



**Department
of Health**

**Medicaid
Redesign Team**

Diabetes

Clinical Advisory Group Meeting

Meeting Date: 10/20

Meeting Schedule & Agenda

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 – Impressions of Available Data

Meeting 2

- Chronic Heart Episodes Definition Recap
- Chronic Heart Episodes Quality Measures

Webinar

- Introduction to Value Based Payment
- Clinical Advisory Group – Roles and Responsibilities
- Understanding the Approach: HCI3 Overview
- Introduction to Quality Measures

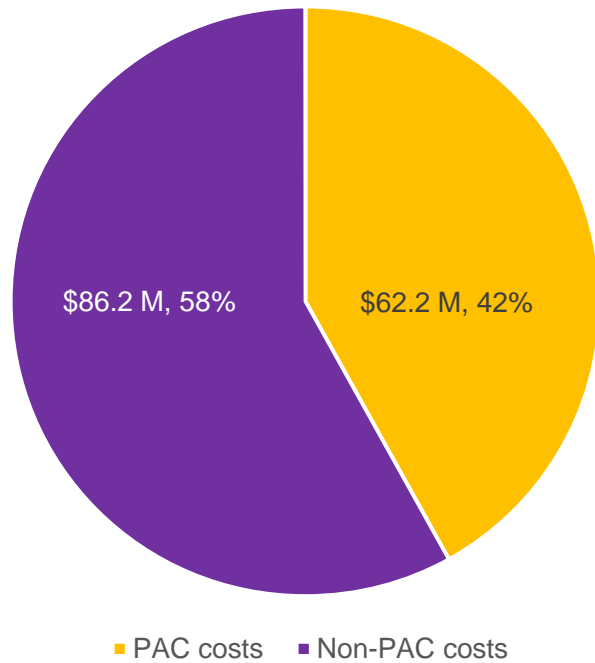
Meeting October 20th

- Short Review and Questions from Previous CAG Meeting
- Diabetes Episode Definition
- Diabetes Quality Measures
- Closing this Series of CAG Sessions and Next Steps

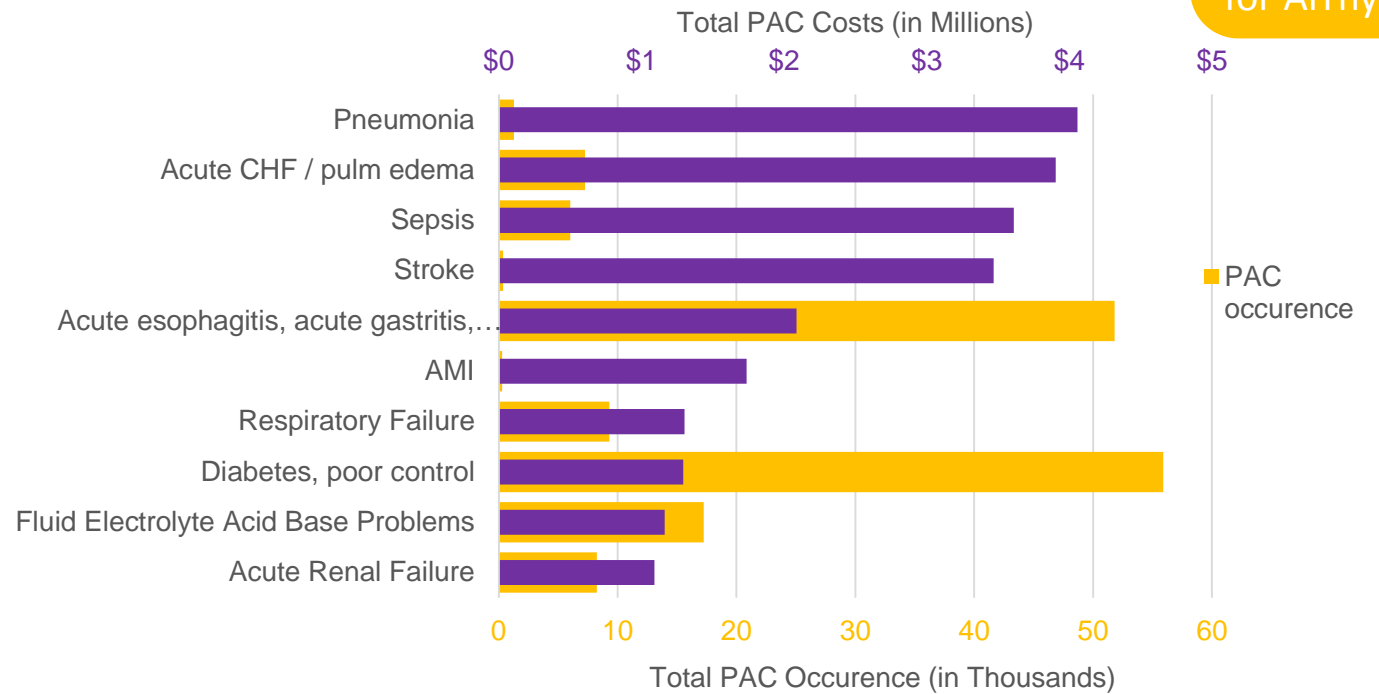
Short Review and Questions from Previous CAG Meeting

PAC Costs Represent 41.9% of the Total Arrhythmia, Heart Block, and Conduction Disorders Costs

Arrhythmia: 41.9% PAC Costs
Total Arrhythmia Spend: \$ 148.4 M



Top 10 Arrhythmia PACs



Relevant hospitalization accounts for \$40.0 million for Arrhythmia

PAC occurrence

Costs Included:

