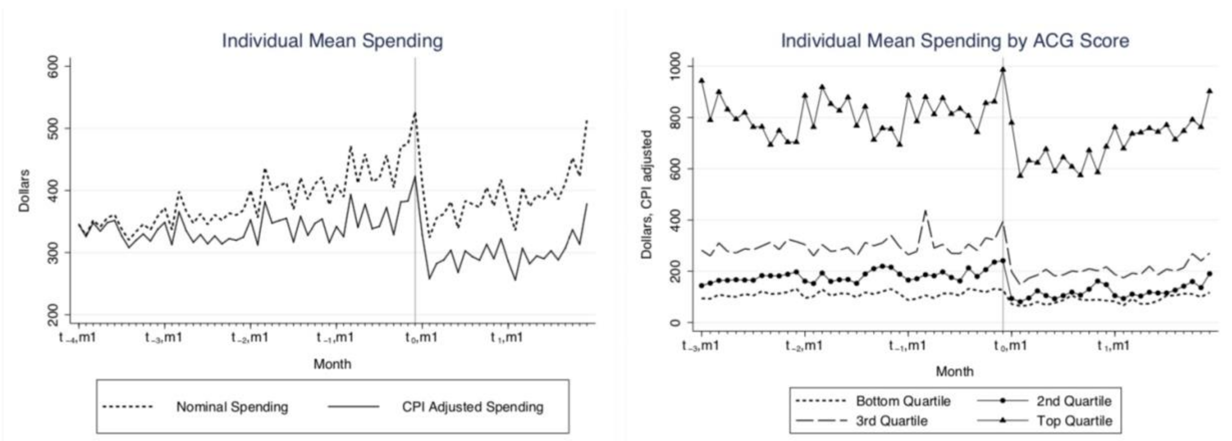
reductions in specific procedures, indicating that consumers targeted expensive services, they saw spending reductions across the board for procedures. They also found that consumers reduced spending on both non-essential or non-effective treatments ("low-value" care) and on "high-value" care like preventive care, mental health care, physical therapy, and drugs for diabetes, cholesterol, depression, and hypertension. In addition, not all consumers reduced spending equally; the majority of the overall spending reduction came from the sickest three-quarters of those covered. And, importantly, the researchers found that consumers do not respond to the complex benefit structure in the way one would if they were rational and forward-looking (i.e. behaved as standard economic theory predicts). Instead, consumers reduced their health care spending by 42.2%, about three times more than the overall average reduction, in months when they were under the deductible. This indicates that consumers responded to the immediate out-of-pocket price when making health care decisions, rather than to the overall pricing scheme of their insurance plan.

Figure 1: Healthcare Spending Over Time



Policy Implications

The results show that, moving forward, it will be crucial to develop insurance policy design with real behavior in mind.

These results suggest that demand-side health care approaches to reducing costs are blunt instruments even in the best settings. The findings provide clear evidence that consumers do not respond to policy changes as anticipated. Although they do achieve the cost savings intended, these policies have negative impacts on consumer health care choices and are therefore unlikely to effectively improve overall efficiency in the health care system. Employers who have already implemented high-deductible plans for cost-saving purposes should also expect to see effects on the health and experience of their employees. One would also expect to see these effects in the high-deductible plans offered under the Affordable Care Act. This study provides a counter to the traditional economic theory's model of the outcomes of high-deductible plans, and the results show that, moving forward, it will be crucial to develop insurance policies with real behavior in mind, rather than unrealistic models.