



**Department  
of Health**

**Medicaid  
Redesign Team**

# Asthma and COPD episodes

Clinical Advisory Group Meeting 1

Meeting Date: 8/26

Source: Fee-for-Service and Managed Care encounter records for  
Pulmonary Episode Patients in CY2012-2013. Source: HCI3

# Content

Introductions &

Tentative Meeting Schedule and Agenda

Part I

- A. Clinical Advisory Group Roles and Responsibilities
- B. Introduction to Value Based Payment
- C. Contracting Chronic Care: the Different Options
- D. HCl3 - Understanding the HCl3 Grouper and Development of Care Episodes

Part II

- A. Impressions of Data Available for Value-Based Contracting

# Introductions



# Tentative Meeting Schedule & Agenda

Depending on the number of issues addressed during each meeting, the meeting agenda for each CAG will likely consist of the following:

## Meeting 1

- Introduction to Value Based Payment
- Clinical Advisory Group- Roles and Responsibilities
- Understanding the Approach: HCI3 Overview
- Pulmonary Episodes – Definition
- Pulmonary Episodes – Impressions of Data Available for Value Based Contracting

## Meeting 2

- Pulmonary Episodes Definition Recap
- Pulmonary Episodes Outcome Measures - I

## Meeting 3

- Pulmonary Episode Outcome Measures - II

## Part I

### A. Clinical Advisory Group (CAG) Roles & Responsibilities

Roles and Responsibilities Overview

# Clinical Advisory Group Composition

## **Comprehensive Stakeholder Engagement**

- Comprehensive stakeholder engagement has been a key component to the development of the Value Based Payment Roadmap.
- We will continue engaging stakeholders as we develop and define opportunities for value based payment arrangements.

## **Composition of the CAG includes:**

- Clinical experience and knowledge focused on the specific care or condition being discussed (pulmonary)
- Industry knowledge and experience
- Geographic diversity
- Total care spectrum as it relates to the specific care or condition being discussed

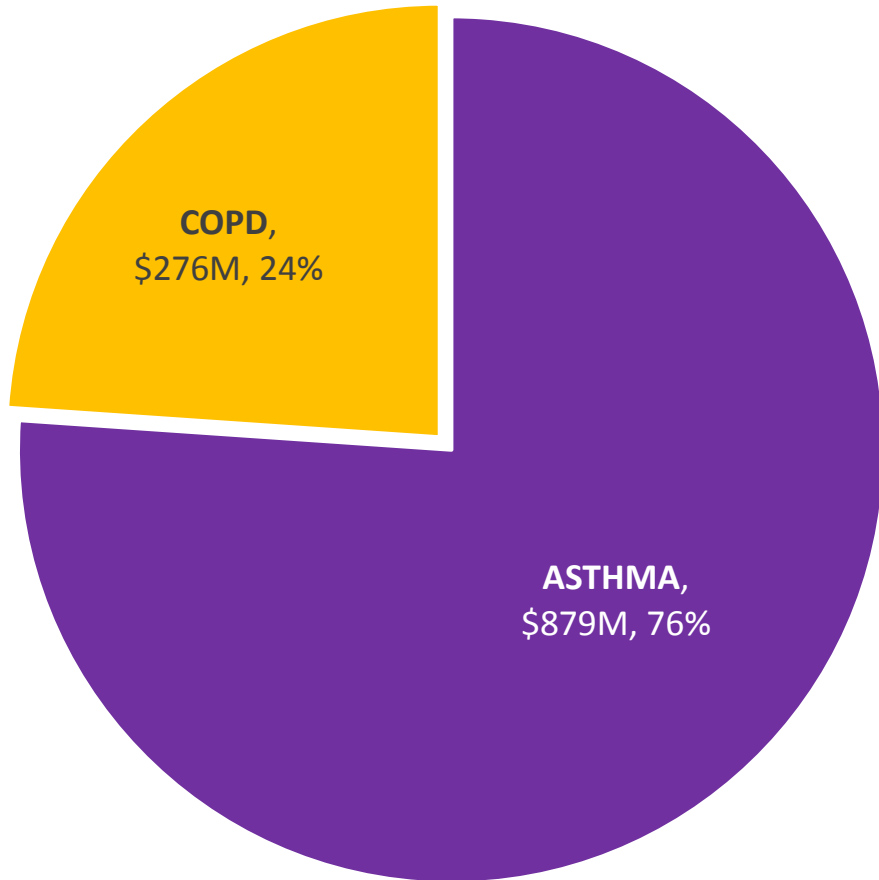
## CAG Objectives

- Understand the State's visions for the Roadmap to Value Based Payment
  - Understand the HCI3 grouper and underlying logic of the bundles
  - Review clinical bundles that are relevant to NYS Medicaid
  - Make recommendations to the State on:
    - outcome measures
    - data and other support required for providers to be successful
    - other implementation details related to each bundle
- ❖ *The CAGs will be working with national standard bundles and are not asked to tailor definitions at this point, but focus on outcome measures and NYS implementation details. Working experience with bundles can lead to new insights and definition enhancements as with any reimbursement methodology.*
  - ❖ *Definitions are standard, but financial arrangements between plans and providers around the bundles are not set by the State.*

# Pulmonary episodes represent \$1.16B over two years

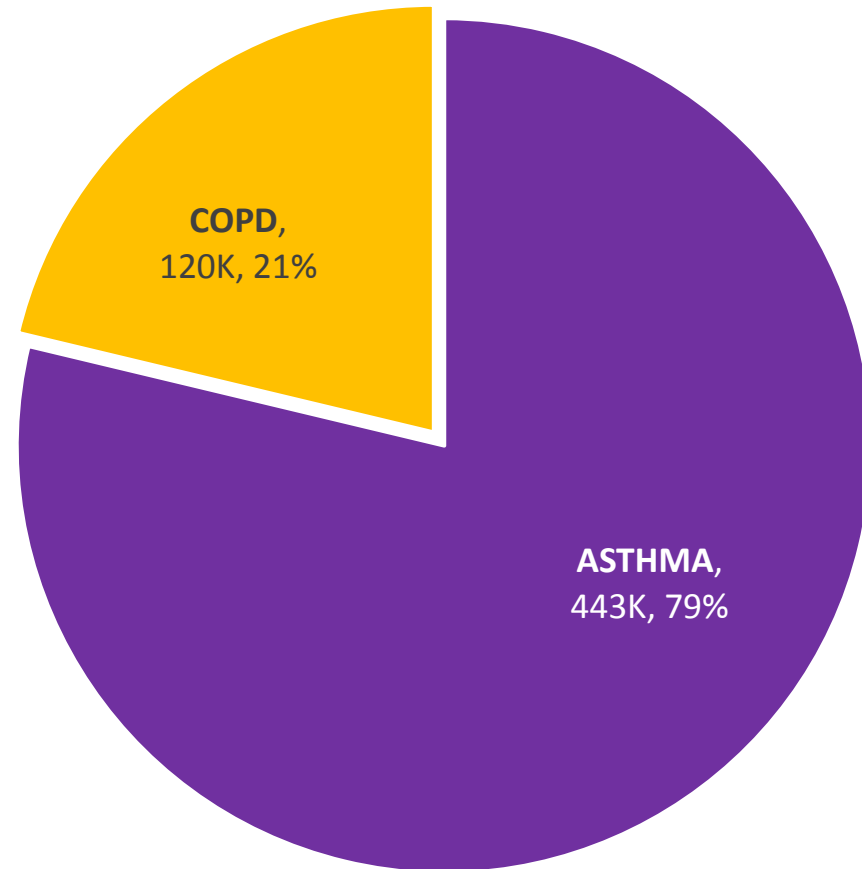
## Cost Composition of Pulmonary Episodes

Total Pulmonary Costs: \$1.16B in two years (2012-2013)



## Volume Makeup of Pulmonary Episodes

Total Pulmonary Episodes: 564K in two years (2012-2013)



**Costs Included:**

- Fee-for-service and MCO payments (paid encounters);
- Caveat: add-on payments included in some cost data, not in others (GME/IME, HCRA, Capital). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims. Dual population not included. 100k beneficiaries (2%) have been excluded due to data quality issues



## Part I

### B. Introduction to Value Based Payment

Brief background and context

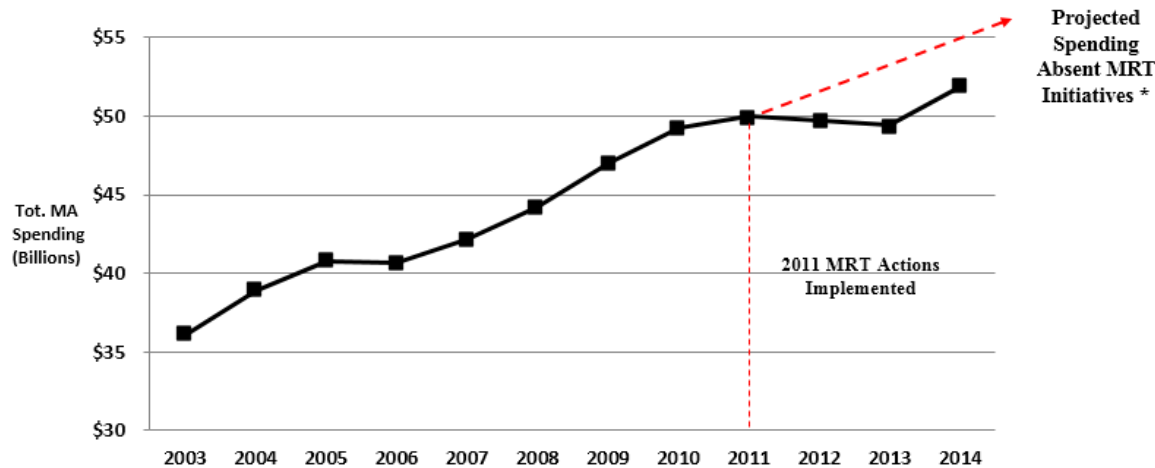
# NYS Medicaid in 2010: the Crisis

- > 10% growth rate had become unsustainable, while quality outcomes were lagging
  - Costs per recipient were double the national average
  - NY ranked 50<sup>th</sup> in country for avoidable hospital use
  - 21st for overall Health System Quality

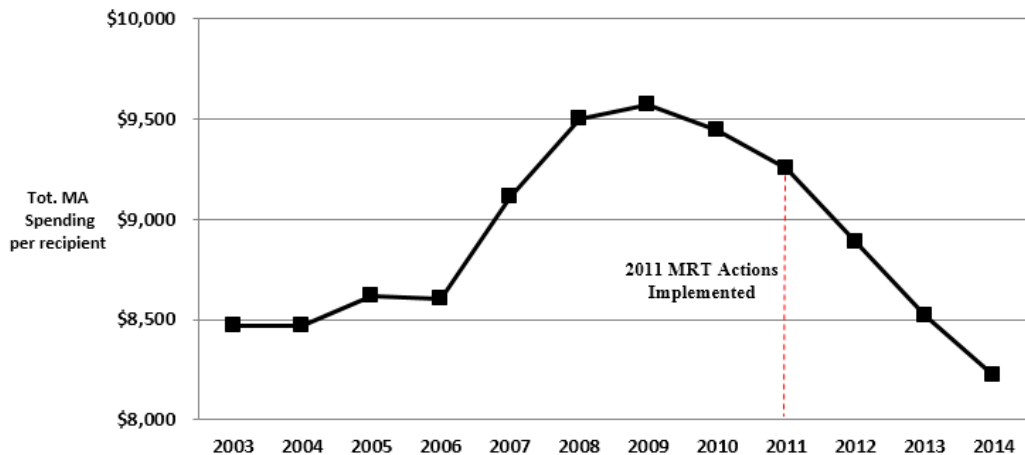
## 2009 Commonwealth State Scorecard on Health System Performance

<u>CARE MEASURE</u>	<u>NATIONAL RANKING</u>
<b>Avoidable Hospital Use and Cost</b>	<b><u>50<sup>th</sup></u></b>
✓ Percent home health patients with a hospital admission	49th
✓ Percent nursing home residents with a hospital admission	34th
✓ Hospital admissions for pediatric asthma	35th
✓ Medicare ambulatory sensitive condition admissions	40th
✓ Medicare hospital length of stay	50th

# Medicaid Redesign Initiatives Have Successfully Brought Back Medicaid Spending per Beneficiary to below 2003 Levels



Since 2011, total Medicaid spending has stabilized *while number of beneficiaries has grown > 12%*



Medicaid spending per-beneficiary has continued to decrease

# Delivery Reform and Payment Reform: Two Sides of the Same Coin

- A thorough transformation of the delivery system – DSRIP - can only become and remain successful when the payment system is transformed as well
- Many of NYS system's problems (fragmentation, high re-admission rates) are rooted in how the State pays for service
  - FFS pays for inputs rather than outcome; an avoidable readmission is rewarded more than a successful transition to integrated home care
  - Current payment systems do not adequately incentivize prevention, coordination, or integration

