Agenda III: Use Cases for HPD Data Products - Standard Limited Data, Custom Limited Data, and Research Identifiable Data

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HCAI Use Cases

HCAI Data Use Cases

- Hospital financial health and patient outcomes – University of Utah – 10 years of Patient Discharge Data to link with HCAI financial data – requested 2005 – 2014 (before and after the financial crisis) 2007-2008 financial crisis where the financial conditions of hospitals deteriorated unexpectedly.

- Extreme heat related events and cardiovascular ED visits – Standford University - 8 years of Emergency Department Data 2013 – 2020 understand how a warmer climate will affect cardiovascular health, and how health disparities interact with temperature and to help promote healthy living and decreased healthcare costs as we move into an age of accelerated climate change with unknown consequences on cardiovascular health. Socioeconomic status and cardiovascular disease have been inextricably linked in recent literature.

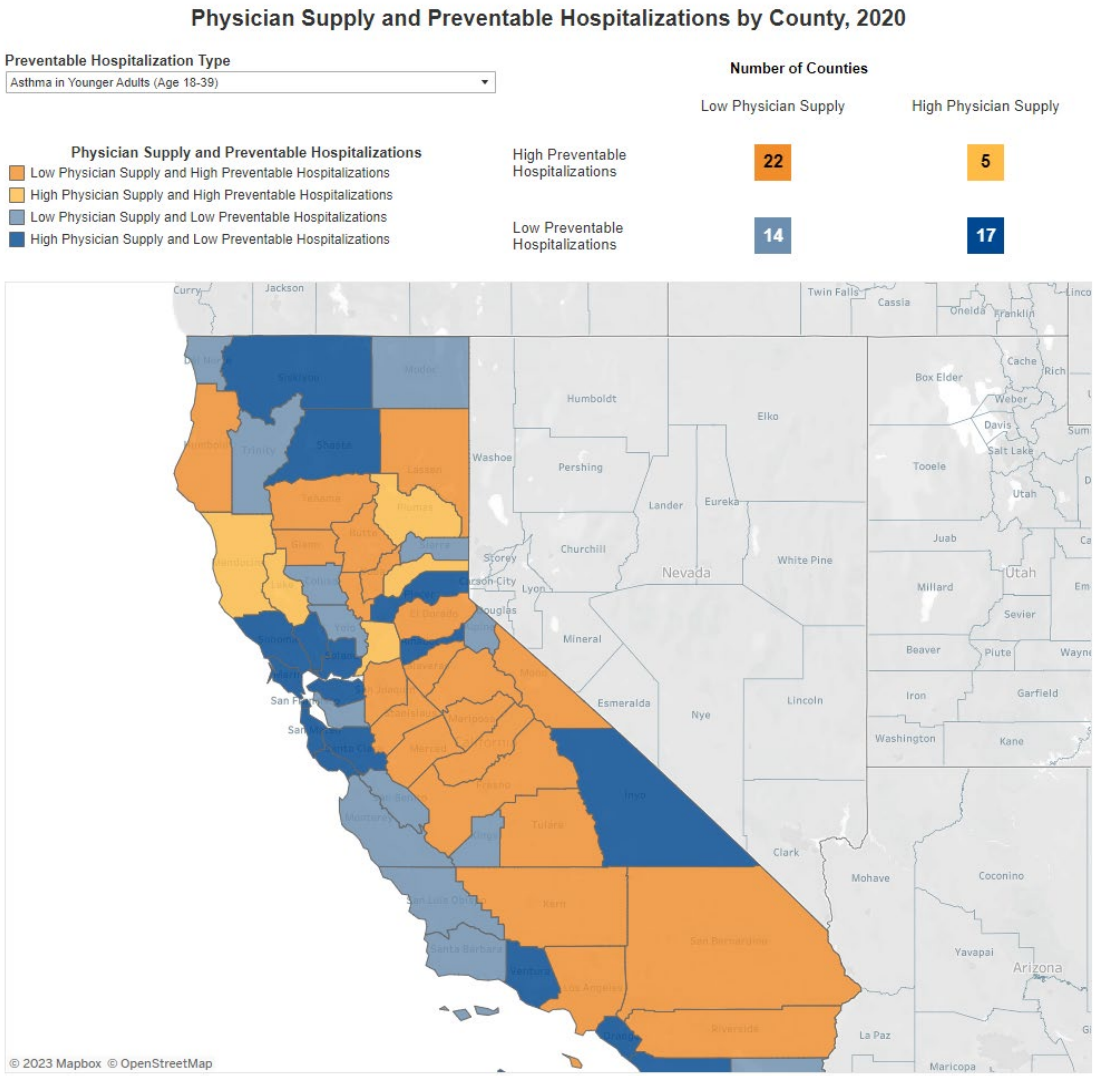
- Clinical and demographic factors that contribute to ED utilization – UC San Diego - supplemental application adding 2020 – 2021 Patient Discharge Data and Emergency Department Data to reduce preventable readmissions and ED visits, reduce unnecessary associated costs and improve patient care and health outcomes.

