

## UNLOCKING HIDDEN RISK: PREDICTING SUICIDE THROUGH MEDICAL AND SOCIAL DATA

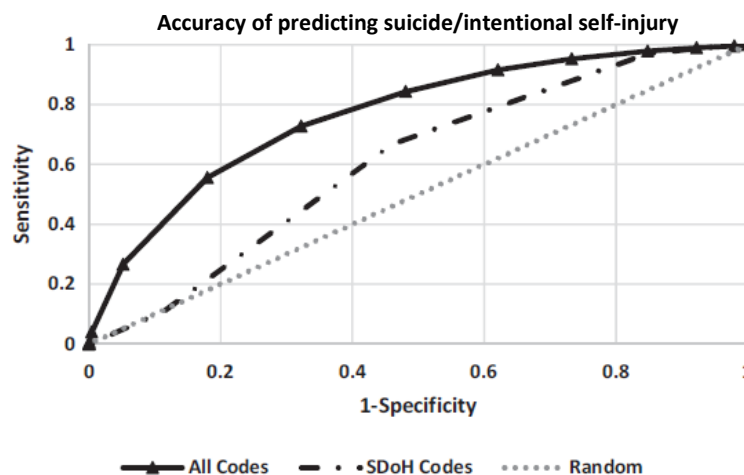
Mason’s innovative suicide risk prediction model harnesses the power of electronic health records (EHR) to forecast the likelihood of suicide or intentional self-injury. By analyzing both medical history and social determinants of health (SDoH), the model identifies high-risk individuals with unparalleled precision. Built on data from over 5 million veterans, this model is a breakthrough in leveraging EHR data to inform prevention strategies, helping healthcare providers intervene before it’s too late.

### Key Features

- **Comprehensive Data Analysis:** Utilizes over 10,000 medical codes and 40 V-codes representing social determinants of health to predict suicide risk
- **Validated Model:** Tested on a large dataset of U.S. veterans with an accuracy (Area Under Receiver Operating Curve) up to 0.77
- **Informed Intervention:** Identifies high-risk individuals for early interventions, combining social and medical factors for holistic risk assessments
- **Actionable Insights:** Pinpoints specific social stressors such as homelessness, unemployment, and family disruption, which are associated with a 24-fold increase in suicide risk
- **Seamless Integration:** Designed for integration into existing EHR systems, enabling real-time risk assessment

### Benefits

- **Proactive Risk Identification:** Enables healthcare providers to identify at-risk individuals early, allowing for timely interventions that can prevent suicides or self-injury
- **Data-Driven Precision:** Leverages comprehensive EHR data for accurate, evidence-based predictions, ensuring more reliable assessments than traditional methods



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