Pulmonary Bundle

Chronic Condition Clinical Advisory Group
Value Based Payment Recommendation
Report

Introduction

Delivery System Reform Incentive Payment (DSRIP) Program & Value Based Payment (VBP) Overview

The New York State (NYS or the State) DSRIP program aims to fundamentally restructure New York State's healthcare delivery system, reducing avoidable hospital use by 25%, and improving the financial sustainability of New York State's safety net.

To further stimulate and sustain this delivery reform, at least 80 – 90% of all payments made from Managed Care Organizations (MCOs) to providers will be captured within VBP arrangements by 2020. The goal of converting to VBP arrangements is to develop a sustainable system, which incentivizes value over volume. The Centers for Medicare & Medicaid Services (CMS) has approved the State's multiyear VBP Roadmap, which details the menu of options and different levels of VBP that the MCOs and providers can select.

Pulmonary Clinical Advisory Group (CAG)

CAG Overview

For many VBP arrangements, a subpopulation or defined set of conditions may be contracted on an episodic/bundle basis. Clinical Advisory Groups (CAGs) have been formed to review and facilitate the development of each subpopulation or bundle. Each CAG comprises leading experts and key stakeholders from throughout New York State, often including representatives from providers, universities, State agencies, medical societies, and clinical experts from health plans.

The Pulmonary CAG held a series of three meetings throughout the State and discussed key components of the Pulmonary VBP arrangement, including bundle definitions, risk adjustment, and the Pulmonary bundle quality measures. For a full list of meeting dates, times, and overview of discussion, please see Appendix A.

Recommendation Report Overview & Components

The following report contains two key components:

Pulmonary Bundle Playbooks

1. The playbook provides an overview of the episode definition and clinical descriptions, including ICD-9 and ICD-10 codes:

   - Asthma Chronic
   - Obstructive Pulmonary Disease (COPD)

Pulmonary Bundle Quality Measure Summary

2. The Quality Measure Summary provides a description of the criteria used to determine relevancy, categorization and prioritization of outcome measures, and a listing of the recommended quality measures.

Contents

Pulmonary Bundle Playbook

Pulmonary Care Definition: Asthma, Chronic Obstructive Pulmonary Disease (COPD)

September 2016

NYS Medicaid Value Based Payment

Playbook Overview – Pulmonary Bundle

New York State's VBP Roadmap[1] describes how the State will transition 80 – 90% of all payments from MCOs to providers from Fee for Service (FFS) to Value Based Payments. "Bundles" or "episodes"[2] group together the wide range of services performed for a patient with a specific condition. Episodes only include those services that are relevant to the condition, including services that are routine and typical for the care of the condition. The episode also takes into account services that are required to manage complications that could potentially occur during the course and care of the condition. Episodes open with a claim carrying a "trigger code." Sometimes a confirmatory claim is required in addition to the initial trigger code to confirm an episode exists. Once the episode is opened, it creates a time window where all relevant claims are attributed. Thus, an episode of care is patient-centered and time-delimited. It can be considered as a unit of accounting for budgeting purposes, unit of care for contracting purposes, and a unit for accountability for quality measurement purposes.

New York State uses the HCI[3] (Prometheus)-bundled payment methodology, including the standard episode definitions to maximize compatibility and consistency within the State and nationally. More information on how the episodes are developed is available on HCI[3]'s Web site.[3] The HCI[3]-bundled payment methodology is also referred to as "the grouper."

This playbook describes the Pulmonary Bundle (Asthma Episode and COPD Episode). The table below provides an overview of the sections in this playbook.

Section	Short Description
Description of Episode	Details on the Asthma Episode and COPD Episode, including episode triggers and timelines, covered services, exclusions, and potentially avoidable complications
Attachment A: Glossary	List of all important definitions
Attachment B: Workbooks with Codes for Episode	Overview of all asthma-specific and COPD-specific ICD-9 codes as well as their crosswalk to ICD-10 codes

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[1] https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/docs/vbp_roadmap_final.pdf.
[2] The terms can be used interchangeably. Sometimes, the term "bundle" is used to refer to a combination of individual episodes.
[3] http://www.hci3.org/content/online-courses

Description of the Pulmonary Bundle

The Asthma Episode targets Medicaid-only members who have asthma.

