

# Analyzing Opportunities for Episode of Care Payment



National P4P Summit  
Preconference II  
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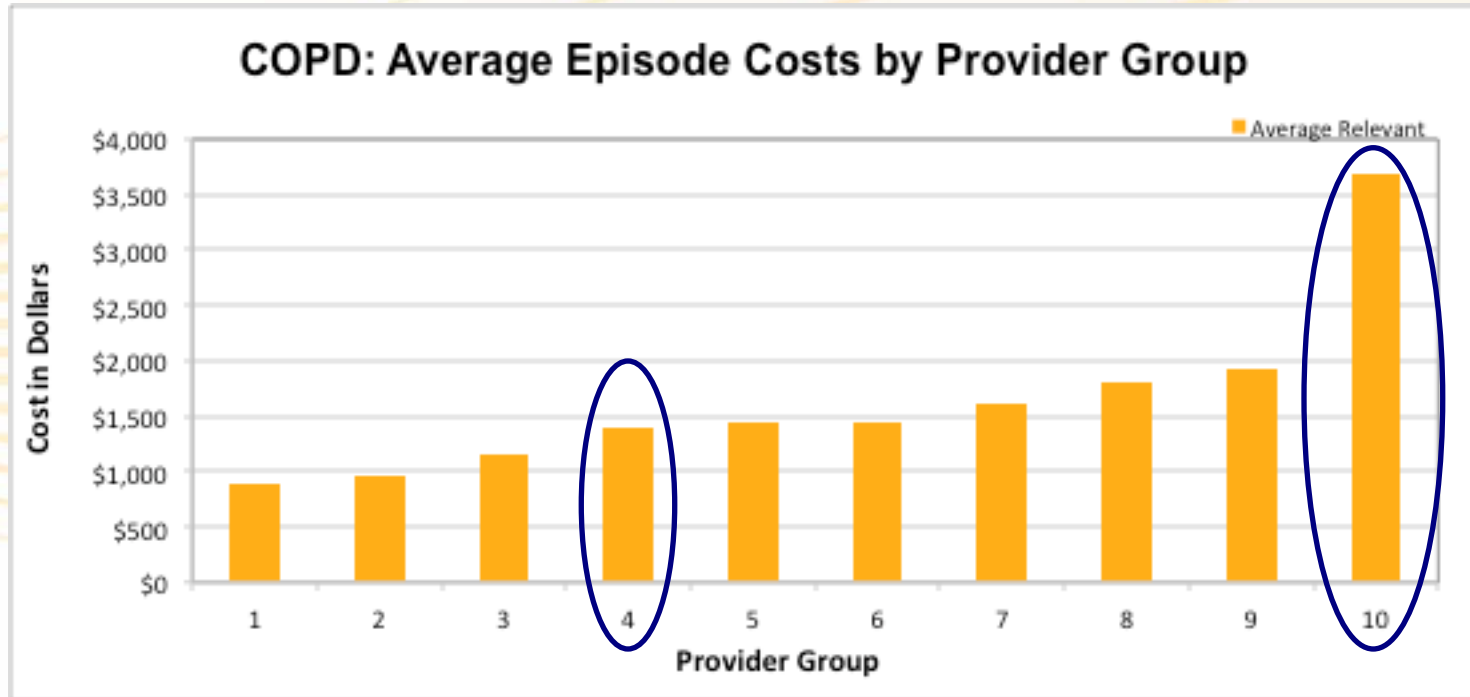
# Agenda

- Identifying Sources of Variation in Episode Costs
- Analyzing Potentially Avoidable Complications
- Provider Level Analysis as a guide to contracting, performance assessment, and quality improvement

