Health Systems Demonstration Project:
The Impact of Patient Complexity on Health Care Performance

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Background

Patients with complex social conditions, such as lower income, limited education, and living in a highly-deprived neighborhood, are associated with high-cost utilization of healthcare services and poorer outcomes. However, most population management systems currently do not account for patient complexity when assessing quality of care, and most health systems do not identify the prevalence of influential social determinants of health among their patients or clinics.

This study looks at how factors like where a patient lives, demographic composition of their neighborhood, and neighborhood resources has an effect on how patients use health care services and how healthy they are. It explores whether being diagnosed with multiple conditions, like physical and mental health issues, means that patients and health systems have poorer outcomes by adding data on social complexity to validated measures of clinical comorbidity. It also explores whether accounting for social complexity accounts for variation in health care utilization and quality of care.
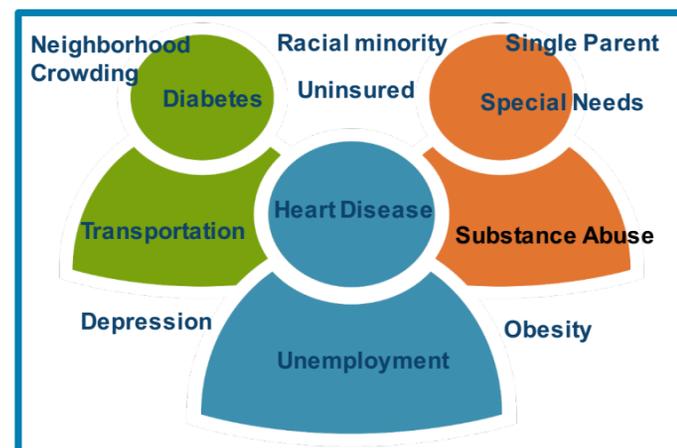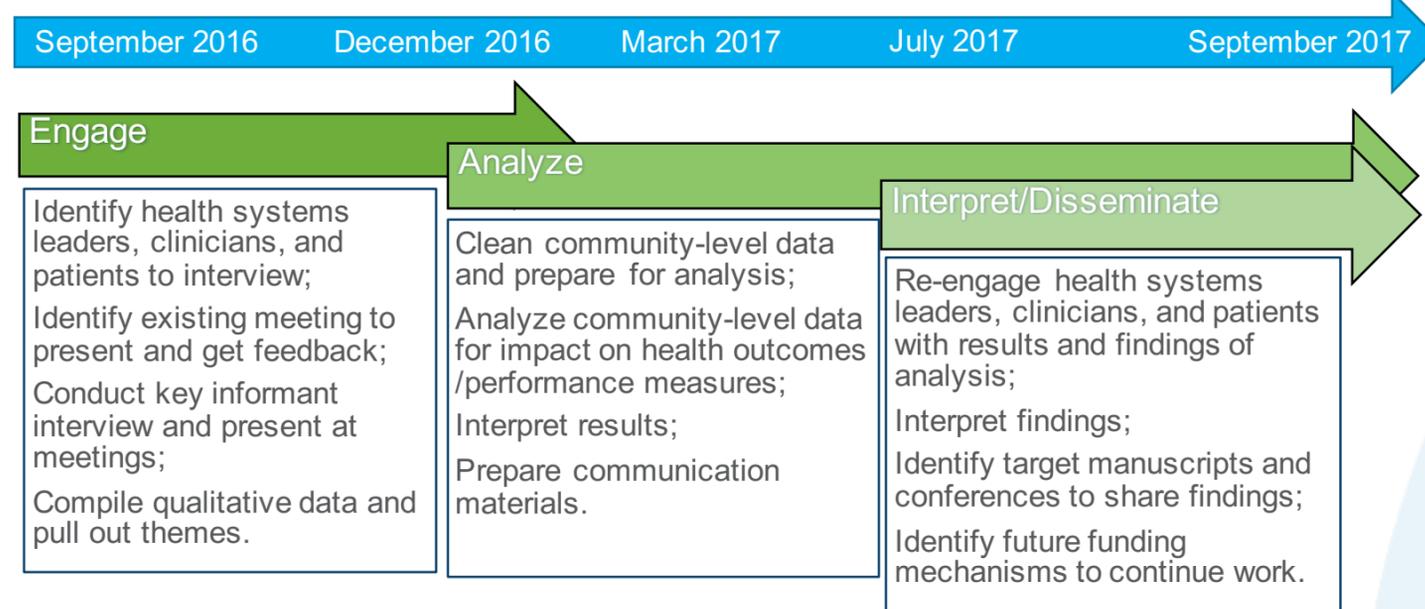

