Measuring potentially avoidable utilization using all payer hospital data to reduce cost and improve quality in Maryland

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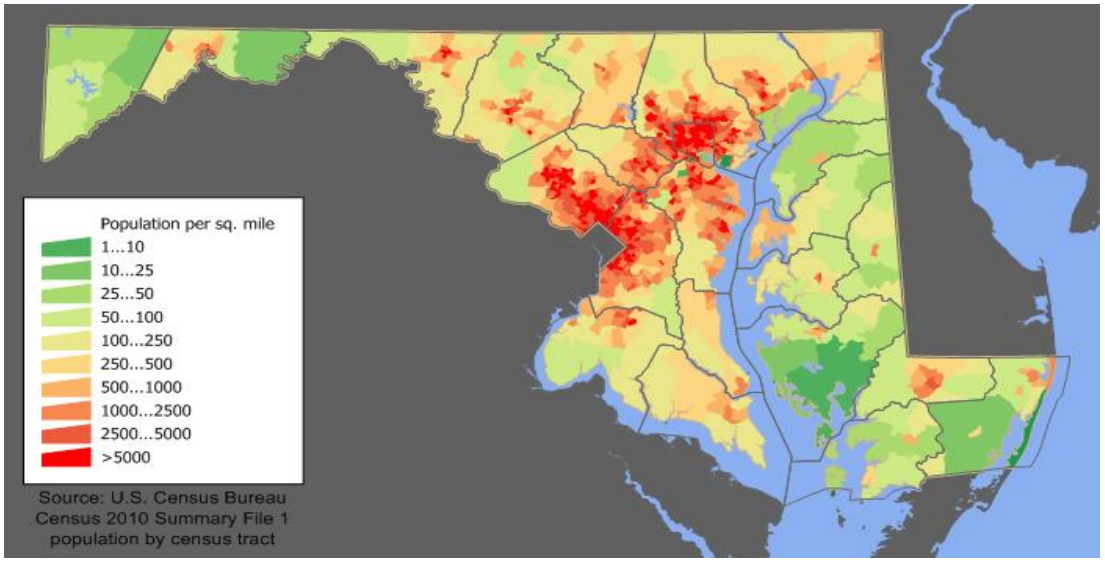
NAHDO Annual Conference 2018

Unique All-Payer Hospital Payment System in Maryland

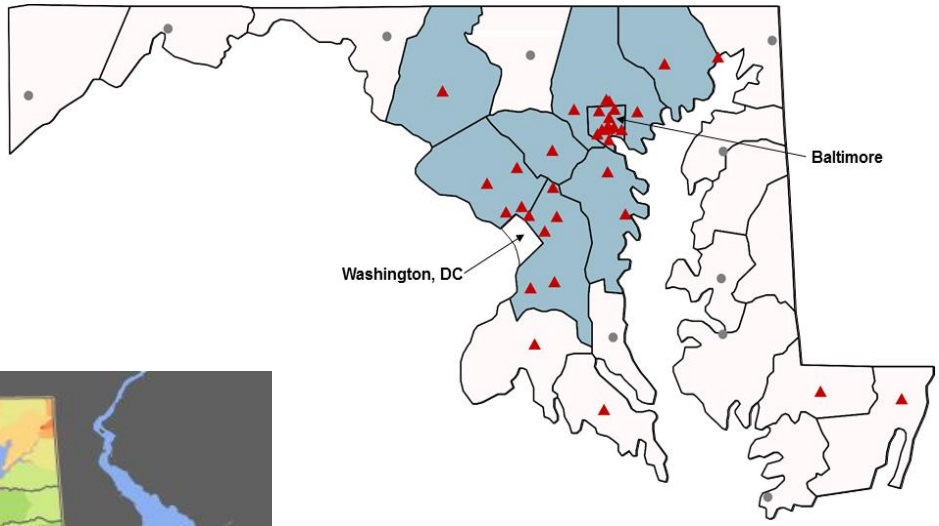
- Since the late 1970s, Maryland sets hospital rates for all public and private payers.
- Essentially, hospitals receive a rate for each of their services from the state for all payers. Medicare, Medicaid, Private, and Uninsured pay off of the same rate.
- Rates are updated annually on a prospective basis and differ for each hospital.
  - Higher cost hospitals such as academic medical centers have higher rates.
- Claim processing and benefit coverage are determined by each payer.