The COPD Episode targets Medicaid-only members who have COPD.
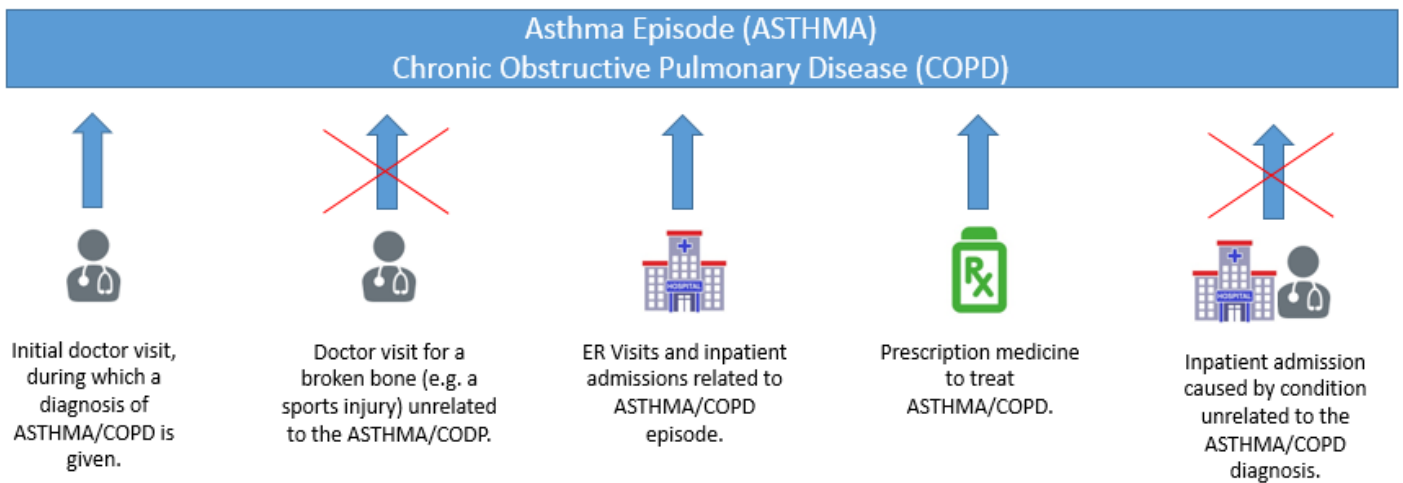
How is a Pulmonary Bundle triggered?

The Pulmonary Bundle is initially triggered by either (1) an inpatient claim with asthma or COPD as the principal diagnosis, or (2) an outpatient or professional billing claim with an evaluation and management (E&M) service listing asthma or COPD as the diagnosis. The confirming trigger must adhere to the same parameters as the initial trigger and follow at least 30 days after the initial trigger.[4]

Which services are included in the Pulmonary Bundle?

The Pulmonary Bundle includes all services (inpatient, outpatient, ancillary, laboratory, radiology, pharmacy, and professional billing services) related to the care for respective episode.[4] The visual below provides an example of the services that are/are not included in an episode. The episode includes all care related to that episode, while it excludes encounters where services are provided for unrelated care as defined by the diagnoses (see crossed out services in the example below).

Clinical Logic for Asthma or COPD

Asthma Episode (ASTHMA)
Chronic Obstructive Pulmonary Disease (COPD)

| Initial doctor visit, during which a diagnosis of ASTHMA/COPD is given. | Doctor visit for a broken bone (e.g. a sports injury) unrelated to the ASTHMA/CODP. | ER Visits and inpatient admissions related to ASTHMA/COPD episode. | Prescription medicine to treat ASTHMA/COPD. | Inpatient admission caused by condition unrelated to the ASTHMA/COPD diagnosis. |

What are the exclusion criteria for the Pulmonary Bundle?

Some episodes have specific exclusion criteria; these are either exclusions from the episode based on clinical reasons or exclusions from eligibility for Medicaid. Episodes might be excluded from analysis if they are incomplete due to:

- **Administrative Exclusion:** Incomplete set of claims within the episode time window due to coverage/enrollment gap or lack of episode completion.

- **Age:** The Asthma Episode and COPD Episode excludes Medicaid members who are younger than 2 or are 65 years and older.

- **Upper and Lower Cost Limit:** To create adequate risk models, individual episodes where the episode cost is below the first percentile or higher than the ninety-ninth percentile are excluded.

