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Specialist Engagement in ACOs: Federal Policy and Future Episode Models

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Institute For Accountable Care

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An independent 501(c)(3) research institute formed in 2018 to help build the evidence base on the impact of accountable care delivery strategies to support care transformation and inform public policy.

Medicare Data

100% of FFS Claims
Annual and Quarterly
Through Q4 2022

- Part A, B, D claims
- MDS assessments
- ACO provider file
- ACO beneficiary file
- MD-PPAS
- MA encounters (18)

Session Overview

- Episode of care basics
- CMS policy objectives and current direction of new bundled payment model development
- Proposed policies to address CMS goals
- Future innovation in episode development
  - Advanced episode groupers
  - Design of chronic condition episodes

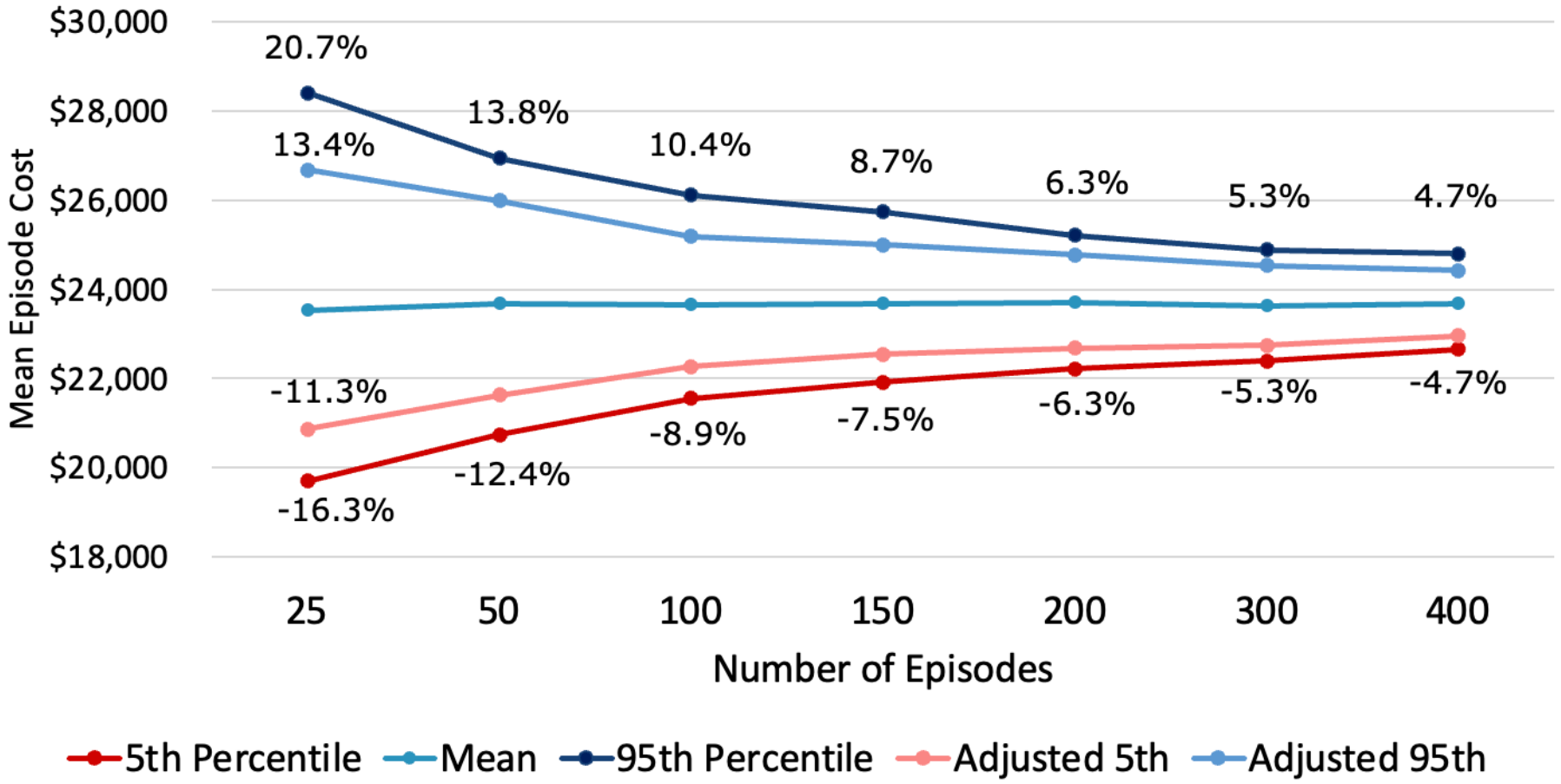
Episode of Care Basics

Episode of Care and ACOs

- Low episode volume = unreliable pricing
- Current risk adjustment models are inadequate
- Relatively few ACOs have enough episode volume to take financial risk based on their attributed beneficiaries
- Overlap is a problem and CMS has no good solution
- ACOs can be effective partners to hospitals and specialty groups that want to manage episodes