The State of Maryland

- 47 Acute general hospitals, all nonprofit
  - The Johns Hopkins Hospital
  - The University of Maryland
- 54 % of population with employer coverage, 16% in Medicaid, 14% in Medicare.
- HMO penetration rate 34%*



Maryland Acute Care Hospitals



- 6 Million people
- 18% of population > age 64
- 3rd highest income per capita state
- High poverty rates (urban and rural)

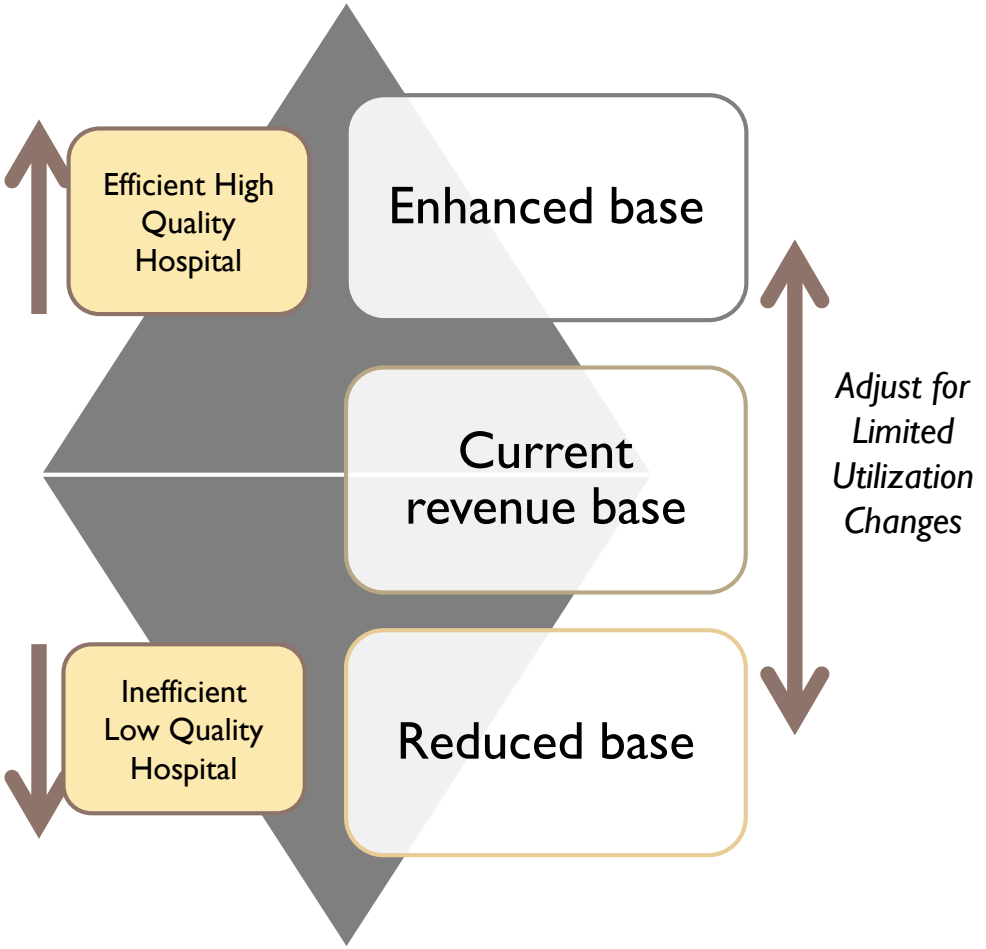
*Source: Kaiser Family Foundation State Health Facts

New All-Payer Model Agreement with CMS

- Moved from unit price to total cost per capita measure

- All-Payer hospital cost per capita limit is set for 3.58 %.
- Quality and performance targets to promote care improvement.
- Payment transformation away from fee-for-service for hospital services.
- Models to focus on total health spending and transformation