Physician Supply and Preventable Hospitalizations by County

Key Findings:

- The dark orange counties have low physician rates and high preventable hospitalization rates. Hypertension (high blood pressure) has the fewest dark orange counties, with 19 (32.8 percent) counties.
- The dark blue counties have high physician rates and low preventable hospitalization rates; Asthma in Young Adults (Age 18 to 39) had the greatest number of blue counties, with 17 (29.3 percent) counties.
- The central valley counties experienced high preventable hospitalizations and low physician supply for all indicators except hypertension.

[Featured Releases - HCAI]

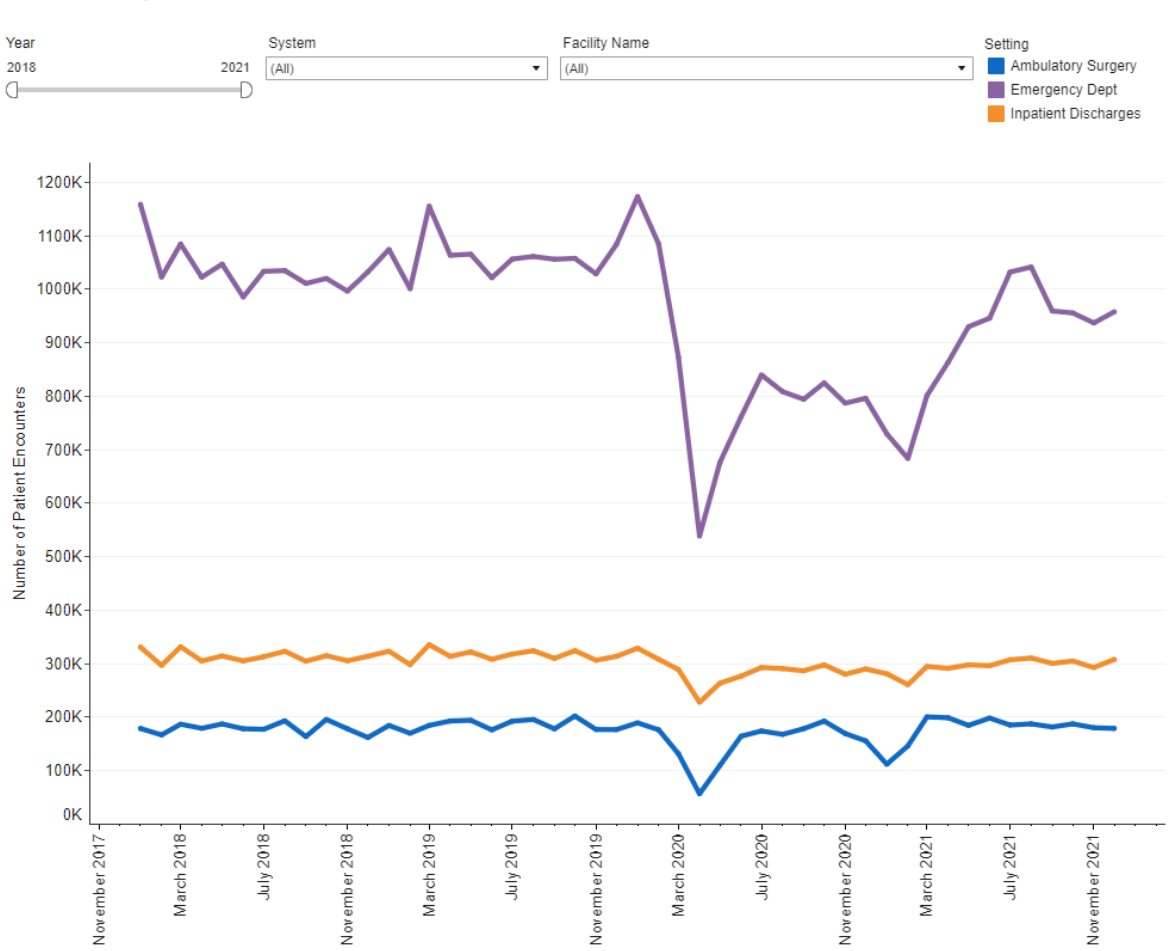


HCAI Department of Health Care Access and Information