Distribution of 2021 Observed and Risk Standardized Episode Costs by Volume

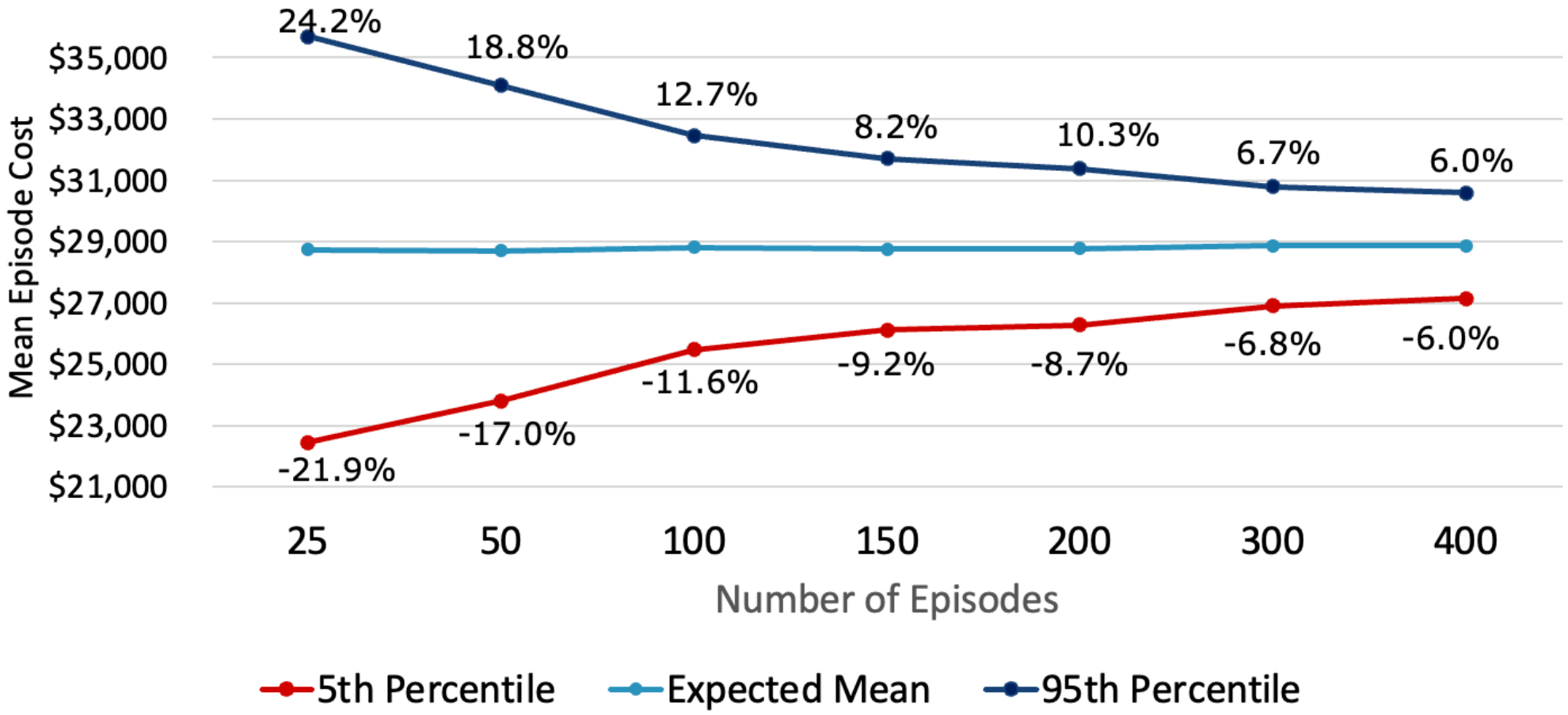
90-Day Medicare Episode: **Major Joint Replacement (Mean = $23,700)**



Source: Institute for Accountable Care analysis of 2021 Medicare claims data using BPCI-Advanced episodes.

Distribution of 2021 Episode Costs by Volume

90-Day Medicare Episode: **Heart Failure Hospitalization (Mean = $29,000)**



Source: Institute for Accountable Care analysis of 2021 Medicare claims data using BPCI-Advanced episodes.

Number of ACOs with 100+ Cases in 2021

BPCI-Advanced Episode	Number of ACOs	Percent of ACOs
Pneumonia and respiratory infections	391	82.3%
Major joint replacement (lower)	386	81.3%
Sepsis	363	76.4%
Congestive heart failure	225	47.4%
Stroke	141	29.7%
Cardiac arrhythmia	130	27.4%
PCI (Outpatient)	114	24.0%
Gastrointestinal hemorrhage	112	23.6%
Urinary tract infection	117	24.6%
Renal failure	109	22.9%
Spinal fusion	87	18.3%
Hip & femur except major joint	94	19.8%
Acute myocardial infarction	84	17.7%
PCI (Inpatient)	89	18.7%
Major bowel procedure	69	14.5%
COPD, bronchitis, asthma	72	15.2%

Source: Institute for Accountable Care analysis of 2021 Medicare claims data using BPCI-Advanced episodes.

Next Generation Episode Development

Episode Grouper Options

BPCI-A

- 34 episodes
- Most triggered by hospital stay (DRG)
- Target price from national regression model

Acumen

- 23 episodes
- Narrower than BPCI bundles
- Used by CMS for MIPS cost measures

EGM

- Episode grouper for Medicare
- 850+ episodes
- Triggered by CPT and ICD codes
- Nest chronic, acute and procedure episodes.

Commercial

- Include Optum, IBM-Watson, Cave
- Black box model
- Developed on commercial claims data

