Total Cost of Care Workgroup

May 24, 2017

HSCRC
Health Services Cost Review Commission

Agenda

- Updates on initiatives with CMS
- Review of MPA options
- Initial HSCRC numbers on possible approaches for assigning TCOC based on beneficiary attribution
- Updated numbers on possible approaches for assigning TCOC based on geography (Mathematica Policy Research)

Updates on Initiatives with CMS

Review of MPA Options

Medicare Performance Adjustment (MPA)

- **What is it?**
  - A scaled adjustment for each hospital based on its performance relative to a Medicare Total Cost of Care (TCOC) benchmark

- **Objectives**
  - Allow Maryland to step progressively toward developing the systems and mechanisms to control TCOC, by increasing hospital-specific responsibility for Medicare TCOC (Part A & B) over time (Progression Plan Key Element 1b)
  - Provide a vehicle that links non-hospital costs to the All-Payer Model, allowing participating clinicians to be eligible for bonuses under MACRA

MPA and Potential MACRA Opportunity

- Under federal MACRA law, clinicians who are linked to an Advanced Alternative Payment Model (APM) Entity and meet other requirements may be Qualifying APM Participants (QPs), qualifying them for:
  - 5% bonus on QPs' Medicare payments for Performance Years through 2022, with payments made two years later (Payment Years through 2024)
  - Annual updates of Medicare Physician Fee Schedule of 0.75% rather than 0.25% for Payment Years 2026+
- Maryland is seeking CMS determination that:
  - Maryland hospitals are Advanced APM Entities; and
  - Clinicians participating in Care Redesign Programs (HCIP, CCIP) are eligible to be QPs based on % of Medicare beneficiaries or revenue from residents of Maryland or of out-of-state PSAs
- Other pathways to QP status include participation in a risk-bearing ACO

MPA and MACRA: Advanced APM Entities

- Advanced APM Entities must satisfy all 3 of the following:
  - Require participants to use certified EHR technology (CEHRT)
  - Have payments related to Medicare Part B professional services that are adjusted for certain quality measures (at least two measures)
  - Bear more than a nominal amount of financial risk
- Notwithstanding Medicare financial responsibility already borne by Maryland hospitals, CMS says this last test is not yet met
  - MPA could satisfy the more-than-nominal test
  - If CMS accepts 0.5% maximum MPA Medicare risk for PY1, CMS would be recognizing risk already borne by hospitals, since federal MACRA regulations define "more than nominal" as potential maximum loss of:
    - 8% of entity's Medicare revenues, or
    - 3% of expenditures for which entity is responsible (e.g., TCOC)

Federal Medicare Payments (CY 2016) by Hospital, and 0.5% of Those Payments

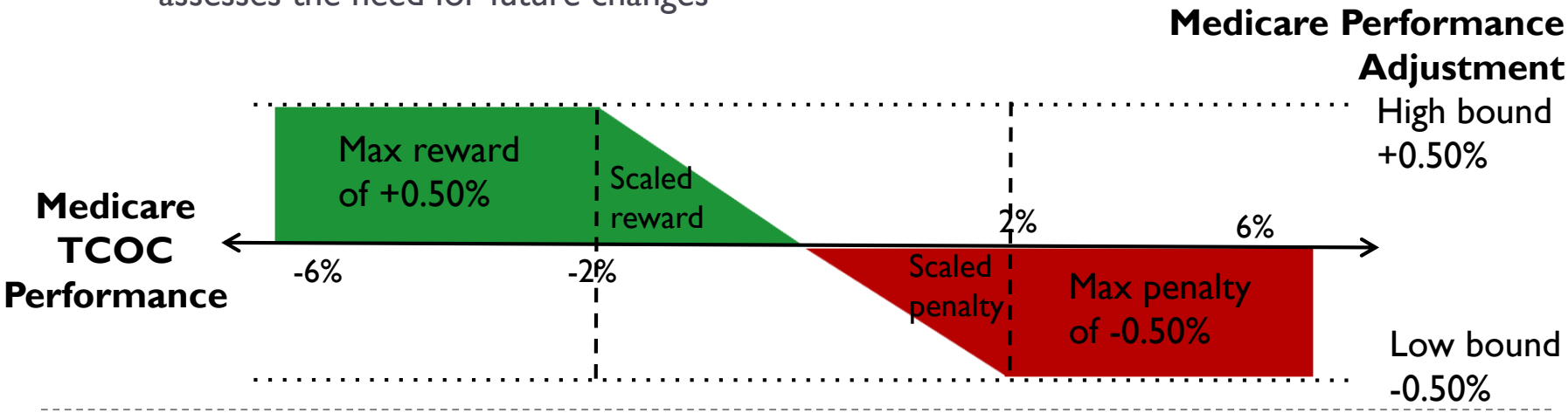
Hospital	CY 16 Medicare claims	
A	B	C = B * 0.5%
STATE TOTAL	**$4,399,243,240**	**$21,996,216**
Anne Arundel	163,651,329	818,257
Atlantic General	30,132,666	150,663
BWMC	137,164,897	685,824
Bon Secours	22,793,980	113,970
Calvert	45,304,339	226,522
Carroll County	85,655,790	428,279
Charles Regional	46,839,127	234,196
Chestertown	23,104,009	115,520
Doctors Community	71,932,763	359,664
Easton	105,796,229	528,981
Franklin Square	152,733,233	763,666
Frederick Memorial	107,572,532	537,863
Ft. Washington	12,404,606	62,023
GBMC	109,329,016	546,645
Garrett County	12,485,063	62,425
Good Samaritan	111,439,737	557,199
Harbor	49,811,070	249,055
Harford	32,986,577	164,933
Holy Cross	84,757,140	423,786
Holy Cross Germantown	17,709,263	88,546
Hopkins Bayview	166,936,445	834,682
Howard County	74,364,089	371,820
Johns Hopkins	385,219,507	1,926,098

Hospital	CY 16 Medicare claims	
A	B	D = B * 0.5%
Laurel Regional	$28,395,414	$141,977
Levindale	37,853,194	189,266
McCready	5,281,208	26,406
Mercy	123,251,053	616,255
Meritus	93,863,687	469,318
Montgomery General	58,955,109	294,776
Northwest	87,214,773	436,074
Peninsula Regional	129,202,314	646,012
Prince George	60,059,396	300,297
Rehab & Ortho	26,772,477	133,862
Shady Grove	92,559,096	462,795
Sinai	231,161,132	1,155,806
Southern Maryland	77,940,994	389,705
St. Agnes	122,910,533	614,553
St. Mary	53,984,389	269,922
Suburban	89,000,075	445,000
UM St. Joseph	135,505,261	677,526
UMMC Midtown	61,852,594	309,263
Union Of Cecil	47,233,811	236,169
Union Memorial	141,726,131	708,631
University Of Maryland	365,949,340	1,829,747
Upper Chesapeake Health	107,984,715	539,924
Washington Adventist	69,512,752	347,564
Western Maryland	100,950,387	504,752

Source: HSCRC analysis of data from CMMI

MPA: Current Design Concept

- Based on a hospital's performance on the Medicare TCOC measure, the hospital will receive a scaled bonus or penalty
  - Function similarly to adjustments under the HSCRC's quality programs
  - Be a part of the revenue at-risk for quality programs (redistribution among programs)
  - NOTE: Not an insurance model
- Scaling approach includes a narrow band to share statewide performance and minimize volatility risk
- MPA will be applied to Medicare hospital spending, starting at 0.5% Medicare revenue at-risk (which translates to approx. 0.2% of hospital all-payer spending)
  - First payment adjustment in July 2019
  - Increase to 1.0% Medicare revenue at-risk, perhaps more moving forward, as HSCRC assesses the need for future changes



MPA: Design Considerations

- How should the MPA interact with existing revenue at-risk for quality?

Maximum Quality Penalties or Rewards for Maryland and The Nation

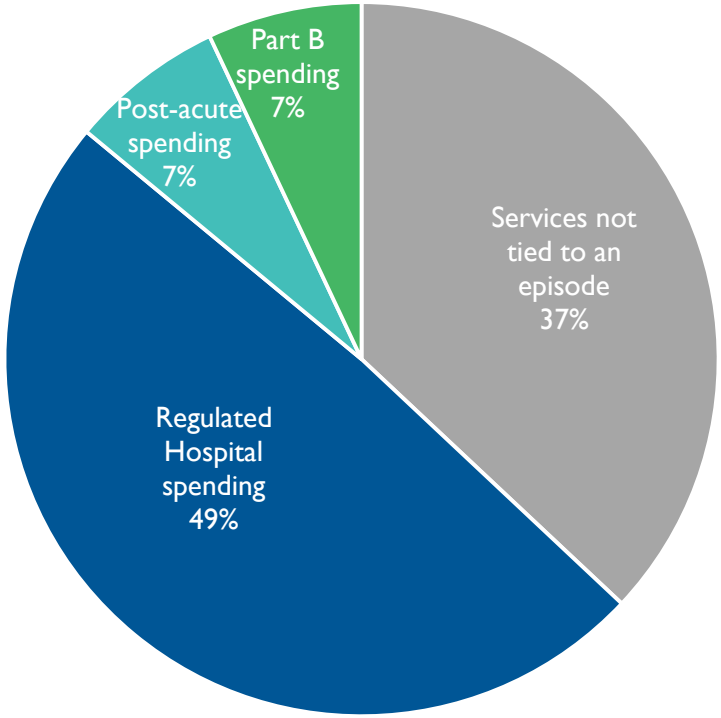
MD All-Payer	Max Penalty %	Max Reward %	National Medicare	Max Penalty %	Max Reward %
RY 2019			FFY 2019		
MHAC	2.0%	1.0%	HAC	1.0%	N/A
RRIP	2.0%	1.0%	HRRP	3.0%	N/A
QBR	2.0%	2.0%	VBP	2.0%	2.0%

- How should the MPA reflect statewide Medicare TCOC performance? Possible options:
  - In future years, split MPA into two parts: (a) hospital-specific TCOC performance and (b) statewide TCOC performance; or
  - Adjust trend factor for benchmarking by statewide TCOC performance
- How to target hospitals' MPA adjustment to Medicare?
  - Possible option: Use Medicare-specific discount/premium, similar to sequestration adjustment on federal Medicare payments

