

## CPHIT Newsletter Fall 2021

### Highlighting Our Recent Publications!

The Johns Hopkins Center for Population Health IT (CPHIT) focuses on applying digital data sources including, electronic health records, health insurance claims, social determinant of health data, to the measurement and improvement of the health of communities and populations.

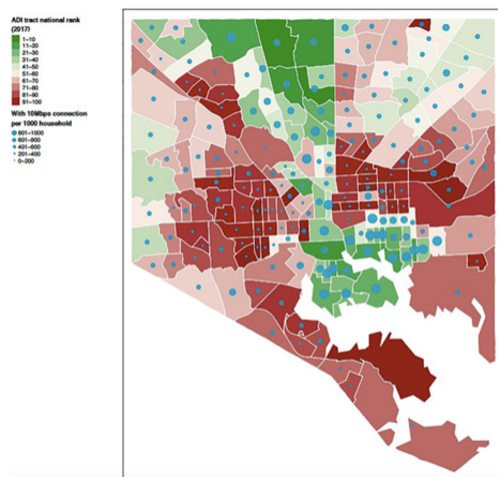


Fig. 1. Overlaying Maps of Residential Broadband Internet Access Service Connection per 1000 Households by Census Tract and ADI in Baltimore City

#### [Internet Access, Social Risk Factors, and Web-Based Social Support Seeking Behavior: Assessing Correlates of the “Digital Divide” Across Neighborhoods in The State of Maryland. 2021. J Med Syst.](#)

This paper aimed to empirically measure the degree to which there is a “digital divide” in terms of access to the internet at the small-area community level within the State of Maryland and the City of Baltimore and to assess the relationship and association of

this divide with community-level SDOH risk factors, community-based social service agency location, and web-mediated support service seeking behavior.

	Complex medications	Risky medications	Costly medications
Overview	Medications with complex instructions for use, including routes of administration, frequency, or requiring devices	Medications with inherent risk of ADEs, including life-threatening complications, or that require therapeutic drug monitoring for safety	Medications within a therapeutic class with especially high acquisition costs
Definition of marker	Medications with a dose form/route score ≥ 3 and frequency score of 3	Medications identified by published resources supplemented by expert opinion	Medications in the top 1% for AWP within a therapeutic category
Medication level considered	NDC numbers	Active ingredients	NDC numbers within a therapeutic class
How marker is derived	Calculated using weights for dose form, route, and frequency found in prescription claim using our Medication Complexity Score, adapted from MRCI <sup>18</sup>	Derived from ISMP/25 AGS Beers Criteria, <sup>19</sup> and STOPP criteria <sup>20</sup> and additional medication classes via a panel of pharmacists	Top 1% AWP threshold calculated for each therapeutic category from Multum Drug database

ADEs= adverse drug events; AGS= American Geriatrics Society; AWP= average wholesale price; ISMP= Institute for Safe Medication Practices; MMS= medication management score; MRCI= Medication Regimen Complexity Index, NDC= National Drug Code; STOPP= Screening Tool of Older Persons’ Prescriptions.

#### [Development of Measurable Criteria to Identify and Prioritize Patients for Inclusion in Comprehensive Medication Management Programs within Primary Care Settings. 2021. JMCP.](#)

This paper aims to (1) create new medication risk markers for identifying and prioritizing patients within a population and (2) identify patients who met these new markers, assess their clinical characteristics, and compare them with criteria that are widely used for medication therapy management (MTM).

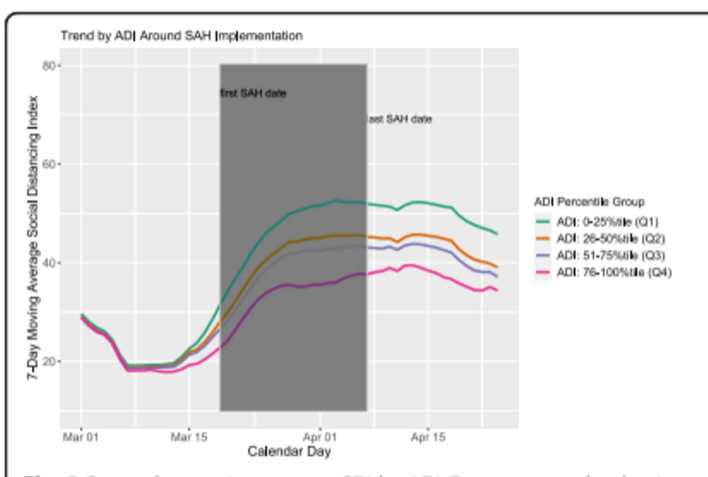
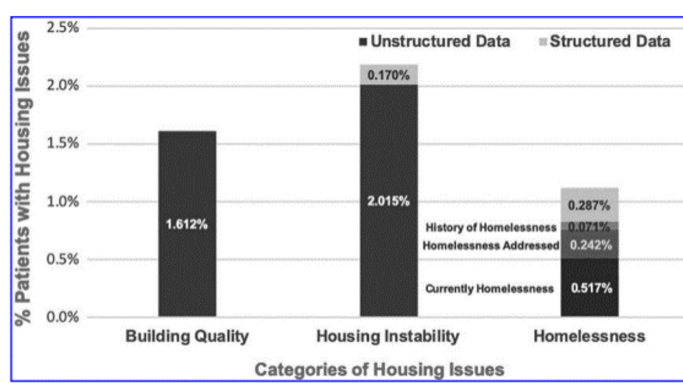


Fig. 2 Seven-day moving average SDI by ADI Groups over calendar time

#### [Differential Impact of Mitigation Policies and Socioeconomic Status on COVID-19 Prevalence and Social Distancing in the United States. 2021. BMC Public Health.](#)

This study aimed to quantify the differential impact of stay-at-home policy on COVID-19 transmission and residents’ mobility across neighborhoods of different levels of socioeconomic disadvantage.

#### [Assessing the Impact of Social Needs and Social Determinants of Health on Healthcare](#)



#### [Utilization: Using Patient-and Community-Level Data. 2021. Population Health Management.](#)

This study evaluates individual- and community-level needs of housing (one of the SDOH domains) across the patient population of an academic medical center and explores how the level of housing needs impacts health care utilization.

#### [Social and Behavioral Variables in the Electronic Health Record: A Path Forward to Increase Data Quality and Utility. 2021. Acad Med.](#)

The purpose of this study is to generate recommendations for systematic implementation of SBDH data collection in EHRs through (1) reviewing SBDH conceptual and theoretical frameworks and (2) eliciting stakeholder perspectives on barriers to and facilitators of using SBDH information in the EHR and priorities for data collection.



#### CPHIT News!

Elyse Lasser, our CPHIT Center Coordinator, defended her DrPH last month.

If you have questions about the stories or publications appearing herein, or would like to learn more on any of the projects or activities described please contact: [ltansky@jhu.edu](mailto:ltansky@jhu.edu)

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