Financial and regulatory incentives drive...

a delivery system which realizes...

cost efficiency and quality outcomes:  
*value*

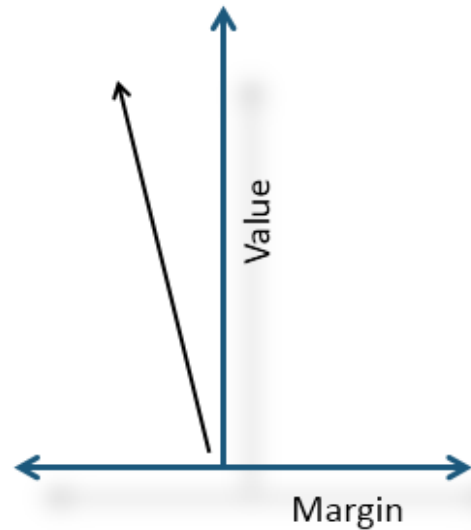
## Payment Reform: Moving Towards Value Based Payments

- A Five-Year Roadmap outlining NYS' plan for Medicaid Payment Reform was required by the MRT Waiver
- By DSRIP Year 5 (2019), all Managed Care Organizations must employ non fee-for-service payment systems that reward value over volume for at least 80-90% of their provider payments (outlined in the *Special Terms and Conditions* of the waiver)
- Core Stakeholders (providers, MCOs, unions, patient organizations) have actively collaborated in the creation of the Roadmap

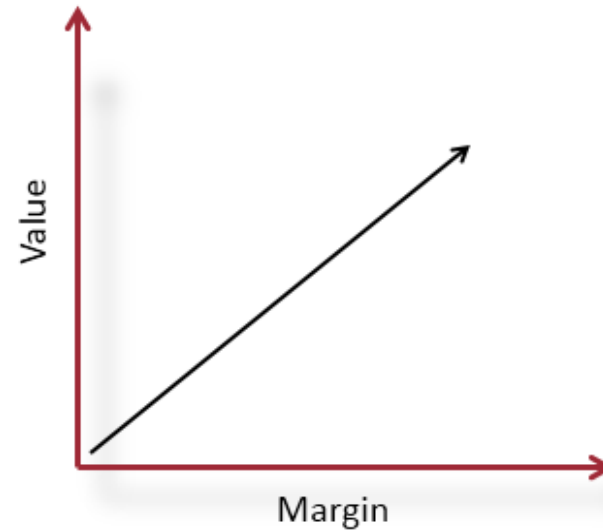
# Learning from Earlier Attempts: VBP as the Path to a Stronger System

VBP arrangements are not intended primarily to save money for the State, but to *allow providers to increase their margins by realizing value*

**Current State**  
*Increasing the value of care delivered more often than not threatens providers' margins*

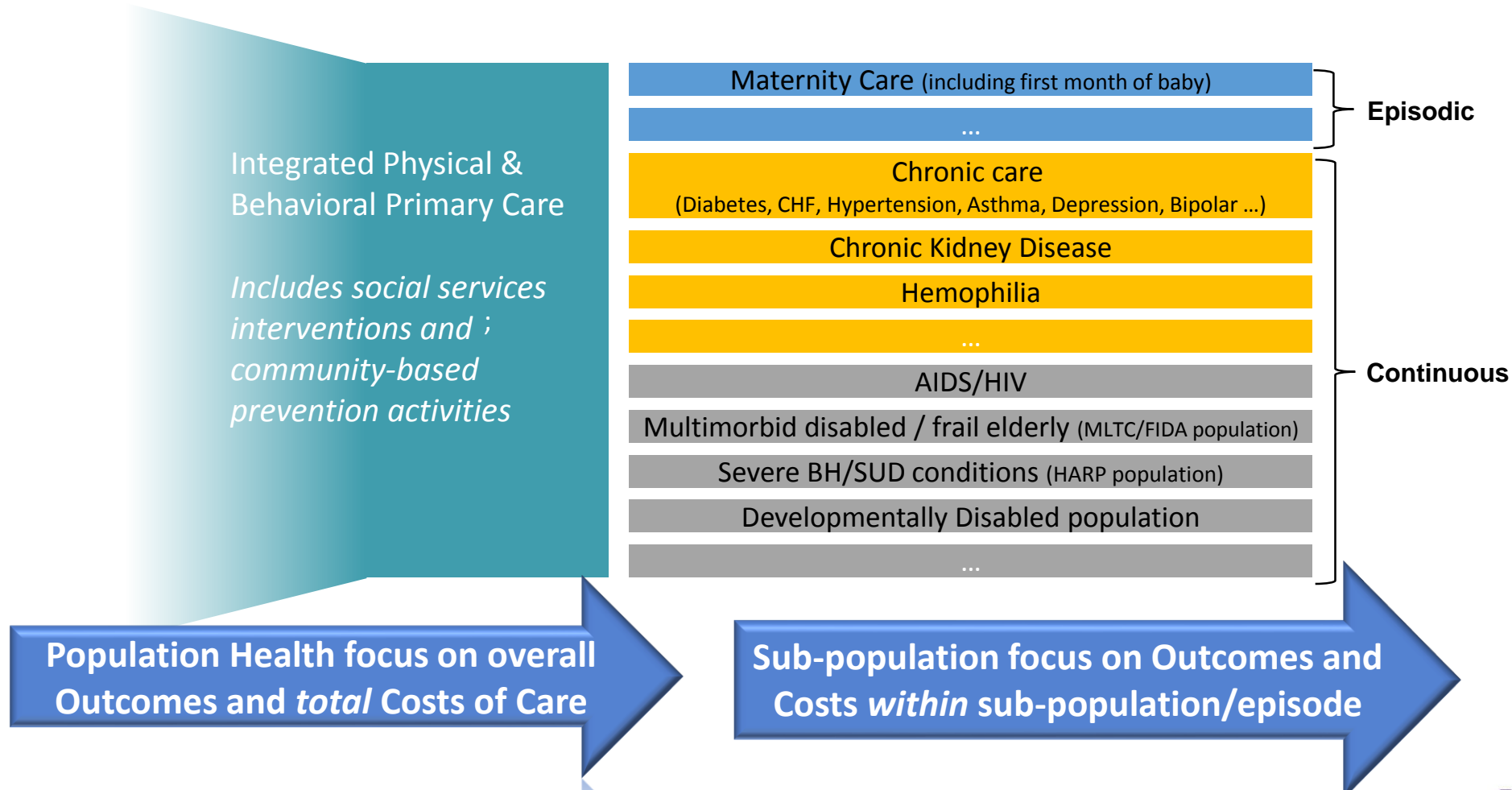


**Future State**  
*When VBP is done well, providers' margins go up when the value of care delivered increases*



Goal – Reward Value not Volume

# The VBP Roadmap starts from DSRIP Vision on How an Integrated Delivery System should Function

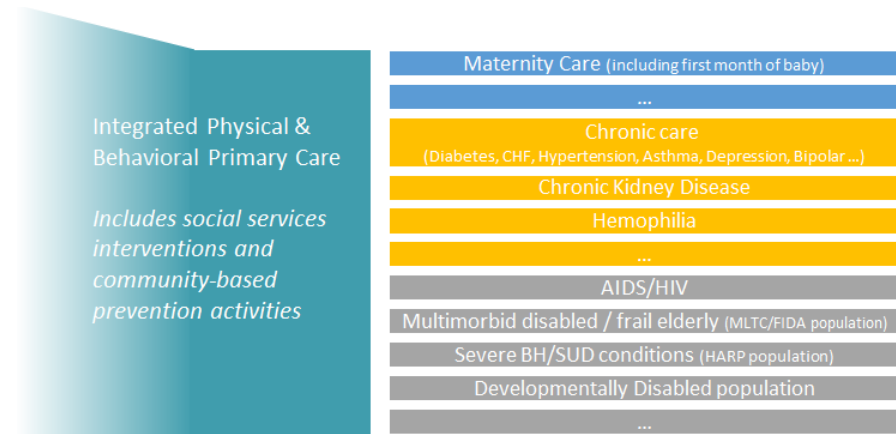


# The Path Towards Payment Reform: A Menu of Options

**There is not one path towards Value Based Payments. Rather, there will be a variety of options that MCOs and PPSs/providers can jointly choose from.**

**PPSs and MCOs can opt for different shared savings/risk arrangements (often building on already existing MCO/provider initiatives):**

- For the total care for the total attributed population of the PPS (or part thereof) – ACO model
- Per integrated service for specific condition (acute or chronic bundle): maternity care; diabetes care
- For integrated Advanced Primary Care (APC)
- For the total care for a subpopulation: HIV/AIDS care; care for patients with severe behavioral health needs and comorbidities



MCOs and PPSs can make shared savings arrangements for the latter types of services between MCOs and groups of providers within the PPS rather than between MCO and PPS.



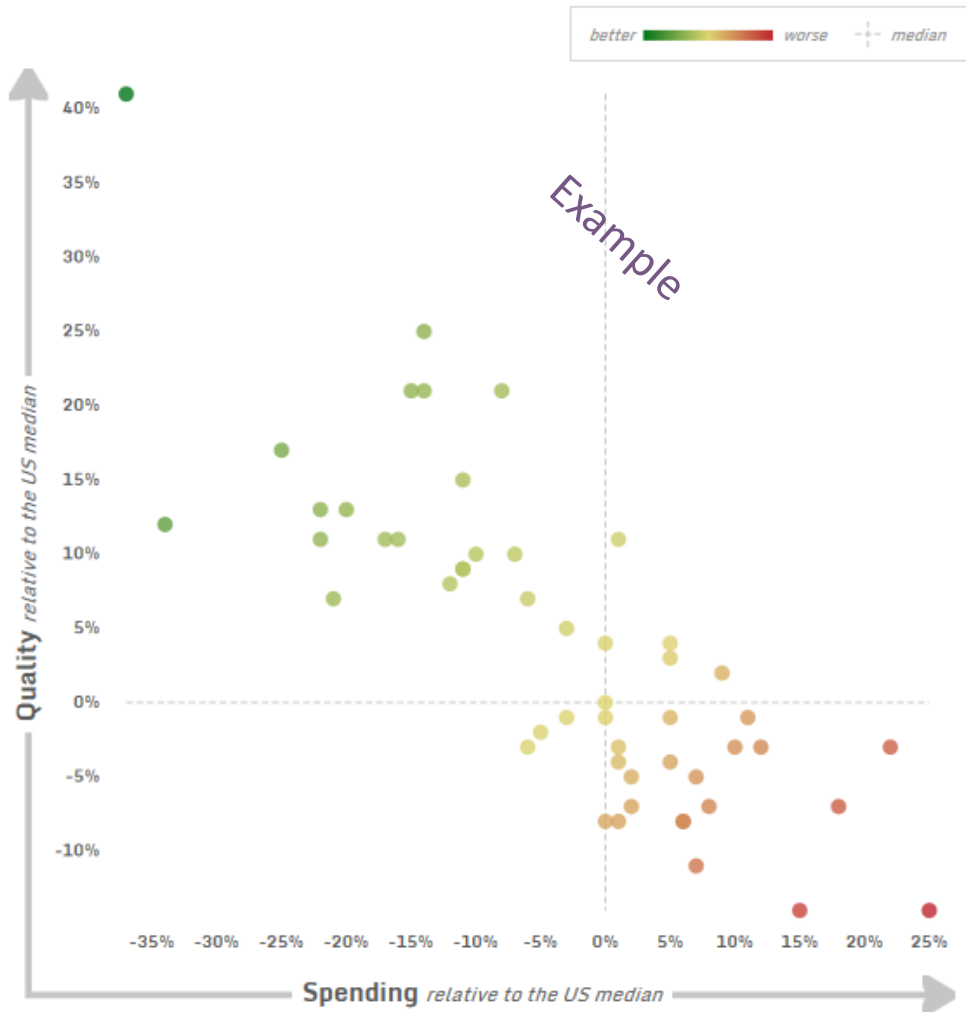
# MCOs and PPSs can choose different levels of Value Based Payments

In addition to choosing *what integrated services* to focus on, the MCOs and PPSs can choose different levels of Value Based Payments:

Level 0 VBP	Level 1 VBP	Level 2 VBP	Level 3 VBP (only feasible after experience with Level 2; requires mature PPS)
FFS with bonus and/or withhold based on quality scores	FFS with upside-only shared savings available when outcome scores are sufficient (For PCMH/APC, FFS may be complemented with PMPM subsidy)	FFS with risk sharing (upside available when outcome scores are sufficient)	Prospective capitation PMPM or Bundle (with outcome-based component)

- Goal of ≥80-90% of total MCO-provider payments (in terms of total dollars) to be captured in Level 1 VBPs at end of DY5
- 35% of total managed care payments (full capitation plans only) tied to Level 2 or higher. For Level 2 (risk-bearing VBP arrangements), the State excludes partial capitation plans such as MLTC plans from this minimum target.