Effects of COVID-19 on Hospital Utilization Trends

Key Findings:

- Individuals with asthma, cancer, chronic obstructive pulmonary disease (COPD), diabetes, hypertension, obesity, sepsis, mental and behavioral disorders, and stroke all reflected a sharp decline in utilization across settings after January 2020 through April 2020.
- Utilization of the emergency department remained low in late 2020 and throughout 2021 relative to previous years. Inpatient discharges and ambulatory surgeries rebounded nearly to levels typically seen pre-pandemic.



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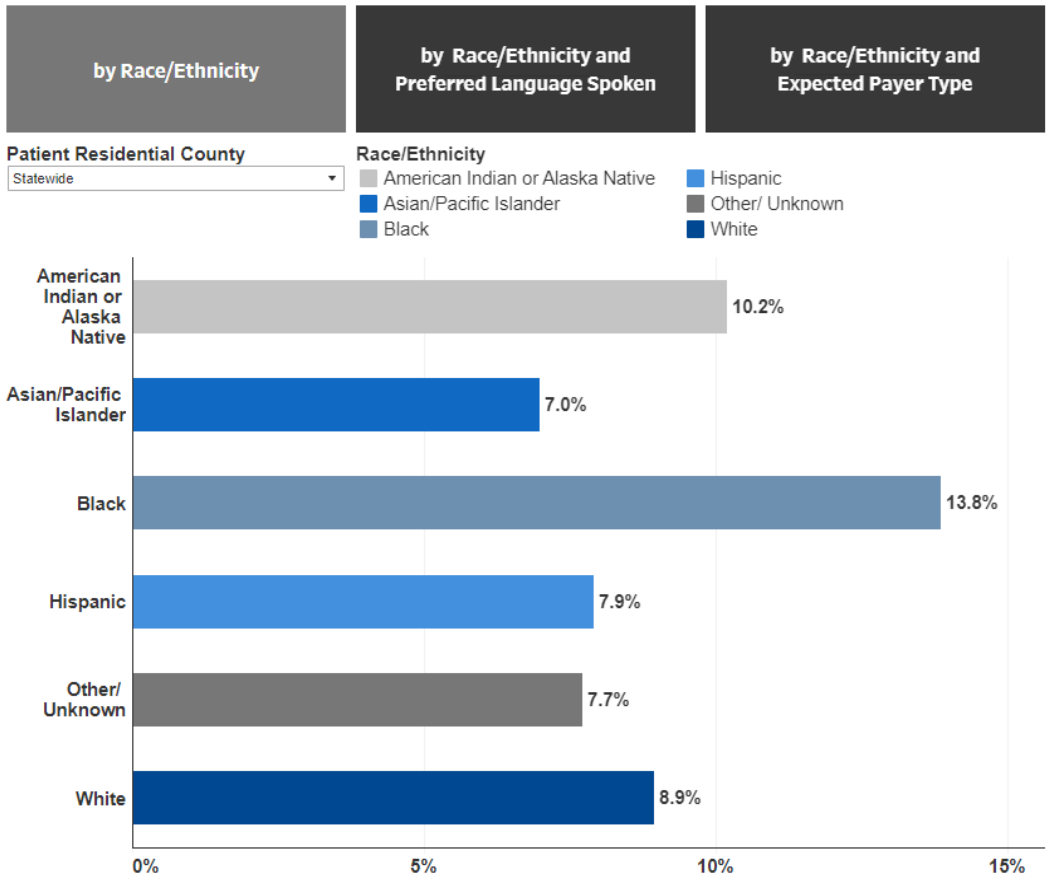
Social Drivers of Health and Preventable Hospitalization Rates