- **Coverage Gap:** For the Asthma Episode and COPD Episode, continuous member/patient enrollment eligibility is checked for the episode period. If a patient has any enrollment gap during an episode with an episode window 90

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[4] Attachment B lists all codes for the Asthma Episode and COPD Episode.

days or less or a gap greater than 30 days during episodes with episode window greater than 90 days, then the episode is flagged as not meeting the coverage/enrollment gap criteria.

What is the timeline for a Pulmonary Bundle?

Starting from the moment the episode is triggered, there is a 30 day look-back period for care related to asthma or COPD. As asthma and COPD are a chronic episodes, the episodes can be open until the patient is deceased. For reporting purposes, the episode can be assessed on a yearly rolling basis. However, if there are no services related to this episode in a given year, then the episode will not be triggered. If the patient dies, the date of death marks the end of the episode.

Potentially Avoidable Complications (PACs) related to the Pulmonary Bundle

The services within an episode are assigned as either typical or as potentially avoidable complications. In order to be considered a potentially avoidable complication, or PAC, services must include complication diagnosis codes that either (1) directly relate to the index condition or (2) indicate a failure in patient safety. PACs can occur as hospitalizations, emergency room visits, and professional services related to these hospitalizations, but they can also occur in outpatient settings. As the term indicates, a PAC does not mean that something has gone wrong: it means that a type of care was delivered related to a clinical event that *may* have been preventable. As such, the goal is not to reduce PACs to zero, but to reduce PACs as much as possible, and to benchmark the risk-adjusted occurrences of these PACs between VBP contractors and MCOs.

Additionally, from a quality perspective, PACs can be identified by failure to comply with patient safety guidelines, such as HACs (CMS defined Hospital-Acquired Conditions) and PSIs (Agency for Healthcare Research and Quality (AHRQ) defined Patient Safety Indicators). Likewise, failure to avoid other situations related to patient safety (e.g. avoidable infection or drug interaction) may also be considered a PAC.

The top 10 PACs for each episode (based on cost) in New York State Medicaid are:

Asthma Episode	COPD Episode
1. Acute exacerbation of COPD, and asthma	1. Acute exacerbation of COPD, and asthma
2. Upper respiratory infection	2. Pneumonia
3. Pneumonia	3. Upper respiratory infection
4. Sepsis	4. Respiratory failure
5. Acute esophagitis, acute gastritis, and duodenitis	5. Sepsis
6. Respiratory failure	6. Acute esophagitis, acute gastritis, and duodenitis
7. Respiratory insufficiency	7. Respiratory insufficiency
8. Hypotension/syncope	8. Fluid electrolyte acid base problems
9. Fluid electrolyte acid base problems	9. Gastrointestinal (GI) Bleed
10. Gastrointestinal (GI) Bleed	10. Hypotension/syncope

Which episodes roll up under the Pulmonary Bundle?

The overarching clinical logic of HCI³'s PROMETHEUS Analytics© allows a member to have multiple concurrent open episodes that can be linked together when clinically relevant. Episodes can be analyzed individually based on their included services or rolled up into more comprehensive bundles through clinical association.

The HCI³ grouper looks at episodes at different levels. At level 1, all episodes are analyzed individually. At higher levels (2 to 5), different episodes are rolled up under one specific episode as PACs.
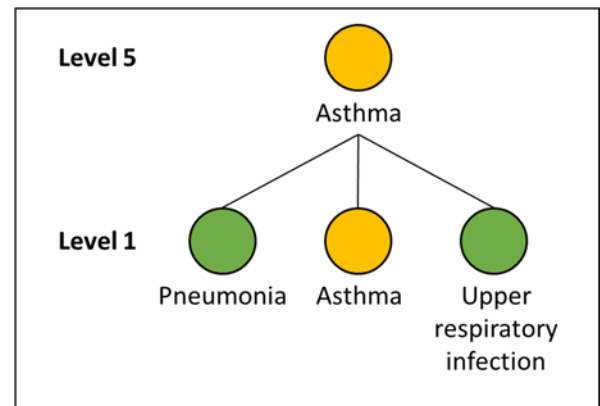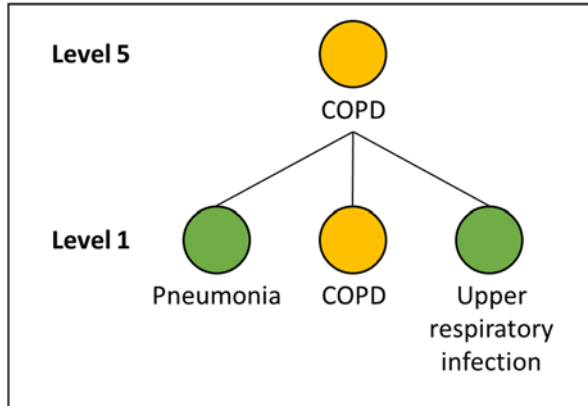
Which subtypes of the Pulmonary Bundle exist?

