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## **Cognitive Ability and Enrollment in Medicare Prescription Drug Insurance**

H. Szrek, Center for Economics and Finance, Faculty of Economics, University of Porto, PORTUGAL

M. Bundorf, Center for Health Policy, Stanford School of Medicine, Stanford University, CA

### **Objetivos (Objectives):**

We address two main issues in this paper, (i) whether lower cognitive ability hinders seniors' enrollment into drug plans and (ii) whether extensive choice hinders enrollment particularly for seniors of lower cognitive ability. We show that by applying methods from the individual differences and cognitive ability literatures to an experiment that simulates enrollment in Medicare Prescription Drugs, we are able to assess an important success measure of health policy – the extent to which the Medicare Part D program is equally “accessed” by individuals of different cognitive abilities. Critics argue that it is much too difficult for seniors to choose a drug plan, particularly because this decision involves too many choices.

### **Metodologia (Methodology):**

We randomly assigned people 65 and older to sets of prescription drug plans of varying sizes (2, 5, 10, and 16) and asked them to make a hypothetical choice among the plans offered. After choosing, respondents answered a series of questions about their decision and about their actual enrollment in Medicare drug plans. Participants were also given tests to assess their numeracy, cognitive reflectivity, and recall.

Our theoretical framework is built on the notion that cognitively superior performers should have better (normative superior) performance on tasks. We assume (following Heiss, Winter, and McFadden (2006)) that enrollment in a prescription drug plan is optimal for seniors that take at least one drug regularly. We then compare the performance of individuals of different cognitive abilities by comparing their expected and actual enrollment probabilities.

For our analysis we run probit models to isolate the effect of cognitive abilities, from other individual characteristics and explanatory variables, to estimate whether individuals with higher cognitive abilities are more likely to enroll in a drug plans. We also measure whether the effect of having more choice has a differential effect on low and high cognitive ability seniors.

### **Resultados (Results):**

We found that individuals in our sample with lower cognitive reflectivity have lower actual enrollment rates into any drug insurance plan (Medicare or other). When we estimated the effect of cognitive ability as measured through tests of numeracy, cognitive reflection, and

recall, we found that individuals that scored highly on these tests were significantly more likely to report a higher likelihood of enrolling in a Medicare Drug Plan. We found that seniors with low scores on these tasks are not particularly affected by the number of drug plans in a choice set, although there is some marginally significant evidence that choice set size does matter for individuals with high cognitive abilities.

### **Conclusões (Conclusions):**

Researchers have analyzed whether cognitive ability helps to explain how individuals respond to decision problems; in particular, researchers have considered whether those with higher cognitive abilities behave more normatively and fundamentally more “rationally” to help understand whether many of the mistakes that humans make are avoided by those with the highest cognitive abilities. Our study is innovative in that it applies a similar method, the comparison of decision outcomes (enrollment) by cognitive ability, to assess the success of a government policy. Our finding that access may be linked to individual characteristics (cognitive ability) is also important. To the extent that US health policy aims to treat all seniors equally, this paper points out another reason for the need of a safety net for those for whom decisions are prohibitively difficult.