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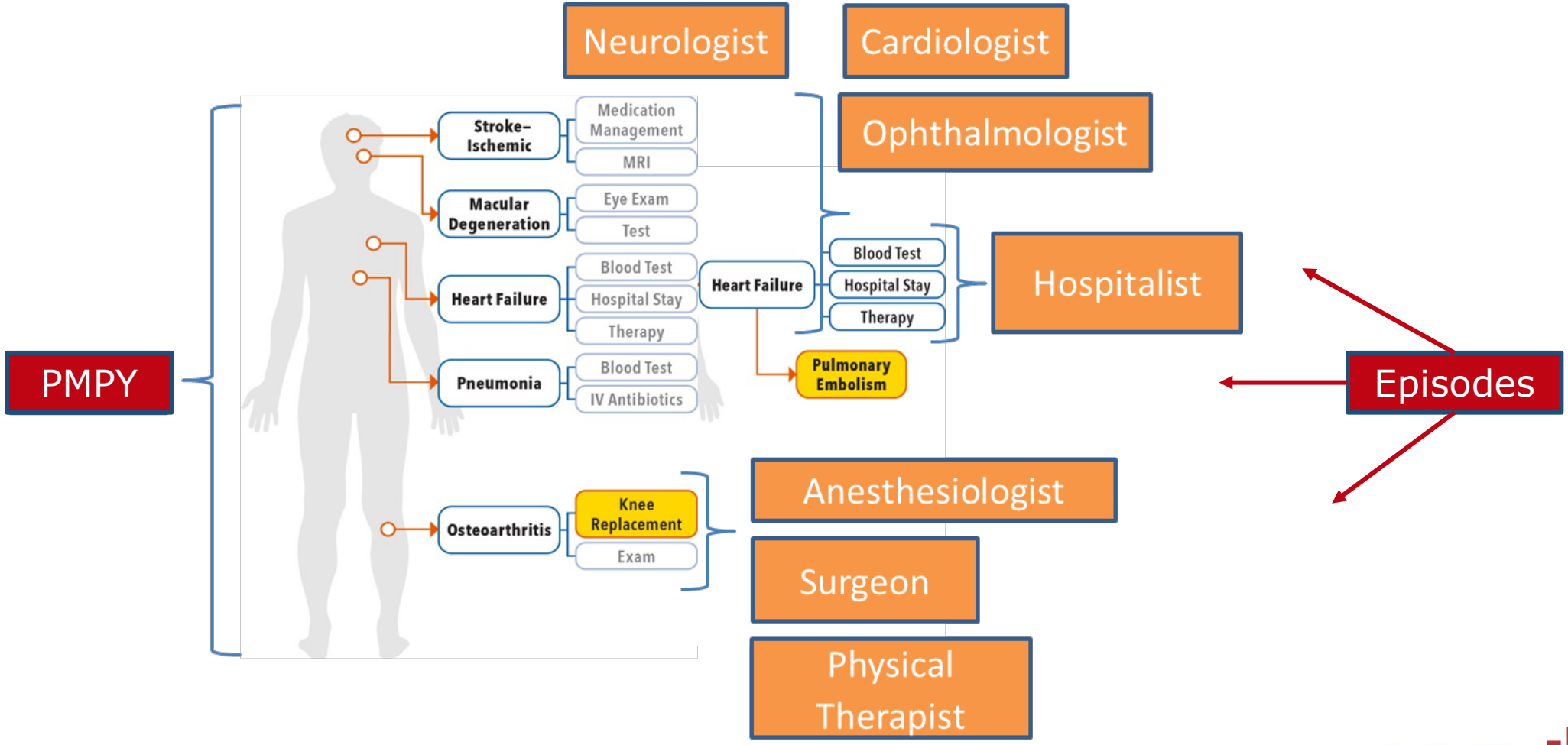
The Whole vs the Sum of its Parts



Episode Grouper for Medicare (EGM)- Philosophy

- Broad (lumpy) episode definitions with ability to stratify (split) for more precision
- Services eligible to be assigned to a particular type of episode are first observed in claims data, then vetted by clinicians as "plausible."
- Inclusive Total Cost of Care (TCOC) from multiple perspectives:
  - Patient – individual episode
  - Providers – set of episodes across patients
  - System – broad set of episodes across patients and providers
- Focused on team-based care, not on individual providers

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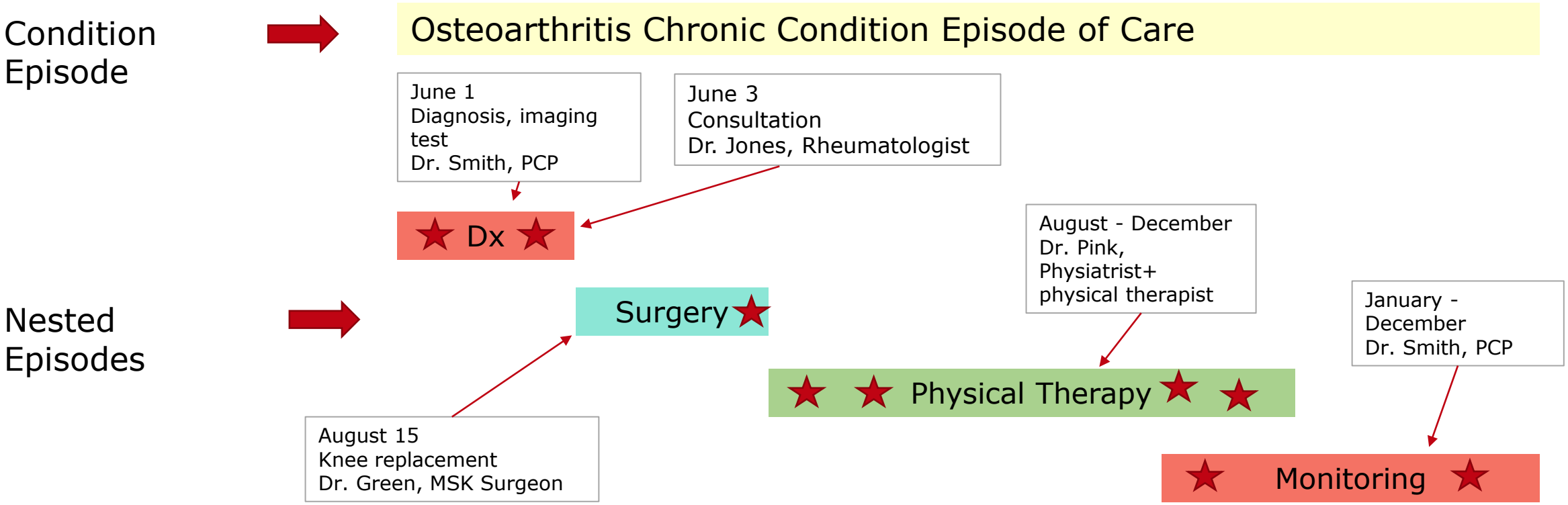
Nesting Episodes