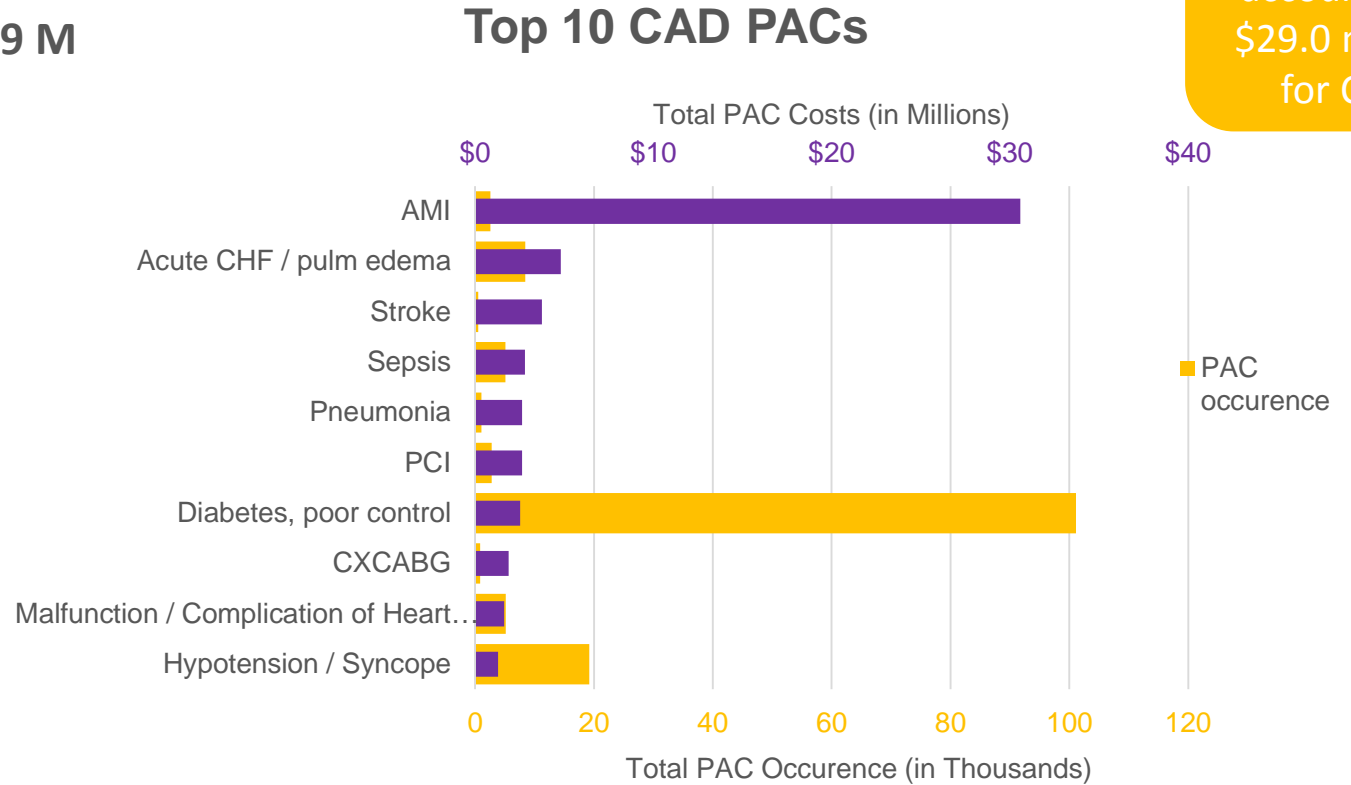
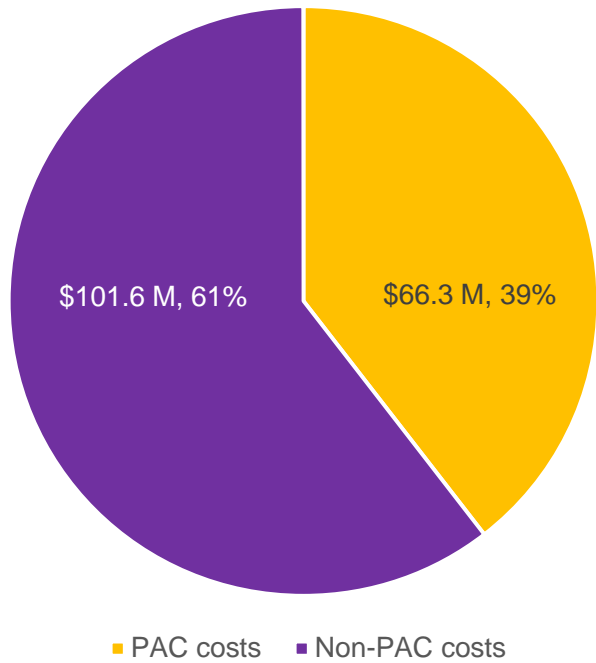
- Fee-for-service and MCO payments (paid encounters);
- Caveat: add-on payments included in some cost data, not in others (GME/IME, HCRA, Capital). Data not yet standardized.

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

PAC Costs Represent 39.5% of the Total Coronary Artery Disease (CAD) Costs

Relevant hospitalization accounts for \$29.0 million for CAD

Coronary Artery Disease: 39.5% PAC Costs
Total Coronary Artery Disease Spend: \$ 167.9 M



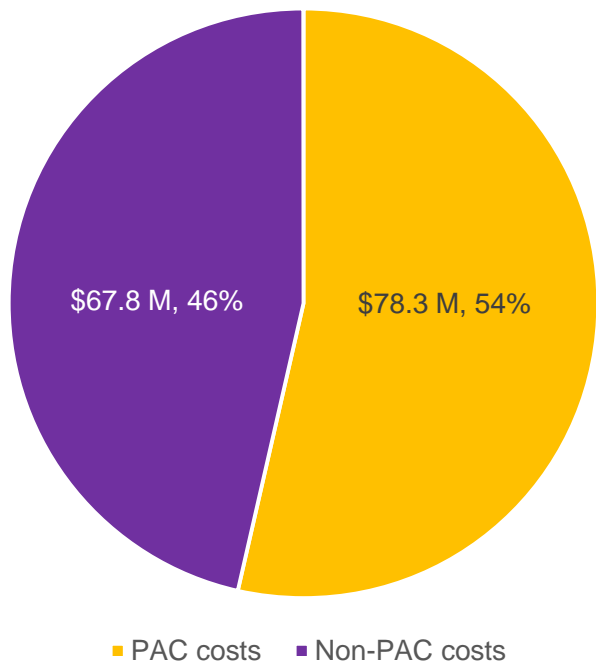
Costs Included:

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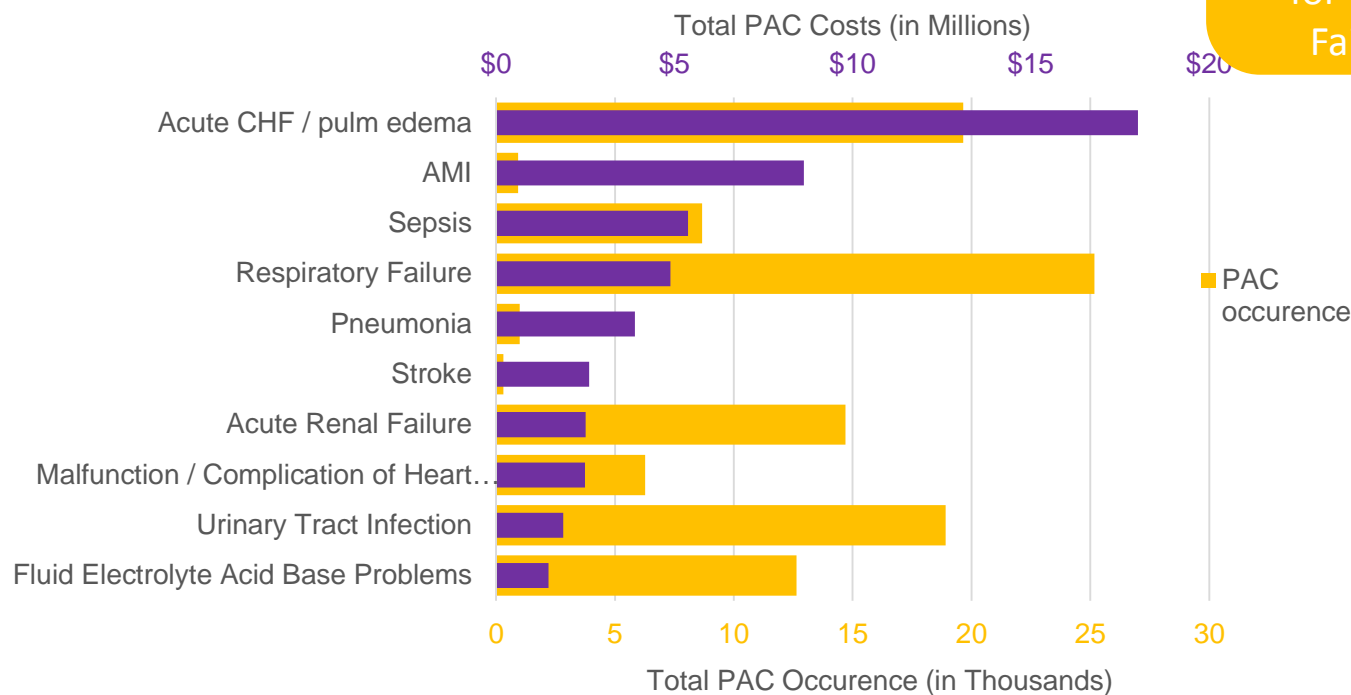
Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

PAC Costs Represent 53.6% of the Heart Failure Costs

Heart Failure: 53.6% PAC Costs
Total Heart Failure Spend: \$ 146.1 M



Top 10 Heart Failure PACs



Relevant hospitalization accounts for \$30.5 million for Heart Failure

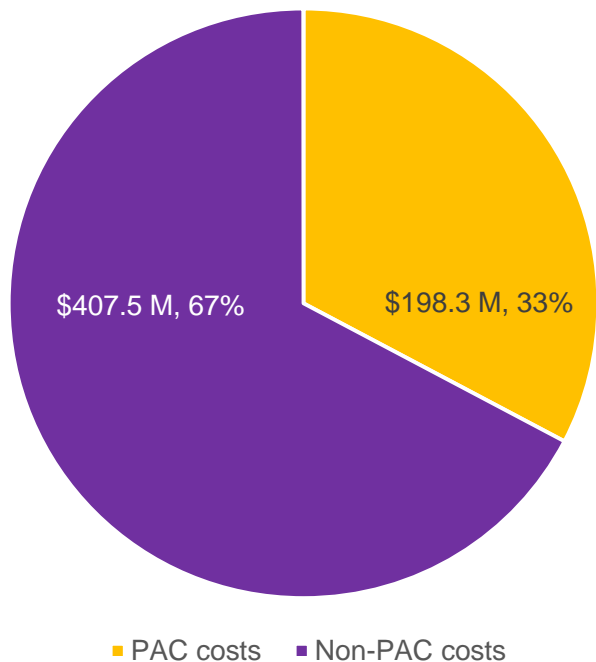
Costs Included:

- Fee-for-service and MCO payments (paid encounters);
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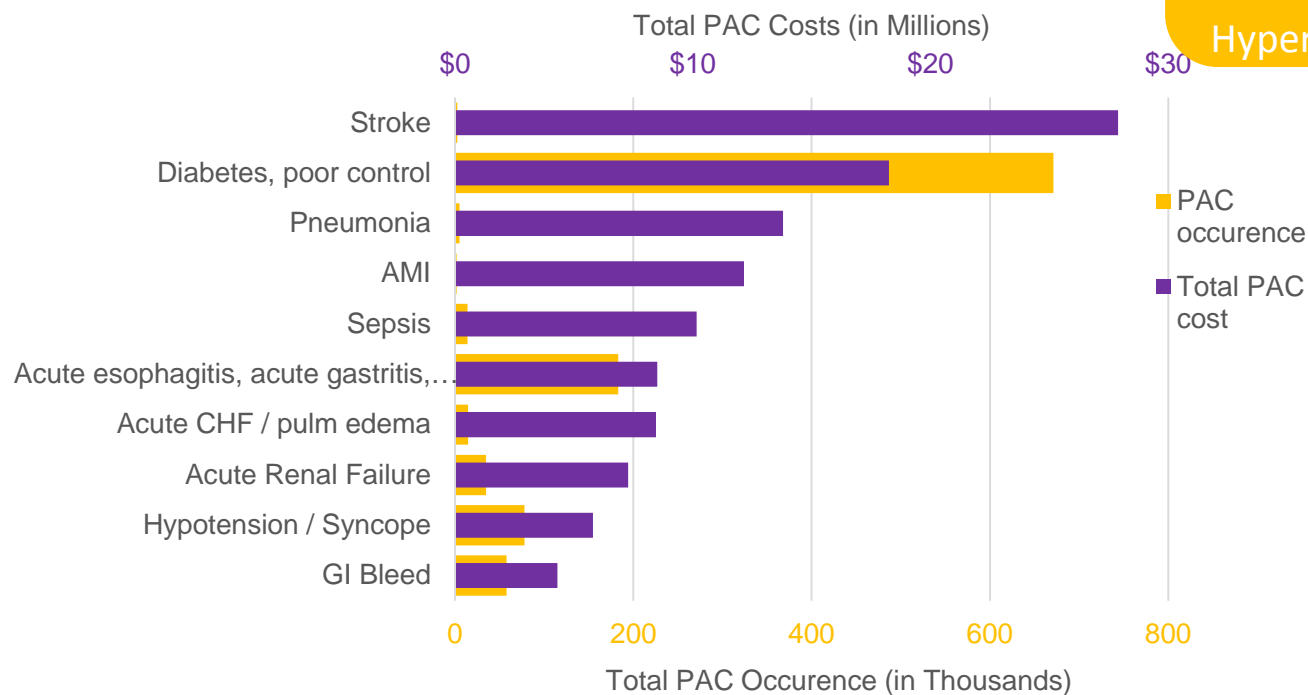
Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

PAC Costs Represent 32.7% of the Total Hypertension Costs

Hypertension: 32.7% PAC Costs
Total Hypertension Spend: \$605.8 M



Top 10 Hypertension PACs



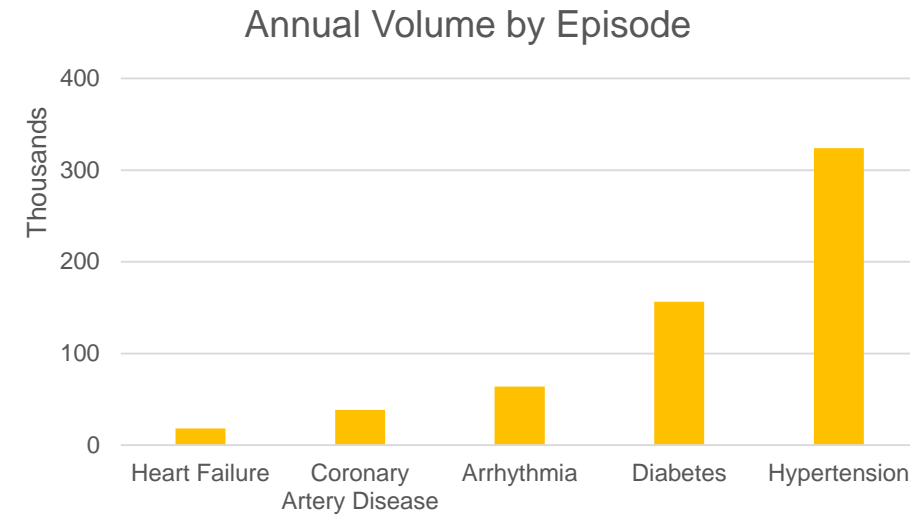
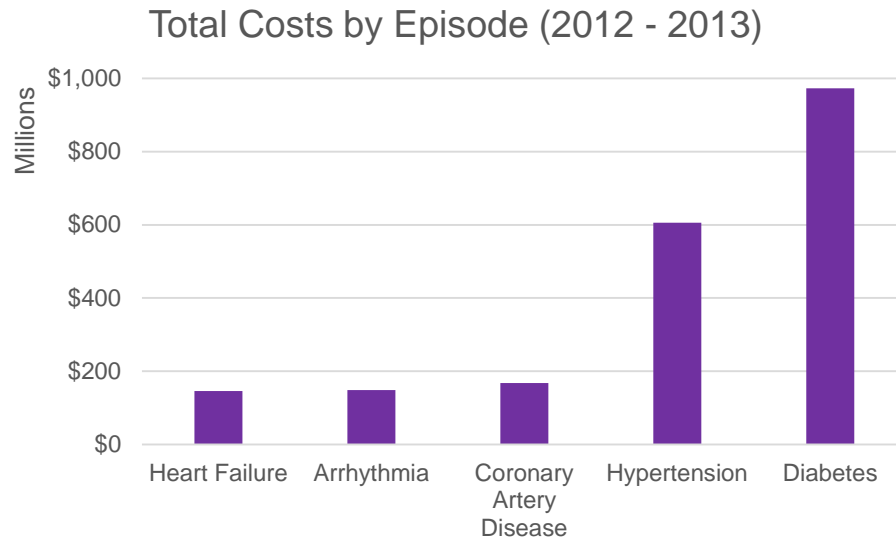
Relevant hospitalization accounts for \$57.4 million for Hypertension

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, Capital). Data not yet standardized.

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

Annualized Volume and Total Costs by 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.

Are there Any Questions, Comments or Suggestions Based on the Content of the Earlier Meetings?

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Important topic (based on former meetings) we will research during the pilot phase:

- Possibility to include LVEF measures for risk adjustment and quality measurement
- Option to include a claim based quality measure to look at post-discharge follow up transition in care

Short Diabetes Episode Definition

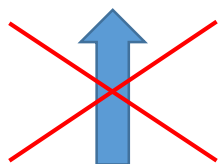
Clinical Logic

The Diabetes Episode

Diabetes (DIAB)



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



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



ER Visits and inpatient admissions related to DIAB episode



Prescription medicine to treat DIAB.



Readmission following inpatient treatment for DIAB.