## Value Information per VBP Arrangement (using price-standardized data)



Providers and MCOs will receive

- Cost and Quality performance overviews per VBP arrangement (whether these arrangements are contracted or not)
- Including Target Budgets and actual costs (both cost-standardized, and, for their own beneficiaries, real-priced)

Initially, PDF reports will be used, but providers and MCOs will get access to web-based analytical tools to dynamically interact with these data

- Including drill downs by geography and provider
- Including drill down possibilities to individual patients (for own beneficiaries)

## Part I

### C. Contracting Chronic Care: the Different Options

## The Context: Strong Push to Strengthen Primary Care in NYS

- Strengthening Primary Care has long been a central piece of DOH policy
- DSRIP includes significant focus on Integrated Behavioral and Physical Care within the Primary Care context
- New York State Health Innovation Plan centers on the concept of Advanced Primary Care

## The Context: Advanced Primary Care in NYS

The APC model will go beyond new structures and capabilities to specify and measure processes and outcomes associated with more integrated care, including prevention, effective management of chronic disease, integration with behavioral health, and coordination among the full range of providers working together to meet consumer needs. [...T]his is essential in moving away from a reactive health care system that patients largely have to navigate on their own, to a truly proactive system, in which patients are helped to actively manage and improve their health.

*New York State Health Innovation Plan*

# APC Model

- *Closely aligned to DSRIP milestones*

## APC Stages of Transformation

Tier	Pre-APC	Standard APC	Premium APC
Description	<ul style="list-style-type: none"> <li>● Largely reactive approach to patient encounters of care</li> </ul>	<ul style="list-style-type: none"> <li>● Capabilities in place to more proactively manage a population of patients</li> </ul>	<ul style="list-style-type: none"> <li>● Processes in place to clinically integrate primary, behavioral, acute, post-acute care<sup>1</sup></li> </ul>
Capacities required to enter tier	<ul style="list-style-type: none"> <li>● Limited pre-requisites</li> <li>● Willingness to exchange targeted clinical data</li> </ul>	<ul style="list-style-type: none"> <li>● Certified EHR</li> <li>● Full medical home capabilities aligned with NCQA level 1-3, or equivalent</li> </ul>	<ul style="list-style-type: none"> <li>● Certified EHR, Meaningful Use Stage 1-3<sup>3</sup>, HIE interoperability</li> <li>● Enhanced capabilities, aligned with expanded NCQA Level 3<sup>2</sup>, or equivalent</li> </ul>
Validation	None	<ul style="list-style-type: none"> <li>● Required to maintain care coordination fees &gt;12 months</li> <li>● To couple with practice transformation support</li> </ul>	
Care coordination skills	Limited or none	<ul style="list-style-type: none"> <li>● Care planning for 5-15% highest-risk patients</li> <li>● Track and follow up on ADT, other scalable data streams</li> <li>● Facilitate referrals to high-value providers</li> </ul>	<ul style="list-style-type: none"> <li>● Plus, functional care agreements in medical neighborhood</li> <li>● Plus, community facing care coordination</li> </ul>
Payment model mix	<ul style="list-style-type: none"> <li>● FFS + P4P</li> <li>● Potential EHR support</li> </ul>	<ul style="list-style-type: none"> <li>● Shared savings or capitation</li> <li>● Care coordination fees</li> <li>● Transformation support</li> </ul>	<ul style="list-style-type: none"> <li>● Shared savings or capitation</li> </ul>
Metrics and reporting	<ul style="list-style-type: none"> <li>● Standard statewide scorecard of core measures</li> <li>● Consolidated reporting across payers, leveraging APD, portal</li> </ul>		

<sup>1</sup> Vision, LTC, home aids, rehabilitative & daycare are excluded from all advanced primary care models

<sup>2</sup> Establishes, additional must pass NCQA requirements, that are not already mandatory in existing NCQA

<sup>3</sup> Once available

## Vision on Chronic Care Contracting in NYS VBP

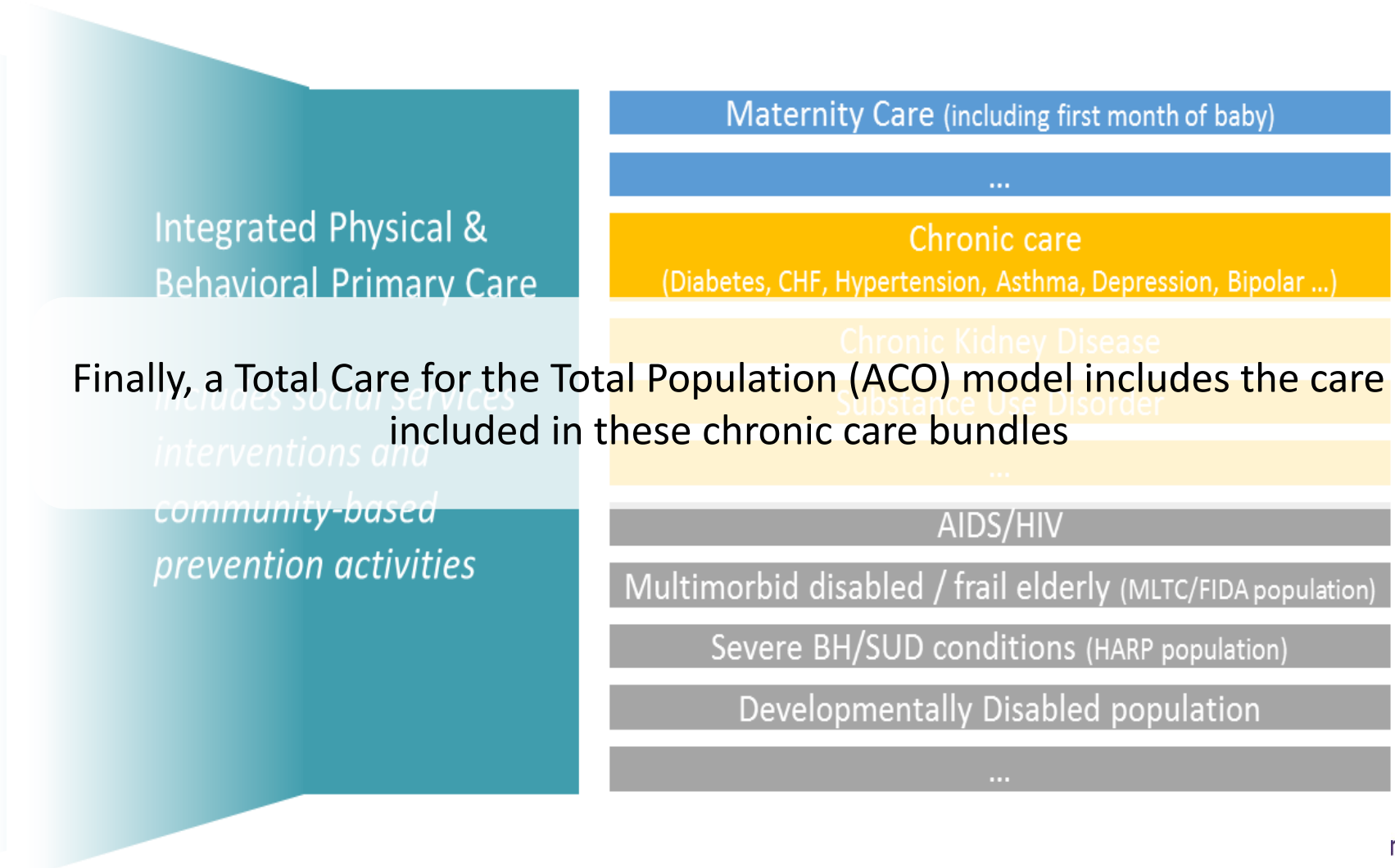
Type of Population / Condition	Population / Condition	Type of Contracting
For specific subpopulations: intensive and interdependent chronic care needs, best coordinated by specialized provider	<ul style="list-style-type: none"> <li>• HIV/AIDS</li> <li>• HARP</li> <li>• MLTC</li> </ul>	Total Care for Subpopulation (capitation); i.e., a condition-specific ACO model
For highly specialized chronic conditions: intensive chronic care needs, best provided by specialized providers	<ul style="list-style-type: none"> <li>• Chronic Kidney Disease</li> <li>• Hemophilia</li> </ul>	Bundle
For more common chronic conditions: integrated approach is part and parcel of APC vision	<ul style="list-style-type: none"> <li>• <b>Asthma</b></li> <li>• <b>COPD</b></li> <li>• Chronic Depression</li> <li>• Bipolar Disorder</li> <li>• Substance Use Disorder</li> <li>• Coronary Artery Disease</li> <li>• Hypertension</li> <li>• CHF</li> <li>• Arrhythmia / Heart Block</li> <li>• Gastro-Esophageal Reflux Disease</li> </ul>	The default is that the individual chronic bundles are contracted together by integrated care providers (guideline)

# Advanced Primary Care

*Default* is that these are contracted together...

... but not all bundles need to be included...

... and some bundles may be contracted by other providers



Finally, a Total Care for the Total Population (ACO) model includes the care included in these chronic care bundles





## Part I

### D. HCI3 Understanding the Grouper & Development of Care Episodes

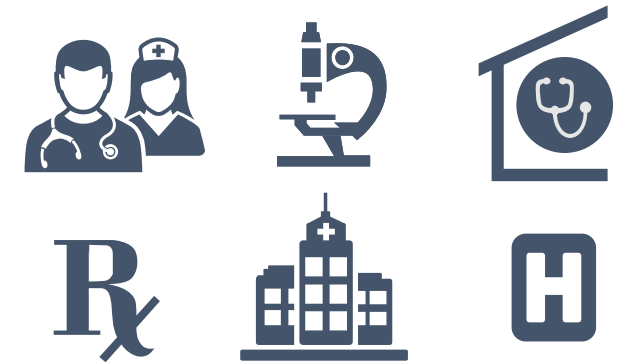
## Why HCI3?

- One of two nationally used bundled payment programs
- Specifically built for use in value based payment
- Not-for-profit and independent
- Open source
- Clinically validated
- National standard which evolves based on new guidelines as well as lessons learned

## Evidence Informed Case Rates (ECRs)

Evidence Informed Case Rates (ECRs) are the HCI3 episode definitions

- ECRs are patient centered, time-limited, episodes of treatment
- Include all covered services related to the specific condition
  - E.g.: surgery, procedures, management, ancillary, lab, pharmacy services
- Distinguish between “typical” services from “potentially avoidable” complications
- Are based on clinical logic: Clinically vetted and developed based on evidence-informed practice guidelines or expert opinions



All patient services  
related to a single  
condition



Sum of services (based on  
encounter data the State  
receives from MCOs).

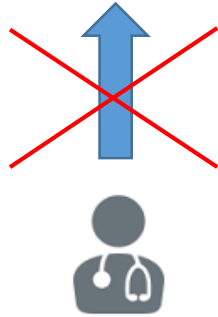
# Clinical Logic

## A Pulmonary Episode (Asthma as an Example)

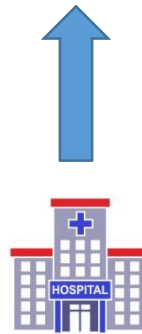
Asthma



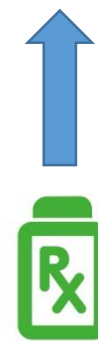
Initial doctor visit, during which a diagnosis of asthma is given.