★ Indicates visits

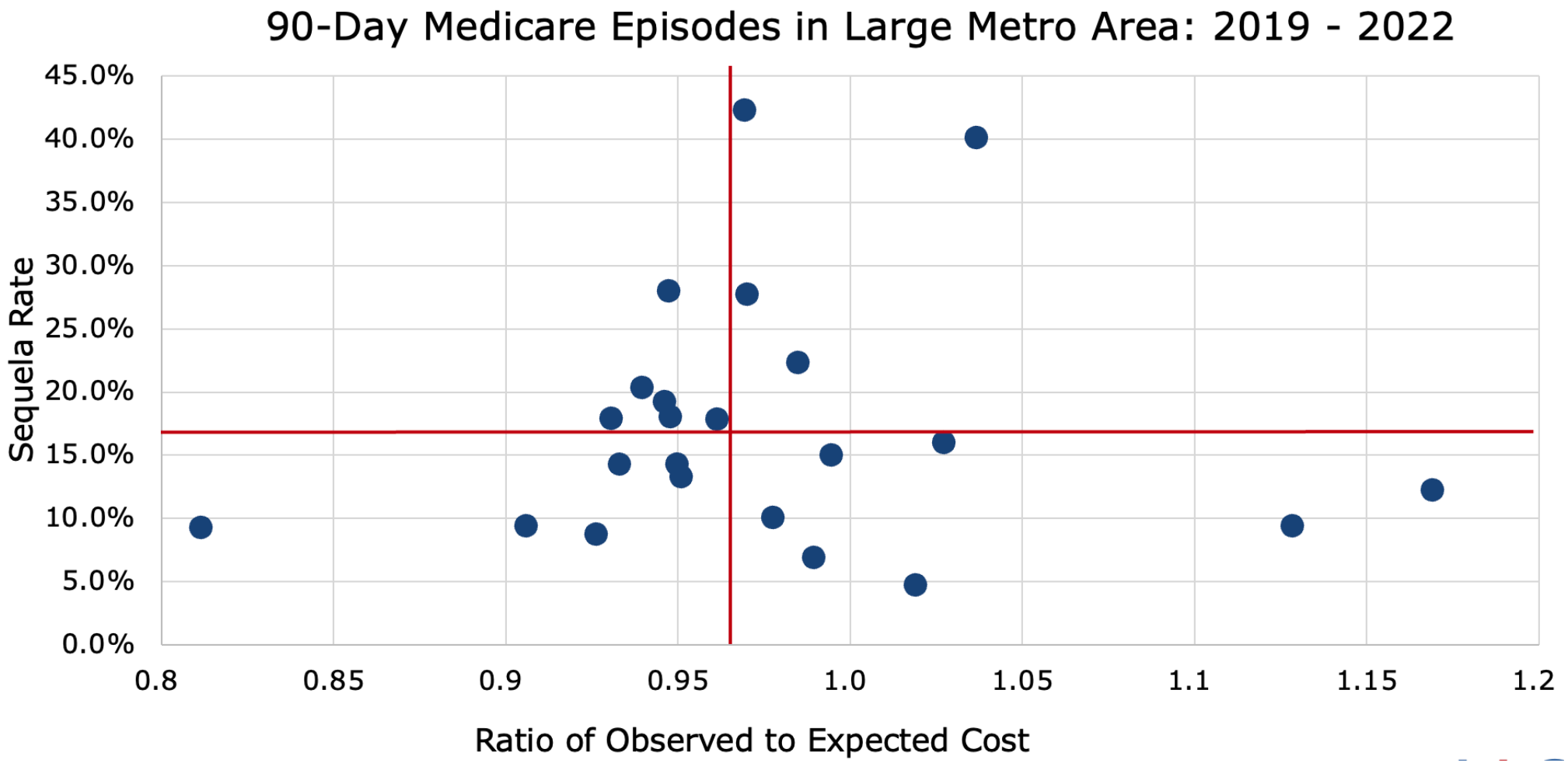
Identifying the Care Team

Number of Clinicians for Selected 90-Day Procedural Episodes

Procedural Episode	Average Count of Unique Clinicians per Episode	Range
CABG	21	8-48
Colectomy	13	3-44
Hip Replacement	9	4-16

EGM Example: Background

- Large metropolitan hospital referral region (HRR)
- Claims data from July 2019 – June 2022
- Hip replacement procedure episodes
- Filters:
  - Zero dollar and low dollar cases
  - No inpatient stay assigned
  - (minimum service set)



*Sequela are complication rates. The sequela rates shown here are not risk adjusted.
Note: NPIs shown had at least 100 Medicare hip replacement episodes

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Comparing Surgical TINs on 90-Day Joint Replacement Episodes

Episode	TIN	Cases	Observed	Expected	O/E Ratio	Sequela Rate
Knee Replacement	TIN 1	1,011	$22,000	$21,792	1.01	9.5%
	TIN 2	911	$21,374	$22,100	0.97	22.0%
	TIN 3	575	$21,888	$22,066	0.99	14.3%
	TIN 4	573	$21,646	$21,775	0.99	19.5%
	TIN 5	372	$21,338	$22,054	0.97	32.3%
Hip Replacement	TIN 1	1,169	$20,279	$21,406	0.95	18.5%
	TIN 2	875	$23,884	$22,836	1.05	11.8%
	TIN 3	402	$22,089	$22,071	1.00	15.4%
	TIN 4	328	$20,418	$21,339	0.96	24.1%
	TIN 5	323	$23,802	$22,618	1.05	18.9%