Key Findings:

- Hospital stays for Black Californians who preferred to speak English had the highest rate of preventable hospitalizations (13.9 percent), representing 30,790 hospitalizations statewide. This rate was followed closely by White patients who preferred to speak a language other than English or Spanish (12.6 percent), accounting for 2,510 hospitalizations.
- Statewide, Asian Pacific/Islanders and Whites that preferred to speak a language other than English or Spanish in healthcare settings had higher rates of preventable hospitalizations than their counterparts that speak English or Spanish in healthcare settings.
- Statewide, Hispanics that preferred to speak Spanish in healthcare settings had a higher rate of preventable hospitalizations than their English proficient counterparts.
- Medi-Cal beneficiaries across race and ethnic groups had higher rates of preventable hospitalizations when compared to those with private coverage as their expected payer. It is likely that Medi-Cal beneficiaries disproportionately experience other SDoH such as more limited access to transportation and other barriers when compared to those privately insured.
- Asian/Pacific Islander patients with Medi-Cal as their expected payer had over three times the Statewide rate of preventable hospitalizations (8.0 percent) compared to Asian/Pacific Islander patients with private insurance as their expected payer (2.6 percent).



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Use Cases from APCDs

Use Cases: Analysis Using Standard LDS

User	Purpose	EFI Required
Researcher, Policymaker	Analysis of cost drivers - identify medical and pharmacy services contributing the most to health care cost/spending growth and analysis of drivers	Allowed Amounts
Researcher, Policymaker	Analysis of variation in cost, utilization, quality, access to care, etc.	Allowed Amounts
Policymaker, Multiple	Analysis of disparities in care based on available patient socio-demographics (deidentified)	Allowed Amounts
Purchaser, Payer	Obtain geography-specific benchmarks for comparison to rates paid by purchaser for common costly procedures	Allowed Amounts
Multiple	Identify top 10 high-cost procedures, drugs, etc.	Allowed Amounts

Use Cases: Require Custom LDS Request

User	Purpose	EFI Required
Payer	Develop new, cost-effective health insurance products by identifying and contracting with high value (low cost and high quality) hospitals/providers.	Allowed Amounts Hospital/Provider Identifiers
Payer	Develop alternative value-based payment models by determining appropriate rates for services.	Allowed Amounts Hospital/Provider Identifiers
Payer/Purchaser	Identify opportunities to collaborate with high value hospitals/providers to develop bundled payments for episodes of care to reduce costs and improve quality.	Allowed Amounts Hospital/Provider Identifiers
Multiple	Hospital Reference Pricing/Medicare Benchmark Analysis requires data for named hospitals by payer type.	Allowed Amounts Hospital/Provider Identifiers
Start-up company	Use payment amounts to support analytics identifying opportunities for self-funded purchasers to reduce their costs	Allowed Amounts, Payer and Provider Identifiers