# Sources of Variation in Episode Costs

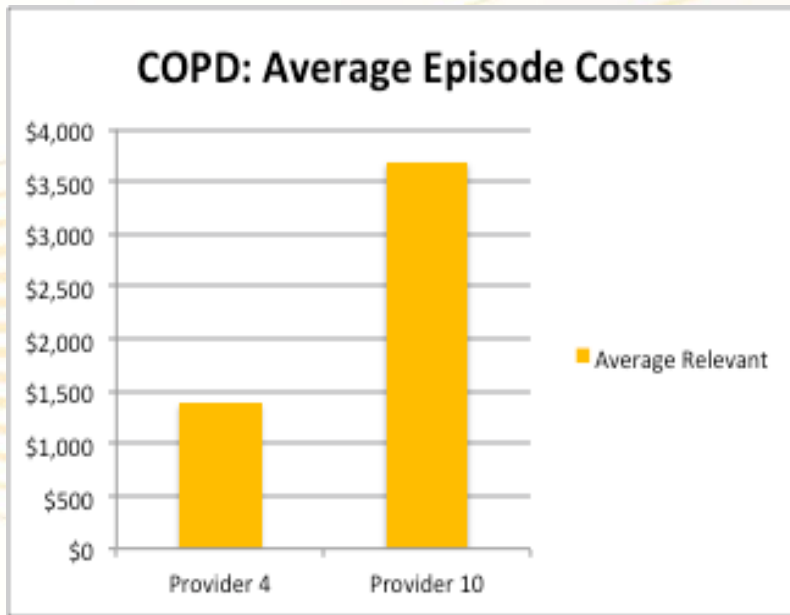
- Provider Performance in terms of potentially avoidable complications (PACs)
- Unit Price per Service – determined by fee schedules or contracted rates
- Severity of the patient – sicker patients may require more resources for appropriate care
- Provider Practice Patterns in terms of frequency and types of services provided for routine or typical care

# Variation in COPD Episode Costs across 10 Provider Groups



Average annual episode costs per patient are a routine measure used to assess cost performance across providers. However, little is known about the causes of the variation and how to reduce them.

# Example: COPD Episodes Among Two Provider Groups

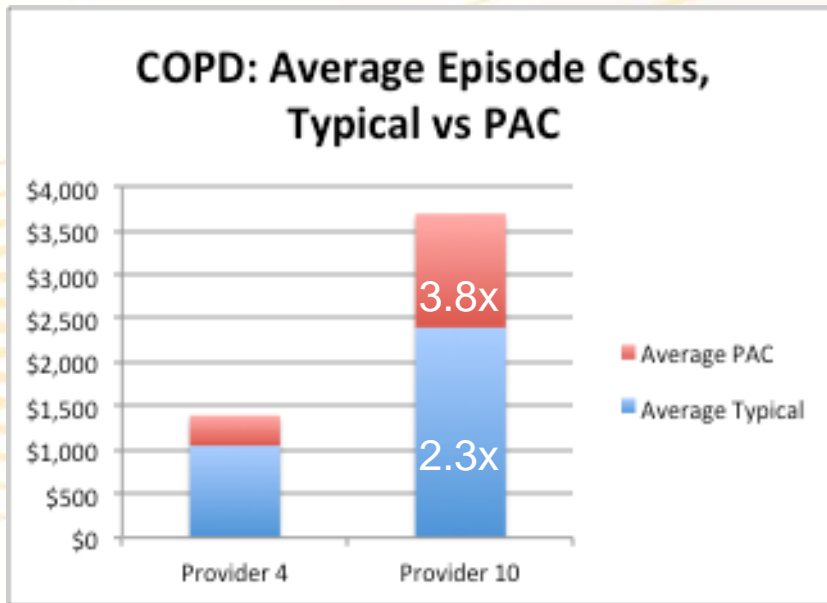


- On average, Provider 10's episode costs are 2.5x Provider 4's.
- How much of this difference is due to patient severity, provider competence and practice patterns?

