**Scoping Review Protocol**

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| **Item** | **Details** |
| **Title** | Applying Analytics to Sociodemographic Disparities in Mental Health: A Scoping Review |
| **Start Date** | May 15, 2023 |
| **Completion Date** | October 16, 2023 |
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| **Funding Sources** | None |
| **Conflicts of Interest** | None Declared |
| **Objectives** | Scoping review of research papers on ML and AI for disparities (and heterogeneity) in mental health (including substance use) for the past 5 years (2017 to present), in all indexed journals. |
| **Data Sources** | * Web of Science * PubMed * PsycInfo * IEEE Xplore * Google Scholar |
| **Search Strategy** | * Date Range: 2017 to July 2023 * Search Terms: “machine learning” or “artificial intelligence”; and “mental health” or “behavioral health” or “substance abuse”; and also “socioeconomic”, “sociodemographic”, “population-based”, “population related”, “dispari\*”, or “hetergene\*” * Restrictions: Only published journal articles |
| **Data Selection and Coding** | * PRISMA-ScR Guidelines * Reading of final articles, Qualitative (manual) Coding |
| **Data Synthesis** | * Topic Modeling (NMF, BERT, LDA) * Qualitative grouping into topics and themes |
| **Dissemination** | Journal submission |