

# Social Determinants of Health and Readmissions/High Utilization

## Study Links Social Determinants of Health to Increased Hospital Readmissions and High Utilization



### The Challenge

There is an abundance of literature that supports the link between poor health outcomes and social determinants of health (SDOH). However, what is less understood is the degree to which specific SDOH domains (social isolation, frailty, housing insecurity, and adverse childhood experiences) are correlated to hospital readmissions (admissions within 30 days of a prior discharge) and emergency department (ED) utilization (six or more ED visits within one year). As part of its External Quality Review Organization (EQRO) contract with Kentucky, IPRO conducted a focused study to investigate this question resulting in recommendations on the implementation of outreach strategies to mitigate the negative impact SDOH have on hospital and emergency department utilization. The study also revealed the need for managed care organizations (MCOs) in the state to routinely collect and analyze SDOH data.

### The Approach

Using claims data, IPRO quantified SDOH prevalence by type, focusing on the domains of social connection/isolation, housing insecurity and income/financial resource strain, adverse childhood experiences, and physical frailty. Using multiple logistic regression, data scientists were able to identify risk factors that could be linked to high utilization. Next, IPRO conducted MCO care management chart review for a sample of high utilizer enrollees (six or more ED visits or hospitalization within one year) and compared SDOH identification by providers with SDOH identification by MCO care managers.

### Results

- **Housing Domain:** Enrollees with SDOH issues in the housing domain showed almost three times greater odds for high utilization relative to enrollees without housing issues. Homelessness accounted for 16.8% (n = 1,383) of high utilizers with SDOH issues.
- **Social Connection/Isolation Domain:** Enrollees with SDOH issues in the social connection/isolation domain were more than twice as likely to be high utilizers compared to enrollees without social connection/isolation issues.



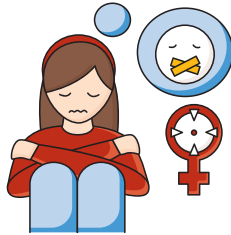
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continued

- **Frailty Domain:** Enrollees with SDOH issues in the frailty domain showed more than twice the odds for high utilization compared to enrollees without frailty issues.



- **Adverse Childhood Experiences (ACE) Domain:** Enrollees with adverse childhood experiences had 92% greater odds of high utilization compared to enrollees without ACE. Personal history of physical and sexual abuse in childhood accounted for 6.7% (n = 550) of high utilizers with SDOH issues.

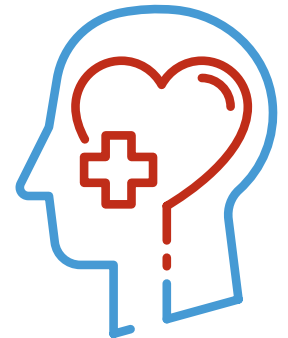


- Chart review findings showed that social connection/isolation was the SDOH domain of greatest prevalence among the high utilizer sample, and showed the highest concordance with SDOH domain identification by providers and MCOs.
- The finding that 11.6% of high utilizers who were identified by their MCO as having social connection/isolation problems were not similarly identified by their providers and, conversely, that 10.6% were identified by their provider but not their MCO, highlighted important gaps in SDOH identification by both MCOs and providers.

In the year following this study, the six MCOs in Kentucky made steady and measurable progress toward adopting the study's recommendations by:

- Incorporating the social connectivity domain into the health risk assessment for new enrollees and into the comprehensive needs assessment for members enrolled in case management
- Creating a plan of care that includes SDOH goals developed in collaboration with the enrollee as well as ongoing monitoring to address outcomes
- Referring enrollees with social connectivity issues to their primary care provider for depression screening
- Ensuring the behavioral health discharge plan includes a plan to address SDOH needs

While there are additional opportunities for improvement, the MCOs can be credited with taking a proactive and innovative approach to addressing social determinants of health.



## Conclusion

- This focused study highlighted opportunities for MCOs to improve the quality of care provided to MMC enrollees by conducting universal screening for social determinants of health, referring enrollees to SDOH resources, coordinating with PCPs, and providing follow-up to ensure that enrollee needs are met.
- Findings also highlight the importance of early diagnosis and management of behavioral health problems to address the multifactorial and overlapping nature of both SDOH and behavioral health problems.
- Following this study, IPRO designed a performance improvement project (PIP) to guide the MCOs in addressing SDOH among their enrollees and measure progress. In the absence of a standardized performance measure, IPRO proactively developed SDOH performance indicators for the PIP, as well as Intervention Tracking measures to monitor the progress of interventions.

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