Global Budget Model: prospective revenue budget with annual adjustments



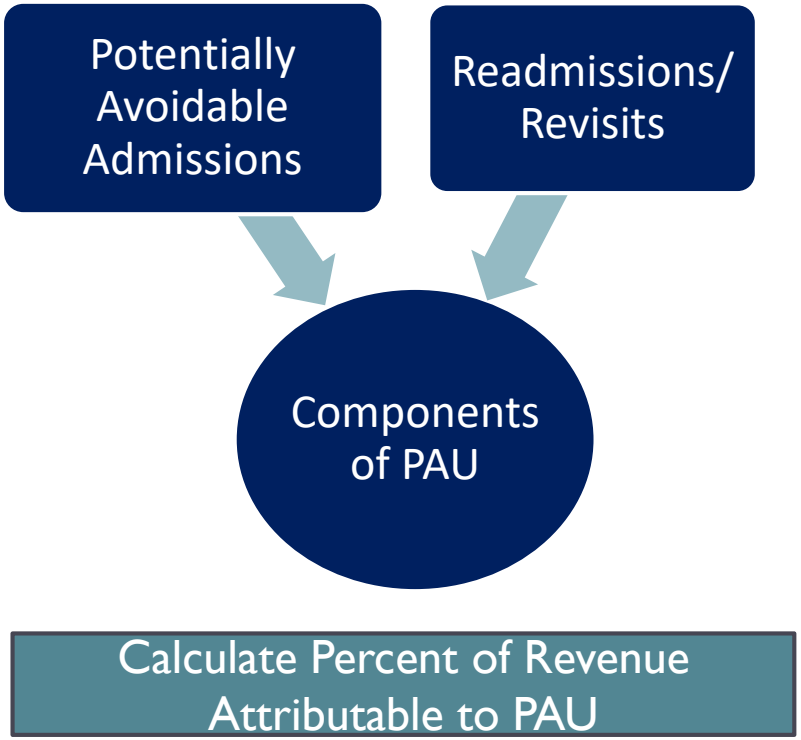
The Global Budget Model: revenue budget with annual adjustments

- *The initial revenue budget would be based on historical revenue*
- *This budget could be enhanced or reduced based on hospital efficiency and utilization*
- *The budget would be adjusted annually for changes in market shifts, population and quality*

Potentially Avoidable Utilization (PAU) Savings Program

- Main revenue model for global budget is to improve population health and reduce the hospital utilization.
- State created savings program measuring Potentially Avoidable Utilization (PAU) to increase incentives to focus on population health.

PAU Definition: "Hospital care that is unplanned and can be prevented through improved care coordination, effective primary care and improved population health."



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PAU measure specifications

- Readmissions
  - 30 day all-cause unplanned readmissions
- Potentially avoidable admissions
  - Hospitalizations from ambulatory-care sensitive conditions that may be preventable through effective primary care and care coordination.
  - Identified using Agency for Healthcare Research and Quality (AHRQ) Preventable Quality Indicator (PQIs) software
  - Maryland measures PQIs on inpatient and observation stays greater than 24 hours. AHRQ specifications are limited to inpatient.