	Provider 4	Provider 10
N	408	444
Total Episode Costs	\$569,160	\$1,640,580
Average Episode Costs	\$1,395	\$3,695



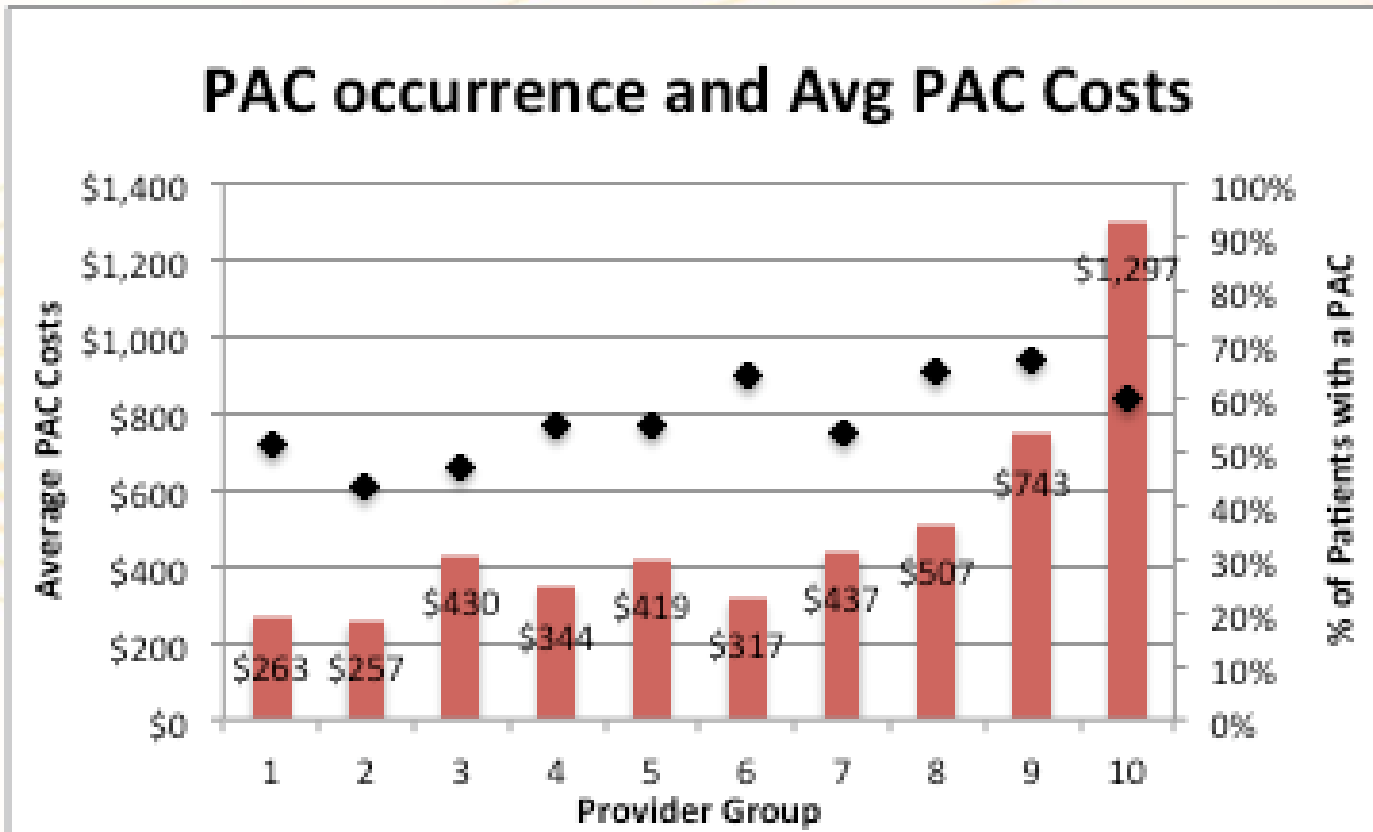
# Let's split the average episode costs between typical and PAC



- Provider 10 incurs more PACs on average relative to total annual episode cost (35% v. 25%)
- On average Provider 10 incurs close to 4x more than Provider 4 on PACs per patient

	Provider 4	Provider 10	Difference
Average PAC Costs	\$344	\$1,297	3.8
Average Typical Costs	\$1,051	\$2,398	2.3
% of Dollars Spent on PACs	25%	35%	1.4

# PAC Cost and Frequency



Provider 10's PAC problem is not caused by the frequency of PACs as much as the average cost per PAC. Let's understand the drivers.