Diabetes Accounts for \$973.1 M in Annual Medicaid Spend



Annual Diabetes Episode
Volume

156.3 K



Total Costs of Diabetes Episodes
to the State (2012 – 2013)

\$ 973.1 M



Average Cost of a Diabetes
Episode

\$3,113

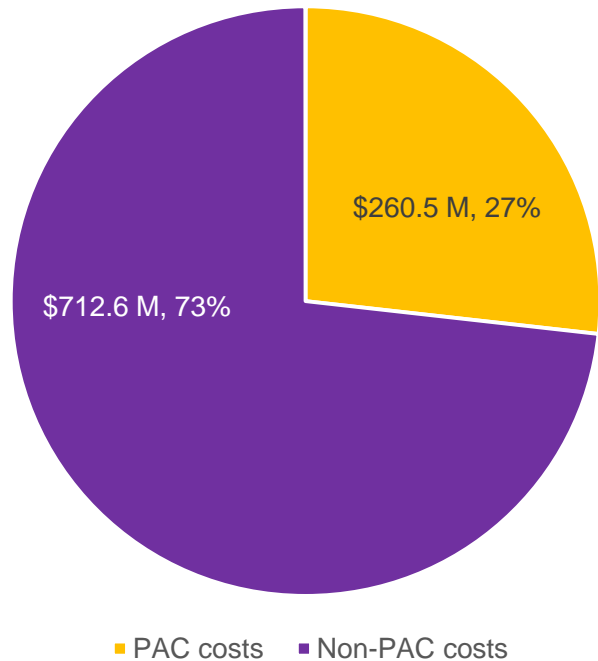
Costs Included:

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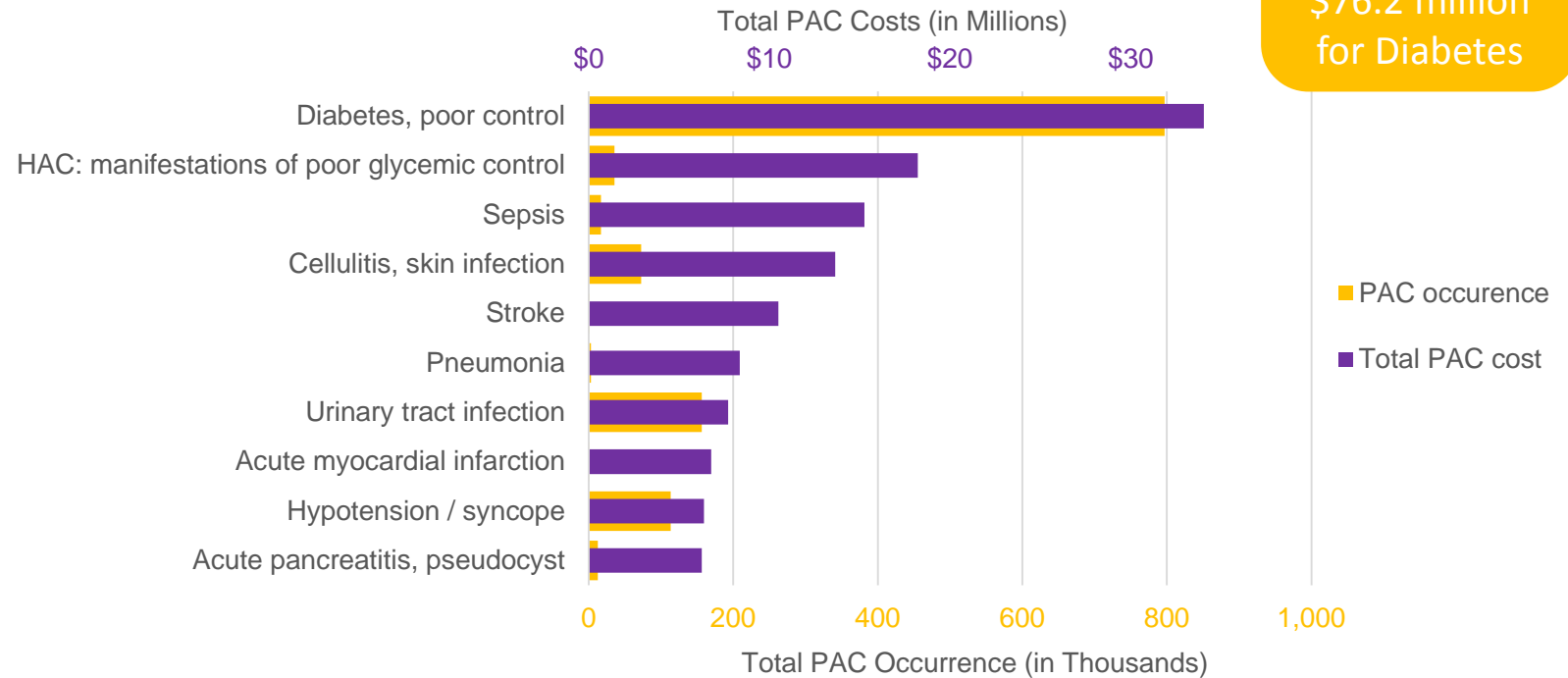
Source: 01/01/2012 – 12/31/2013 Medicaid claims for non-dual Medicaid members.

PAC Costs Represent 26.8% of Diabetes Costs

Diabetes: 26.8% PAC Costs
Total Diabetes Spend: \$ 973.1 M



Top 10 Diabetes PACs



Relevant hospitalization accounts for \$76.2 million for Diabetes

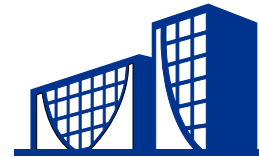
Diabetes Quality Measures

How Are the Quality Measures Going to be Used?



