Chronic Heart Condition Episodes
Clinical Advisory Group Meeting 1
Meeting Date: 8/27

Source: Fee-for-Service and Managed Care encounter records for non-dual Medicaid members in CY2012-2013. Source: HCI3
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Part II
A. Evaluation of Available Data to Inform Value-Based Contracting
Introductions
Tentative Meeting Schedule & Agenda

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

Meeting 1
- Introduction to Value Based Payment
- Clinical Advisory Group – Roles and Responsibilities
- Understanding the Approach: HCI3 Overview
- Chronic Heart Episodes Definition
- Chronic Heart Episodes – Evaluation of Data Available to Inform Value-Based Contracting

Meeting 2
- Chronic Heart Episodes Definition Recap
- Chronic Heart Episodes Outcome Measures - I

Meeting 3
- Chronic Heart 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 (chronic heart)
- 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.
Chronic Heart Episodes Account for $1.0B of Non-Dual Medicaid Expenditures

Cost Composition of Chronic Heart Episodes
Total Chronic Heart: $1.0b (2011-2012)
- Arrhythmia Heart Block, Conductive Disorders, $158m
- Coronary Artery Disease, $248m
- Congestive Heart Failure, $158m
- Hypertension, $464m

Volume Composition of Chronic Heart Episodes
Total Chronic Heart Volume: 846k (2011-2012)
- Arrhythmia Heart Block, Conductive Disorders, 128k
- Coronary Artery Disease, 73k
- Congestive Heart Failure, 32k
- Hypertension, 516k

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 for non-dual Medicaid members.
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 50th in country for avoidable hospital use
- 21st for overall Health System Quality

NATIONAL RANKING

Avoidable Hospital Use and Cost 50th
- Percent home health patients with a hospital admission 49th
- Percent nursing home residents with a hospital admission 34th
- Hospital patients receiving recommended heart attack care 33rd
- Medicare ambulatory sensitive condition admissions 40th
- Medicare hospital length of stay 50th
Since 2011, total Medicaid spending has stabilized while number of beneficiaries has grown > 12%.

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

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

Integrated Physical & Behavioral Primary Care
Includes social services interventions and community-based prevention activities

- Maternity Care (including first month of baby)
- Chronic care
  - Diabetes, CHF, Hypertension, Asthma, Depression, Bipolar...
  - Chronic Kidney Disease
  - Hemophilia
- ... 
- AIDS/HIV
- Multimorbid disabled / frail elderly (MLTC/FIDA population)
- Severe BH/SUD conditions (HARP population)
- Developmentally Disabled population
- ... 

Population Health Focus on Overall Outcomes and Total Costs of Care

Sub-Population Focus on Outcomes and Costs Within Sub-Population / Episode
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:

<table>
<thead>
<tr>
<th>Level 0 VBP</th>
<th>Level 1 VBP</th>
<th>Level 2 VBP</th>
<th>Level 3 VBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFS with bonus and/or withhold based on quality scores</td>
<td>FFS with upside-only shared savings available when outcome scores are sufficient (For PCMH/APC, FFS may be complemented with PMPM subsidy)</td>
<td>FFS with risk sharing (upside available when outcome scores are sufficient)</td>
<td>Prospective capitation PMPM or Bundle (with outcome-based component)</td>
</tr>
</tbody>
</table>

- 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.
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

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

<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

<table>
<thead>
<tr>
<th>Type of Population / Condition</th>
<th>Population / Condition</th>
<th>Type of Contracting</th>
</tr>
</thead>
<tbody>
<tr>
<td>For specific subpopulations: intensive and interdependent chronic care needs, best coordinated by specialized provider</td>
<td>• HIV/AIDS • HARP • MLTC</td>
<td>Total Care for Subpopulation (capitation); i.e., a condition-specific ACO model</td>
</tr>
<tr>
<td>For highly specialized chronic conditions: intensive chronic care needs, best provided by specialized providers</td>
<td>• Chronic Kidney Disease • Hemophilia</td>
<td>Bundle</td>
</tr>
<tr>
<td>For more common chronic conditions: integrated approach is part and parcel of APC vision</td>
<td>• Asthma • COPD • Chronic Depression • Bipolar Disorder • Substance Use Disorder • <strong>Coronary Artery Disease</strong> • Hypertension • CHF • Arrhythmia / Heart Block • Gastro-Esophageal Reflux Disease</td>
<td>The default is that the individual chronic bundles are contracted together by integrated care providers (guideline)</td>
</tr>
</tbody>
</table>
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:

- Maternity Care (including first month of baby)
- Chronic care (Diabetes, CHF, Hypertension, Asthma, Depression, Bipolar...)
- Chronic Kidney Disease
- AIDS/HIV
- Multimorbid disabled / frail elderly (MLTC/FIDA population)
- Severe BH/SUD conditions (HARP population)
- Developmentally Disabled population
Part I