"Subtypes" are subgroupings that could help stratify a population for analytic purposes and are used for functions such as risk adjustment. A few examples of common subtypes are below:

Asthma is one of several HCI³ episodes without subtypes.

A few examples of subtypes for the COPD episode are:

- Emphysema
- Obstructive chronic bronchitis

How is the risk adjustment of the Pulmonary Bundle done?

Separate risk adjustment models are created for "typical" services and for "potentially avoidable complications." Risk factors that are taken into account include patient demographics, preexisting co-morbidities, and subtypes.[5] Using these factors, the episode grouper calculates an "expected" total cost that is unique for every individual patient. The difference between the actual cost and the expected cost determines the savings/losses incurred in the care for that individual patient.[6]

ICD-9 and ICD-10 Codes

A list of all relevant codes contained in each HCI3 episode definition can be found here[7]:

http://www.hci3.org/programs-efforts/prometheus-payment/evidence_informed_case_rates/ecrs-and-definitions

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[5] For details on risk adjustment, visit the HCI³ Web site (http://www.hci3.org/content/online-courses)

[6] The overall total savings/losses per bundle are calculated by adding all these savings/losses at the individual episode level.

[7] Please note that these codes may be different than those found in the Episode table below which contains codes being used specifically for NYS.

Attachment A: Glossary

- **Complication Code:** These are ICD-9 and ICD-10 diagnosis codes, which are used to identify a Potentially Avoidable Complication (PAC) services during the episode time window.

- **Diagnosis Codes:** These are unique codes based on ICD-9 (or ICD-10) that are used to group and categorize diseases, disorders, symptoms, etc. These identify clinically-related inpatient, outpatient, and professional typical services to be included in the episode in conjunction with the relevant procedure codes. These may include trigger codes, signs and symptoms and other related conditions and are used to steer services into an open episode.

- **Episode:** An episode of medical care that spans a predefined period of time for a particular payer-provider-patient triad, as informed by clinical practice guidelines and/or expert opinion. The episode starts after there is a confirmed trigger for that episode (e.g. a diagnosis).

- **Episode Type:** Episodes are grouped into four main categories:

  - *Chronic Condition* – care for a chronic medical condition.

  - *Acute Condition* – care for an acute medical condition.

  - *Procedural (Inpatient (IP) or Outpatient (OP))* – a surgical procedure and its follow-up care; the procedure may treat a chronic or acute condition.

  - *Other Condition* – care for pregnancy and cancer episodes.

- In addition, there is one generic episode type included:

  - *System-Related Failures* – inpatient and follow-up care for a condition caused by a systemic patient-safety failure.

- **Exclusions:** Some episodes have specific exclusion criteria, which are either based on clinical or administrative (eligibility/coverage) criteria.

- **ICD-10 Codes:** The ICD-9 diagnosis codes and the ICD-9 procedure codes for the above categories of codes have been cross-walked to ICD-10 codes leveraging the open-source GEM (Generalized Equivalence mapping) tables published by CMS.

- **Index Condition:** The index condition refers to the specific episode that the PAC relates to.

- **Initial and Confirming Triggers:** An initial trigger initiates an episode based on diagnosis and / or procedure codes found on institutional or non-institutional claims. For many episodes, a second trigger, the confirming trigger, is necessary to actually trigger the episode. Sometimes an episode itself could serve as a trigger for another episode, e.g., pregnancy episode in delivery episode.

- **Clinical Association**: HCI[3]'s PROMETHEUS Analytics© allows episodes to be connected to one another based on clinical relevance. For any individual patient, conditions and treatments, all of which trigger different episodes, are often related to one another from a clinical perspective. Episodes can be linked together for the analysis of their costs as either typical or complication.

- **Look-Back & Look-Forward:** From the point at which an episode is triggered, episode costs / volume are evaluated within the associated time window for a predetermined number of days before and after the trigger date. Costs, volume, and other episode components that fall within this range are captured within the episode.