MPA: Potential Options for Calculation of Hospital-level TCOC

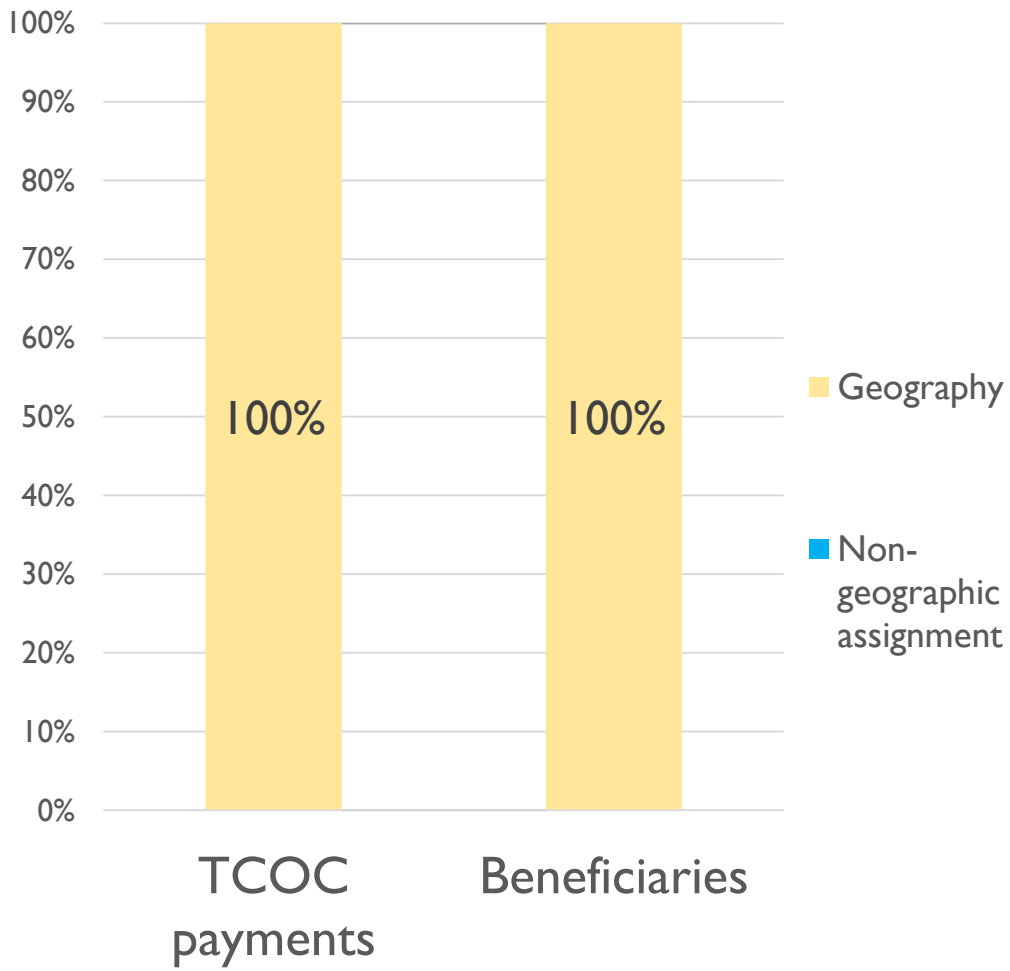
- **A) Geographic Approach**
  - TCOC for Medicare beneficiaries living within a Hospital's geography
  - PSAs cover ~90% of Maryland Medicare TCOC
- **B) Episode Approach**
  - TCOC for Medicare beneficiaries during and following a hospital encounter for a specified amount of time (i.e. 30 days)
  - Covers ~2/3 of Maryland Medicare TCOC with episodes alone
- **C) Attribution Approach**
  - Assignment based on Medicare beneficiary utilization and residence

Example of Episode Approach: Approx. share of Medicare TCOC included in hospital episodes with 30 days post-acute



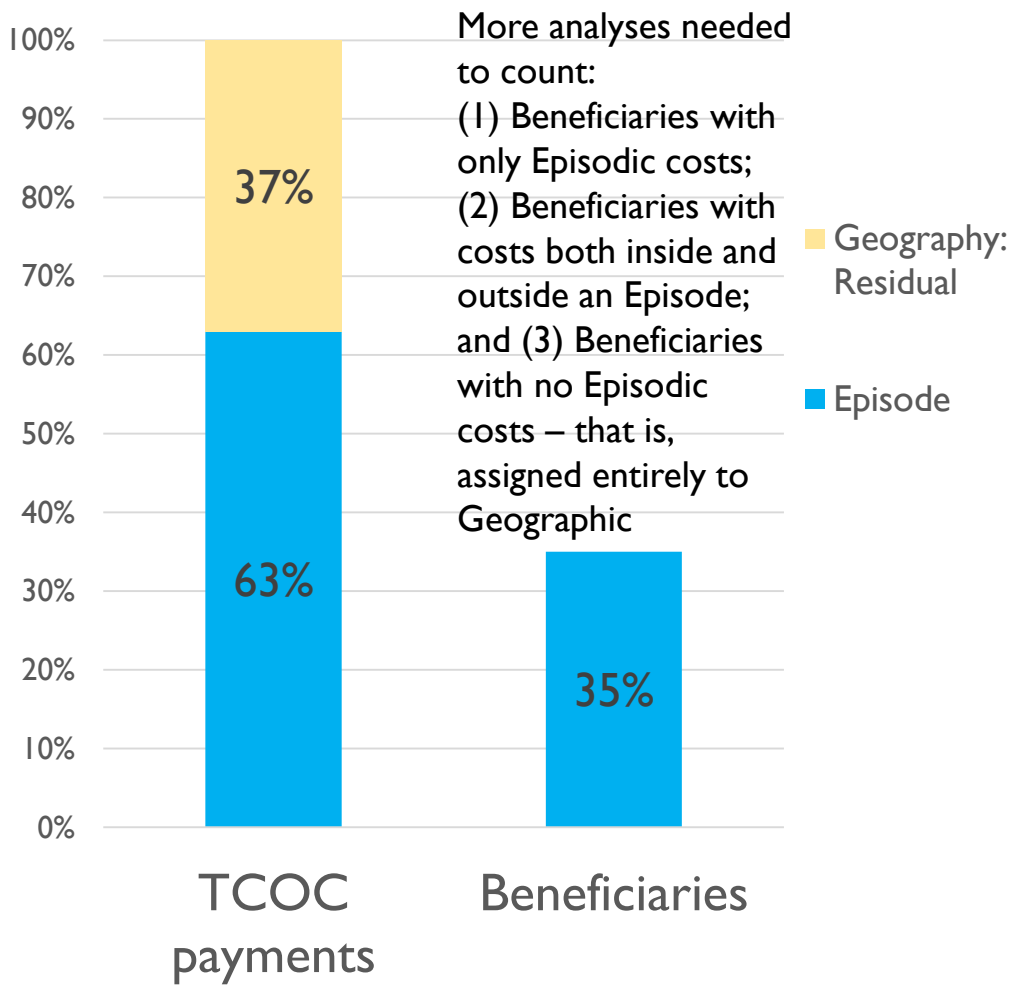
Source: Draft analysis by HSCRC of 2015 Medicare FFS claims

A. Geographic approach: All TCOC assigned based on beneficiaries' zip code of residence



- Geographic methodology under development could determine 100% of hospital-specific TCOC (or residual TCOC not captured by methods in following slides)
- All-Geographic approach provides strongest incentive for collaboration among hospitals sharing geographies
- Work Group members have expressed concerns about an approach based solely on Geography

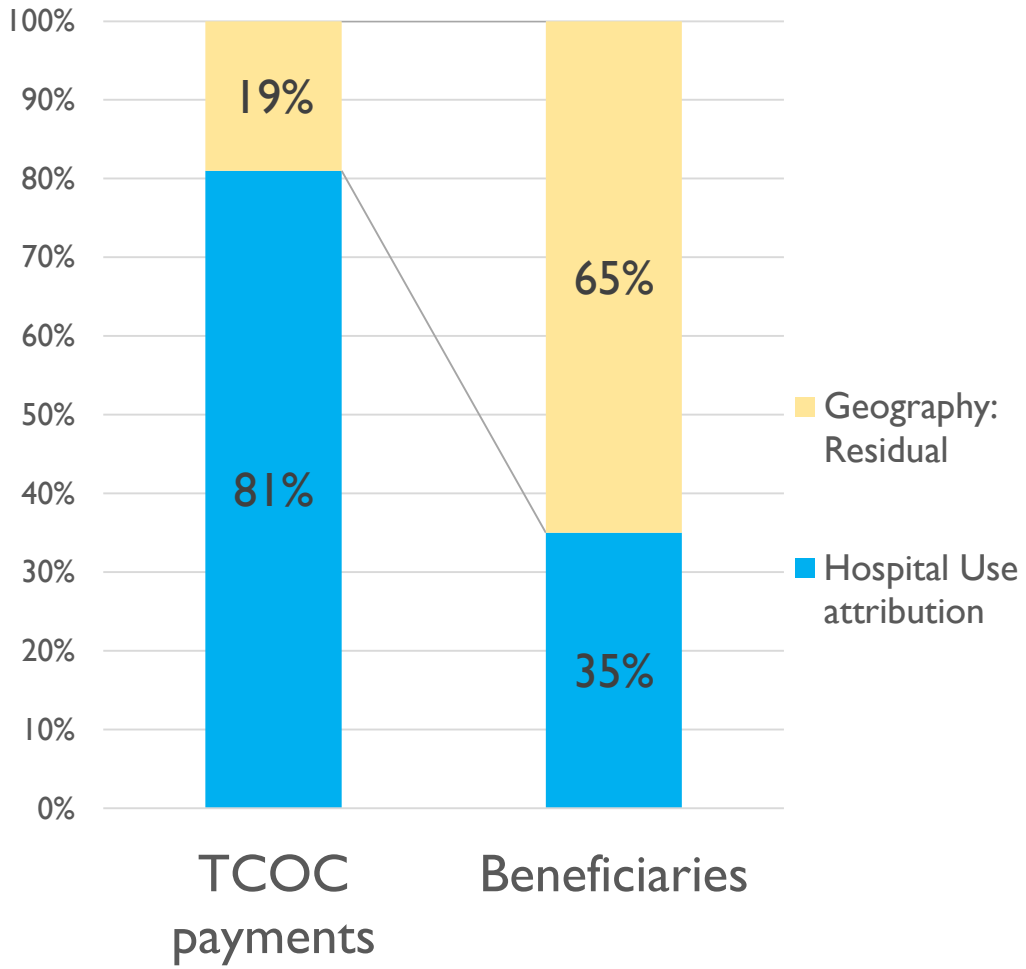
B. Episode + Geography



- Episode-based TCOC includes hospital visit and some number of days before and after
- Costs not attributed through Episode would be attributed with a Geographic approach
- Denominator issues: Unclear if Episode performance would be assessed on TCOC spending per capita or per episode. Wide variation across hospitals.
- Measurement issues: Residual for Geography would include individuals whose episode costs have already been captured but who also have non-episode costs