D. HCI3 Understanding the Grouper & Development of Care Episodes
Why HCI3?

- One of two nationally used Bundled Payment Programs, also known as “Prometheus Payment”
- 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 Chronic Heart Episode (Coronary Artery Disease as an Example)

Coronary Artery Disease

- Initial doctor visit, during which a diagnosis of CAD is given.
- Doctor visit for a broken bone (e.g. a sports injury) unrelated to the CAD.
- ER Visits and inpatient admissions related to Chronic Heart episode conditions, e.g. CAD and HTN.
- Prescription medicine to treat CAD.
- Inpatient admission for Acute Heart Failure / Pulmonary Edema.
Chronic Heart Condition

The bundle is composed of multiple cardiovascular condition episodes:

- Arrhythmia, Heart Block, Conduction Disorders (ARRBLK)
- Coronary Artery Disease (CAD)
- Congestive Heart Failure (CHF)
- Hypertension (HTN)

While the bundle could be composed of all episodes combined, these episodes are profiled individually by HCI3 ECR Analytics.
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

Chronic Heart Triggers (CAD as Example):

- Relevant IP claim CAD
- Relevant OP / PB claim CAD
- Relevant OP / PB claim CAD

CAD
(Coronal Artery Disease)
Episode Components: PACs

- Costs are separated by “typical” care from costs associated with Potentially Avoidable Complications (PACs)
- PACs for chronic conditions and some acute conditions have been endorsed by the NQF as comprehensive outcome measures
- 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’
- Can stem from poor coordination, failure to implement evidence-based practices or medical error
- Examples: exacerbations, ambulatory-care sensitive admissions, and inpatient-based patient safety features

1 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 AMI roll up under one of the Chronic Heart episodes.

In Level 1, claims are grouped into defined episodes, for example pneumonia and AMI, exist as separate episodes at level 1.
Leveling for Chronic Heart Episodes

- At level 1, Acute Myocardial Infarction and Pneumonia are separate episodes.
- At level 5, those episode become PACs for each of the Chronic Heart Episodes (Arrhythmias, Heart Block, and Conductive Disorders (ARRBLK) is a representative example, shown below).
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’.

More information can be found at http://www.hci3.org/sites/default/files/files/Reliability%20of%20Prometheus%20Measures_0.pdf
Inclusion and Identification of Risk Factors

Risk Factors
- Patient demographics (age, gender, etc.)
- Co-morbidities
- Subtypes (markers of clinical severity within an episode)

Identification of Risk Factors
- Patient demographics and co-morbidities 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 within an episode)

Identification of Risk Factors
- Patient demographics and co-morbidities (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

Examples of Subtypes

ARRBLK Subtypes: Atrial Flutter / Fibrillation, Complication of Implanted device, graft, Electrophysiology Studies, [others]

CAD Subtypes: Previous CABG, PCI, Unstable angina

CHF Subtypes: Cardiomyopathy, Diastolic Heart Failure, Hypertensive Heart Disease w/ Heart Failure, [others]

HTN Subtypes: Hypertensive Heart Disease, Renovascular and other secondary hypertension
Description of Chronic Heart Episodes

**Trigger**
1. Inpatient claim with one or more of ARRBLK, CAD, CHF, HTN as principal diagnosis
   OR
2. Outpatient or professional billing claim (office visit) with one or more of ARRBLK, CAD, CHF, HTN as diagnosis AND another of the same at least 30 days after first trigger.

**Included in bundle:**
- All typical and complication costs for ARRBLK, CAD, CHF, HTN during the duration of the bundle
- Complications include, but are not limited to:
  - Acute Heart Failure / Pulmonary Edema
  - Shock / Cardiac Arrest
  - Syncope / Hypotension
  - Respiratory Failure
Part II

A. Chronic Heart Episodes – Evaluation of Available Data to Inform Value-Based Contracting
Hypertension (HTN) Accounts for $464.1M in Annual Medicaid Spend

Episode Annual Volume
208K Episodes

Total Annual Costs of HTN Episodes (to the State)
$464.1m

Average Costs of a HTN Episode
$2,231

Age Distribution of Beneficiaries with HTN Episodes

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

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.
Coronary Artery Disease (CAD) Accounts for $248.9M in Annual Medicaid Spend

Episode Annual Volume
36.5K Episodes

Total Annual Costs of CAD Episodes (to the State)
$248.9m

Average Costs of a CAD Episode
$6,819

Age Distribution of Beneficiaries with CAD Episodes

Episode Volume
Thousands

Episode Volume
Thousands

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 for non-dual Medicaid members.
Arrhythmia, Heart Block, & Conductive Disorder (ARRBLK) Accounts for $158M in Annual Medicaid Spend

Episode Annual Volume
64K Episodes

Total Costs of ARRBLK Episodes (to the State)
$158.0m

Average Costs of an ARRBLK Episode
$2,468

Age Distribution of Beneficiaries with ARRBLK Episodes

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 - 11</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12 - 17</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>18 - 44</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>45 - 64</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>65+</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Episode Volume
Thousands

Episode Annual Volume
Total Costs of ARRBLK Episodes (to the State)
Average Costs of an ARRBLK 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 for non-dual Medicaid members.
Congestive Heart Failure (CHF) Accounts for $157.7M in Annual Medicaid Spend

Episode Annual Volume
16K Episodes

Total Annual Costs of CHF Episodes (to the State)
$157.7m

Average Costs of a CHF Episode
$9,855

Age Distribution of Beneficiaries with CHF Episodes

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

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.