# What types of PACs are driving excess costs for Provider 10?

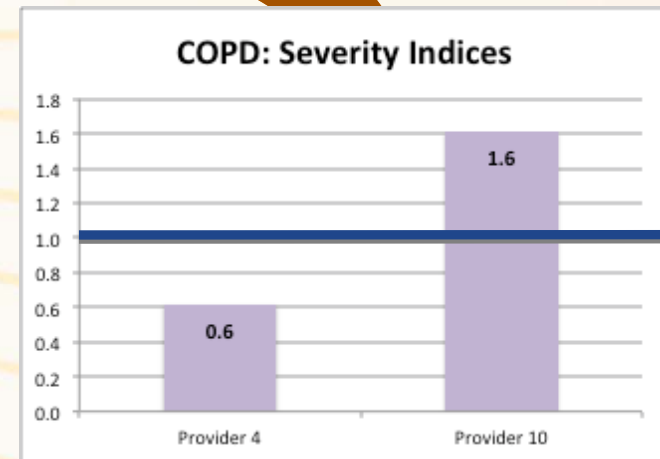
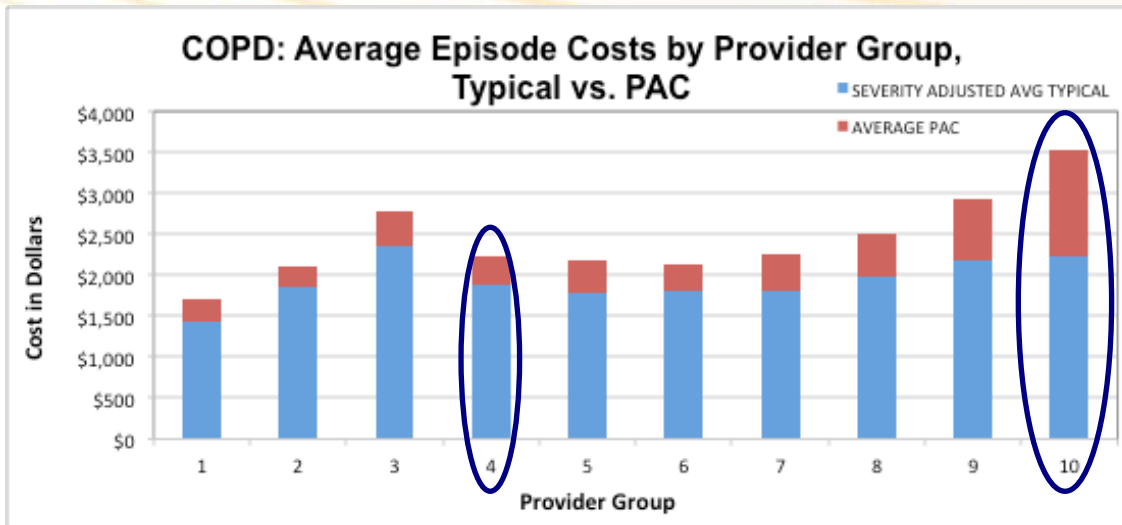
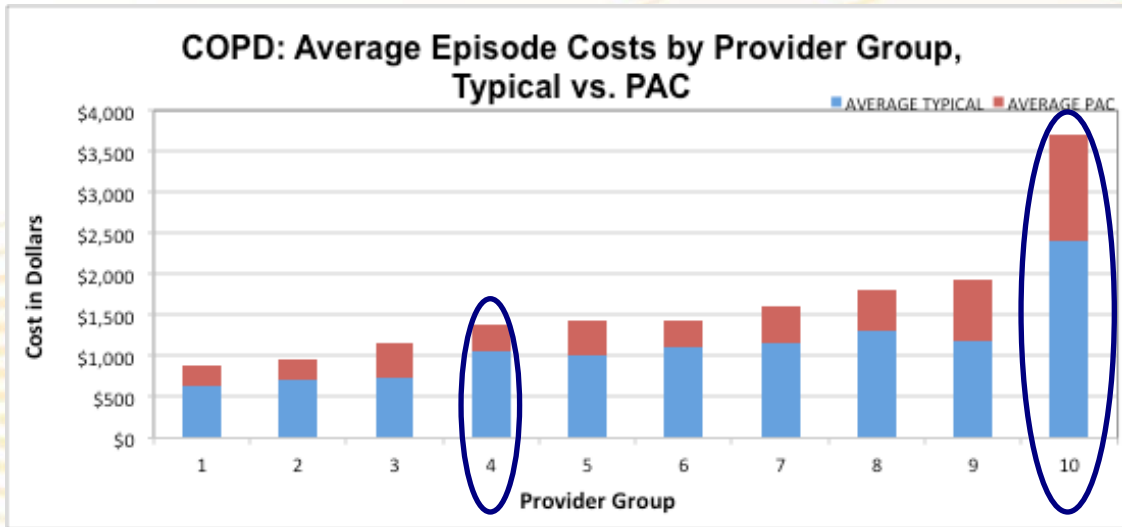
PAC Type	Provider 4	Provider 10
Type 1 PACs (directly related to the index condition)	41%	52%
Type 2 PACs (related to comorbidities)	55%	36%
Type 3 PACs (suggesting patient safety failures)	4%	12%

