8-10-2023

Digital transformation of chronic disease management during COVID-19

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Digital transformation of chronic disease management during COVID-19: Telehealth use among Medicaid beneficiaries in Florida

TREO Talk Paper

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Abstract

Telehealth is a promising tool due to its potential to increase access to care by overcoming geographical barriers through the ability to provide virtual care. However, due to the lack of resources, many persons in low-income positions do not have access to adequate technological support that encourages or enables telehealth use (Mitchel et al., 2019). Medicaid beneficiaries represent a low-income group who is vulnerable to the negative effects of unmet social needs and therefore often experience adverse health outcomes. This project examines telehealth utilization among Medicaid beneficiaries in Florida for chronic disease management. We analyze data of 69.2 thousand Medicaid patients during a study period from January 2019 to December 2020. We consolidate the patient data with American Community Survey (ACS) data, the CDC Social Vulnerability Index (SVI) data, and Federal Communications Commission (FCC) data. Zip codes will be classified into urban or rural areas based on Rural-Urban Commuting Area Codes Data.

We focus on geospatial or location-specific factors that impact telehealth utilization, including access to reliable internet, availability of healthcare providers, population density, distance to healthcare facilities, insurance coverage, and distributions of age, gender, race, education, income, and employment. Geospatial modeling will be used to map patients, healthcare providers, and various spatial and non-spatial attributes across different zip codes in order to assess the availability and characteristics of telehealth resources in those areas. This approach grounds patients and providers to their real-world setting (at the zip code level) and therefore can help identify patterns, relationships, distances, and areas where gaps exist in telehealth coverage and services. This, in turn, can inform efforts to improve access to care. Network analysis will be used to examine connections among patients and healthcare providers to investigate direct links and identify structures of communities. Network analysis can reveal hidden structures, clusters of patients and healthcare providers, that offer targets for interventions. Analyzing the structure of the networks can identify areas requiring interventions to promote technology-enabled healthcare.

Based on the results, we will recommend strategies to promote telehealth use and suggest improvements that healthcare providers and policymakers should prioritize.

References

Mitchell, U. A., Chebli, P. G., Ruggiero, L., & Muramatsu, N. 2019. “The digital divide in health-related technology use: The significance of race/ethnicity,” *The Gerontologist* (59:1), pp. 6-14.