- **Pharmacy Codes:** These are codes used to identify relevant pharmacy claims to be included in the episode. HCI³'s PROMETHEUS Analytics© groups pharmacy NDC codes into higher categories using the National Library of Medicine's open-source RxNorm system of drug classification.

- **Potentially Avoidable Complication (PAC):** An episode contains services that are assigned as either typical or as potentially avoidable complications. In order to be considered a potentially avoidable complication, or PAC, services must include complication diagnosis codes that either (1) directly relate to the index condition or (2) indicate a failure in patient safety. PACs can occur as hospitalizations, emergency room visits, and professional services related to these hospitalizations, but they can also occur in outpatient settings. As the term indicates, a PAC does not mean that something has gone wrong: it means that a type of care was delivered related to a clinical event that may have been preventable. As such, the goal is never to reduce PACs to zero, but to reduce PACs as much as possible, and to benchmark the risk-adjusted occurrences of these PACs between VBP contractors and MCOs.

  Additionally, PACs can be identified by failure to comply with patient safety guidelines, such as HACs (CMS defined Hospital-Acquired Conditions) and PSIs (Agency for Healthcare Research and Quality (AHRQ) defined Patient Safety Indicators). Likewise, failure to avoid other situations related to patient safety (e.g. avoidable infection or drug interaction) may also be considered a PAC.

- **Procedure Codes:** These are codes used to identify clinically-related services to be included in the episode in conjunction with the typical diagnosis codes. These include CPT, HCPCS, and ICD-9 and ICD-10 procedure codes.
- **Roll-Ups:** Some episodes are associated with each other through HCI³'s PROMETHEUS Analytics© clinical logic and grouped under an 'umbrella' episode, including the grouped episode's costs/volume.

- **Subtypes (code):** Episodes often have subtypes or variants, which are useful to adjust for the severity of that episode, and reduce the need to have multiple episodes of the same type.

- **Time-Window:** This defines the time that an episode is open. It includes the trigger event, a look-back period and a look-forward period and could be extended based on rules and criteria.

- **Trigger Code:** A trigger code is the diagnosis or procedure code indicating the condition in question is present or procedure in question has occurred. Trigger codes are used to open new episodes and assign a time window for the start and end dates of each episode (depending on the episode type). Trigger codes can be ICD-9 or ICD-10 diagnosis or procedure codes, CPT or HCPCS codes, and could be present on an inpatient facility, outpatient facility, or professional claim.

Attachment B: Workbooks with Codes for the Pulmonary Bundle

Asthma Episode:

The file below includes all ICD-9 Asthma specific codes	The files below include all ICD-10 Asthma specific codes
Asthma: ICD-9 codes	Coming Soon

COPD Episode:

The file below includes all COPD specific codes	The files below include all ICD-10 COPD specific codes
COPD: ICD-9 codes	Coming Soon

Pulmonary Quality Measure Summary

Pulmonary (Asthma and COPD) Clinical Advisory Group (CAG)

Quality Measure Recommendations

Introduction

Over the course of two meetings, the Pulmonary CAG reviewed, discussed, and provided feedback on the proposed Pulmonary Episodes (Asthma and COPD) to be used to inform VBP contracting for levels one through three. Both episodes concern lung-related conditions and include significant overlap of quality measures that are relevant for several conditions simultaneously. To help ensure a comprehensive discussion that captured both unique attributes specific to each bundle as well as areas of overlap (such as quality measures), one Pulmonary CAG was assembled and the outcomes are included here within one comprehensive document.

A key element of these discussions was the review of current, existing, and new outcome and process measures used to measure the quality of care related to the pulmonary bundle. This document summarizes the discussion of the CAG members and their categorization of quality measures.[8]

Selecting quality measures: Criteria used to consider relevance[9]

In reviewing potential quality measures for utilization as part of a VBP arrangement, a number of key criteria have been applied across all Medicaid member subpopulations and disease bundles. These criteria, and examples of their specific implications for the Pulmonary VBP arrangement, are the following:

Clinical relevance

Focused on key outcomes of integrated care process

i.e., Outcome measures are preferred over process measures; outcomes of the total care process are preferred over outcomes of a single component of the care process (i.e., the quality of one type of professional's care).