Source: Draft HSCRC analysis based on CY 2015 Medicare (CCW) data

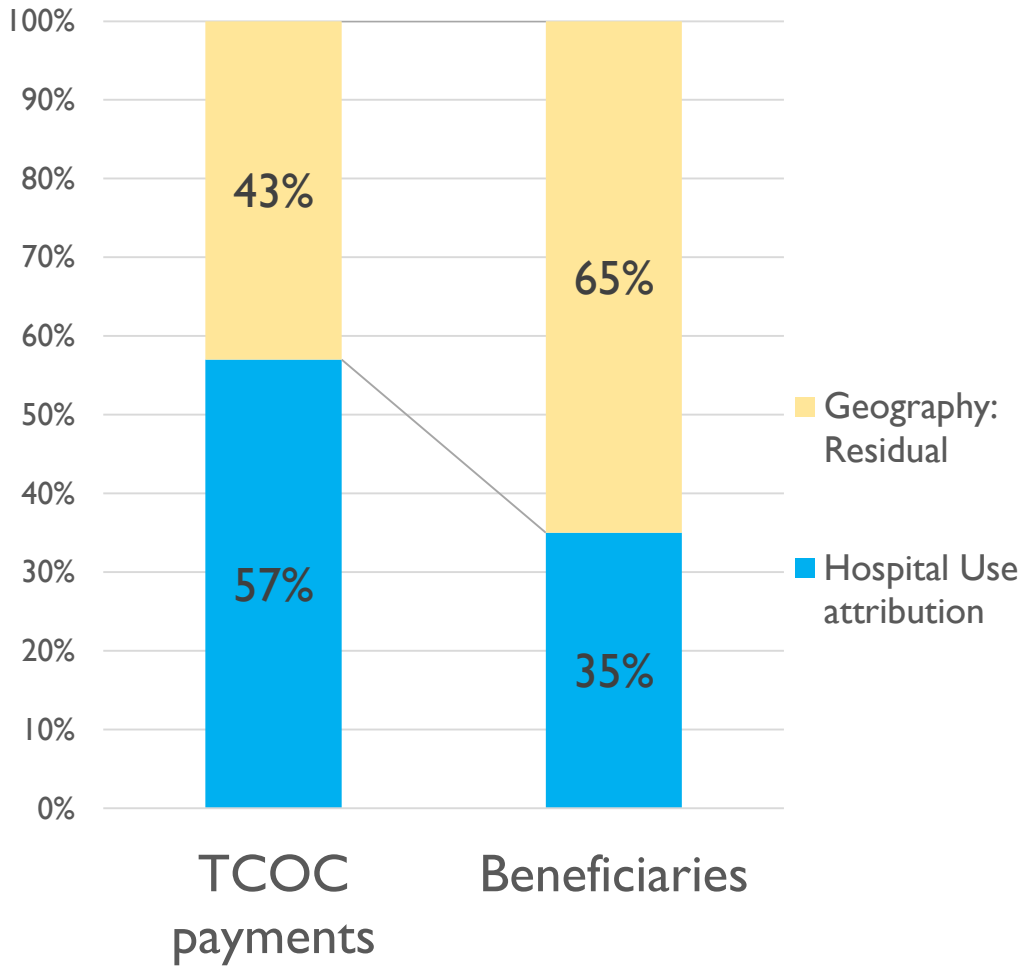
C.1. Attribution on Hospital Use + Geography: Concurrent attribution during the year



- Individuals are attributed in the year of their utilization
- Beneficiaries not attributed through Hospital Use would be attributed with a Geographic approach
- Performance would be assessed on TCOC spending per capita
- Performance could be based on improvement only, relative to a benchmark based off of national Medicare growth
- TCOC measures and benchmarks could be risk adjusted

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

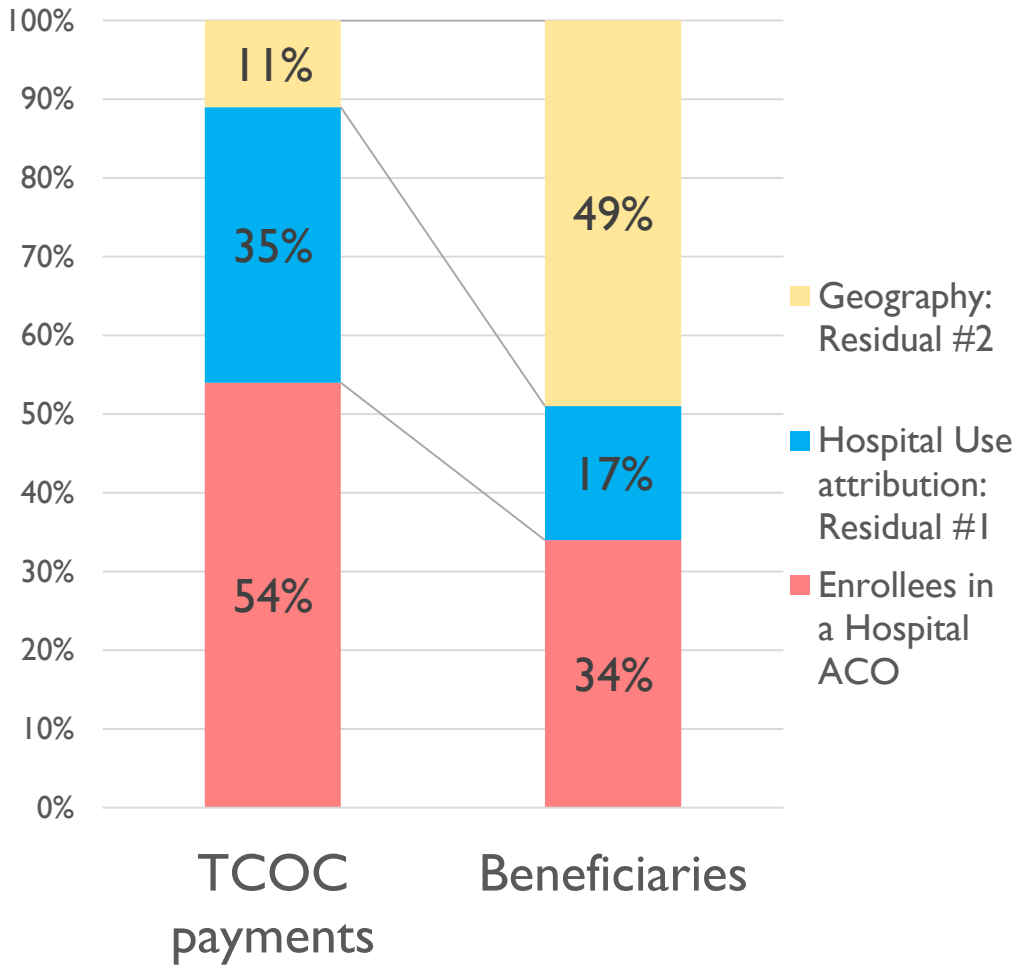
C.2. Attribution on Hospital Use + Geography: Prospective attribution from past year use



- Individuals are attributed based on prior-year use
- Beneficiaries not attributed through Hospital Use would be attributed with a Geographic approach
- Performance would be assessed on TCOC spending per capita
- Hospitals will be responsible for the current year costs of patients based on prior year utilization, regardless of whether those patients used the hospital in the current year

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

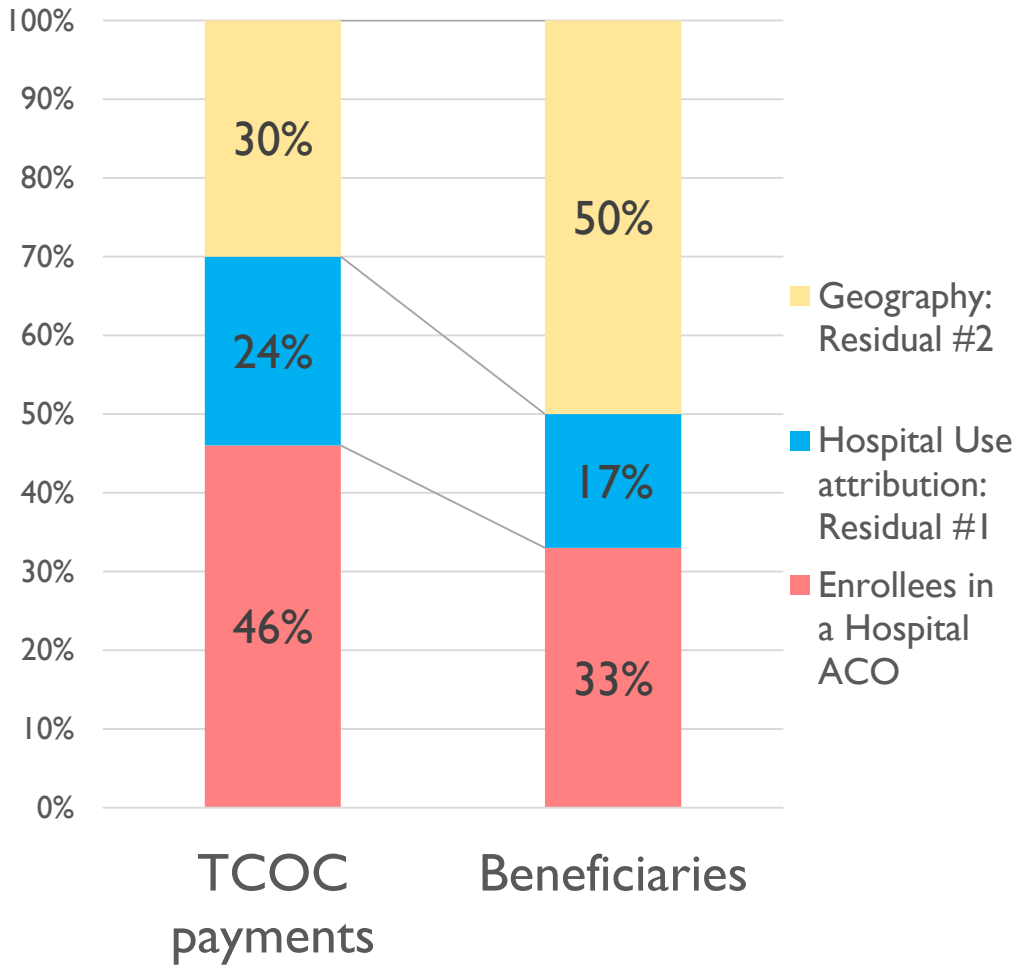
C.3. Concurrent attribution from hospital-based ACO + Hospital Use + Geography



- Attribution occurs concurrently in current year
- Beneficiaries attributed first based on enrollment in hospital-based ACO
- Beneficiaries not attributed through ACO are attributed based on Hospital Use
- Finally, beneficiaries still not attributed would be attributed with a Geographic approach
- Performance would be assessed on TCOC spending per capita
- For hospitals not in an ACO, attribution would be Hospital Use + Geography, among beneficiaries not in a hospital-based ACO