AHRQ PQIs

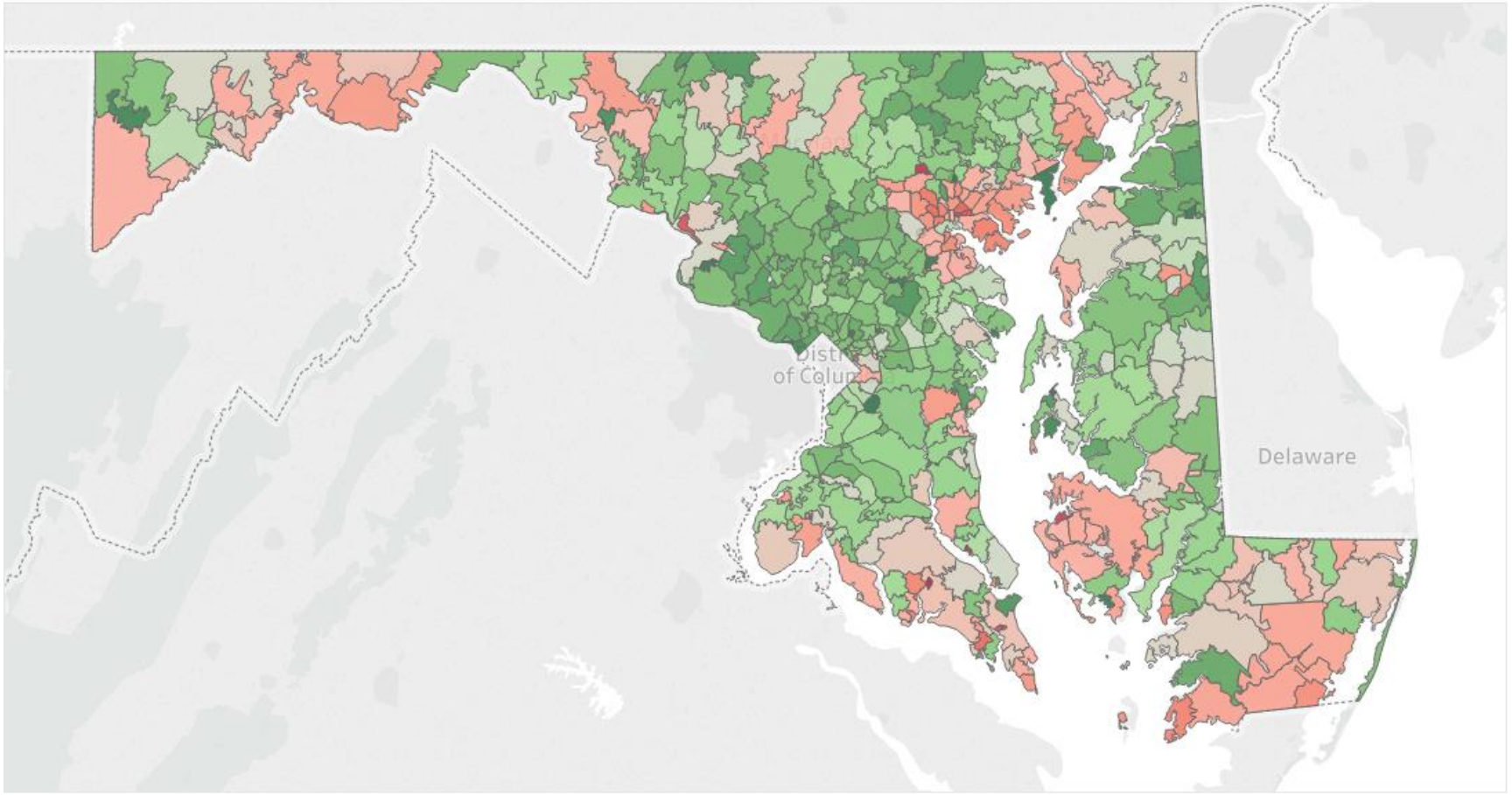
- AHRQ methodology for area based population health measures are adapted for hospital revenue models.

List of included PQIs (PQI version 7)
PQI 01 Diabetes Short-Term Complications
PQI 02 Perforated Appendix Admission
PQI 03 Diabetes Long-Term Complications Admission
PQI 05 COPD or Asthma in Older Adults Admission
PQI 07 Hypertension Admission
PQI 08 Heart Failure Admission
PQI 10 Dehydration Admission
PQI 11 Bacterial Pneumonia Admission
PQI 12 Urinary Tract Infection Admission
PQI 14 Uncontrolled Diabetes Admission
PQI 15 Asthma in Younger Adults Admission
PQI 16 Lower-Extremity Amputation among Patients with Diabetes
PQI 90 Overall PQI Composite
PQI 91 Acute PQI Composite
PQI 92 Chronic PQI Composite