For process measures: Crucial evidence-based steps in the integrated care process that may not be reflected in the patient outcomes measured

Existing variability in performance and/or possibility for improvement

Reliability and Validity

Measure is well established by reputable organization.

The focus was on established measures (owned by, e.g., New York State Office of Patient Quality and Safety (OQPS), endorsed by the National Quality Forum (NQF), Healthcare Effectiveness Data and Information Set (HEDIS) measures, and/or measures owned by organizations such as the National Committee for Quality Assurance).

Outcome measures are adequately risk adjusted

i.e. measuring '% preterm births' without adequate risk adjustment makes it impossible to compare outcomes between providers

Feasibility

Claims-based measures are preferred over non-claims-based measures (clinical data, surveys).

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[8] The following sources were used to establish the list of measures to evaluate: existing DSRIP/QARR measures; AHRQ PQI/IQI/PSI/PDI measures; CMS Medicaid Core set measures; other existing statewide measures; NQF endorsed measures; measures suggested by the CAG.

[9] After the Measurement Evaluation Criteria established by the National Quality Forum (NQF), http://www.qualityforum.org/uploadedFiles/Quality_Forum/Measuring_Performance/Consensus_Development_Process%E2%80%99s_Principle/EvalCriteria2008-08-28Final.pdf

i.e., Ease of data collection is important and measure information should not add unnecessary burden for data collection.

When clinical data or surveys are required, existing sources must be available.

i.e., the link between the Medicaid claims data and this clinical registry is already established.

Data sources must be patient-level data.

i.e., Surveys or measures that require random samples from patient records or patients are not acceptable because they do not allow drilling down to the patient level and/or adequate risk adjustment.

Data sources must be available without significant delay.

i.e., Data sources should not have a lag longer than the claims-based measures (which have a lag of six months).

Meaningful and actionable to provider improvement in general

Measures should not only be related to the goals of care, but also something the provider can impact or use to change care.

Categorizing and prioritizing quality measures

Based on the above criteria, the CAG discussed the quality measures in the framework of three categories:

- **Category 1 –** Category 1 comprises approved quality measures that are felt to be clinically relevant, reliable, valid, and feasible.

- **Category 2 –** Category 2 quality measures were felt to be clinically relevant, valid, and probably reliable, but where the feasibility could be problematic. These quality measures will likely be investigated during the 2016 or 2017 pilots but would likely not be implementable in the immediate future.

- **Category 3 –** Category 3 measures were decided to be insufficiently relevant, valid, reliable, and/or feasible.

Ultimately, the use of these measures, particularly in Category 1 and 2 will be developed and further refined during the 2016 (and possibly 2017 pilots). The CAG will be re-assembled on a yearly basis during at least 2016 and 2017 to further refine the Category 1 and 2 measures.

The HCI[3] grouper creates condition-specific scores for Potentially Avoidable Complications (PACs) for each condition. The 'percentage of total episode costs that are PACs is a useful measure to look for potential improvements; it cannot be interpreted as a quality measure. PAC counts however, can be considered clinically relevant and feasible outcome measures.

Pulmonary CAG Recommended Quality Measures – Category 1 and 2

	No.	Bundle	Measure	Measure Steward/Source
Category 1	1	Asthma	Asthma: Assessment of Asthma Control – Ambulatory Care Setting	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity
	2	Asthma	Lung Function/Spirometry Evaluation	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity
	3	Asthma	Patient Self-Management and Action Plan	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity
	4	COPD	Use of spirometry testing in the assessment and diagnosis of COPD: percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.*	National Committee for Quality Assurance
	5	Asthma	Medication management for people with asthma: percentage of members 5 to 64 years of age during the measurement year who were identified as having persistent asthma and who were dispensed an asthma controller medication that they remained on for at least 75% of their treatment period.*	National Committee for Quality Assurance
	6	Asthma, COPD	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year.	Bridges To Excellence
	7	Asthma	PQI #15 Adult Asthma Admission Rate	Agency for Healthcare Research and Quality
	8	Asthma	PQI #14 Asthma Admission Rate	Agency for Healthcare Research and Quality

	No	Bundle	Measure	Measure Steward/Source
Category 2	9	COPD	Functional Capacity in COPD patients before and after Pulmonary Rehabilitation	American Association of Cardiovascular Pulmonary Rehabilitation
	10	COPD	Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSRR) following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Centers for Medicare & Medicaid Services
	11	Asthma	Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver (process)	The Joint Commission
				*= NQF Endorsed