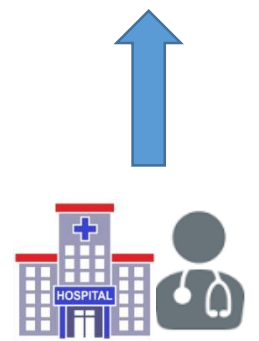
Doctor visit for a broken bone (e.g. a sports injury) unrelated to asthma



ER Visits and inpatient admissions related to asthma episode conditions



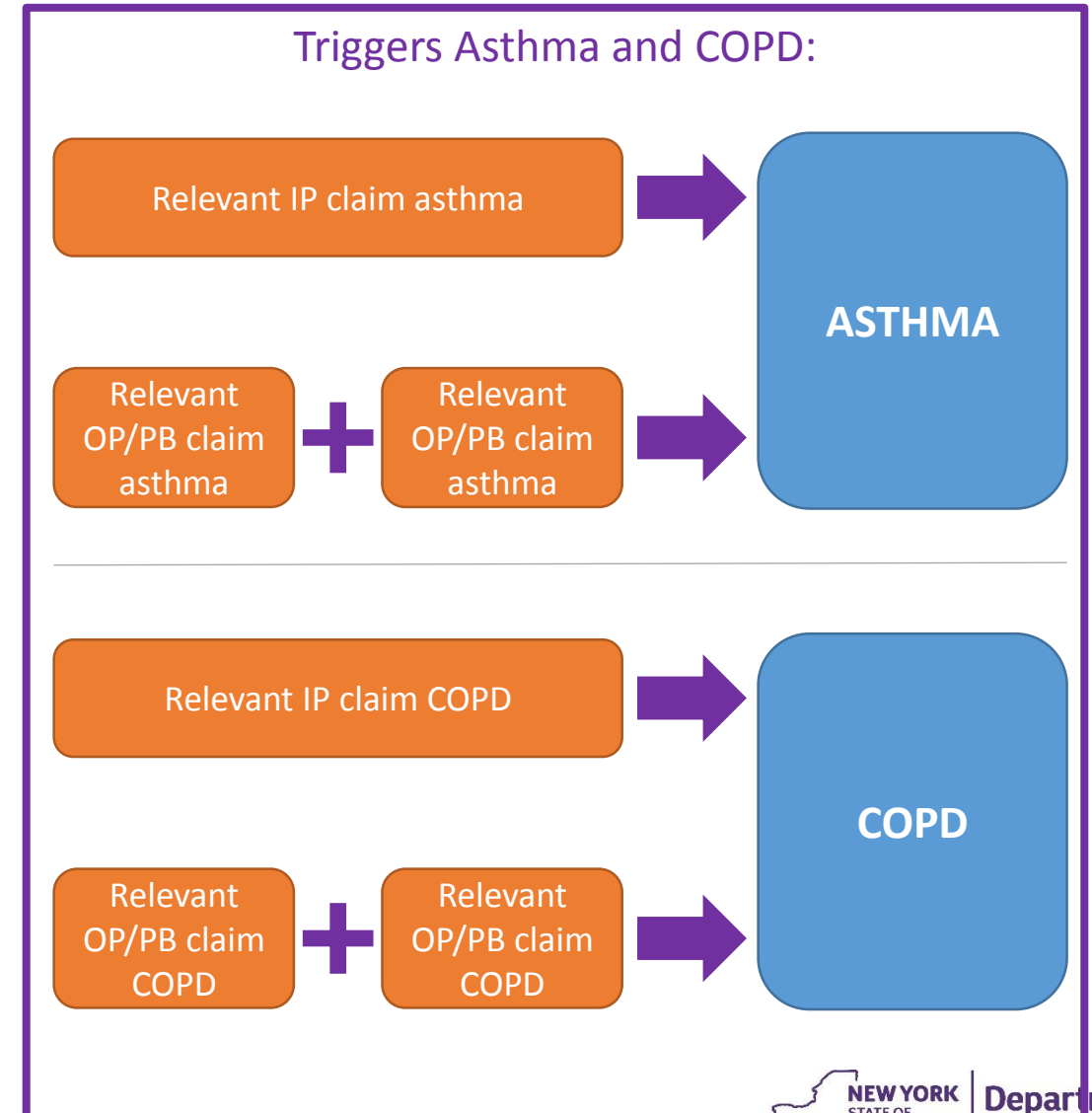
Prescription medicine to treat asthma condition.



Inpatient admission caused by acute exacerbation.

## Episode Component: Triggers

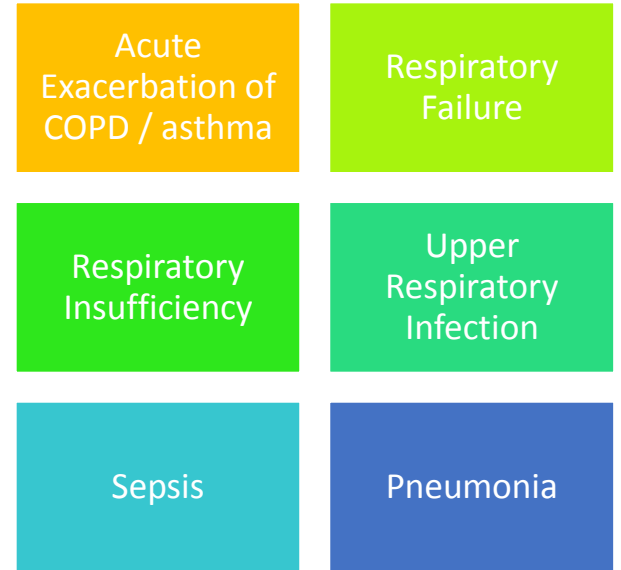
- A trigger signals the opening of an episode, e.g:
  - Inpatient Facility Claim
  - Outpatient Facility Claim
  - Professional Claim
- More than one trigger can be used for an episode
  - Often a confirming claim is used to reduce false positives
- Trigger codes are unique to each episode—no overlaps



## Episode Components: PACs

- Costs are separated by “typical” care from costs associated with Potentially Avoidable Complications (PACs)
- Can stem from poor coordination, failure to implement evidence-based practices or medical error
- PACs for chronic conditions and some acute conditions have been endorsed by the NQF as comprehensive outcome measures<sup>1</sup>
- Expected costs of PACs are built in as an incentive towards a shared savings
- Only events that are generally considered to be (potentially) avoidable by the caregivers that manage and co-manage the patient are labeled as ‘PACs’
- Examples: exacerbations, ambulatory-care sensitive admissions, and inpatient-based patient safety features

### Example Pulmonary PACs



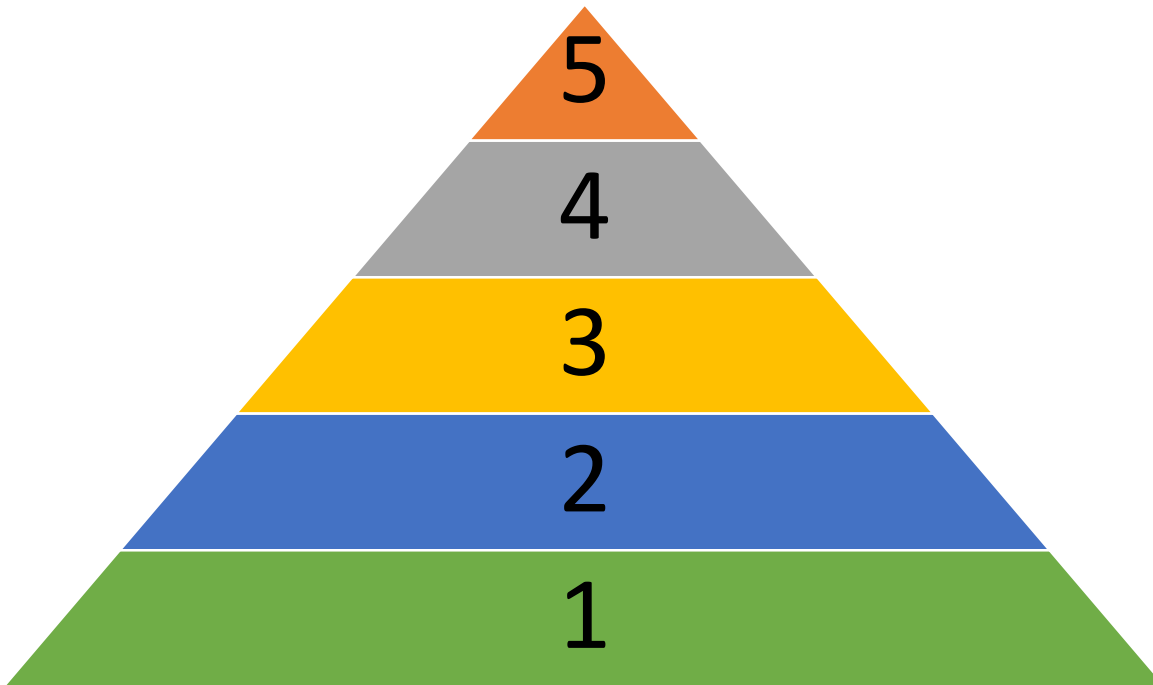
### Alignment with NQF

Four unique PAC measures have been endorsed by the National Quality Forum (NQF) with 6 more submitted this year.

<sup>1</sup> <http://www.hci3.org/content/hci3s-measures-improve-quality-and-outcome-care-patients-endorsed-nqf>

## Episode Components: Leveling

The grouper uses the concept of leveling (1-5), in which individual associated episodes may get grouped together into a “bundles” as you move higher in the levels.



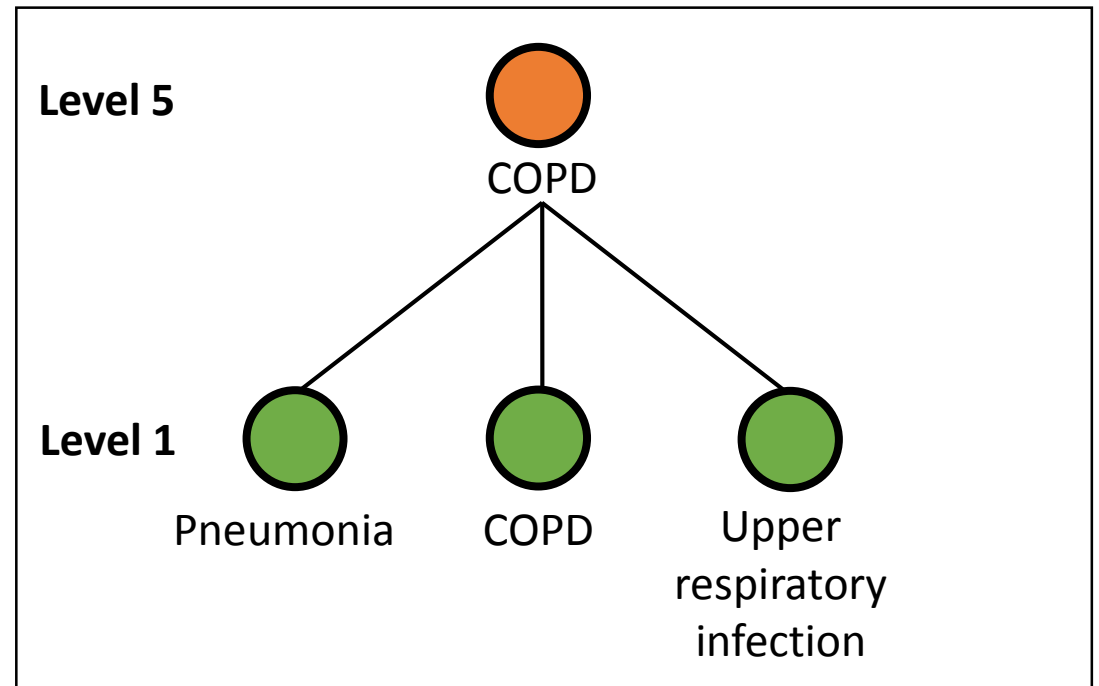
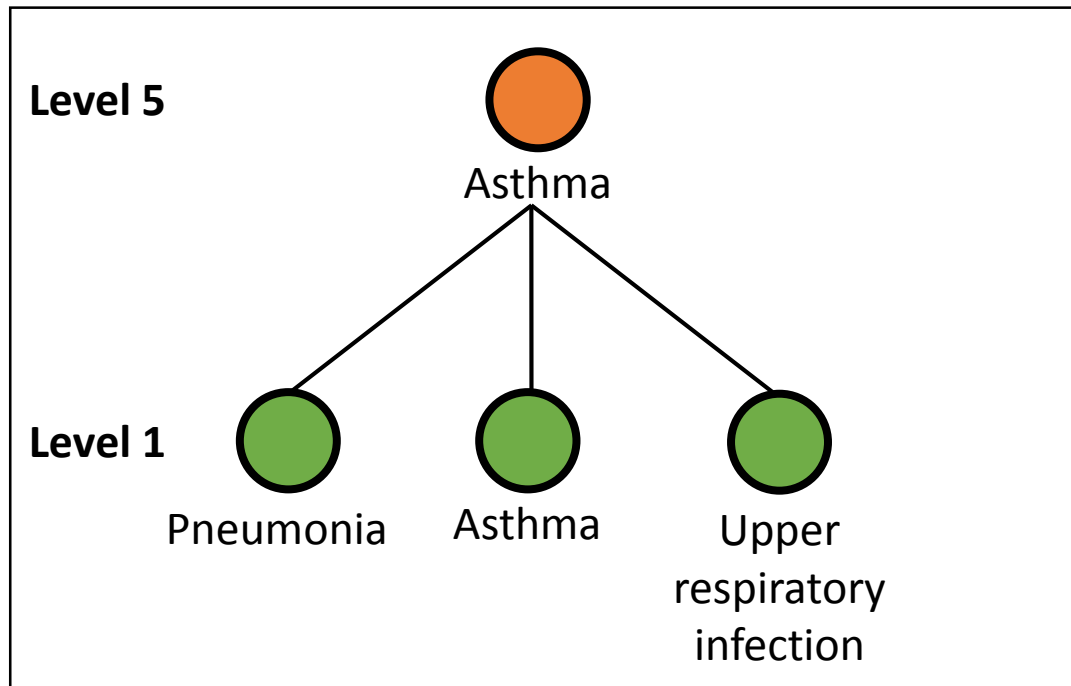
As you move higher up in levels, associated episodes get grouped together into a bundle, in our example, pneumonia and upper respiratory infection roll up under Asthma or COPD



In Level 1, claims are grouped into defined episodes, for example pneumonia and upper respiratory infection, exist as separate episodes at level 1.