Common Sequela in Hip Replacement

Sequela Description	Episodes	Hip replacement cost	Sequela Cost	Pct. of Episodes With Sequela
All Episodes	4,038	$20,363	$137	18.4%
anemia acute	630	$23,149	$134	15.6%
electrolyte ds	187	$23,764	$101	4.6%
acute kidney failure	71	$27,906	$453	1.8%
cellulitis, trunk and extremities	51	$21,204	$2,154	1.3%
nos other injury	40	$26,001	$237	1.0%
uti	38	$26,488	$1,003	0.9%
orthopedic dvc/grft comp/malfnctn	36	$47,434	$4,525	0.9%
joint replace compl	31	$37,278	$2,950	0.8%
surgical complctn nos	25	$50,923	$223	0.6%
pneumonia	20	$44,238	$3,313	0.5%
acute DVT extremity/NOS	19	$35,517	$2,669	0.5%
sepsis, SIRS	17	$36,390	$6,452	0.4%
acs other than ami	16	$21,836	$408	0.4%
resp failure	13	$35,222	$3,778	0.3%
fluid ds hypo/hyper-volemia	11	$35,628	$608	0.3%

Key stratifications and levels of analysis surgical episodes of care

Episode stratifications

- Elective vs Urgent/Emergent
- Indication
- Presence/absence of sequelae (proxy for quality)
- Clinical severity of the patient
- Resource use (low versus high)

Levels of Analysis

- Hospital
- TIN
- NPI
- TIN-hospital combinations

Challenges and Opportunities

Challenges

- Low volume
  - Leads to greater exposure to random variation
- Poor risk models
- Limited quality measures
- Attribution

Opportunities

- Variation by…
  - Setting
  - provider group
  - Service line
- Ability to assess…
  - Complications rates (using some tools)
  - Surgery rates
  - Other population health measure
- Identify care team

Thinking about Chronic Condition Episodes

Provider Mix for ACO Patients with IHD/HF with Hospital Stay

Physician-TIN E&M contacts in 2019 of patients with an Ischemic Heart Disease or HF episode open on 12/31/2018 By ACO category, occurrence of a HF or AMI hospitalization during 2019, and physician specialty

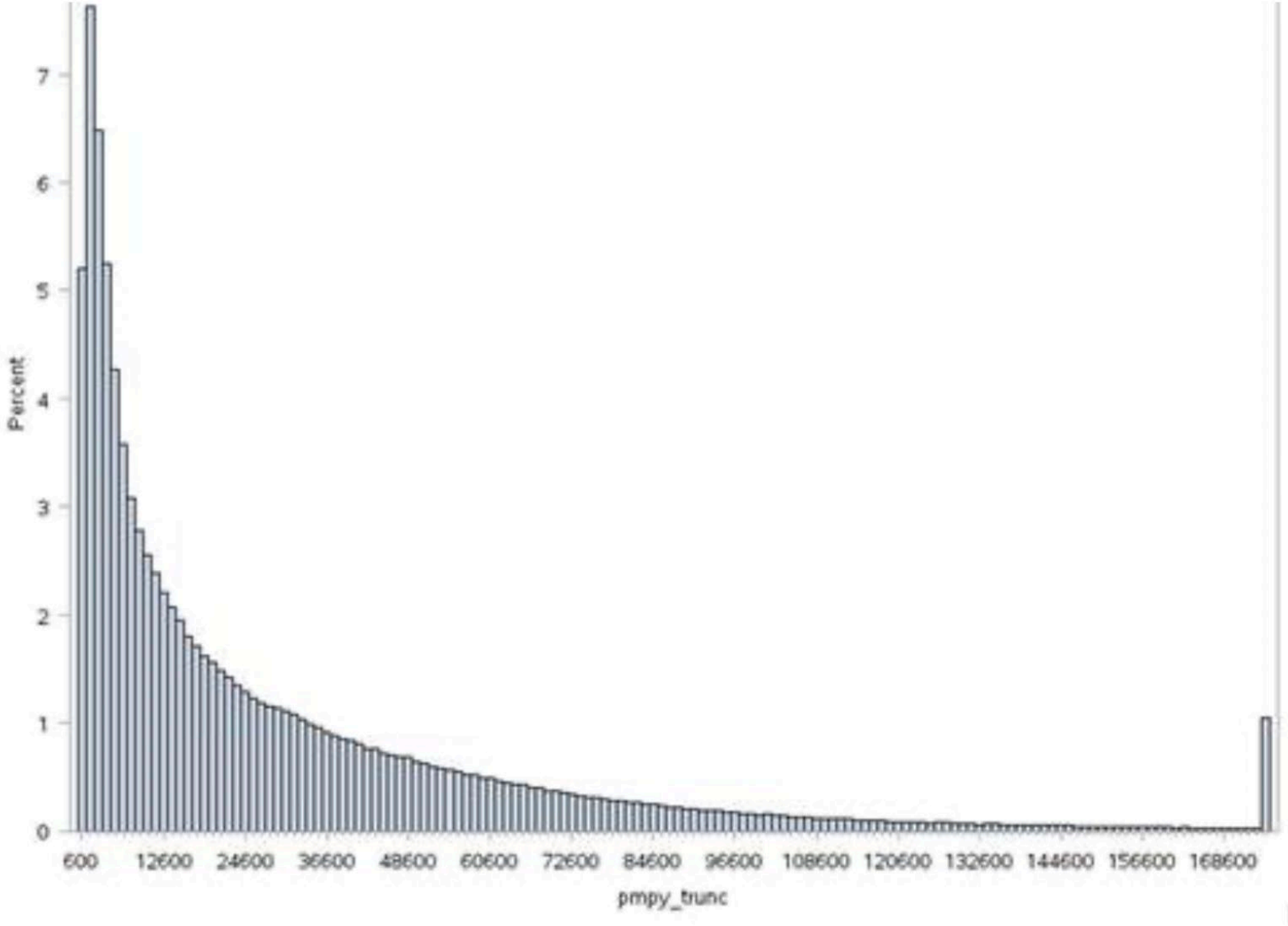
Contact Type	Statistic	No acute exacerbation	One or more acute exacerbations (AMI or HF) requiring hospitalization		
			6 months pre-admission	Inter-hospital	6 months post-discharge
All Cases	# beneficiaries	8,804	570	576	573
	Avg # TINs	5.6	5.6	3.1	6.4
E&M with general medicine physician for any reason	# beneficiaries	8,170	524	506	542
	Avg # TINs	1.6	1.9	1.3	2.2
E&M with cardiologist for any reason	# beneficiaries	5,188	354	443	402
	Avg # TINs	1.1	1.2	1.0	1.2

39% of pts admitted for heart failure or AMI did not see a cardiologist in the 6 months **before** admission

30% of pts admitted for heart failure or AMI did not see a cardiologist in the 6 months **after** admission

Source: Institute for Accountable Care analysis of 2019 - 2021 Medicare claims data using Episode Grouper for Medicare/PACES.