Data Source

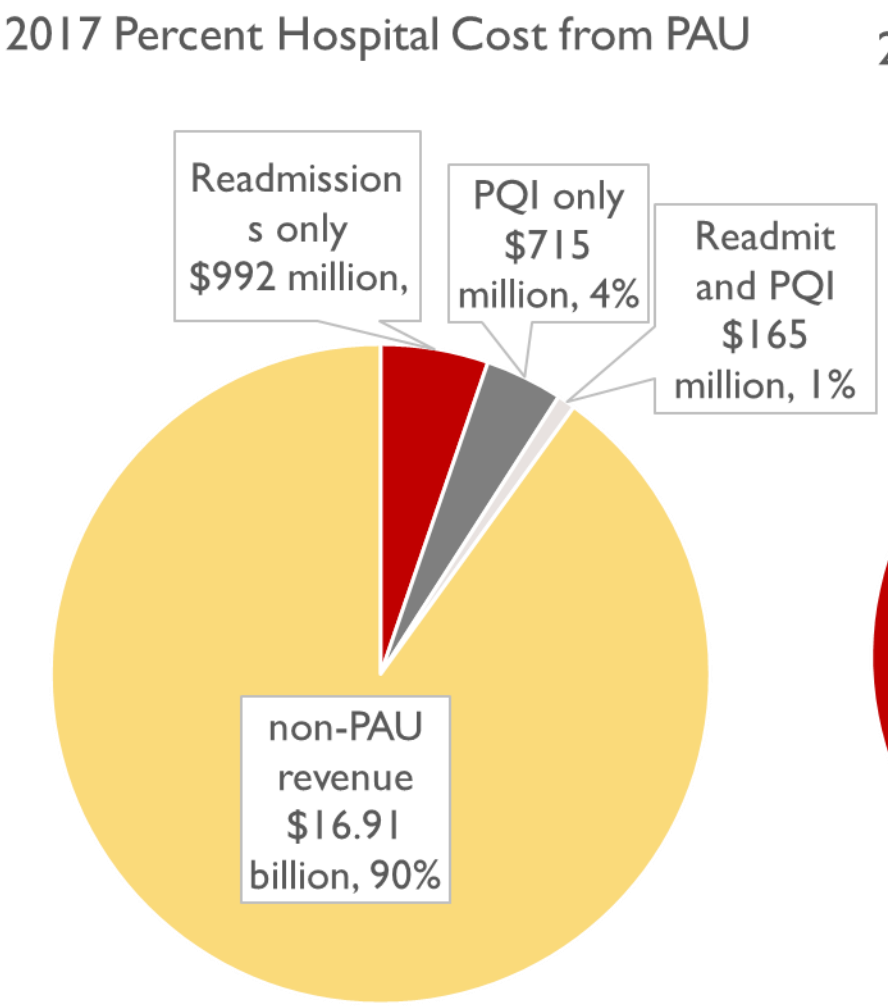
- All Maryland hospitals submit all-payer confidential claim-level hospital abstract data
  - Inpatient and hospital outpatient claims
  - Monthly submission
  - Approximately 700,000 inpatient discharges and 5.7 million outpatient visits annually.
- Data includes the following information
  - Demographic (including medical record and provider identifiers)
  - Financial (payers and charges)
  - Clinical (including dates of service, diagnoses, disposition)
- State-designated health information exchange (CRISP) creates unique patient identifier for every patient seen in MD hospitals

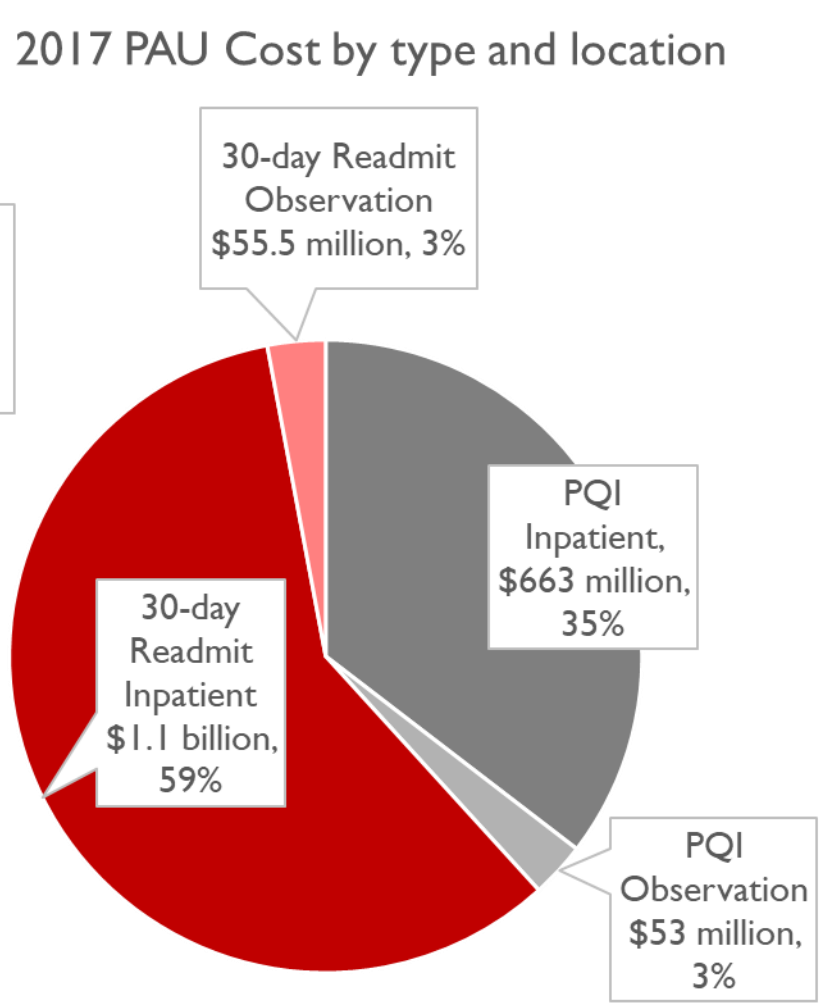
2017 PQI rate per 100k adults by zip code