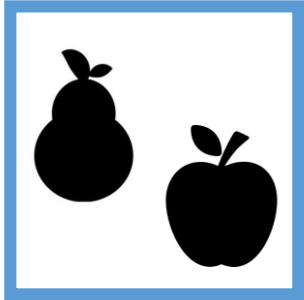
## Leveling for Asthma and COPD

- At level 1, both pneumonia and upper respiratory infection are separate episodes
- At level 5, they become PACs for the respiratory episodes





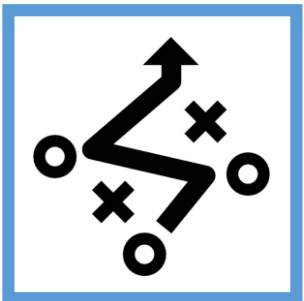
## Risk Adjustment for Episodes



Make “apples-to-apples” comparisons between providers by accounting for differences in their patient populations



Takes the patient factors (co-morbidity, severity of condition at outset, etc) out of the equation



Separate risk adjustment models are created for ‘typical’ services and for ‘potentially avoidable complications’

# Inclusion and Identification of Risk Factors

## Risk Factors

- Patient demographics – Age, gender, etc
  - Co-morbidities
  - Subtypes - Markers of clinical severity within an episode
- } Patient related risk factors
- } Episode related risk factors

## Identification of Risk Factors

- Risk factors come from historic claims (prior to start of an episode) and same list is applied across all episode types
- Subtypes identified from claims at start of the episode and specific to episode type

# Inclusion and Identification of Risk Factors

## Risk Factors

- Patient demographics – Age, gender, etc
- Co-morbidities
- Subtypes - Markers of clinical severity with

Patient related risk factors

Episode related risk factors

**Examples of SubTypes**

**ASTHMA Subtypes:** None

**COPD Subtypes:** Emphysema, Obstructive Chronic Bronchitis

## Identification of Risk Factors

- Risk factors come from historic claims (pre-episode) and are applied across all episode types
- Subtypes identified from claims at start of the episode and specific to episode type



# Description of Asthma Episode



## Trigger

1. Inpatient claim with asthma as principal diagnosis  
OR
2. Outpatient or professional billing claim (office visit) with asthma as diagnosis AND another of the same at least 30 days after first trigger.

## Included in bundle:

- All typical and PAC services for asthma during the duration of the bundle
- PACs include, but are not limited to:
  - Acute exacerbations
  - Upper respiratory infection
  - Pneumonia
  - Respiratory failure / insufficiency
  - Sepsis

## Description of COPD Episode



### Trigger

1. Inpatient claim with COPD as principal diagnosis  
OR
2. Outpatient or professional billing claim (office visit) with COPD as diagnosis AND another of the same at least 30 days after first trigger.

### Included in bundle:

- All typical and PAC services for COPD during the duration of the bundle
- PACs include, but are not limited to:
  - Acute exacerbations
  - Upper respiratory infection
  - Pneumonia
  - Respiratory failure / insufficiency
  - Sepsis

## Part II

### A. Asthma and COPD episodes – Impressions of data available for value-based contracting

# Asthma episodes account for nearly \$335M in Annual Medicaid Spend



Annual Episode Volume  
**222K Episodes**



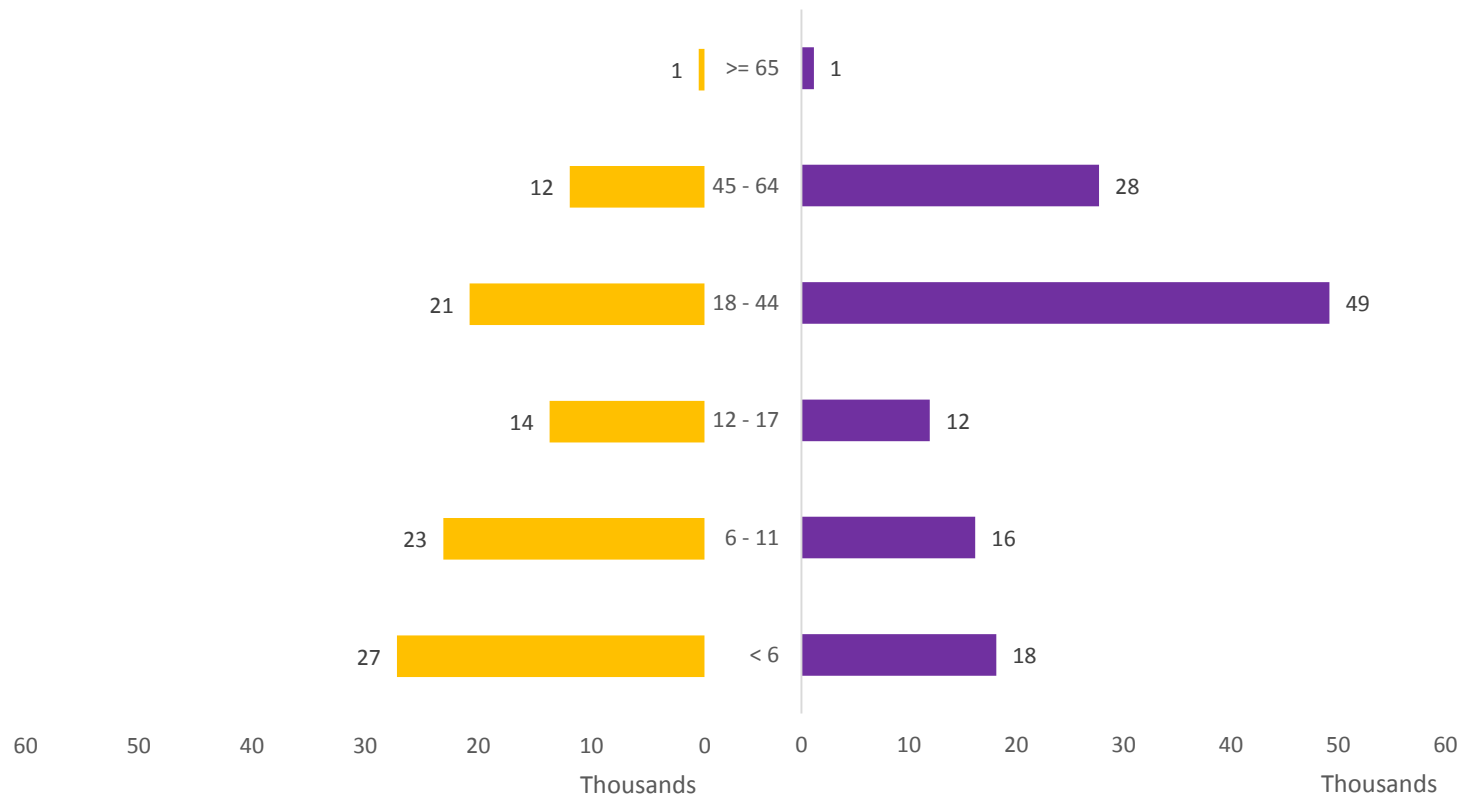
Total Annual Cost of Asthma (to the State)  
**\$355M**



Average Costs per Episode for Beneficiaries with an asthma episode  
**\$1,200**

Annual Age Distribution of Beneficiaries with an Asthma Episode

Male Female



**Costs Included:**

- Fee-for-service and MCO payments (paid encounters);
- Caveat: add-on payments included in some cost data, not in others (GME/IME, HCRA, Capital). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims

# COPD episodes account for nearly \$114M in Annual Medicaid Spend



Annual Episode Volume  
**60K Episodes**

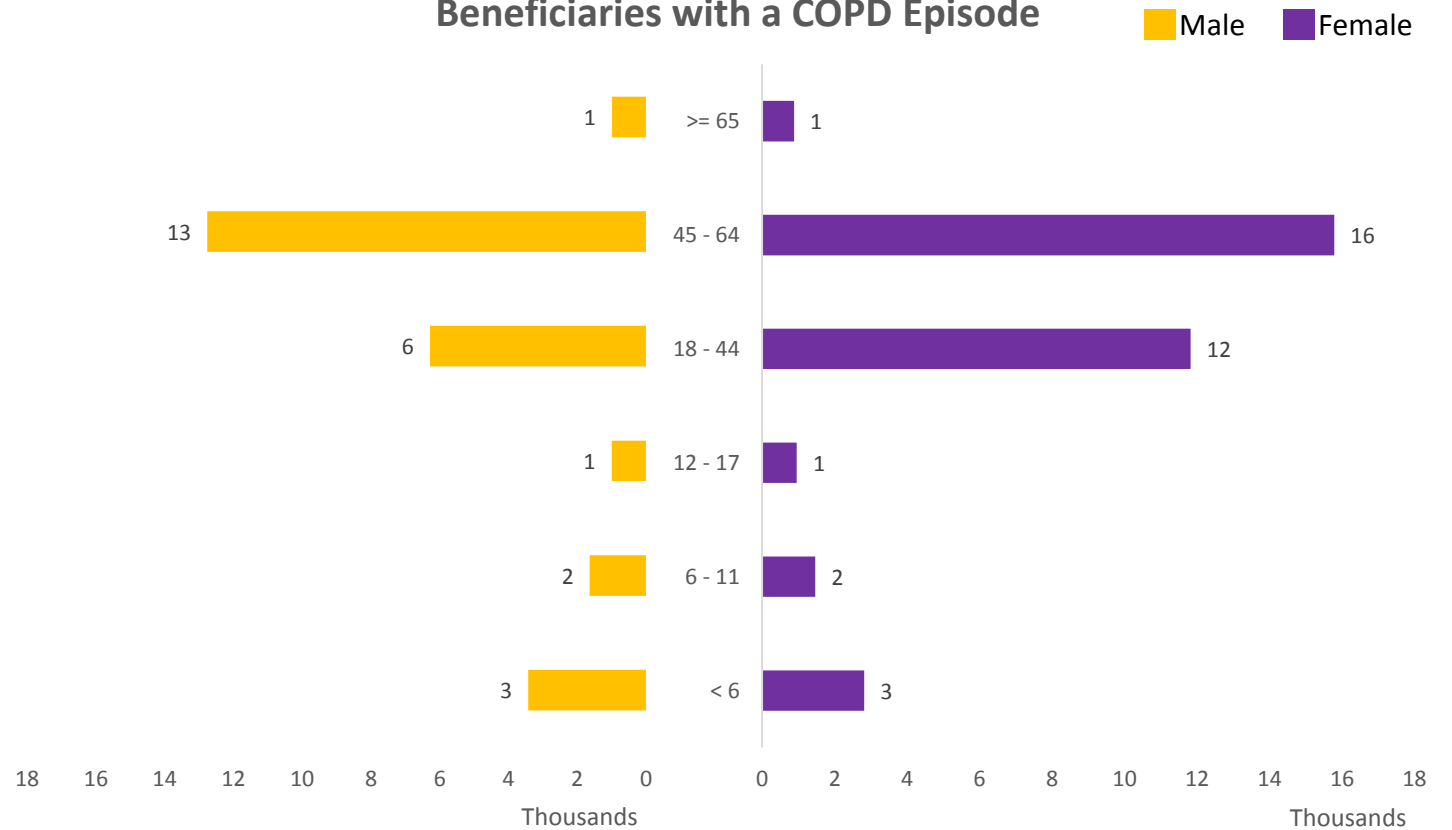


Total Annual Cost of COPD  
(to the State)  
**\$114M**



Average Costs per Episode  
for Beneficiaries with a  
COPD episode  
**\$1,478**

Annual Age Distribution of Beneficiaries with a COPD Episode



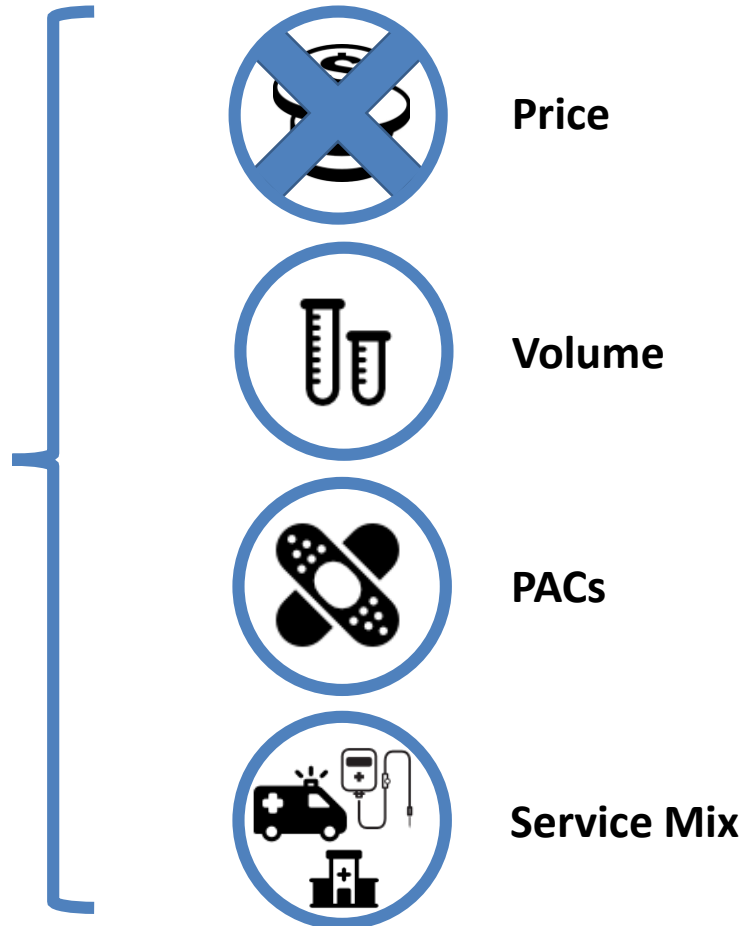
**Costs Included:**

- Fee-for-service and MCO payments (paid encounters);
- Caveat: add-on payments included in some cost data, not in others (GME/IME, HCRA, Capital). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims



# Four Important Costs Drivers for Pulmonary Episodes are Price, Volume, PACs and Service Mix



**Price**

The price of a service can vary based on providers' own costs (e.g. wages).  
In NYS, we will in the beginning only use price-standardized data.