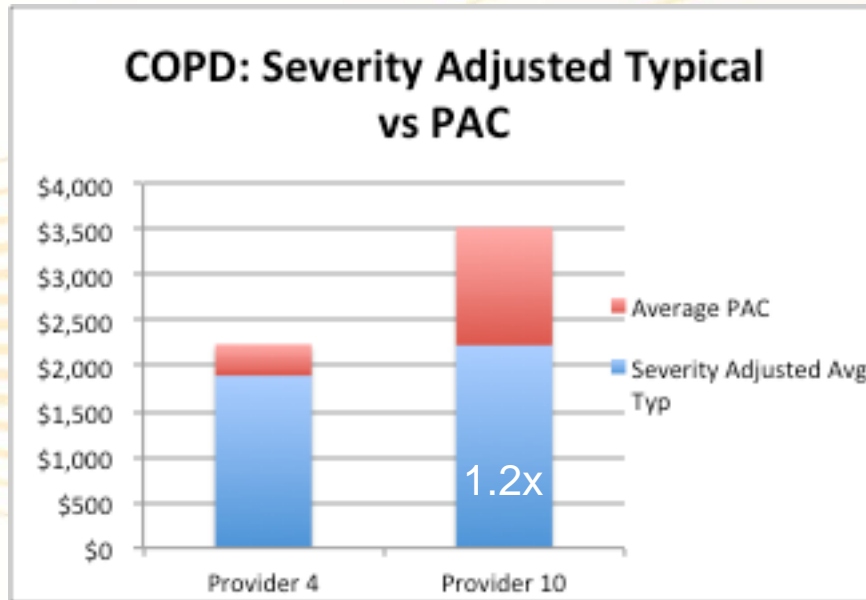
PAC Description	Provider 4	Provider 10
Emergency Room	18%	12%
Acute Exacerbation of COPD	16%	15%
Pneumonia, Lung Complications	6%	13%
Cardiac Dysrhythmias	11%	9%
Urinary Tract Infections	4%	1%
Cellulitis, Skin Infections	8%	6%
Gastritis, ulcer, GI hemorrhage	7%	3%
Chronic Obstructive Bronchitis	--	6%
Complications of medical care, surgery, implanted device, grafts	2%	2%
DVT, Pulmonary Embolism	1%	8%