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

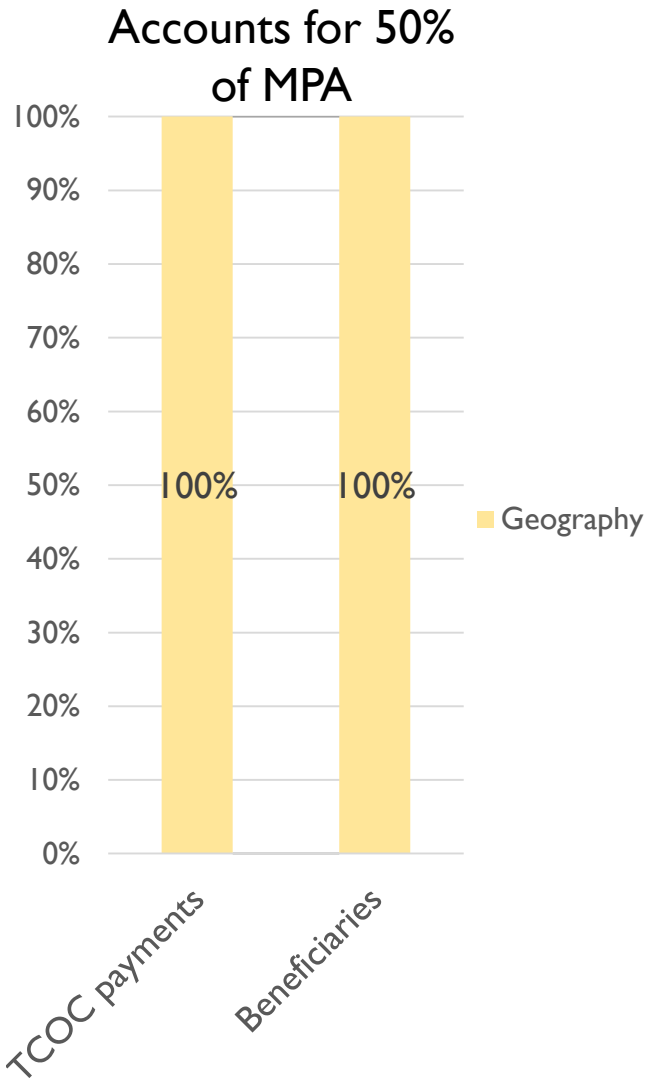
C.4. Prospective attribution from hospital-based ACO + Hospital Use + Geography

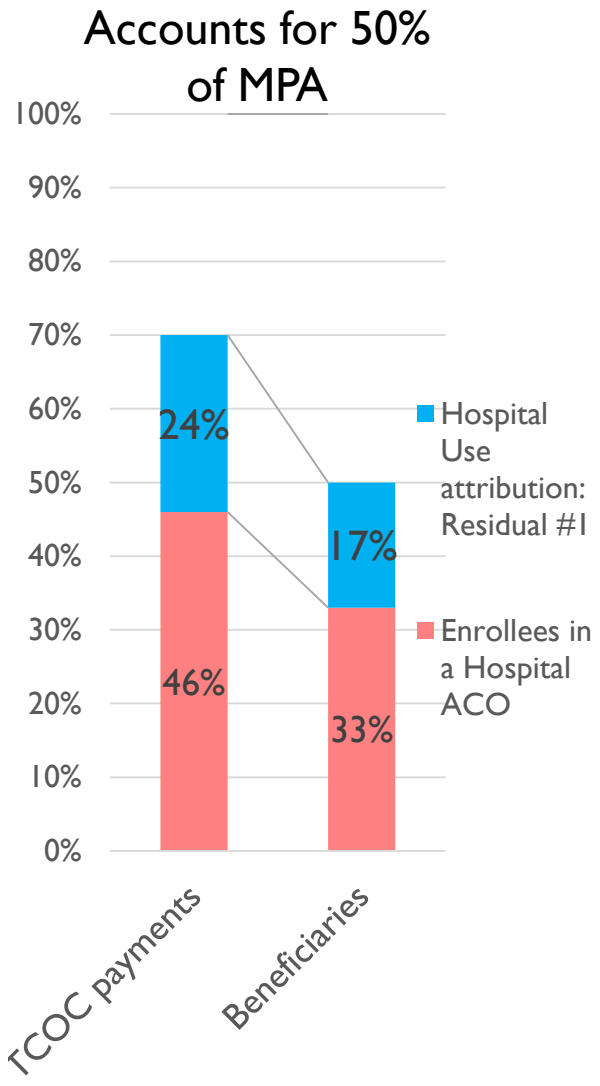


- Attribution occurs prospectively, based on utilization in prior year, but using their current-year TCOC
- Beneficiaries attributed first based on enrollment in hospital-based ACO
- Beneficiaries not attributed through ACO are attributed based on hospital utilization
- Finally, beneficiaries still not attributed would be attributed with a Geographic approach
- Performance would be assessed on TCOC spending per capita
- For hospitals not in an ACO, attribution would be Hospital Use + Geography, among beneficiaries not in a hospital-based ACO

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

C.5. 50/50 Attribution and Geography





- Half of the MPA is based on a Geographic attribution to hospitals
- The other half is based on a non-Geographic attribution
- Some individuals will be in both groups

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

MPA: For hospital-specific TCOC, use Prospective or Concurrent attribution?

- ACO: Based on doctors with plurality of E&M code use. If doctor is in ACO, then beneficiary assigned to ACO
  - Most Maryland ACO beneficiaries concurrently attributed (Tracks 1 and 2)
  - Concurrent attribution means the ACO doesn't know in advance who their participants are
  - Prospective attribution (based on beneficiaries' prior-year E&M) likely to be used more (Tracks 1+ and 3)
- Hospital Use attribution
  - Concurrent attribution focuses attention on beneficiaries when they arrive at the hospital; not flagged in advance
  - Under Prospective attribution, hospitals know in advance who is attributed to them, but how much is TCOC performance related to hospital activity?

MPA: Example of dividing TCOC among hospitals sharing a zip code

- Two hospitals (A and B) share a zip code in their "Geography"
- In that zip code, Medicare hospital payments go to:
  - Hospital A: 60%
  - Hospital B: 20%
  - Other hospitals: 20%
- Dropping the other hospitals, the TCOC of beneficiaries in the zip code not already attributed (e.g., $1M for 100 beneficiaries) could be divided as:
  - Hospital A: 75% (60% / 80%), or $750,000 for 75 beneficiaries
  - Hospital B: 25% (20% / 80%), or $250,000 for 25 beneficiaries
  - Zip code's average $10,000 per capita TCOC applied to both hospitals

MPA: Example of calculating a hospital's per capita TCOC in ACO + Use + Geography

(TCOC of hospital-based ACO beneficiaries
+ TCOC of residual Hospital-Use-attributed beneficiaries
+ TCOC share of residual Geographic beneficiaries)

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(# of hospital-based ACO beneficiaries
+ # of residual Hospital-Use-attributed beneficiaries
+ # share of residual Geographic beneficiaries)

Note: "Residual" means those not captured through the preceding methodology in the hierarchy.

MPA: Possible Approaches for Pulling It Together for Performance Year 1 (CY 2018)

- Assign a TCOC per capita to each hospital (e.g., ACO + Hospital Use attribution + Geography)
  - Base Year is CY 2017; Performance Year is CY 2018
  - Risk adjust numbers based on HCC scores (demographic and/or diagnoses)?
- Define an MPA Trend Factor for benchmarking
  - For example, Benchmark is each hospital's risk-adjusted base year per capita TCOC increased by MPA Trend Factor of national Medicare growth – X%
  - MPA Trend Factor could also be risk adjusted for hospital vs. nation
  - Improvement only
- Apply MPA scaled to maximum of 0.5% of Medicare payments
  - Maximum +/- 0.5% reached when TCOC Performance per capita differs from Benchmark by -/+2%

Initial HSCRC numbers on possible approaches for assigning TCOC based on beneficiary attribution

C.1. & C.2. Attribution on hospital use: Concurrent and Prospective attribution

Concurrent Attribution (Same as Payment Year)	2013 Attrib TCOC per Capita	2014 Attrib TCOC per Capita	2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes	2014 vs 2013	2015 vs 2014	2016 vs 2015
National Average						0.5%	1.6%	0.5%
MD Average						-0.6%	2.3%	-0.1%
MD Attributed Beneficiaries	$21,446	$21,324	$21,736	$21,761	324,650	-0.6%	1.9%	0.1%
Prospective Attribution (1 Federal Fiscal Year Before)		2014 Attrib TCOC per Capita	2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes		2015 vs 2014	2016 vs 2015
National Average							1.6%	0.5%
MD Average							2.3%	-0.1%
MD Attributed Beneficiaries		$15,020	$15,353	$15,220	322,652		2.2%	-0.9%
Prospective Attribution (2 Fiscal Years Before)			2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes			2016 vs 2015
National Average								0.5%
MD Average								-0.1%
MD Attributed Beneficiaries			$12,978	$12,861	443,710			-0.9%

- See handouts for Hospital Level Results

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

C.3. & C.4. Attribution from hospital-based ACO + Attribution on hospital use

Concurrent Attribution (Same as Payment Year)	2013 Attrib TCOC per Capita	2014 Attrib TCOC per Capita	2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes	2014 vs 2013	2015 vs 2014	2016 vs 2015
National Average						0.5%	1.6%	0.5%
MD Average						-0.6%	2.3%	-0.1%
MD Attributed Beneficiaries	$16,323	$16,156	$16,312	$16,393	469,391	-1.0%	1.0%	0.5%

Prospective Attribution (1 Federal Fiscal Year Before)		2014 Attrib TCOC per Capita	2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes		2015 vs 2014	2016 vs 2015
National Average							1.6%	0.5%
MD Average							2.3%	-0.1%
MD Attributed Beneficiaries		$13,032	$13,257	$13,101	465,169		1.7%	-1.2%

Prospective Attribution (2 Fiscal Years Before)			2015 Attrib TCOC per Capita	2016 Attrib TCOC per Capita	2016 Attrib Benes			2016 vs 2015
National Average								0.5%
MD Average								-0.1%
MD Attributed Beneficiaries			$11,789	$11,664	570,783			-1.1%

- See handouts for Hospital Level Results

Source: Draft HSCRC analysis based on CY 2016 Medicare (CCW) data

Updated numbers on possible approaches for assigning TCOC based on geography

MATHEMATICA
Policy Research

Total Cost of Care:

Defining Hospital Service Areas

Preliminary Results

May 18, 2017

Eric Schone
Fei Xing

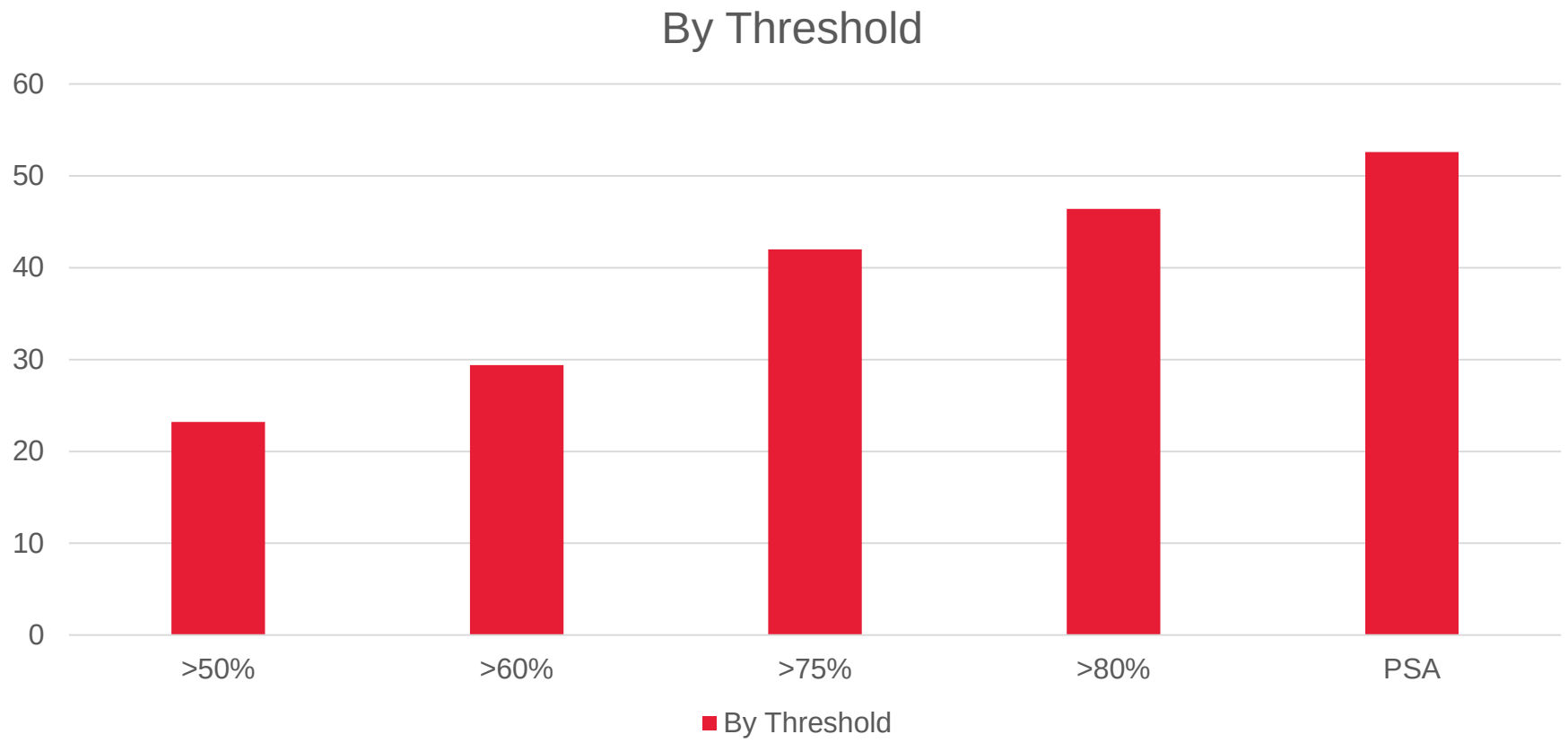
Testing Service Area Variations

- **Primary Service Area (PSA)**
  - Defined by hospital
- **Service Flows**
  - Zip codes sorted by descending hospital market share
  - Service area is combination of zip codes exceeding threshold share of hospital's discharges
  - Thresholds of 50%, 60%, 75% and 80% tested
  - Thresholds assigned using equivalent casemix adjusted discharges (ECMAD) from HSCRC data tested

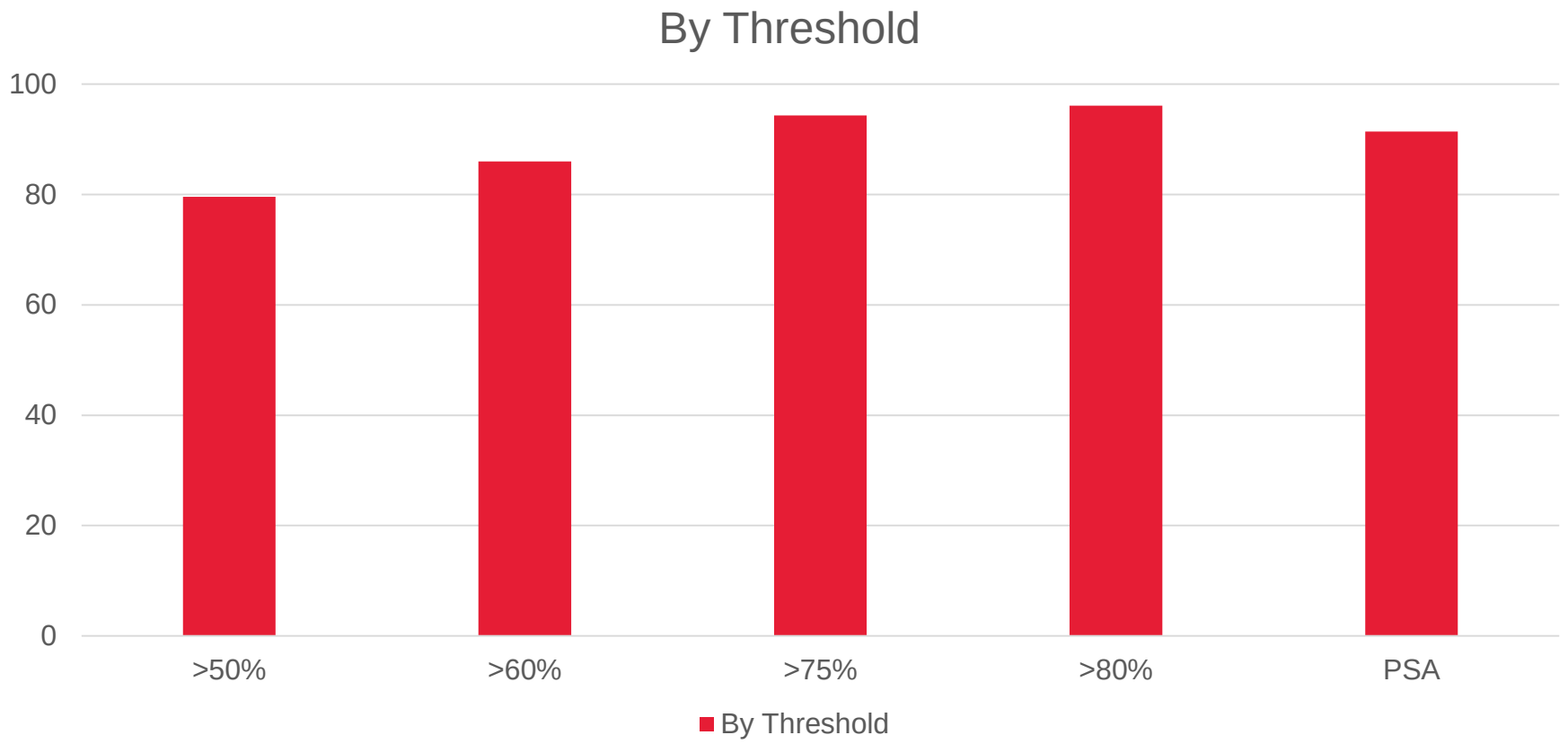
Testing Service Area Definitions: Methods

- Two years of Medicare hospital inpatient service records
  - Compare alternate thresholds
  - Compare to PSA
  - Compare between years
- Assign and compare service areas
  - Share of hospital's discharges
  - Share of costs
  - Share of MD zip codes
  - Overlap between hospitals
  - Overlap between years