**Volume**

The volume of services rendered (e.g. doing 1 lung volume test vs. 3 in the first 2 months).

**PACs**

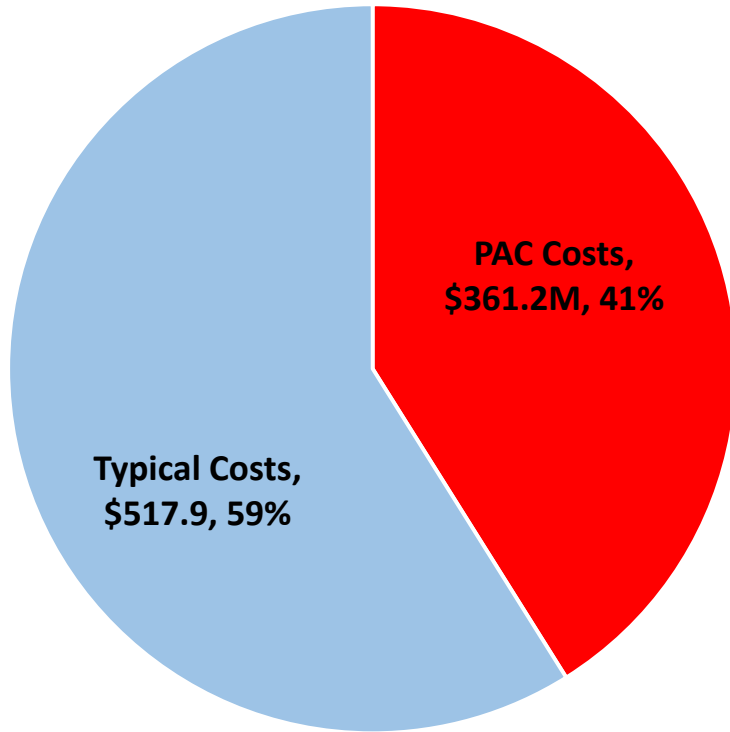
Potentially avoidable complications (e.g. exacerbations).

**Service Mix**

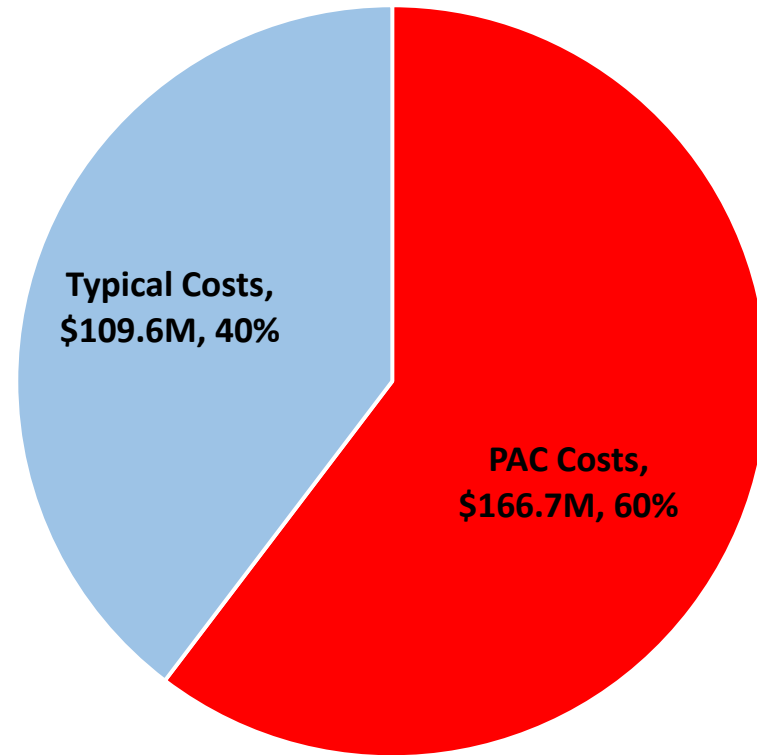
The mix of services and intensity of care received during the episode (e.g. inpatient vs. outpatient point of care).

# PAC Costs Represent \$528M of All Asthma and COPD Costs

**% Potentially Avoidable Complication Costs  
Relative to Total Costs of ASTHMA Episodes**  
Total ASTHMA spend: over 2012-2013: \$879M



**% Potentially Avoidable Complication Costs  
Relative to Total Costs of COPD Episodes**  
Total COPD spend over 2012-2013: \$276M

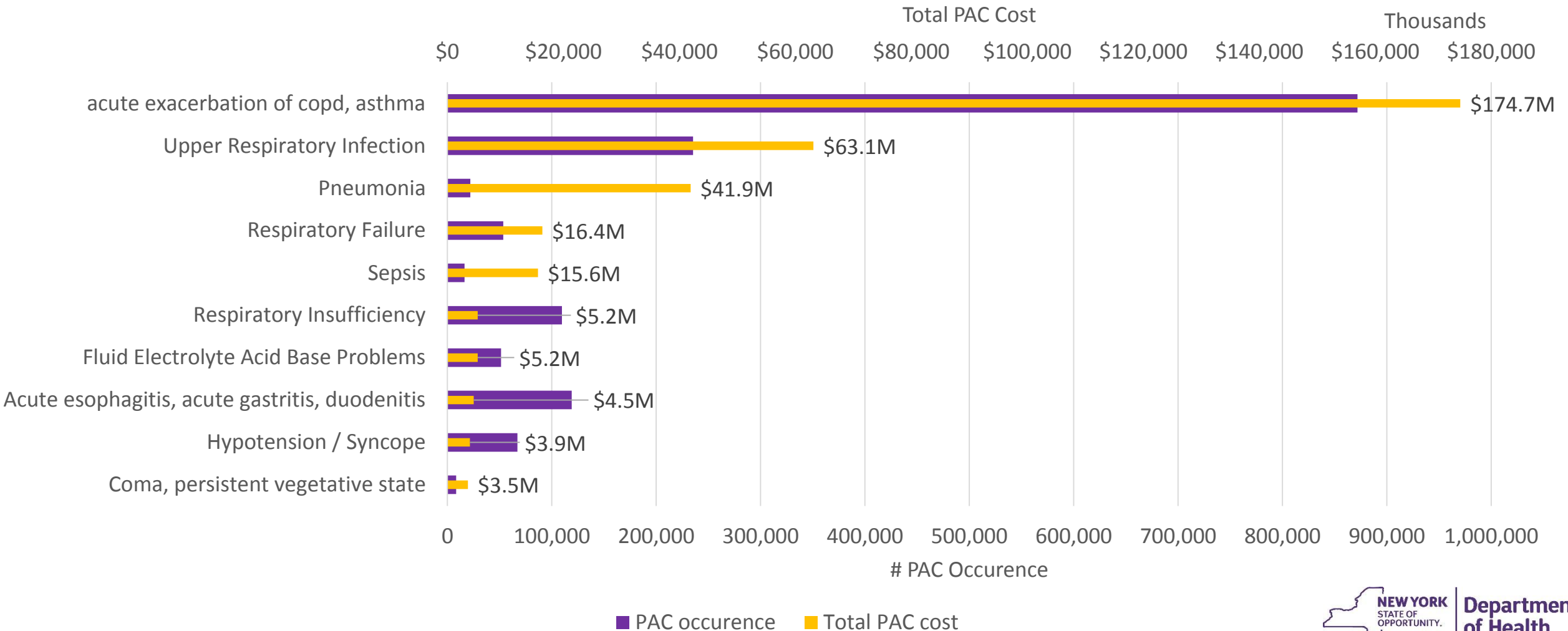


**Costs Included:**

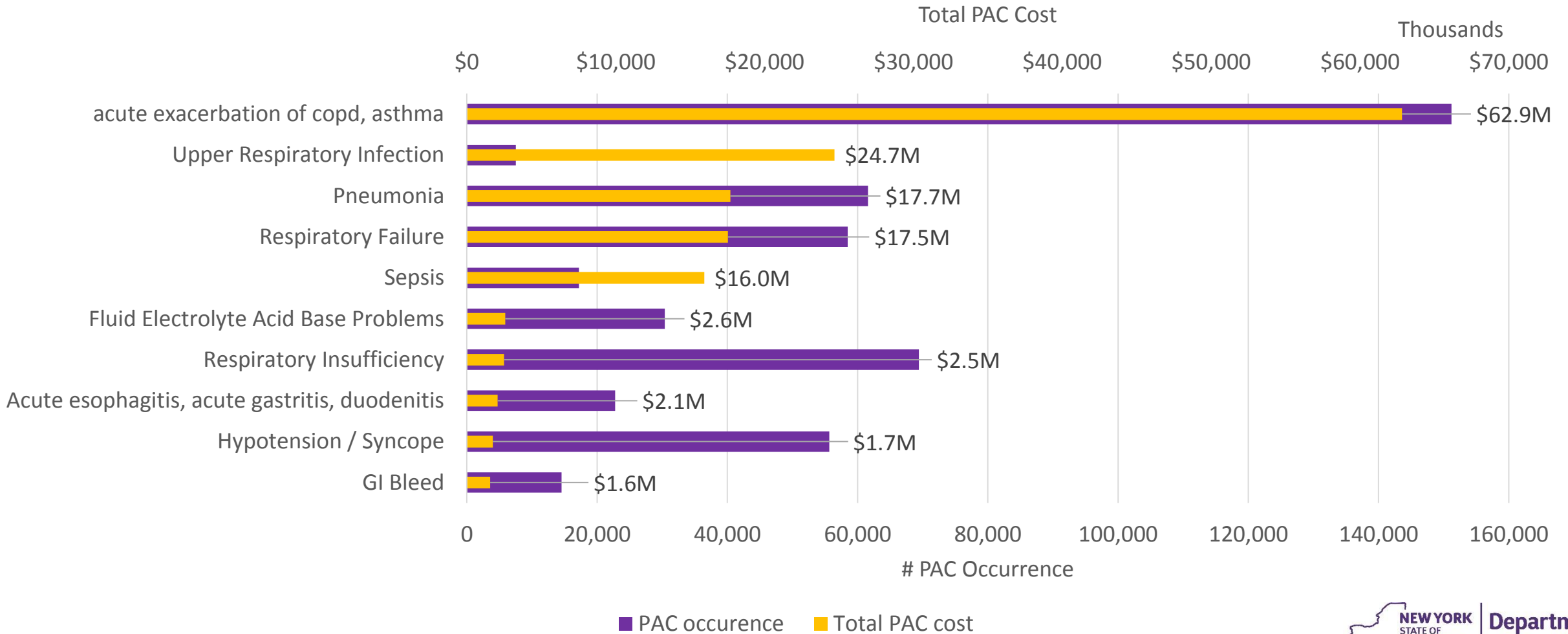
- Fee-for-service and MCO payments (paid encounters);
- Caveat: add-on payments included in some cost data, not in others (GME/IME, HCRA, Capital). Data not yet standardized.