Heart Failure Beneficiaries, PMPY Spending Distribution for 2017 Sample



High-Cost HF Cohorts by Year

Year	Top 10%	Top 25%
2017	$74,617	$40,857
2018	$75,772	$41,391
2019	$77,286	$42,018

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2017 Heart Failure Spending Profiles for Top 10% & Bottom 90% of the Spending Distribution

Total 2017 Spending

2017 Cohort	N	Mean PMPY (Truncated)[1]	Mean PMPY (Observed)	Q1 PMPY (Observed)	Median PMPY (Observed)	Q3 PMPY (Observed)
Top 10%	151,838	$111,557	$118,117	$85,454	$101,391	$130,777
Bottom 90%	1,366,543	$20,012	$20,012	$4,312	$12,999	$31,290

1/ Spending truncated at 99th percentile based on MSSP benchmark methodology.

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Spending Trend for 2017 High-Cost Heart Failure Cohort

Cohort and Year	Number	Observed Cost	Truncated Cost	Risk Score[1]
2017 Top 10% Cohort	151,838	$118,747	$111,795	2.94
2017 Top 10% Cohort in 2018	82,711	$58,509	$55,453	5.36
2017 Top 10% Cohort in 2019	51,268	$51,778	$49,341	4.22

1/ Prospective community HCC score normalized to continuous A & B, FFS, attribution-eligible population with 12 months of data in 2017. Deaths and ESRD beneficiaries were excluded.

Observations:

- There is substantial regression to the mean for high-cost beneficiaries in future years
- Suggests need for better prediction of persistently high-cost beneficiaries.
- Note: prospective risk score (MSSP method) means that 2018 risk score reflects 2017 diagnoses.

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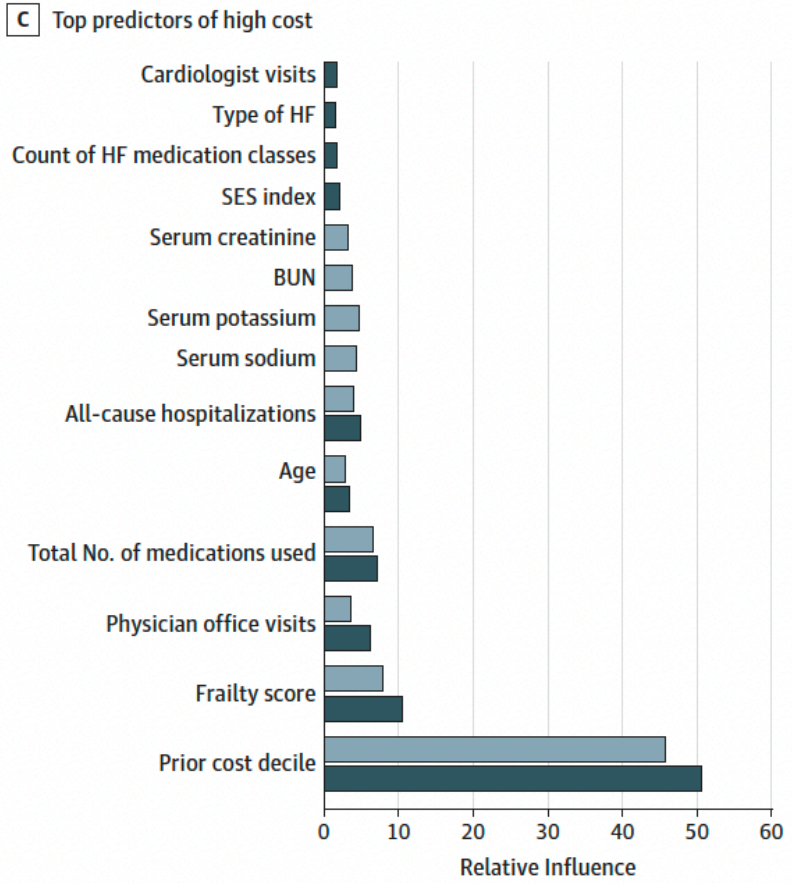
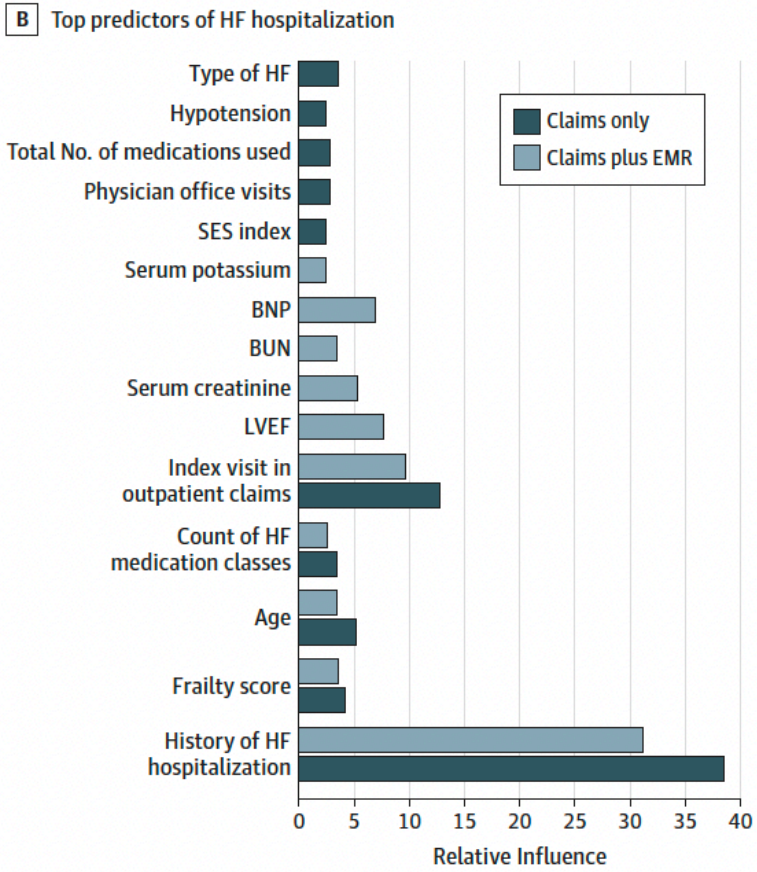
Heart Failure Outcomes are Difficult to Predict