NY State / MCO relationship

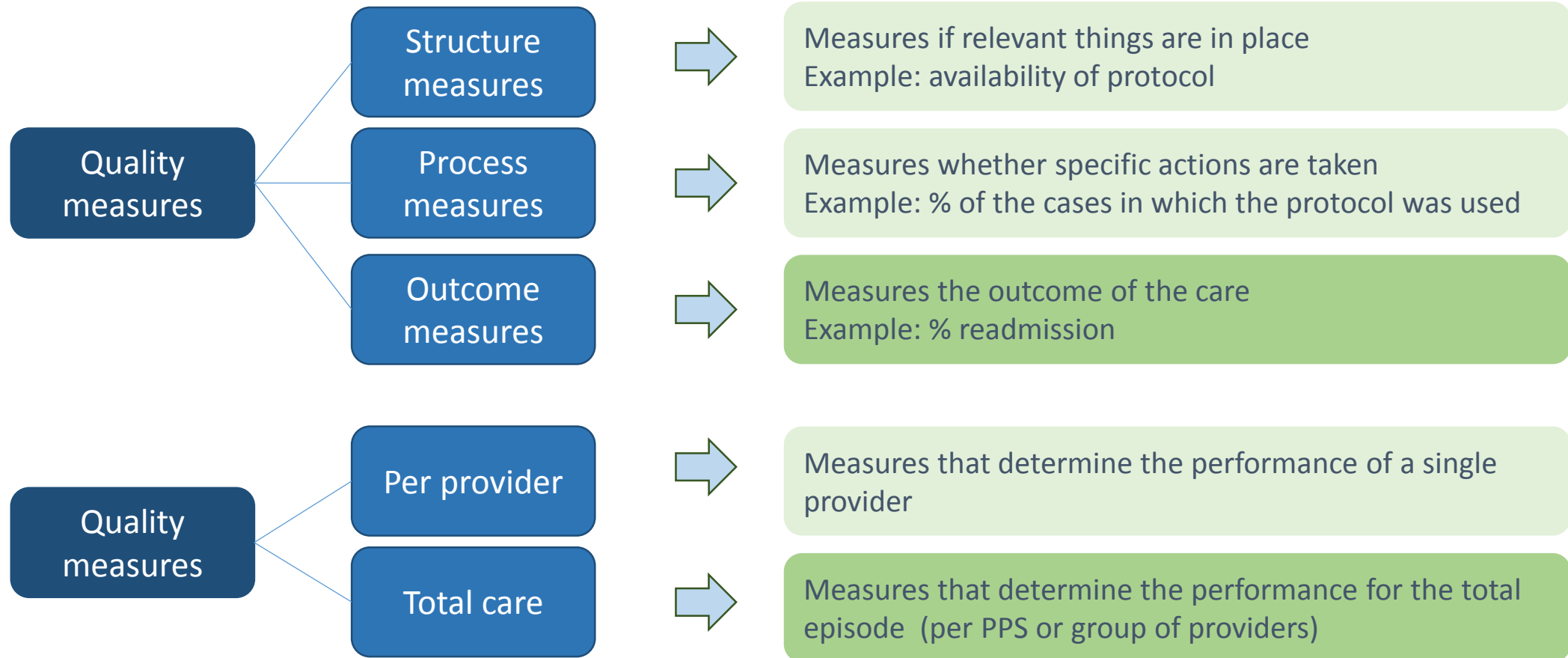
- MCO's will be held accountable for the quality measures, and will get upward or downward adjustments based on the value of the care in their network.
- The State will make the outcomes of the recommended measures transparent to all stakeholders. The quality measures set by the CAG and accepted by the State will be mandatory for the VBP arrangement involved.



MCO / Provider relationship

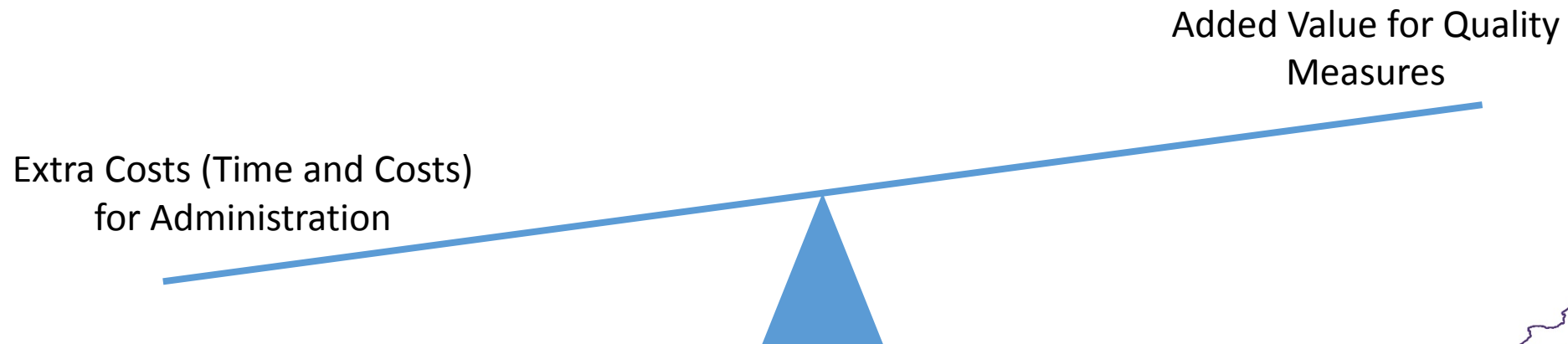
- How the providers and MCO's translate the quality measures into financial consequences, and which measure(s) they want to focus on primarily, is left to these stakeholders.
- Improvement of quality measures could affect payment in different ways:
 - A higher or lower score leading to a higher or lower percentage of savings respectively available for the providers
 - A higher or lower score leading to a higher or lower negotiated rate respectively

To Assess Value, a Small Key Set of Quality Measures is Needed. Focus Should Be on the *Performance* of the Overall Episode.