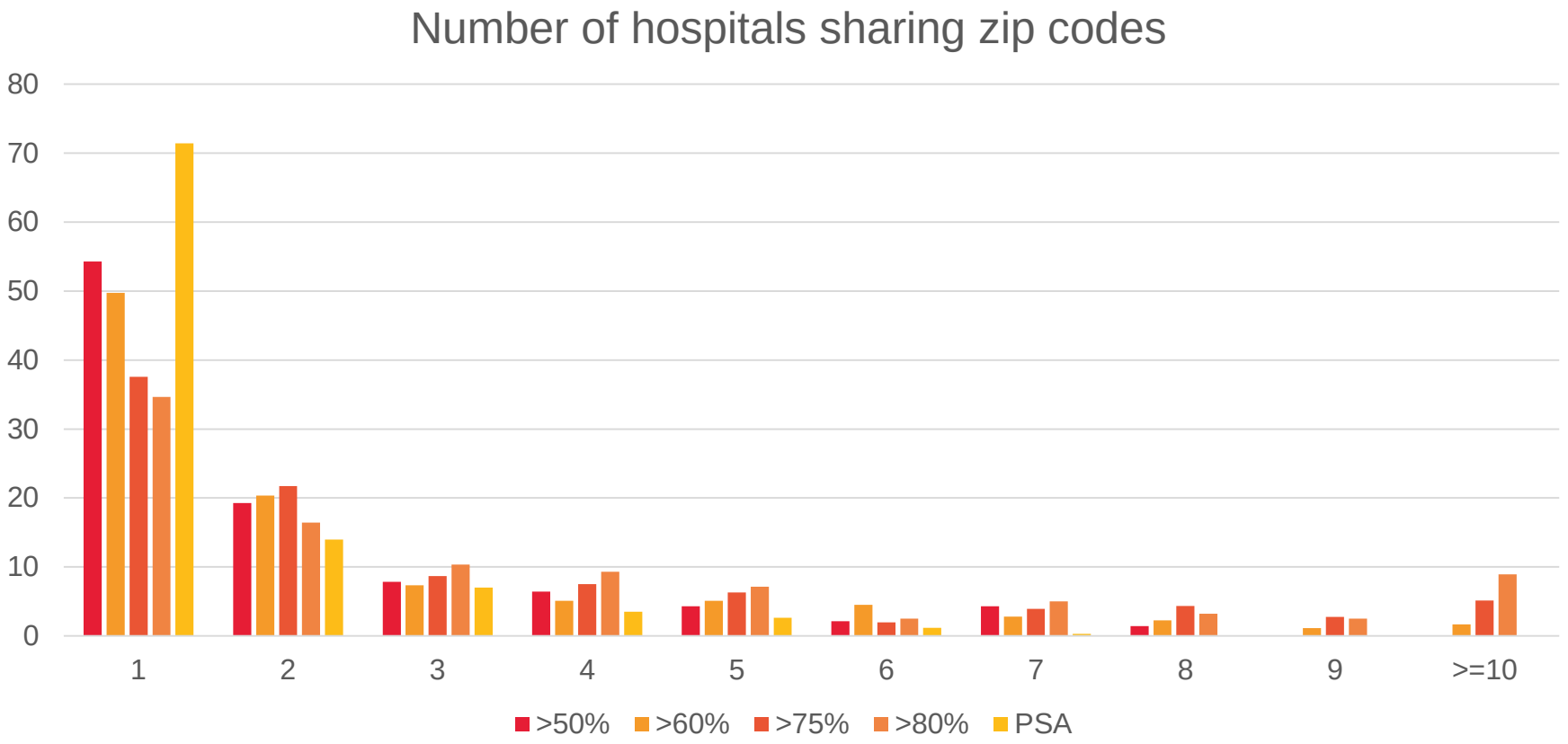
Share of Maryland Zip codes



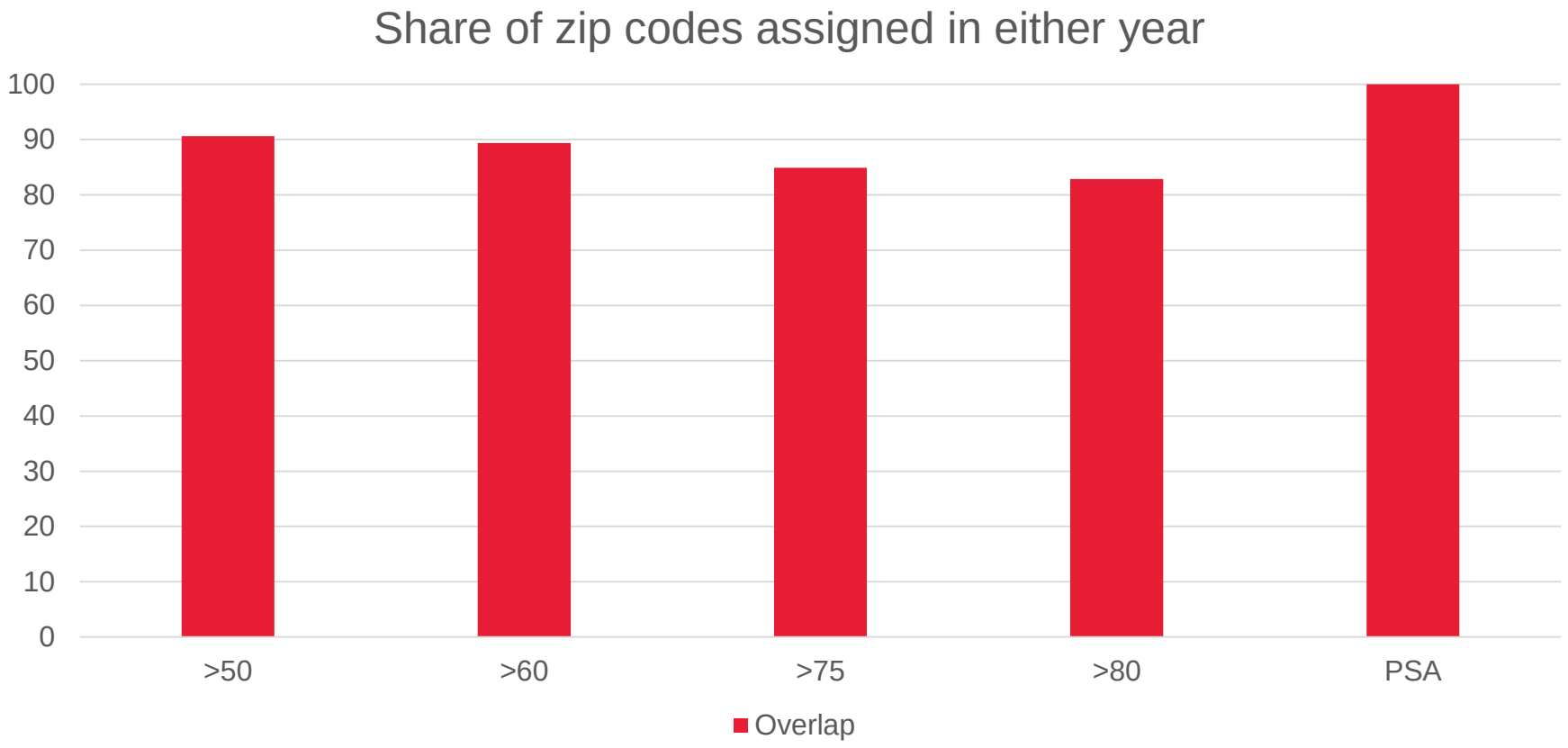
Share of Maryland Discharges



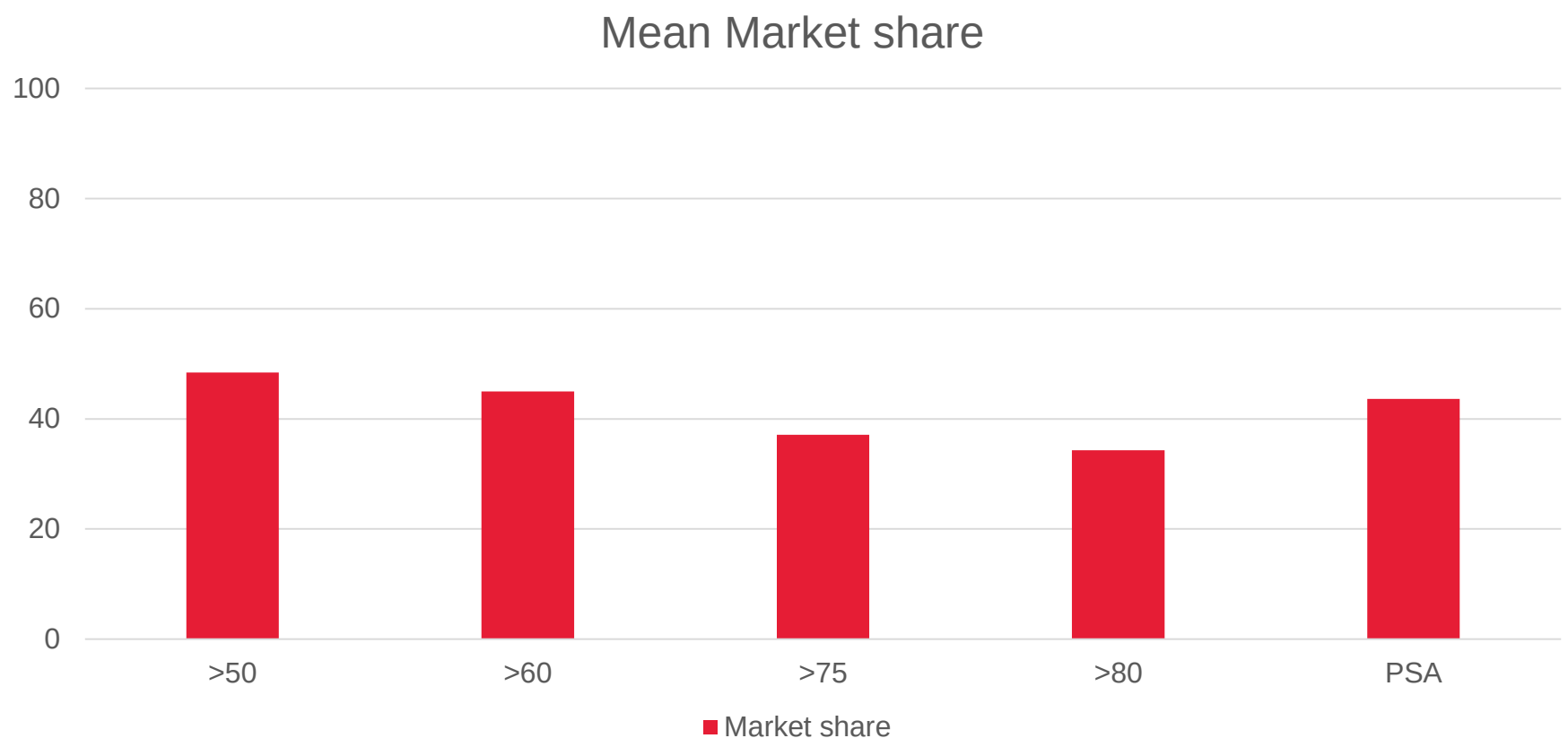
Overlap of Service Areas



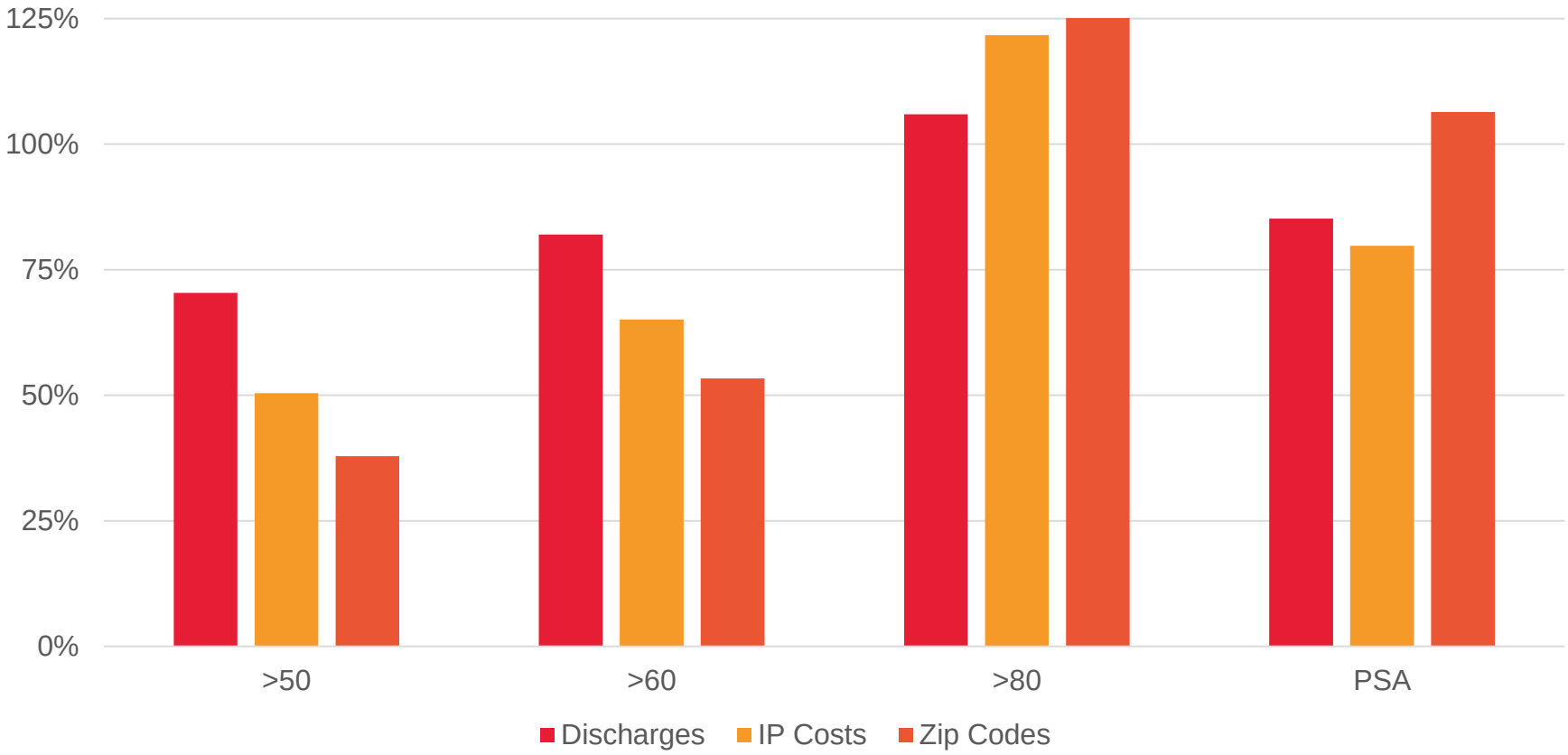
Overlap between 2014 and 2015



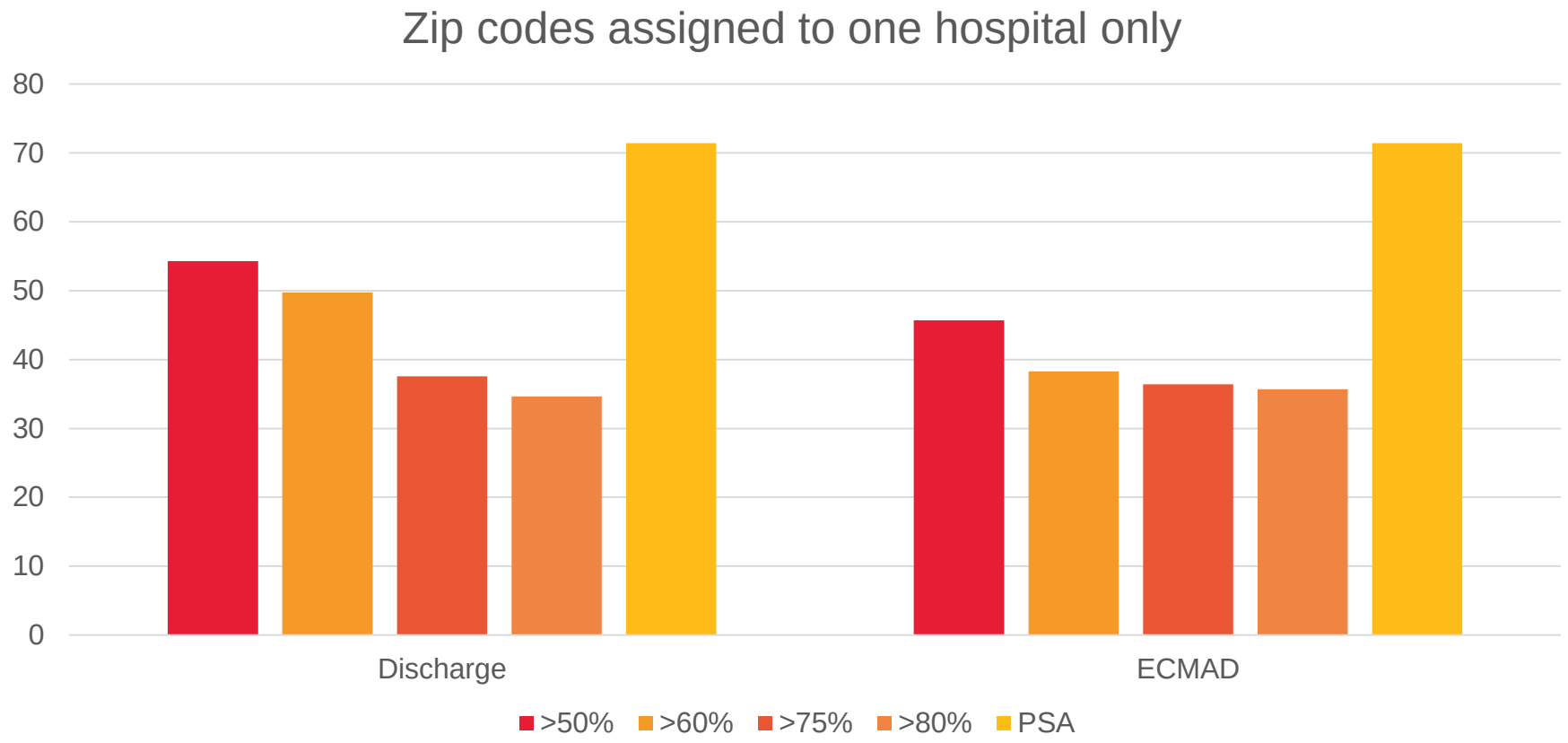
Share of discharges: by threshold



