



Data Release Review Committee
Meeting Agenda
February 2024

Time	Opportunity Number	Project Details
<u>10:30 AM</u>	24.21	University of Colorado, Anschutz School of Medicine <i>Evaluating Health Disparities and Social Determinants of Health in a Broad Spectrum of Surgical Patients</i>
<u>11:00 AM</u>		
<u>11:30 AM</u>		
<u>12:00 PM</u>		

10:30 AM – 24.21, UNIVERSITY OF COLORADO, ANSCHUTZ SCHOOL OF MEDICINE

Evaluating Health Disparities and Social Determinants of Health in a Broad Spectrum of Surgical Patients

Limited Extract

Specific Research Questions:

1. Determine if an association between SVI and risk-adjusted complications exists in a broad spectrum of surgical patients and assess areas to improve health equity and access to care in the state of Colorado. It is vital to include CPT codes across a range of specialties in order to demonstrate if SVI can be applied to a vast array of specialties and therefore implemented broadly to improve patient outcomes, which is the aim of our research.
 - a. Evaluate whether patients with increased SVI are less likely to obtain cancer screening and therefore present with more advanced disease at presentation leading to increased burden on patients as well as the healthcare system.
 - b. Determine if increased SVI leads to increased rates of conversion to open procedures from common laparoscopic general and specialty (Vascular, pediatric, plastics, thoracic, gynecology, ENT, urology, orthopaedic) procedures and therefore increased complication rates.
2. Perform a longitudinal analysis looking at the effect of COVID 19 on trends in outcomes as mentioned above (year prior to 2020 and thereafter).
3. Perform a longitudinal analysis looking at the use of SVI as an independent risk factor for surgical outcomes (as mentioned above) by looking at trends during and after the initiation of the Affordable Care Act (ACA). This allows us to demonstrate that patients with high SVI demonstrate worse outcomes despite access to insurance. Claims data from years 2012-2023 is required to perform this analysis.

Methodology:

Patients who have undergone an emergent, urgent, or elective operations during the years 2012 to 2023 will be identified using CPT and ICD10 codes from the CO APCD. In addition, patients undergoing screening for cancers that require surgical resection will be identified using CPT, NCD, ICD10 codes for labs, imaging, and diagnoses respectively. The R Program for Statistical Computing version will be used to convert census tract into SVI. Because this exists in R and is easily accessible, which it is not on other platforms such as SAS or Stata, we use this to convert the geolocation to the SVI. Patients will be separated into quartiles (0-24; 25-49; 50-74; 75-100) and cohorts of high SVI (>75th percentile) or low SVI (<75th percentile) and outcomes data will be collected. In addition, CO APCD data on demographics, comorbidities, patient disposition, length of stay, costs of care, insurance status, distance traveled, and hospital demographics will be used to perform multivariable regression.