Source: Fee-for-Service and Managed Care encounter records for Pulmonary Bundle Patients in CY2012-2013. Source: HCI3

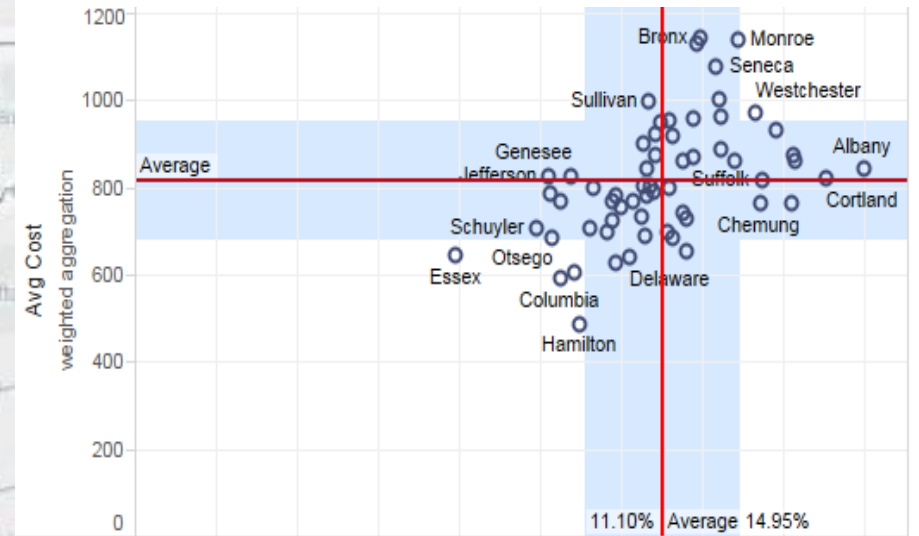
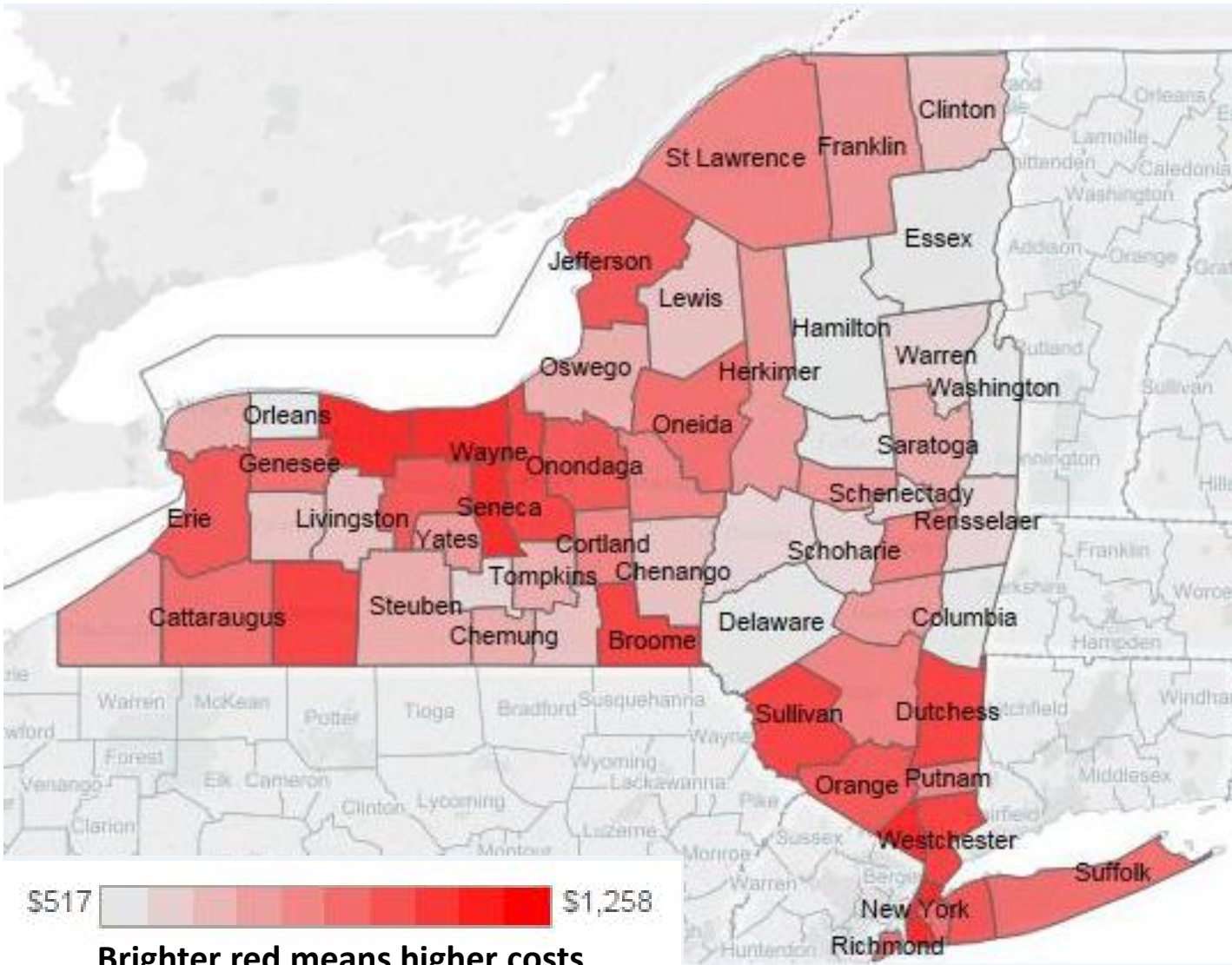
# The Top 10 Asthma PACs Incur 93% of the Total Costs for Asthma's Potentially Avoidable Complications



# The Top 10 COPD PACs Incur 41% of the Total Costs for COPD Potentially Avoidable Complications



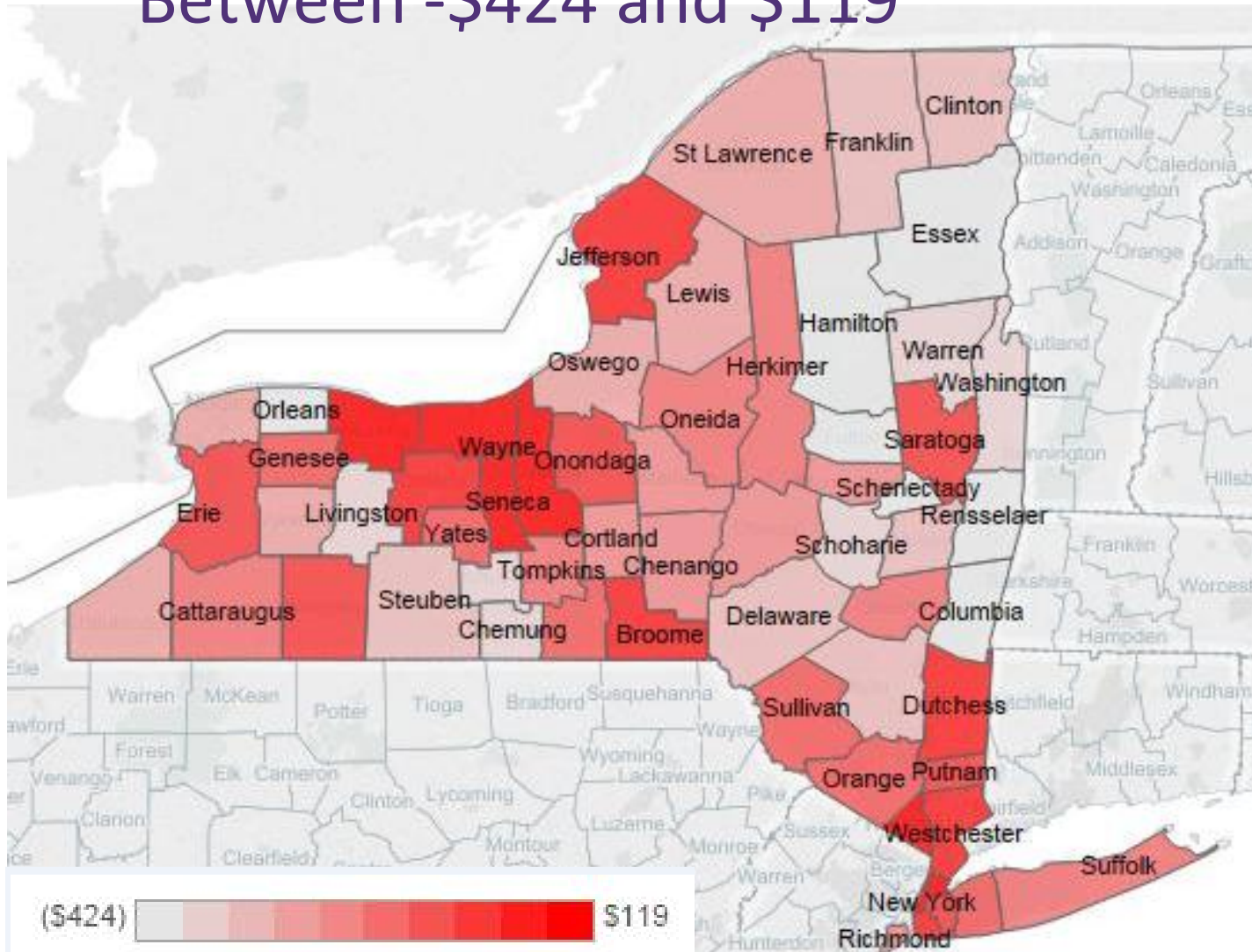
# The Average Cost per Asthma Episode is Between \$517 and \$1,258



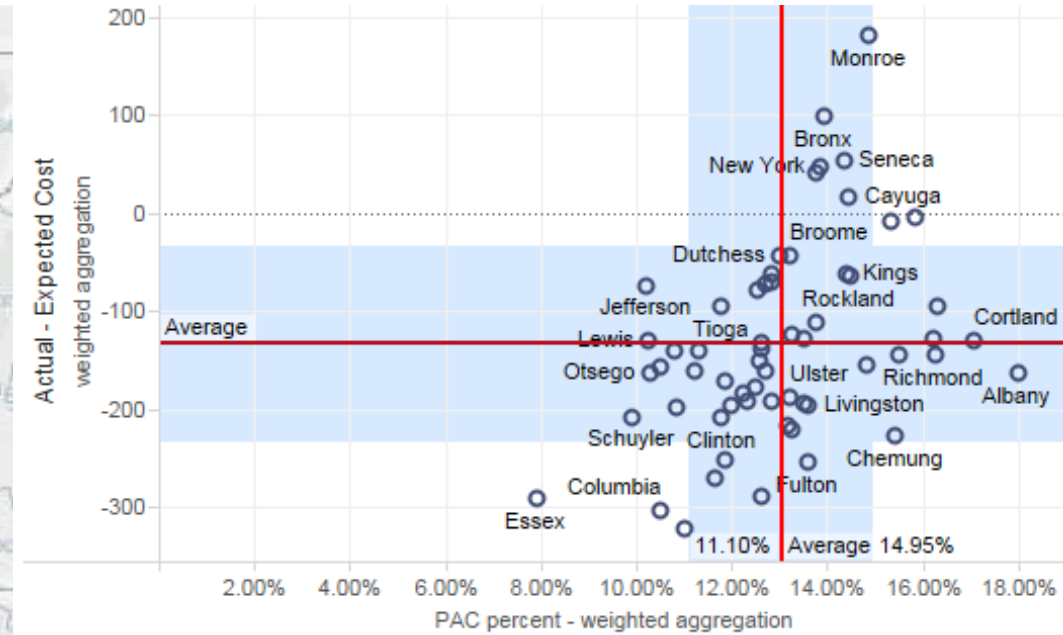
	Total Cost	Volume
	\$0 \$150,000,000	0K 50K
Bronx	\$73,057,155	63,843
Kings	\$56,579,945	56,554
Queens	\$32,798,898	37,579
New York	\$31,997,837	28,359
Erie	\$10,972,774	11,887
Suffolk	\$8,594,433	10,524
Monroe	\$10,912,193	9,591
Westchester	\$8,038,793	8,292
Nassau	\$6,902,990	8,008
Richmond	\$5,420,358	6,210