The Effort of Collecting Additional Data for Quality Measurement Must Be Weighed Against the Added Value

- For care for patients with chronic conditions, most widely used quality measures can be derived from claims data.
- Other data sources for quality measures including patient surveys, medical records and assessments. Incorporating this data will require standardized collection efforts and can be costly, unless currently existing clinical registries or available data collection mechanisms are used. Identification of key measures is important.
 - *The extra costs (in time and money) of collecting the additional data has to be weighed against the added value that the measure brings.*



Suggested Process for Fine Tuning Quality Measures

Pilot 2016 & Data Analyses

Pilot 2016. In 2016 a pilot project will be started on the Chronic Bundle, which encompasses both the Chronic Heart episode and the Diabetes episode, with use of quality measures

Data Analyses. 2016 will be used to do additional data analyses (if necessary) within pilot sites:

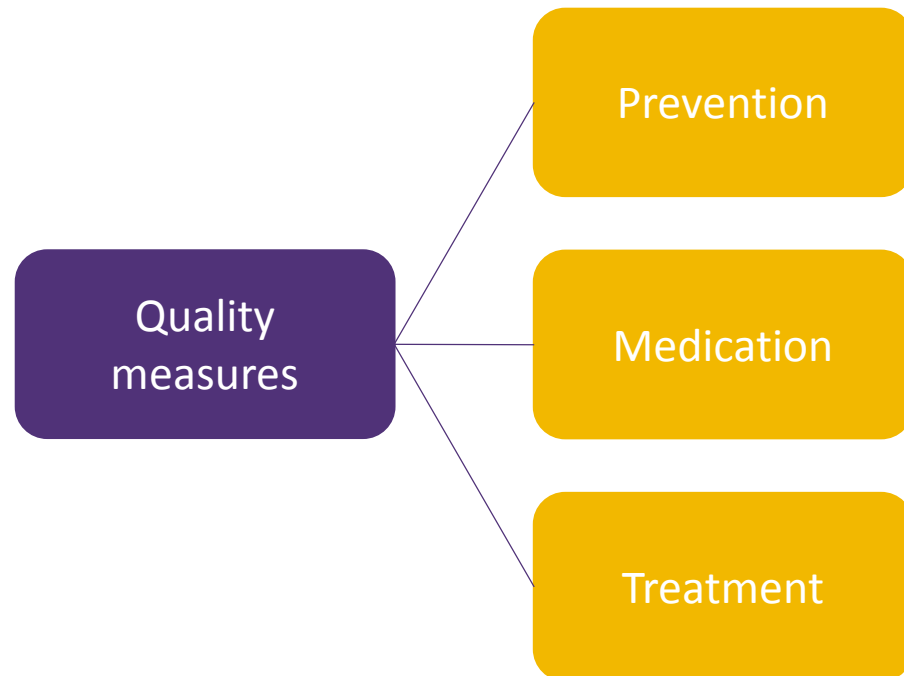
- Explore addition of clinical data elements

Evaluation of Quality Measures

Evaluation Quality Measures. At the end of the pilot period the projects will be evaluated and quality measures for the Chronic Bundle can be refined.

The CAG will be re-assembled yearly during the first years to discuss results of quality measures and suggestions for improvement. First-year review will result in recommended modifications for the quality measures set.

Process to Walk Through Measures in this Meeting



- The quality measures are divided into three groups
- Per group we will walk through the measures and try to assign them to a category or 'bucket' (see next slide)

For Categorizing and Prioritization of Measures We Use Three Categories (or ‘Buckets’)



CATEGORY 1

Approved quality measures that are felt to be both clinically relevant, reliable and valid, and feasible.



CATEGORY 2

Measures that are clinically relevant, valid and probably reliable, but where the feasibility could be problematic. These measures should be investigated during the 2016 or 2017 pilot.



CATEGORY 3

Measures that are insufficiently relevant, valid, reliable and/or feasible.

Criteria for Selecting Quality Measures

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 integrated care process that may not be reflected in the patient outcome measures**
- **Existing variability in performance and/or possibility for improvement**

RELIABILITY AND VALIDITY

- **Measure is well established by reputable organization**

By focusing on established measures (owned by e.g. NYS Office of Quality and Patient Safety (OQPS), endorsed by the National Quality Forum (NQF), HEDIS measures and/or measures owned by organizations such as the Joint Commission, the validity and reliability of measures can be assumed to be acceptable.

- **Outcome measures are adequately risk-adjusted**
Measures without adequate risk adjustment make it impossible to compare outcomes between providers.

Criteria for Selecting Quality Measures

FEASIBILITY

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

- **Preferably, data sources to be patient-level data**

This allows drill-down to patient level and/or adequate risk-adjustment. The exception here is measures using samples from a patient panel or records. When such a measure is deemed crucial, and the infrastructure exists to gather the data, these measures could be accepted.

- **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).

Selection of Measures Prevention (1/2)

#	Quality Measure	Type of Measure	QARR / HEDIS	DSRIP	CMS	NQF	ADA	Availability		CAG categorization
								Medicaid Claims Data	Clinical Data	
1	Comprehensive Diabetes Care: Blood Pressure Control (<140/90 mm Hg)	Outcome	YES	-	YES	61	YES	NO	YES	
2	Comprehensive Diabetes Care: Medical Attention for Nephropathy	Process	YES	-	-	62	YES	YES*	YES	
3	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Control (<8.0%)	Outcome	YES	-	YES	575	-	NO	YES	
4	Hemoglobin A1c Control (HbA1c)	Outcome	-	-	-	-	YES	NO	YES	
5	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)	Outcome	YES	YES	YES	59	-	NO	YES	
6	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) testing	Process	YES	-	-	57	-	YES*	YES	
7	Comprehensive Diabetes Care: Eye Exam (retinal) performed	Process	YES	-	-	55	YES	YES*	YES	
8	Comprehensive diabetes care: LDL-c control (<100mg/dL)	Process	-	YES	-	64	-	NO	YES	
9	Comprehensive Diabetes screening – All Four Tests (HbA1c, lipid profile, dilated eye exam, nephropathy monitor)	Process	YES	YES	-	-	-	NO	YES	
10	Optimal Diabetes Care (Composite Measure)	Process	-	-	-	729	-	NO	YES	

Selection of Measures Prevention (2/2)

#	Quality Measure	Type of Measure	QARR / HEDIS	DS RIP	CMS	NQF	ADA	Availability		CAG categorization
								Medicaid Claims Data	Clinical Data	
11	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	Process	-	-	YES	89	-	YES*	YES	
12	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	Process	-	-	-	88	-	NO	YES	
13	Diabetes: Foot Exam	Process	-	-	-	56	YES	YES*	YES	
14	Diabetic Foot & Ankle Care, Ulcer Prevention – Evaluation of Footwear	Process	-	-	-	416	-	YES	YES	
15	Smoking Cessation discussed and documented	Process	-	-	-	-	YES	NO	YES	
16	BMI/Nutrition Counseling	Process	-	-	-	-	YES	NO	YES	
17	Depression screening (PHQ2 or 9) annually	Process	-	-	-	-	YES	YES	YES	

