

Health Systems Demonstration | The Impact of Patient Complexity on Healthcare Performance

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This study will conduct a demonstration project that utilizes linked community-level Social Determinants of Health (SDH), clinical, and claims data from the ADVANCE and OneFlorida enhanced common data models. Specifically, we will explore the impact of adding important data on social complexity to two different, validated measures of clinical comorbidity to evaluate whether accounting for social complexity increases the proportion of variance in utilization (e.g., patient ED visit rates, preventable hospital admission) and quality of care measures (e.g., receipt of recommended preventive services) compared with accounting for clinical comorbidities alone. We will identify key community-level SDH variables that explain the greatest amount of variance in outcomes and test a generalized Social Deprivation Index (SDI), validated for prediction of population health outcomes and access, for correlation with patient preventive service and utilization rates. We will then assess the impact of a high social-clinical complexity score on health system care quality (e.g., summary measures of preventive and disease specific care delivery, rates of ED use, preventable hospital admissions.)

Potential Impact

Aim 1: Engage patients and clinicians to identify the community-level SDH that are critical to test in a model predicting health care utilization and engage health systems leaders to identify the quality of care measures (outcomes) of greatest interest.

Aim 2: Assess whether clinic level summaries of patients' clinical comorbidity and SDH correlate with variability in clinic-level preventive quality of care measures and rates of ED visits, avoidable hospitalizations, and other select primary quality measures.

Determine whether the addition of community-level factors to measures of clinical comorbidity explains a larger proportion of variance in utilization and receipt of recommended services compared with current comorbidity measures alone (e.g., Charlson Comorbidity Index, 3M Clinical Risk Groups).

Aim 3: Engage stakeholders to identify how clinic level measures of comorbidity and social complexity are useful to health system leaders, clinicians, and patients in managing population health, resources, and decision-making, delivering quality clinical care, improving treatment adherence and health.



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Organizations Involved

- Health Choice Network (HCN)
- University of Florida