Figure 2. Most Influential Predictors From the Gradient-Boosted Models for Each Outcome of Interest





Source: RJ Desai. JAMA Network Open. 2020;3(1):e1918962. doi:10.1001/jamanetworkopen.2019.18962

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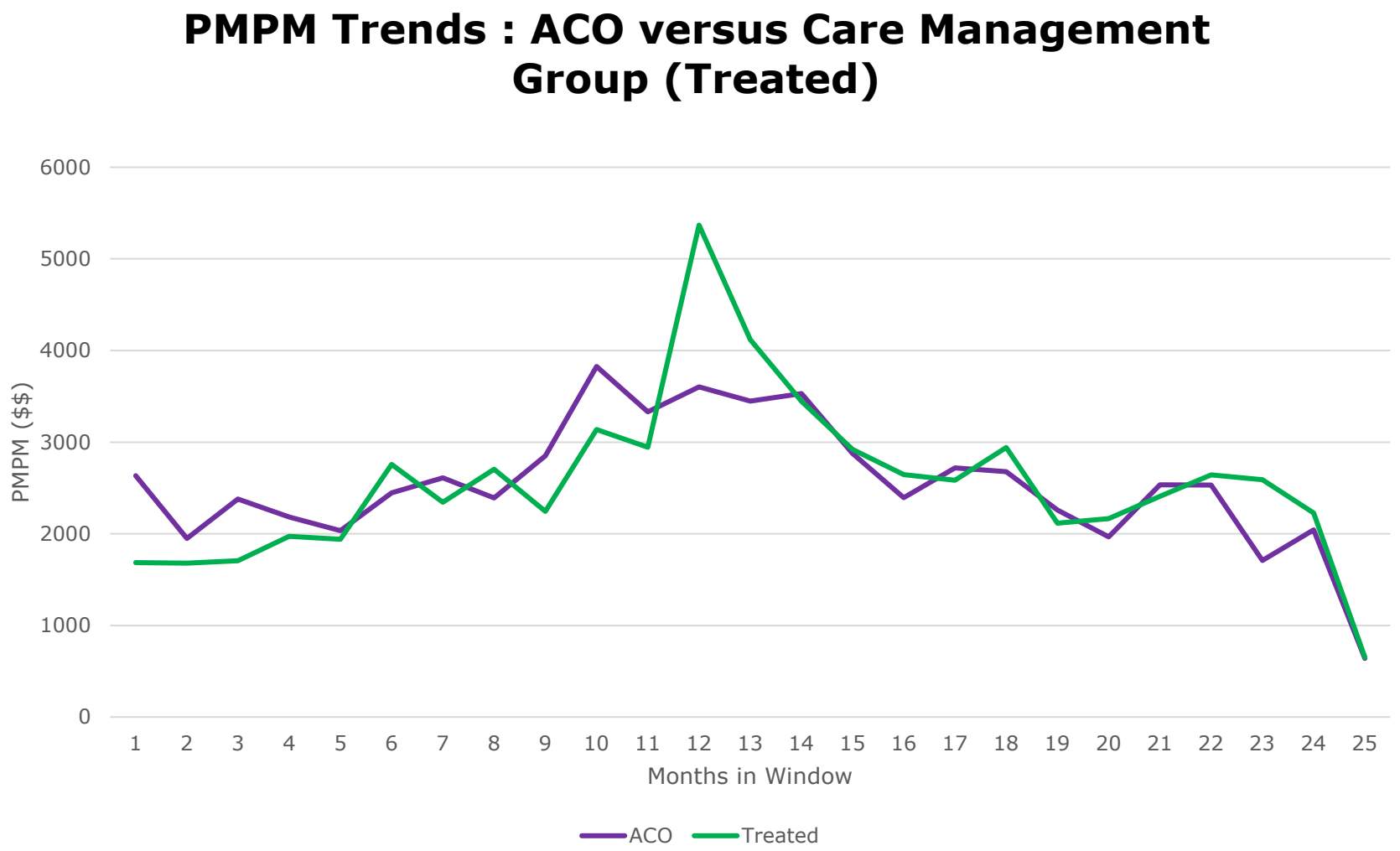
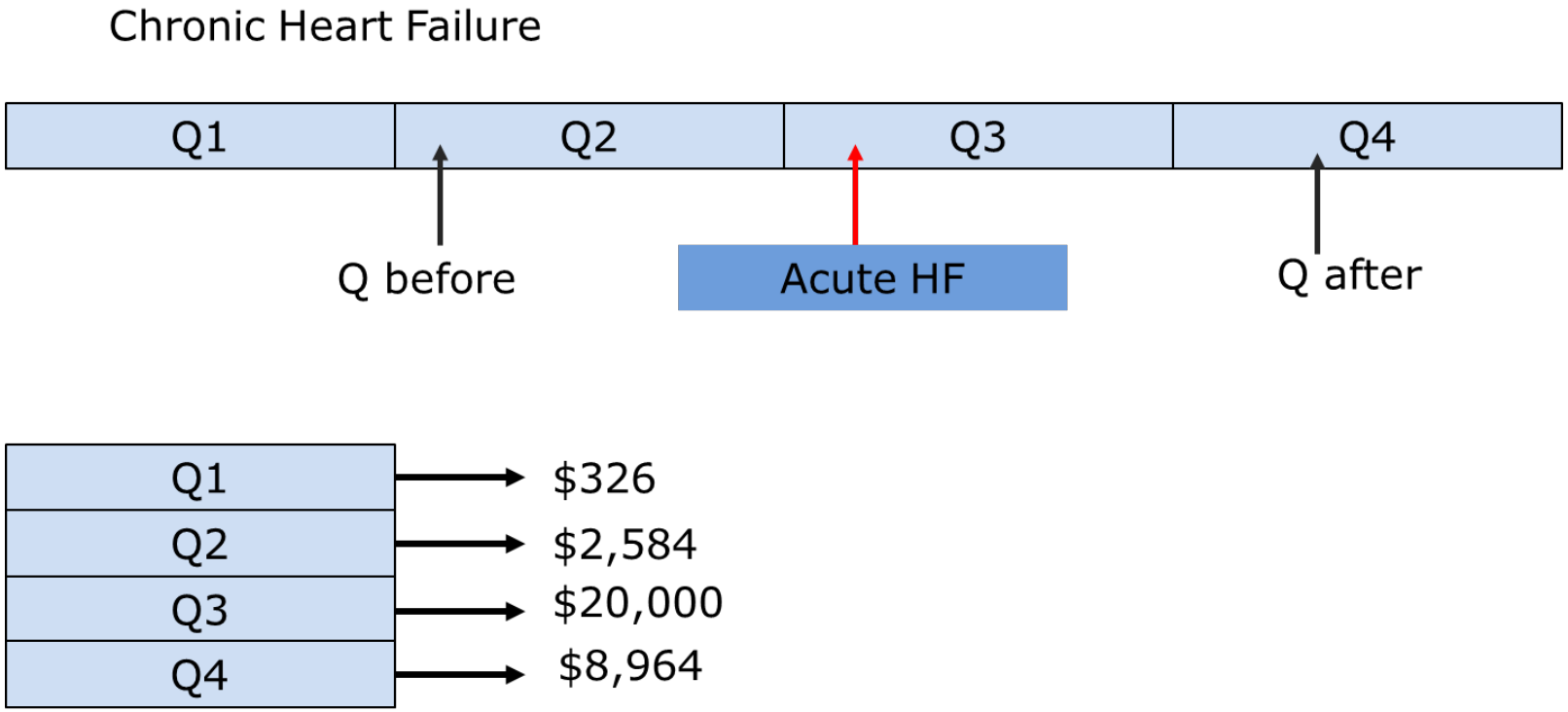
Variation in spending over time for beneficiaries with chronic conditions