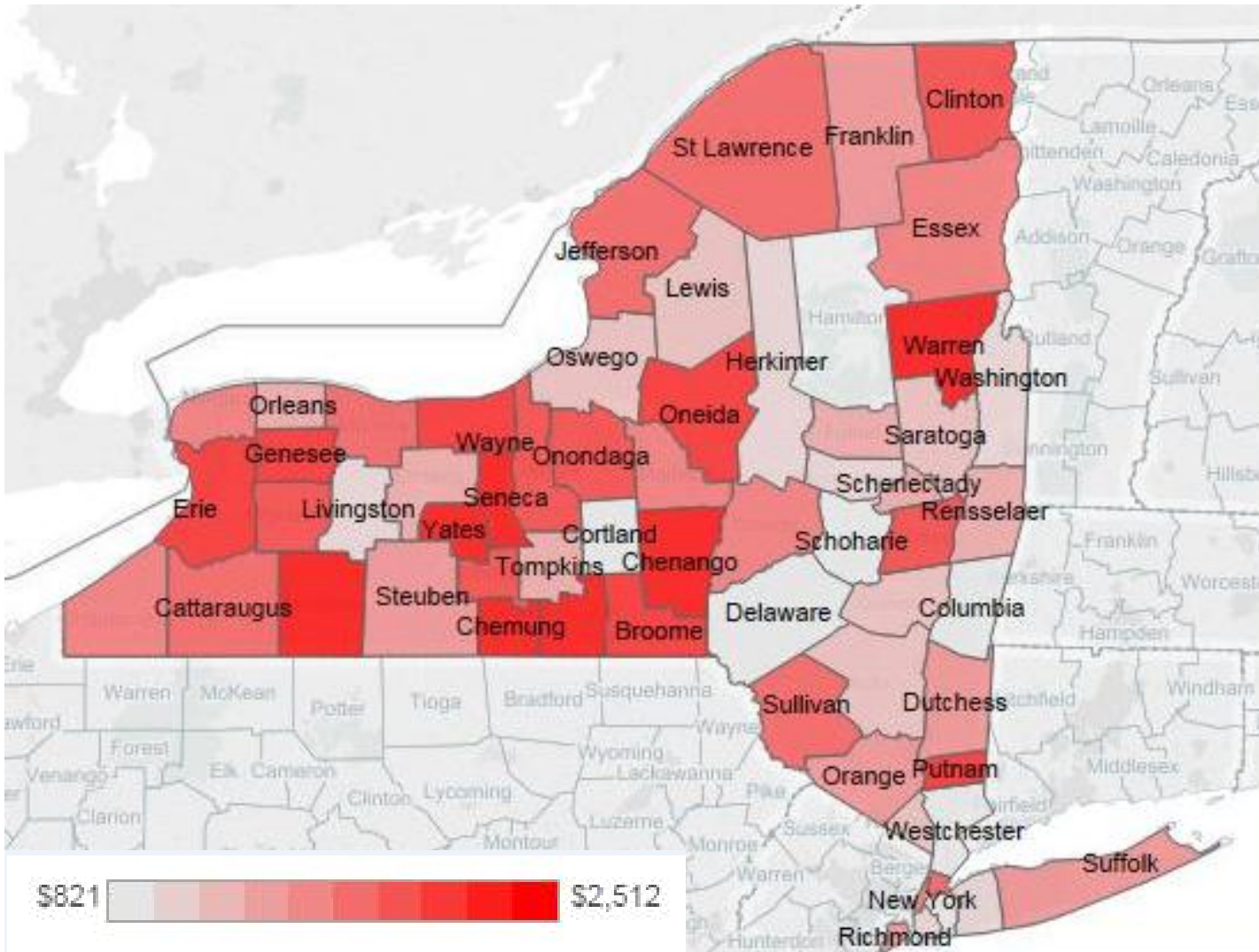
# The Actual Minus Expected Cost per Asthma Episode is Between -\$424 and \$119



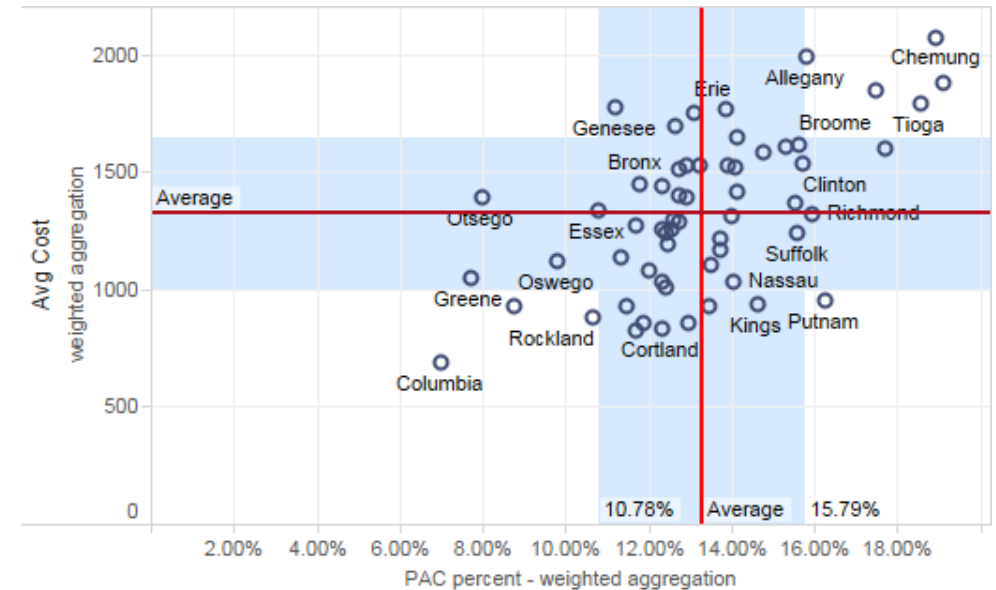
Brighter red means actual costs are much higher than expected



# The Average Cost per COPD Episode is Between \$821 and \$2,512



Brighter red means higher costs



	Total Cost	Volume
	\$0 \$30,000,000	OK 10K 20K
Kings	\$14,529,683	15,512
Queens	\$9,415,235	11,027
Bronx	\$10,358,923	7,191
New York	\$6,036,138	4,265
Suffolk	\$3,878,623	3,134
Erie	\$4,892,010	2,794
Monroe	\$4,052,554	2,660
Westchester	\$1,812,508	2,119
Nassau	\$2,148,252	2,080
Onondaga	\$2,657,489	1,739

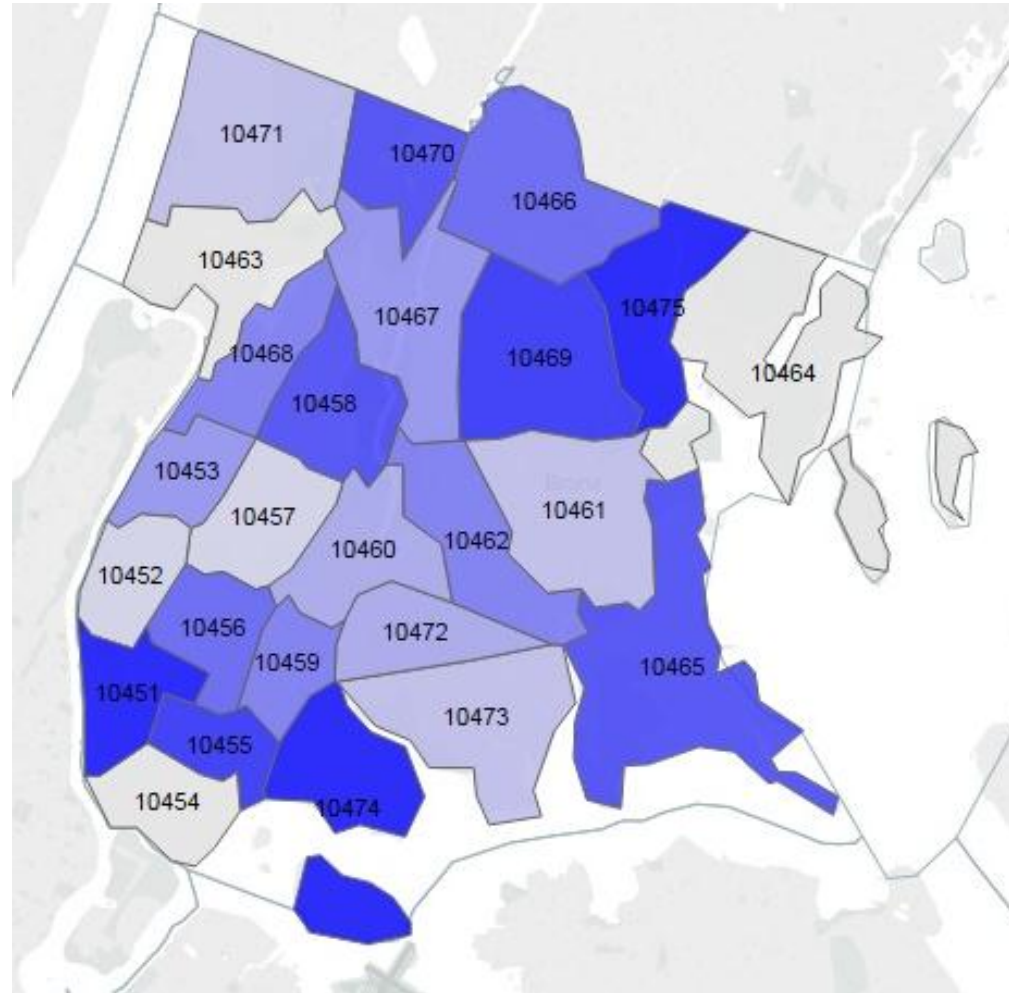






# Example Drilldown: Asthma in the Bronx

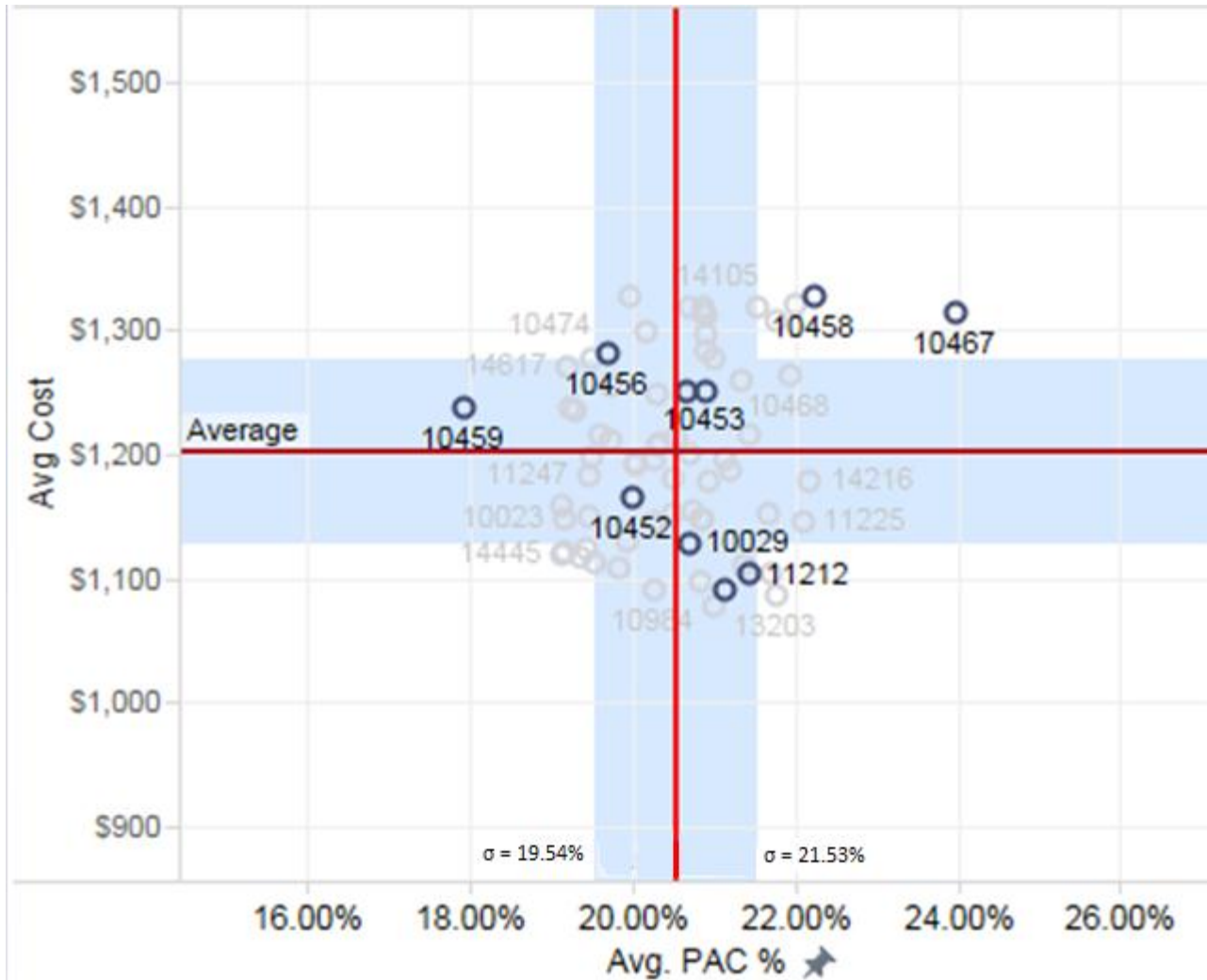
Actual Minus Expected Cost/Episode



(\$17) \$259

Lighter Blue = Better Cost Performance

# Example Drilldown: Asthma in the Bronx



Top 10 Highest Total Cost ZIP Codes in the Bronx

ZIP Code	Total Cost			Volume			
	\$0	\$5,000,000	\$10,000,000	0K	2K	4K	6K
10456			\$7,642,671				5,968
10457			\$6,042,674				4,835
10453			\$5,645,338				4,512
10458			\$5,547,369				4,180
11212			\$4,898,452				4,442
10467			\$4,814,610				3,665
11207			\$4,810,741				4,415
10452			\$4,785,903				4,111
10029			\$4,587,549				4,064
10459			\$4,572,123				3,697

# The 2<sup>nd</sup> CAG Meeting will be on October 7, 2015 in New York City

## Meeting 2

- Pulmonary Episodes Definition Recap
- Pulmonary Episodes Outcome Measures - I