Pulmonary CAG Recommended Quality Measures – By condition

	No.	Category	Measure
Asthma	1	1	Asthma: Assessment of Asthma Control – Ambulatory Care Setting
	2	1	Lung Function/Spirometry Evaluation
	3	1	Patient Self-Management and Action Plan
	5	1	Medication management for people with asthma: percentage of members 5 to 64 years of age during the measurement year who were identified as having persistent asthma and who were dispensed an asthma controller medication that they remained on for at least 75% of their treatment period.*
	7	1	PQI #15 Adult Asthma Admission Rate
	8	1	PQI #14 Asthma Admission Rate
	11	2	Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver (process)
COPD	4	1	Use of spirometry testing in the assessment and diagnosis of COPD: percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.*
	9	2	Functional Capacity in COPD patients before and after Pulmonary Rehabilitation
	10	2	Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSRR) following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization
Asthma & COPD	6	1	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year. (Asthma & COPD)
			*= NQF Endorsed

CAG categorization and discussion of measures

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
Assessment and screening	Asthma	1	Asthma Assessment and Classification	Process	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				Yes	No	3	This measure is a subset of measure #2.
Assessment and screening	Asthma	2	Asthma: Assessment of Asthma Control – Ambulatory Care Setting	Process	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				Yes	No	1	This measure is more comprehensive than measure #1.
Assessment and screening	Asthma	3	Lung Function/Spirometry Evaluation	Process	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				Yes	Yes	1	This measure can be calculated using claims data only.
Assessment and screening	Asthma	4	Patient Self-Management and Action Plan	Process	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				No	Yes	1	Having an action plan is fully supported by the CAG.

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
Assessment and screening	COPD	5	Use of spirometry testing in the assessment and diagnosis of COPD: percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.*	Process	The National Committee for Quality Assurance		X	X	Yes	No	1	That CAG agrees that spirometry is necessary for the diagnosis of COPD.
Medication Management	Asthma	6	Use of appropriate medications for people with asthma: percentage of members 5 to 64 years of age during the measurement year who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year.*	Process	The National Committee for Quality Assurance		X	X	Yes	No	3	The CAG does not recommend this measure because medication is prescribed without knowing whether the prescription is actually adhered to.
Medication Management	Asthma	7	Asthma: Pharmacologic Therapy for Persistent Asthma*	Process	The American Medical Association (AMA)-convened Physician Consortium for Performance Improvement				Yes	Yes	3	The CAG does not recommend this measure because medication is prescribed without knowing whether the prescription is actually adhered to.
Medication Management	Asthma	8	Medication management for people with asthma: percentage of members 5 to 64 years of age during the measurement year who were identified as having persistent asthma and who were dispensed	Process	The National Committee for Quality Assurance		X	X	Yes	Yes	1	This measure captures both the prescription and dispensing of medication and is recommended by the CAG.

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
			an asthma controller medication that they remained on for at least 75% of their treatment period.*									
Medication Management	Asthma	9	Asthma Medication Ratio *	Process	The National Committee for Quality Assurance		X	X	No	Yes	3	Measure #8 is preferred over measure #9. The CAG believes that many times, short-acting beta-agonists are prescribed for extra use, e.g., for school, travel. The calculation of a ratio of dispensing short-acting beta-agonists to corticosteroids will not produce a useful measure.
Medication Management	Asthma	10	Suboptimal Asthma Control (SAC) and Absence of Controller Therapy (ACT)*	Process	Pharmacy Quality Alliance				Yes	Yes	3	
Medication Management	COPD	11	COPD: inhaled bronchodilator therapy*	Process	American Thoracic Society				Yes	Yes	3	The CAG believes that prescribing bronchodilators for FEV1/FVC <60% is the standard of care, and since this measure requires clinical data, it was not felt to be a valuable measure and, therefore, not recommended.
Medication Management	COPD	12	Pharmacotherapy management of COPD exacerbation: percentage of COPD exacerbations for members 40 years of age and older who had an acute inpatient discharge or Emergency Department (ED) visit on or between January 1 and November 30 of the measurement year and who were dispensed a bronchodilator within 30 days of the event.	Process	The National Committee for Quality Assurance		X	X	Yes	No	3	The CAG does not recommend this measure because Medicaid members may already have medications available and, therefore, would not require new prescriptions.