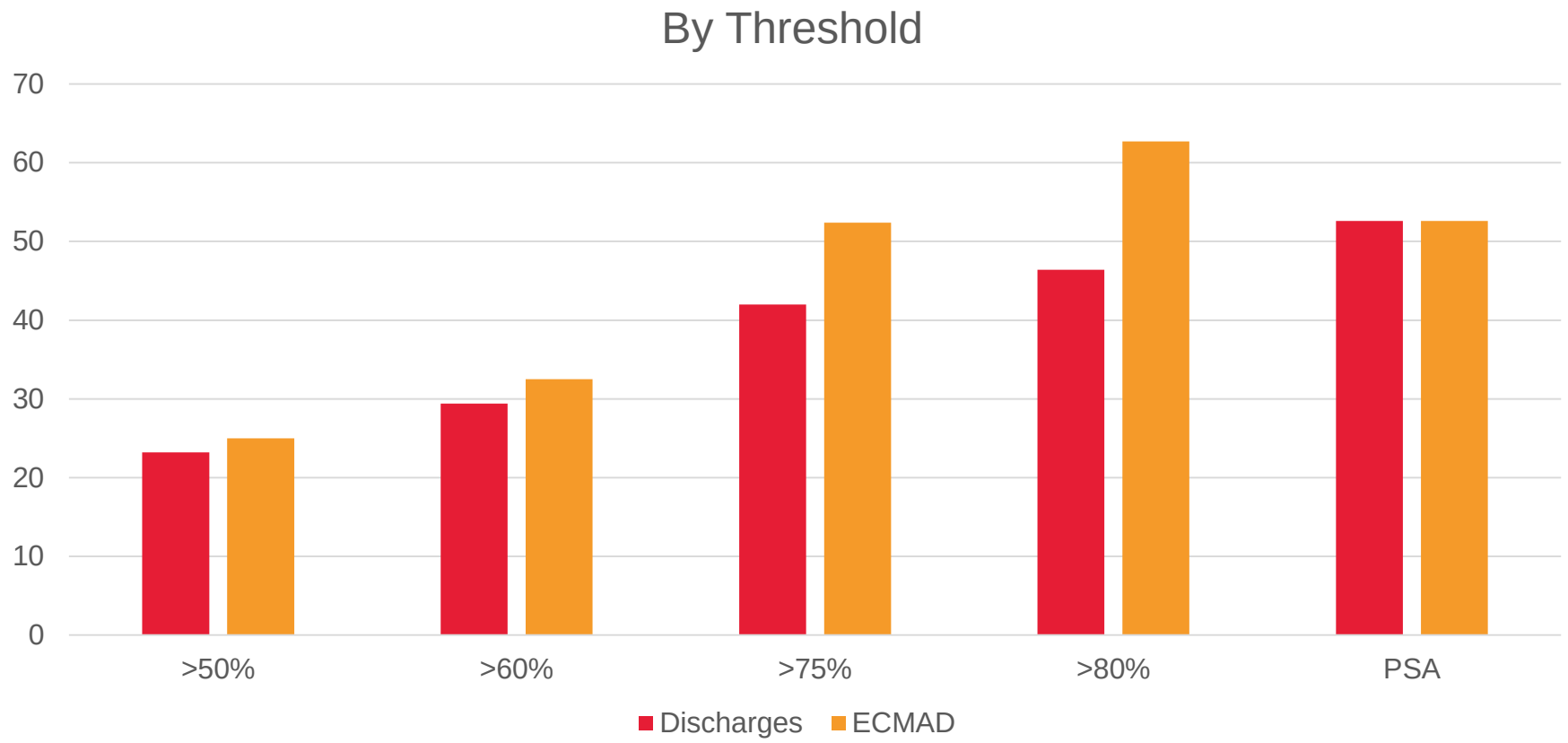
Share of Discharges, zip codes, zip code costs (compared to 75%)



Overlap of Service Areas: ECMAD and Discharge based Service Areas



Share of Maryland Zip codes: ECMAD vs Discharges



Next Steps

- More analysis of cost attribution
- Identify optimal method or combination of methods
- Variations
  - Outliers removed
  - Non-Maryland markets included