August 27th
Four Important Cost Drivers for Chronic Heart 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. performing 1 heart echocardiogram 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 45.39% of Chronic Heart Bundle Costs

ARRBLK: 51.3% PAC Costs
Total ARRBLK spend: $158.0M

Typical Costs: $76.9m (49%)
PAC Costs: $81.1m (51%)

CAD: 44.7% PAC Costs
Total CAD spend: $248.9M

Typical Costs: $137.6m (55%)
PAC Costs: $111.3m (45%)

CHF: 58.2% PAC Costs
Total CHF spend: $157.7M

Typical Costs: $65.9m (42%)
PAC Costs: $91.8m (58%)

HTN: 39.4% PAC Costs
Total ARRBLK spend: $464.1M

Typical Costs: $281.4m (61%)
PAC Costs: $182.7m (39%)

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 for non-dual Medicaid members.
The Top 10 Hypertension PACs Account for 74.5% of All HTN PACs

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total PAC Costs (000s)</th>
<th>Total PAC Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>$5,266</td>
<td></td>
</tr>
<tr>
<td>Sepsis</td>
<td>$4,653</td>
<td></td>
</tr>
<tr>
<td>Pneumonia</td>
<td>$4,470</td>
<td></td>
</tr>
<tr>
<td>Diabetes, poor control</td>
<td>$3,352</td>
<td></td>
</tr>
<tr>
<td>Acute Renal Failure</td>
<td>$2,549</td>
<td>$2,318</td>
</tr>
<tr>
<td>Acute CHF / pulm edema</td>
<td>$2,109</td>
<td></td>
</tr>
<tr>
<td>Acute Myocardial Infarction</td>
<td>$1,993</td>
<td></td>
</tr>
<tr>
<td>Respiratory Failure</td>
<td>$1,528</td>
<td></td>
</tr>
<tr>
<td>Hypotension / Syncope</td>
<td>$1,271</td>
<td></td>
</tr>
<tr>
<td>Fluid Electrolyte Acid Base Problems</td>
<td>$1,271</td>
<td></td>
</tr>
</tbody>
</table>

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 for non-dual Medicaid members.
The Top 10 Coronary Artery Disease PACs Account for 79.6% of All CAD PACs

- Acute Myocardial Infarction: $9,575
- Sepsis: $1,138
- Acute CHF / pulm edema: $1,118
- Pneumonia: $949
- Stroke: $714
- Diabetes, poor control: $669
- Percutaneous Coronary Intervention: $472
- Malfunction / Complication of Heart Device, H: $450
- Respiratory Failure: $389
- Coronary Artery Bypass Grafting: $366

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

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.
The Top 10 Arrhythmia, Heart Block, and Conduction Disorders PACs Account for 71.7% of All ARRBLK PACs

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 for non-dual Medicaid members.
The Top 10 Congestive Heart Failure PACs Account for 87.2% of All CHF PACs

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 for non-dual Medicaid members.
Average Actual Cost, PAC Rate and Volume per County for Hypertension

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, CAMM). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

Darker Red = Higher Cost
Average Actual Cost, PAC Rate and Volume per County for Coronary Artery Disease

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, CJonP). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

Darker Red = Higher Cost
Average Actual Cost, PAC Rate and Volume per County for Arrhythmia, Heart Block, & Conductive Disorder

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, CAPWA); data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Average Actual Cost, PAC Rate and Volume per County for Congestive Heart Failure

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, DSH). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Average Actual minus Expected Cost, PAC Rate and Volume per County for Hypertension

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, CARRA); data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Average Actual minus Expected Cost, PAC Rate and Volume per County for Coronary Artery Disease

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, CPEW). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Average Actual minus Expected Cost, PAC Rate and Volume per County for Arrhythmia, Heart Block, & Conductive Disorder

- **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 for non-dual Medicaid members.

Darker Red = Higher Cost than Expected
Average Actual minus Expected Cost, PAC Rate and Volume per County for Congestive Heart Failure

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, EMRN). Data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Example Drill-Down: Hypertension in the Bronx

Average Actual Episode Costs

Average Actual Minus Expected Episode Costs

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, ESRD); data not yet standardized.

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
Example Drill-Down: Hypertension in the Bronx

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

Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.
The 2\textsuperscript{nd} CAG Meeting will be on September 28, 2015
In Albany

- Chronic Heart Episodes Definition Recap
- Chronic Heart Episodes Outcome Measures - I