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
Outcomes of Care	Asthma/ COPD	13	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year.	Outcome	Bridges To Excellence				Yes	No	1	
Outcomes of Care	Asthma	14	PQI #15 Adult Asthma Admission Rate	Outcome	Agency for Healthcare Research and Quality	X			Yes	No	1	Admissions are also part of measure #13 (potentially avoidable complications), but the CAG would like to measure admissions separately.
Outcomes of Care	Asthma	15	Optimal Asthma Control	Outcome	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				N	Yes	3	This measure was not recommended by the CAG, because the tools used to assess optimal asthma control are considered to be subjective.
Outcomes of Care	Asthma	16	Asthma Control: Minimal Important Difference Improvement	Outcome	The American Academy of Allergy, Asthma & Immunology (AAAAI) Quality Clinical Data Registry in collaboration with CECity				Yes	Yes	3	This measure was not recommended by the CAG, because the tools used to assess optimal asthma control are considered to be subjective.
Outcomes of Care	COPD	17	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate (PQI 5)	Outcome	Agency for Healthcare Research and Quality			X	Yes	No	3	The CAG expressed that it is difficult to prevent exacerbations in COPD patients and since this topic is already included in measure #13, no separate measure is needed.
Outcomes of Care	COPD	18	Functional Capacity in COPD patients before and after Pulmonary Rehabilitation	Outcome	American Association of Cardiovascular Pulmonary Rehabilitation				No	Yes	2	Due to the nature of COPD disease, it is unlikely to see an objective improvement for the long term. If this measure can show improvements that are sustained overtime, this may become a Category 1 measure.

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
Outcomes of Care	COPD	19	Health-related Quality of Life in COPD patients before and after Pulmonary Rehabilitation	Outcome	American Association of Cardiovascular Pulmonary Rehabilitation				No	No	3	The CAG believes that the tools used to assess quality of life are considered to be subjective and, therefore, did not recommend this measure.
Outcomes of Care	COPD	20	Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSRR) following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Outcome	Centers for Medicare & Medicaid Services				Yes	No	2	The CAG would consider a readmission measure to be helpful if the readmission diagnosis is not "all-cause" but rather a diagnosis that is related to pulmonary disease. However, at this time, there are no measures to be found only addressing pulmonary disease - related readmissions.
Outcomes of Care	COPD	21	Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization	Outcome	Centers for Medicare & Medicaid Services				Yes	No	3	The CAG did not recommend this measure because mortality is hard to track down due to several factors: • If the Medicaid member dies after discharge this is not always registered. • If the Medicaid member moves to another care provider, there may be incomplete death records.
Pediatric Care	Asthma	22	PQI #14 Asthma Admission Rate	Outcome	Agency for Healthcare Research and Quality	X			No	Yes	1	In the CAG, it was stated that this measure is more useful if age groups could be distinguished. Currently, this is not reported.
Pediatric Care	Asthma	23	Relievers for Inpatient Asthma (process)	Process	The Joint Commission				No	Yes	3	The CAG did not recommend this measure, because it considers the process being measured as standard and does not expect enough distinctiveness.
Pediatric Care	Asthma	24	Systemic Corticosteroids for Inpatient Asthma (process)	Process	The Joint Commission				No	Yes	3	The CAG did not recommend this measure, because it considers the process being measured as standard and does not expect enough distinctiveness.

Topic	Bundle	#	Quality Measure (*= NQF Endorsed)	Type of Measure	Measure Steward/ Source	DSRIP	QARR	HEDIS	Data Required		Quality Measure Categorization and Notes	
									Medicaid Claims Data	Clinical data[i]	Category	Notes
Pediatric Care	Asthma	25	Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver (process)	Process	The Joint Commission				No	Yes	2	

Appendix A:

Meeting Schedule

Date		Agenda
CAG #1	08/26/2015	Part I A. Clinical Advisory Group Roles and Responsibilities B. Introduction to Value Based Payment C. Contracting Chronic Care: the Different Options D. HCI^3- Understanding the HCI^{3}Grouper and Development of Care Episodes Part II A. Impressions of Data Available for Value-Based Contracting
CAG #2	10/07/2015	1. Part I - Short Review and Questions from Previous CAG Meeting 2. Part II – Quality Measures for Pulmonary Episodes

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i Clinical data refers to non-claims data and is information that is often captured on a patient's individual chart or record.