Total Cost of Care Workgroup

May 24, 2017

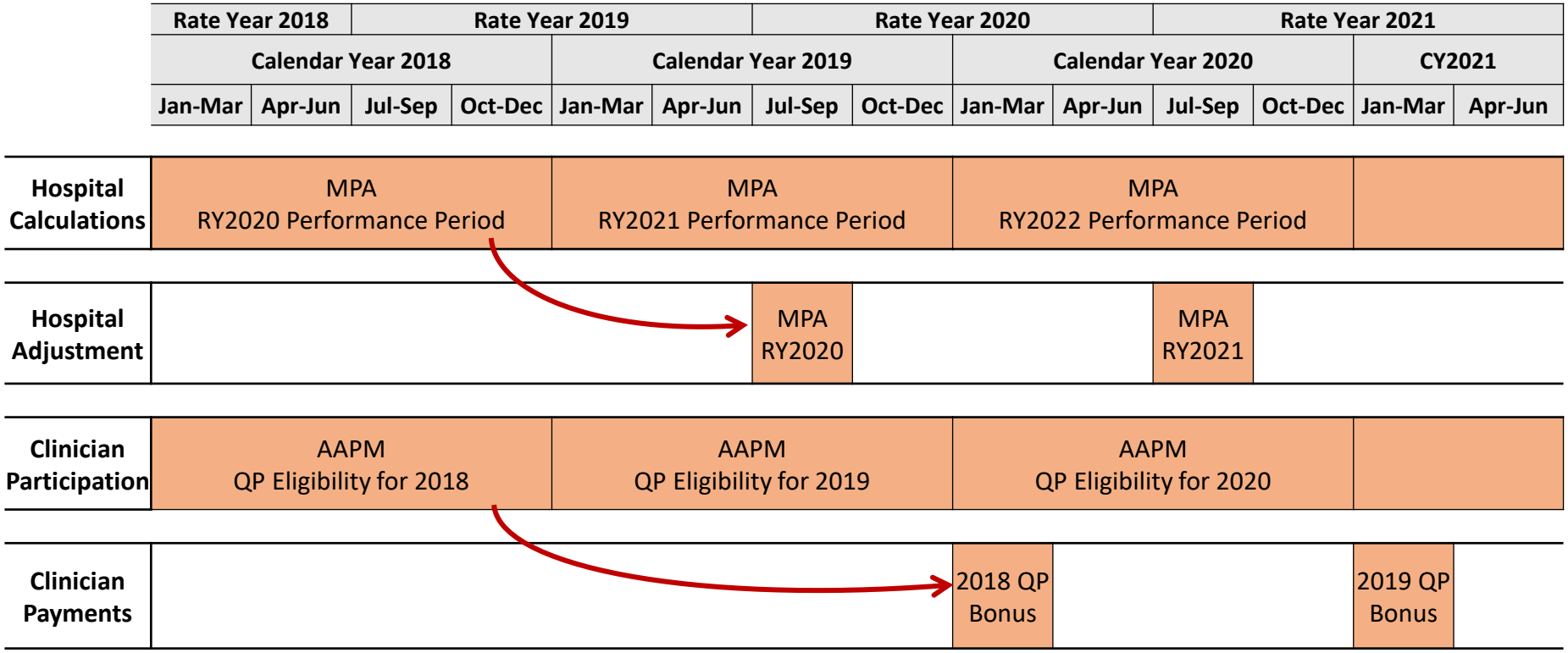
HSCRC
Health Services Cost Review Commission

TCOC Work Group Meeting Dates

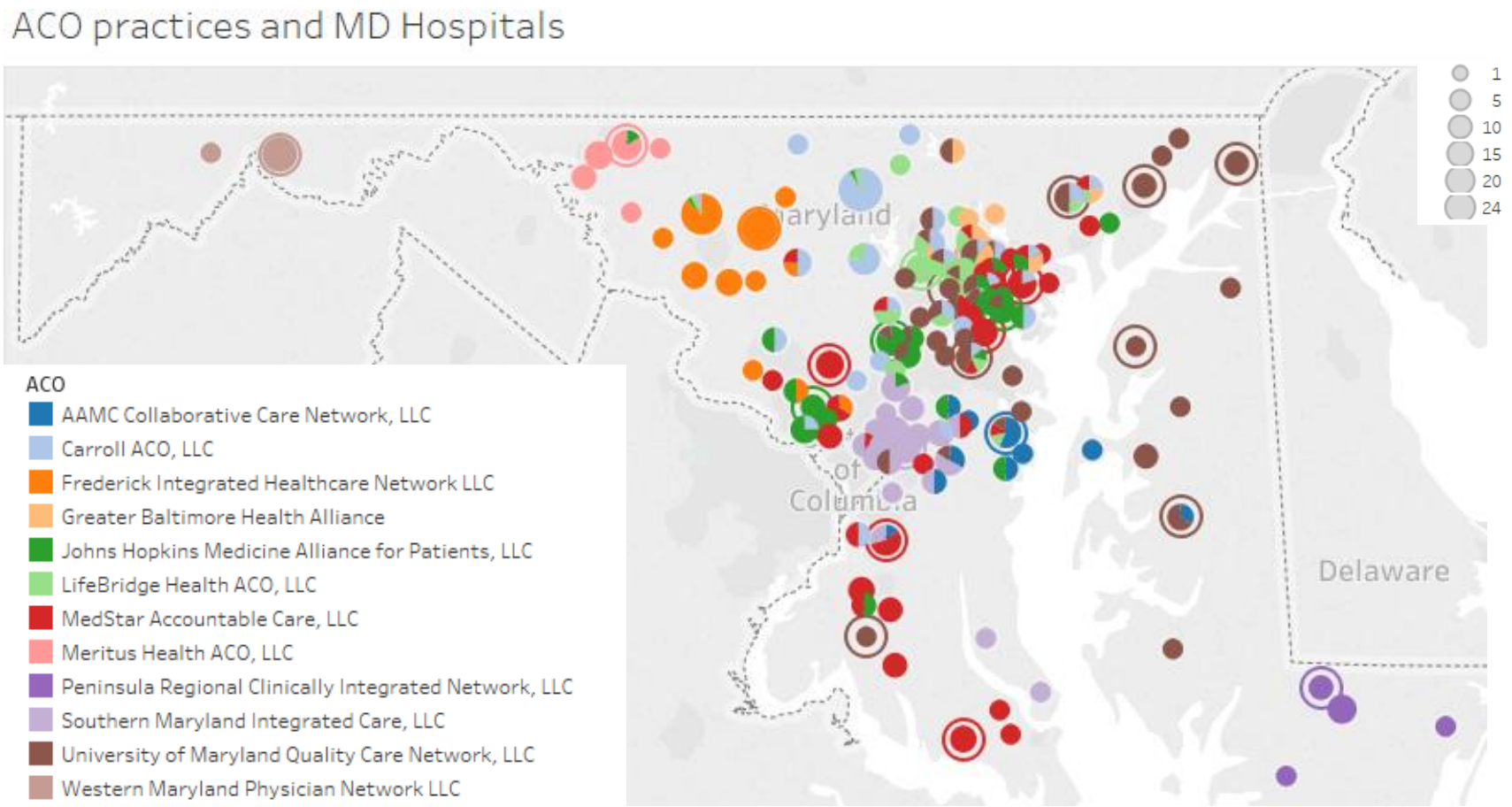
- **May 24, 2017, 8 AM – 10 AM**
- June 28, 2017, 8 AM – 10 AM
- July 26, 2017, 8 AM – 10 AM

Appendix

MPA Timeline: RY2020 and RY2021

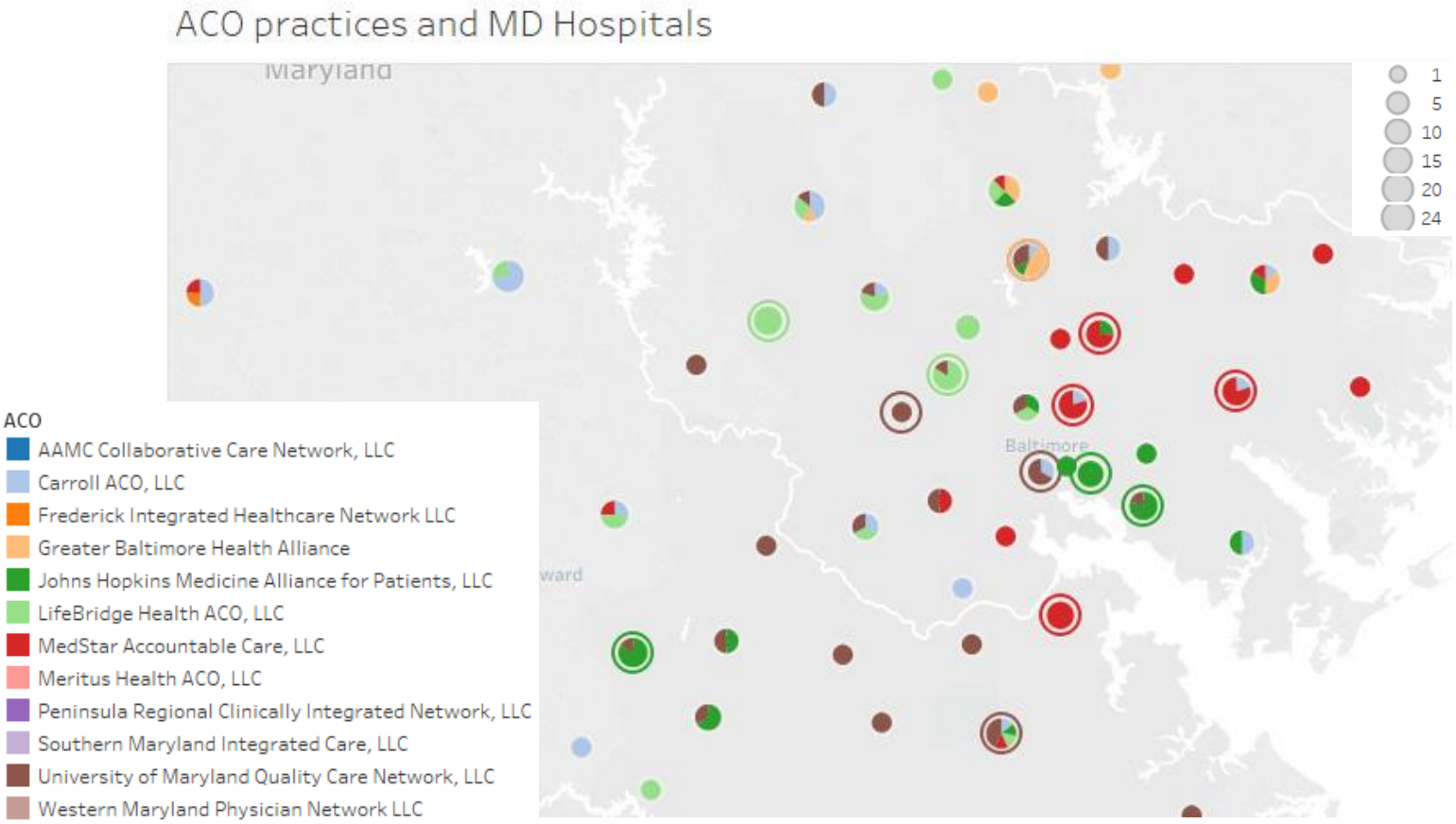


ACO Practice Location Distribution



Larger size circles represent a greater number of practice locations in that zip code. (see top right for size indicators). Circle outlines represent hospitals in the ACO systems.

ACO Practice Location Distribution- Baltimore



Larger size circles represent a greater number of practice locations in that zip code. (see top right for size indicators). Circle outlines represent hospitals in the ACO systems.