PQI counts excludes readmissions

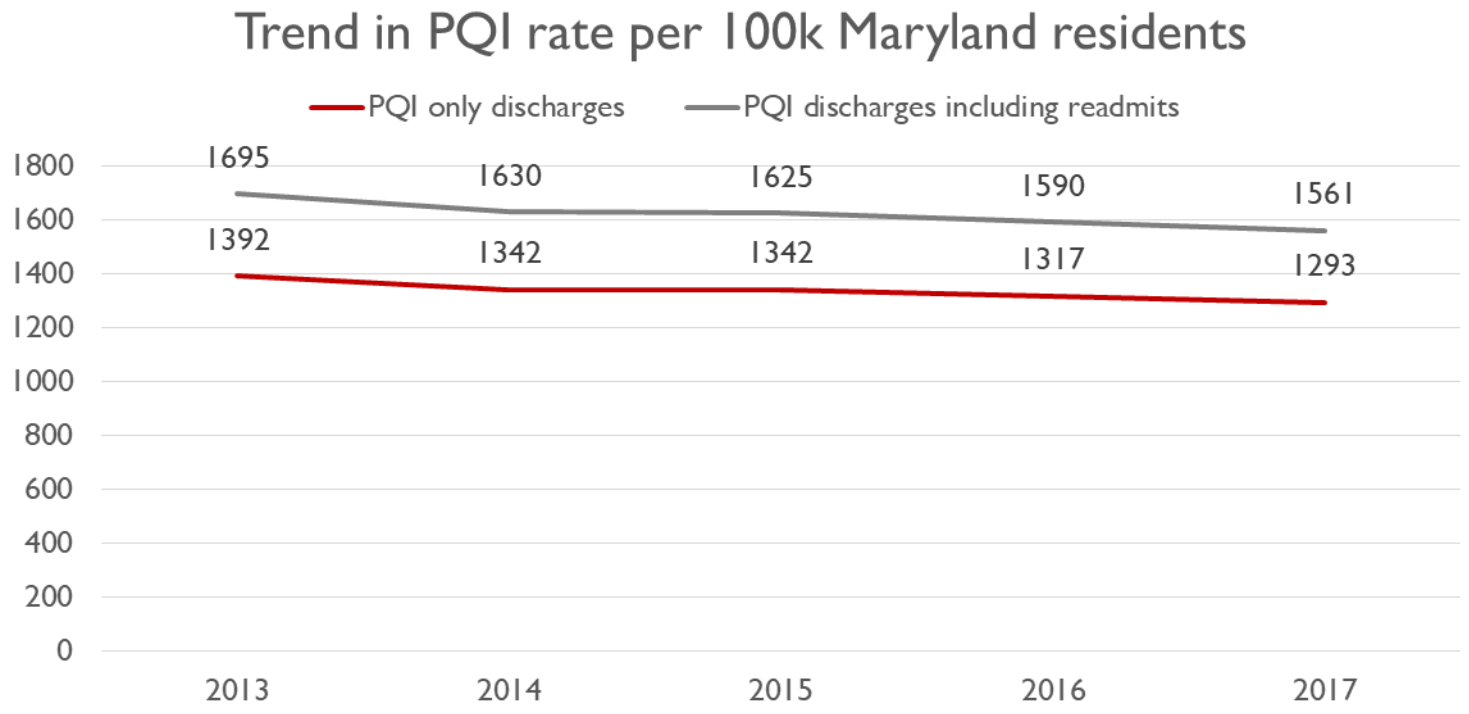
Distribution of PAU cost in 2017





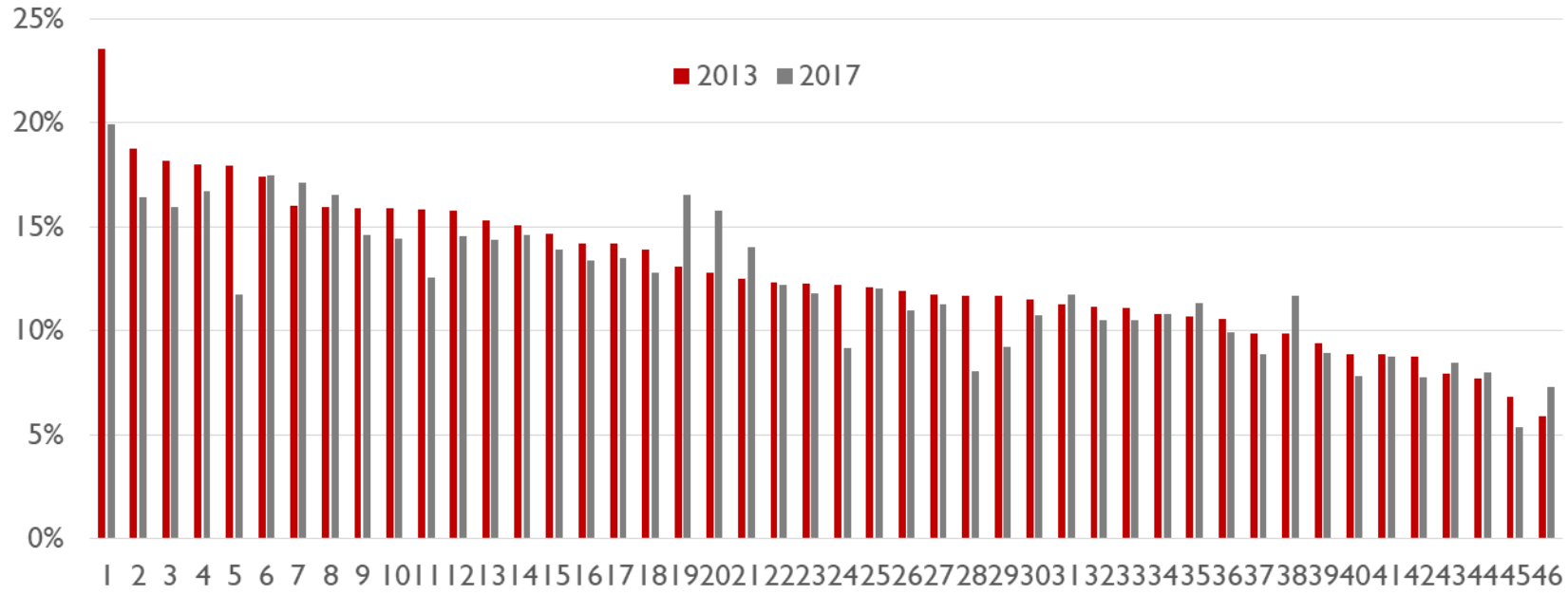
Statewide PQI Results

- Per Capita PQI rate (inpatient and observation stays >24 hours, inclusive of readmits) declined by 7.9% between 2013 and 2017.



Hospital level variation in PAU %

- PAU cost as a % of total hospital cost sorted from largest to smallest in 2013 PAU %
- Hospitals at the highest end of PAU% were able to reduce the proportion of PAU compared to total cost.



Future of PAU

- As Maryland moves into the Total Cost of Care (TCOC) Model (2019-2027+), focus is on community and population health
- Transition to a per-capita approach that allows for hospital geographic accountability

Supports the population health focus of the TCOC Model

Allow for population-specific measures (i.e. AHRQ pediatric measures)

Improve fairness between hospitals with different service line mixes

Enable potential risk adjustment