# Is the variation in typical costs due to patient severity?



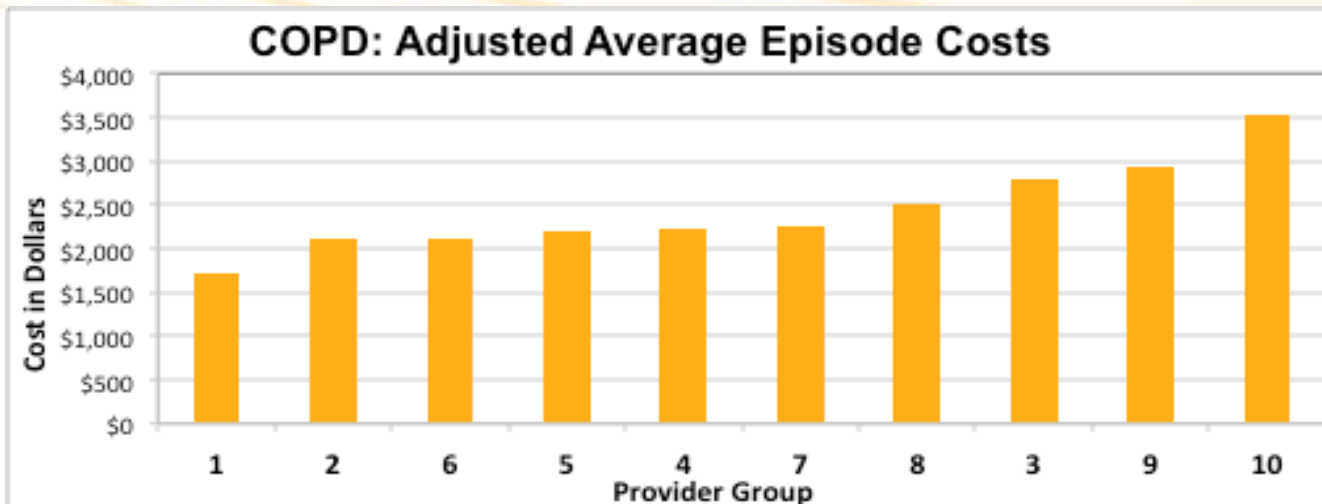
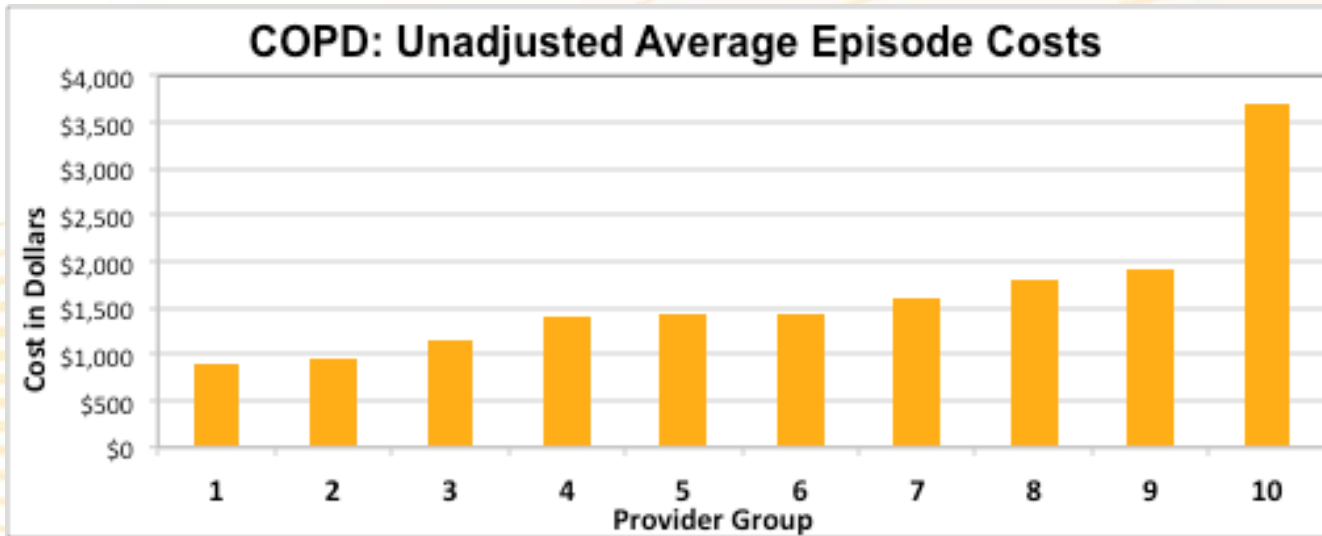
# After adjusting for severity



- After adjusting for patient severity, the difference in typical costs is minor and mostly due to practice pattern variation (e.g. higher use of discretionary services – labs, imaging, etc..)