Figure 1: Understanding the impact of patient complexity on utilization, outcomes, and quality

Engagement Plan and Timeline

| September 2016 | December 2016 | March 2017 | July 2017 | September 2017 |

Engage

Analyze

Interpret/Disseminate

Identify health systems leaders, clinicians, and patients to interview;

Identify existing meeting to present and get feedback;

Conduct key informant interview and present at meetings;

Compile qualitative data and pull out themes.

Clean community-level data and prepare for analysis;

Analyze community-level data for impact on health outcomes /performance measures;

Interpret results;

Prepare communication materials.

Re-engage health systems leaders, clinicians, and patients with results and findings of analysis;

Interpret findings;

Identify target manuscripts and conferences to share findings;

Identify future funding mechanisms to continue work.

Example Questions for Health Systems Leaders, Patients, and Clinicians:

Which quality of care measures do you think are most important to focus on within your health system?

Does medical complexity of your patient panel impact the measure of your health systems performance?

If we move to value-based payments, do you think it will be important to adjust for social complexity?

Which neighborhood factors impact their health?

What matters most about their care?

What information about their neighborhood they think would be helpful for their doctors to know about?

Which quality of care measures they feel is the most important to focus on?

How the medical complexity of their patients impacts the measure of their performance?

What social, economic, and/or environmental factors have the greatest impact on the health of their patients?

Health Systems Leaders   **Patients**   **Clinicians**

Conclusion and Future Directions

The findings from this study will greatly benefit health systems in PCORnet and beyond by informing health systems how to use available data on patient clinical and social complexities to better understand how these factors impact the delivery of care reflected in current quality metrics.

Study Partners

The Accelerating Data Value Across a National Community Health Center Network (ADVANCE) Clinical Data Research Network (CDRN) conducts patient-centered outcomes research that builds knowledge about the vulnerable patient populations served by our nation's health care 'safety net.' These patients are often left out of health care research; and many interventions, health care systems, and policies do not adequately account for the complexities, challenges, and needs of patients who are low income, racial / ethnic minorities, and / or adversely impacted by social determinants of health.
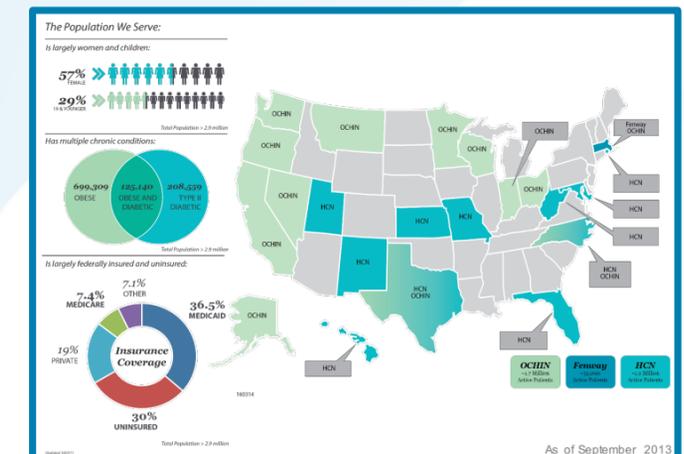

Figure 3: ADVANCE Geography and Patient Diversity

For this study, ADVANCE will partner with the OneFlorida CDRN. OneFlorida's stakeholders have prioritized high healthcare utilizers and more a more effective analysis of risk, with a particular emphasis on patients experiencing co-occurring physical and mental health disorders.

CONTACT INFORMATION For any questions or concerns regarding this project, please contact Katie Dambrun at dambrunk@ochin.org .