Using Consumer Credit Data to Identify Precursors and Consequences of Cognitive Impairment

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USA

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Using Consumer Credit Data to Identify Precursors and Consequences of Cognitive Impairment

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1

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Research Abstract

PROJECT SUMMARY Using Consumer Credit Data to Identify Precursors and Consequences

of Cognitive Impairment Rapid growth in the elderly population combined with a lack of effective medical treatments to reverse or delay Alzheimer's disease and related dementias are estimated to lead to over 12 million older adults living with dementia by 2050. One of the earliest signs of cognitive decline and dementia is impaired financial capacity, which can manifest as difficulties managing money and paying bills or making erratic and uncharacteristically risky financial decisions, heightening risks for financial fraud, inappropriate asset allocation, credit delinquency from unpaid bills and other losses. Earlier warning signs of cognitive decline may be observable through changes in routine financial behavior. Credit bureaus and other data aggregators collect vast quantities of high-frequency, real-time consumer spending information on the more than 80% of Americans regularly using credit products. 75% of adults age 50 and over use credit cards, 39% carry a credit card balance, and 60% of homeowners age 50 and above have mortgage debt. These data may help to identify specific financial predictors of cognitive decline, leading to new information sources that could help with clinical diagnoses and alert patients and their families about the need for assistance with financial decision-making. To date, the potential health uses of consumer financial data have largely been ignored, particularly for the older population. This exploratory project considers the utility of a big data resource from outside healthcare; consumer debt characteristics collected in credit reports, to predict new cases of cognitive impairment and dementia and healthcare utilization of cognitively impaired patients. We have 3 research aims: 1- to create datasets linking the Federal Reserve Bank of New York/Equifax Consumer Credit Panel to national Medicare claims and survey data without direct patient identifiers using probabilistic matching; 2- to assess the utility of consumer debt characteristics as predictors of cognitive decline; 3- to assess the utility of consumer debt characteristics as predictors of hospitalization and nursing home use among patients with dementia. We will study an estimated 1.4 million patients with up to 15 years of panel data follow-up to assess whether adverse credit events captured in credit report data reliably identify signs of early or advanced cognitive impairment among older adults. If they do, monitoring programs could be developed to warn patients and their families of the potential need for screening and assistance managing money. This type of surveillance tool can help to protect older adults from fraud and other financial risks and assist long-distance caregivers to know when to intervene. In addition to the potential benefits for cognitively impaired patients and their families, this study will be a proof-of-concept of the use of consumer big data to inform clinical diagnoses and patient management, which may have a number of important implications for researchers and ultimately the patients who benefit from future discoveries.

Further information available at:

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