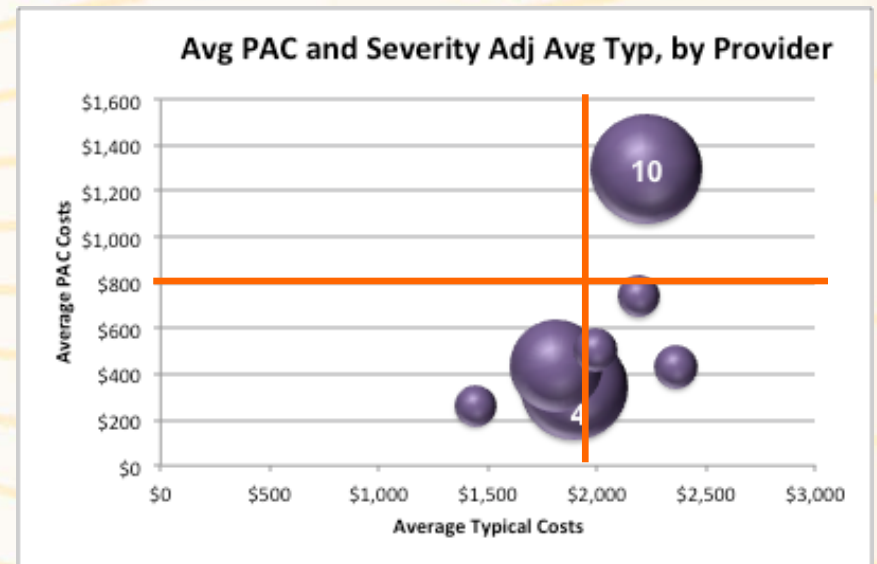
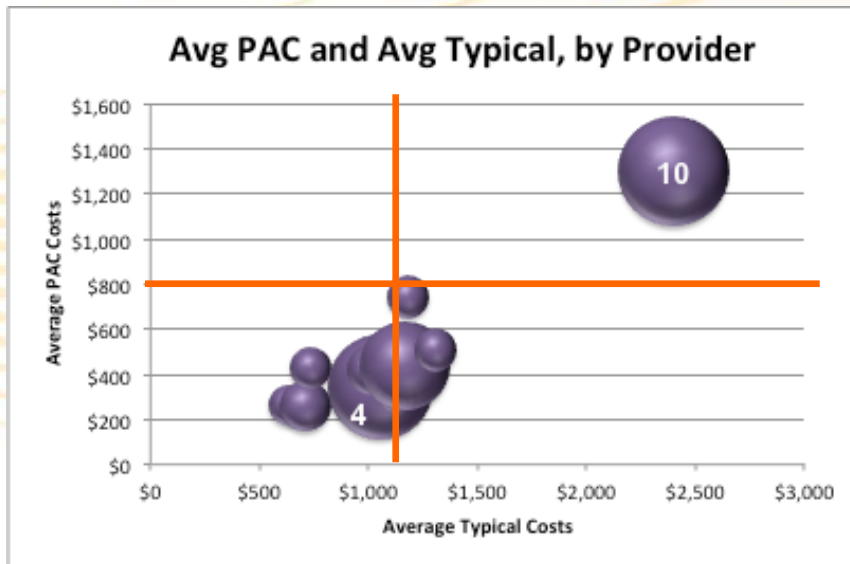
	Provider 4	Provider 10
Severity Index (reference = 1.0)	0.62	1.61
Average Typical after adjusting for severity	\$1,893	\$2,227

# After adjustments, Provider 10 still has higher episode costs



However, the rank of the other providers has shifted – 3 went from low cost to relatively high cost, and 6 went from average to lower cost.

# One view of performance: ranking on PACs and Typical



Provider 10 goes from being a complete outlier, to a Provider with a PAC problem, that can be addressed through clinical reengineering and improving patient management.

# Observations

- PAC Analysis and its details can help providers understand the source of professional variation and improve quality/cost performance
- Severity-adjusting typical costs and comparing providers on that basis provides insights on practice pattern variations and price
- Examining variation in episode cost can help to inform quality improvement initiatives, contracting decisions, and help providers and payers win in “budget-based” payments.



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