

Predicting Risk of Adult Maltreatment

The Administration for Community Living (ACL), in collaboration with the Centers for Medicare & Medicaid Services (CMS), have launched a project to explore the use of predictive analytics to predict and prevent adult and elder maltreatment. The project, Predicting Risk of Adult Maltreatment, or PRAM will leverage artificial intelligence, machine learning, and other “big data” tools to investigate patterns of risk and protective factors across multiple data sources to determine if there is an association with [reported] incidence of adult maltreatment. The goal of the project is to create and improve interventions to prevent, and effectively intervene in, adult and elder maltreatment, and as an outcome, improve disabled and older adults’ quality of life and health quality outcomes, and reduce health care expenses.

During Phase 1, launched in September 2019, researchers and data scientists partnered to leverage Adult Protective Services (APS) data, via ACL’s National Adult Maltreatment Reporting System (NAMRS), and related risk factor data to predict APS system involvement at the county level for a subset of states. NAMRS data were associated with additional, publicly available data sources to develop algorithms that identified community-level risk factors, such as Census data, associated with increased risk of APS system involvement. The results of this work demonstrated promise for this methodology, as well as elucidated some similarities and differences among the risk factors associated with different maltreatment experiences.

Building on the work of Phase 1, Phase 2 began September 2020 to further explore the development of predictive analytic tools and algorithms that could be used to identify the association between risk factors and maltreatment of older and disabled adults first at the community-level, and then, after validation, at the individual-level. The experiment will use existing data sources, where possible, including NAMRS, **state and local APS data**, Census data, and Medicaid Home and Community Based Services and Medicare payment data. A component of the experiment will be to assess the possibilities for associating disparate data sets to infer variables such as social isolation, cognitive function, dementia, and other identified risk factors.

ACL is interested in opportunities to work with state and local partners.

**For more information or interest in sharing state and/or local APS data,
call or email a member of the project team:**

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