PLACE HOLDER – Dan's tables on $0 months around acute event



Challenges in Pricing Chronic Condition Episodes

- Long periods of low costs
- Hard to predict acute exacerbations and periods of high cost
- Stage and phase of illness important, but hard to determine in claims
- Attribution of chronic care episodes to specialists

Potential solutions

- Predict the probability of an acute events before estimating costs (two-part models)
- Case rates for acute event (limits incentive to prevent acute events)
- Develop markers for stage and phase of illness – these can be used in risk models to improve discrimination

Federal Policy Issues

Bundled Payment and ACOs: Issues from the Past

- Interaction between Medicare ACOs and original BPCI
  - Overlap occurred when ACO beneficiaries received care from a BPCI episode initiator
  - CMS policy was to reconcile models to avoid duplicate incentive payments
  - Financial penalty for some ACOs when charged the BPCI target price rather than the beneficiaries' actual costs
  - Disparate care coordinators managing the same patient
- CMS response to concerns about overlap
  - Excluded beneficiaries in NGACO model from BPCI and CJR
  - Ultimately chose to reconcile programs separately
  - CMS concerned with duplicative incentive payments

Policy Context

- CMS would like to:
  - Increase engagement of specialists within accountable care
  - Align episode payment with total cost of care models
  - Promote meaningful collaboration between primary care and specialty care providers
- CMMI Strategy for Value-Based Specialty Care
  - Share episode data with ACOs
  - Extend BPCI-A for two years and build next episode model
  - Launch primary care models with incentives for better coordination between PCPs and specialists
  - Establish condition or specialist budget target within ACO benchmarks

Our Read of Policy Preferences from CMS Episode RFI

- Mandatory bundles for one or more procedures
  - Likely focusing on hospitals like CJR
- 30-day rather than 90-day episodes to "support coordination while limiting overlap"
- Only conveners that are Medicare-certified providers
  - Likely role for ACOs as conveners
- CMS acknowledges problems with model overlap but:
  - Wants to avoid exclusionary rules for entities that may be required to participate in bundles
  - Does not want to pay duplicate incentive payments

The CMS Bottom Line?

"*In order for the Innovation Center to achieve its strategic policy goals, episode-based payment incentives must be aligned across models to encourage intentional overlap, promote coordination, and facilitate seamless transition back to primary care*."

CMS RFI: Episode Payment Model, July 2023

Source: Federal Register / Vol. 88, No. 136, p45874 / Tuesday, July 18, 2023

Policy Options

- Back to the policies of early BPCI with the onus for coordination on ACOs? Or …
- Position ACOs to achieve better alignment with specialists:
  1. Presume ACOs can manage overlap with specialists and hospitals in the ACO
  2. For non-ACO specialists and hospitals require a formal agreement with the ACO before the ACO's beneficiaries are included in the bundle model.
- For mandatory bundle models CMS must establish reasonable minimum volume requirements to protect participants against random variation

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