

Assessing the Relationship Between Subjective and Objective Dementia Probabilities Using Genetic Risk Scores

Abstract

- There is a burgeoning literature around genetic risk and insurance claiming behavior with the justification that as individuals better understand their health risks, through genetic testing per say, they will exploit this informational advantage. This paper asks: how well do individuals assess their genetic risk of disease? What is the correlation between subjective probability of a disease, genetic risk, and eventual onset of disease? To examine these questions, we will examine the cases of Alzheimer's Disease (AD) using the Health and Retirement Study. We triangulate between three data sources: an experimental modules asking respondents about their self-assessed lifetime probability of developing AD, an model-based derived probability of AD, and a genetic risk score for AD. We find that in the case of Alzheimer's Disease, the genetic risk score has little predictive power for subjective probabilities. Only marginal additional associational information gained from a genetic risk score that cannot be reasonably ascertained by subjective probabilities.