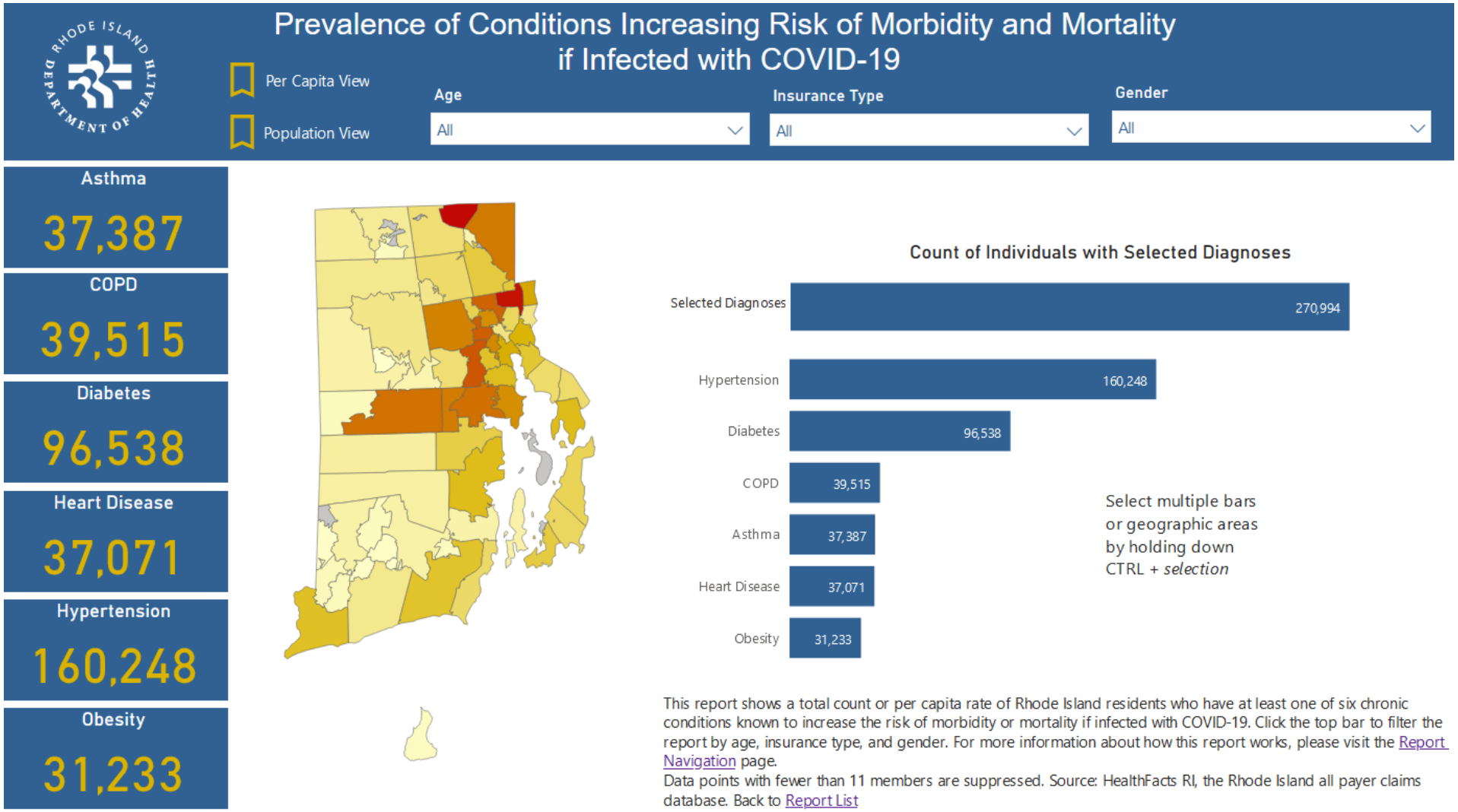
Use Cases: Research Identifiable Data

User	Purpose	PII Required
Researcher: Care Coordination	Link claims and clinical data for patients with advanced medical conditions to evaluate impacts of care coordination on palliative care access, utilization and end of life costs.	Patient identifiers to support linking
Researcher: Public Health, Disease Registry	Link claims and disease registry data to assess the relative effectiveness of different patient matching algorithms. Identify opportunities to enhance registry completeness by leveraging claims data.	Patient identifiers to support linking
Researcher: Community Health Centers	Integrate claims and Community Health Center EHR data to support analysis of variation in cost, quality & utilization and identify opportunities to improve member outcomes for safety net populations.	Patient identifiers to support linking
Researcher: Health & Social Programs	Integrate claims and social program data to understand access gaps, identify unmet needs and better coordinate referrals to improve member outcomes.	Patient identifiers to support linking

Aligning Payment Data and Use Cases

- Allowed Amounts are Needed for Most Use Cases
- Cost and Utilization
  - Spending by region, age, gender, etc.
  - Service level cost variation by payer and provider
  - Cost effectiveness, avoidable/low value care
  - Comprehensive Total Cost of Care
- Population and Public Health
  - Cost to Treat Chronic Conditions
- Health System Performance
  - Effects of Delivery System Consolidation on Costs
  - Evaluation of New Models of Care Delivery
  - Impact of Alternative Payment Models
- Need for Payer and Provider Identifiers Depends on Purpose/Use

Chronic Condition Prevalence & COVID



About this analysis:

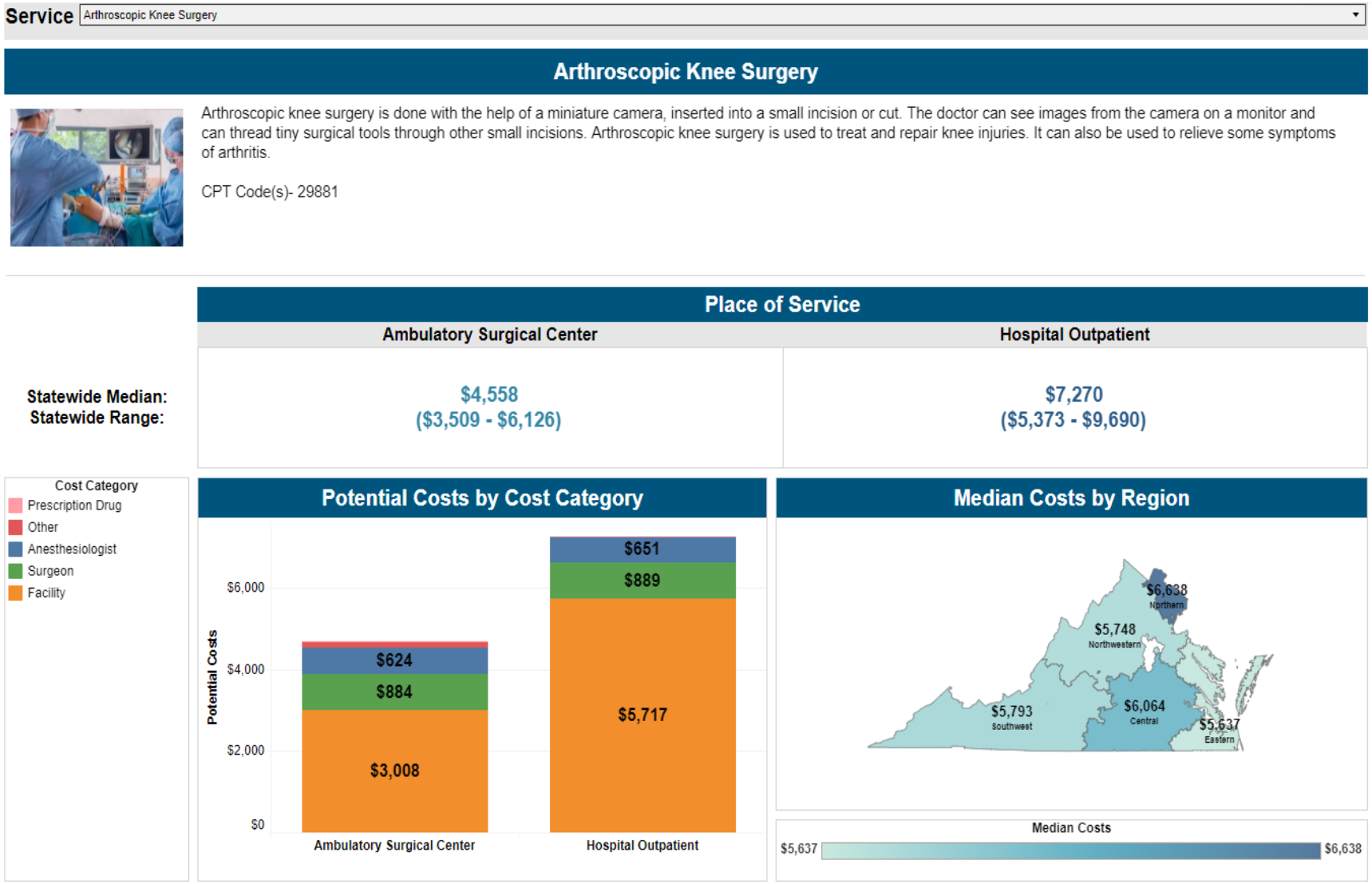
- Uses diagnosis codes to identify patients with chronic conditions
- Counts unique individuals
- Does not require a longitudinal analysis of claims, costs, or utilization

Source: RI Report on COVID-19 Comorbidities

Virginia Price Transparency Report

- Different Services (e.g., Arthroscopic Knee Surgery)
- Supports Greater Price Transparency
- Shows the difference in price based on place of service and region
- Breaks down the potential costs by category

Source: Virginia Health Information



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