Selection of Measures Medication

#	Quality Measure	Type of Measure	QARR / HEDIS	DSRIP	CMS	NQF	ADA	Availability		CAG categorization
								Medicaid Claims Data	Clinical Data	
18	Adherence to ACEIs/ARBs for Individuals with Diabetes Mellitus	Process	-	-	YES	2467	-	YES*	NO	
19	Adherence to Oral Diabetes Agents for Individuals with Diabetes Mellitus	Process	-	-	YES	2468	-	YES*	NO	
20	Adherence to Statins for Individuals with Diabetes Mellitus	Process	-	-	YES	545	-	YES*	NO	
21	Glycemic Control - Hyperglycemia	Outcome	-	-	YES	2362	-	NO	YES	
22	Glycemic Control - Hypoglycemia	Outcome	-	-	YES	2363	-	NO	YES	
23	Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category	Process	-	-	-	541	-	YES	NO	
24	On ACEI/ARB if hypertension or nephropathy	Process	-	-	-	-	YES	NO	YES	

Selection of Measures Treatment

#	Quality Measure	Type of Measure	QARR / HEDIS	DSRIP	CMS	NQF	ADA	Availability		CAG categorization
								Medicaid Claims Data	Clinical Data	
25	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year.	Outcome	-	-	-	709	-	YES	YES	
26	Diabetes Short-Term Complications Admission Rate (PQI 01)	Outcome	-	YES	YES	272	-	YES	YES	
27	Diabetes Long-Term Complications Admission Rate (PQI 03)	Outcome	-	-	-	274	-	YES	YES	
28	Uncontrolled Diabetes Admission Rate (PQI 14)	Outcome	-	-	-	638	-	YES	YES	
29	Rate of Lower-Extremity Amputation Among Patients With Diabetes (PQI 16)	Outcome	-	-	-	285	-	YES	YES	

Weighing the Different Measures

- To create a single composite measure to establish 'value' of diabetes care
- Not all measures may be equally important. By allocating different 'weights' to the measures we can take relative importance into account.
- How would we weigh the individual measures?

Example

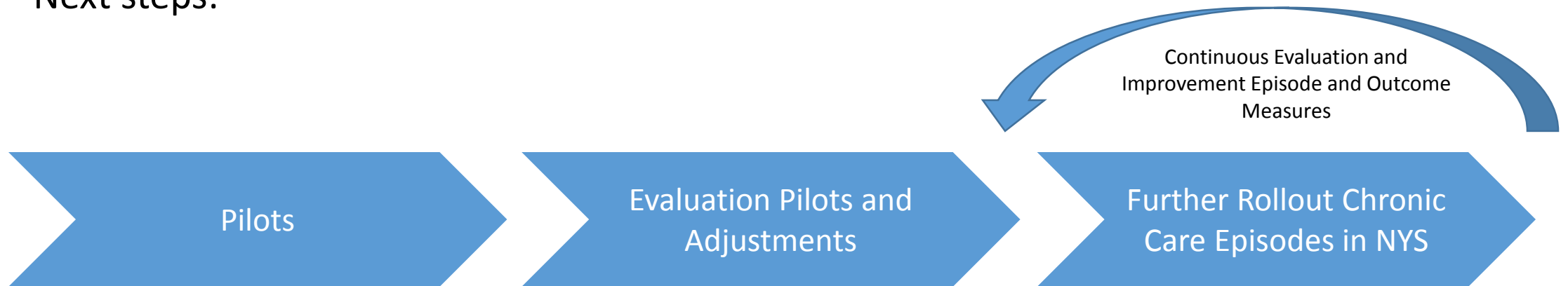
Part of Care	Measure	Weight
Prevention	Measure 1	10
	Measure 2	20
	Measure 3	10
	Measure 4	20
Treatment	Measure 5	10
Medication	Measure 6	10
	Measure 7	20
Total		100

To be determined in a later stage

Closing this Series of CAG Sessions and Next Steps

Next Steps

- This was the last of the three clinical advisory meetings.
- Next steps:



- Would you like to be involved in the next steps?

Thank You For Participating in The Clinical Advisory Meetings!

Any last comments, questions and / or suggestions?



**Department
of Health**

**Medicaid
Redesign Team**

Appendix

Definitions Measures: Prevention (1/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
1	Comprehensive Diabetes Care: Blood Pressure Control (<140/90 mm Hg)	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) whose most recent blood pressure level taken during the measurement year is <140/90 mm Hg.	<p>Patients whose most recent blood pressure level was <140/90 mm Hg during the measurement year.</p> <p>The outcome being measured is a blood pressure reading of <140/90 mm Hg, which indicates adequately controlled blood pressure. Adequately controlled blood pressure in patients with diabetes reduces cardiovascular risks and microvascular diabetic complications.</p>	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 and type 2) during the measurement year or the year prior to the measurement year. See question S.9 Denominator Details for methods to identify patients with diabetes.
2	Comprehensive Diabetes Care: Medical Attention for Nephropathy	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who received a nephropathy screening test or had evidence of nephropathy during the measurement year.	Patients who received a nephropathy screening test or had evidence of nephropathy during the measurement year.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.

Definitions Measures: Prevention (2/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
3	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Control (<8.0%)	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) whose most recent HbA1c level is <8.0% during the measurement year.	Patients whose most recent HbA1c level is less than 8.0% during the measurement year. The outcome is a result of an HbA1c test, indicating desirable control of diabetes. Poor control puts the individual at risk for complications including renal failure, blindness, and neurologic damage. There is no need for risk adjustment for this intermediate outcome.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.
4	Hemoglobin A1c Control (HbA1c)	ADA	Claims Data and Clinical Records	Percentage of patients aged 18 through 65 years with diabetes w/o comorbidities who had most recent hemoglobin A1c less than 7% and percentage of diabetic patients age >65, or with significant complications and comorbidities with hemoglobin A1C less than 8%.	Patients 18-65 with diagnosis of diabetes without comorbidities with A1C less than 7% and diabetic patients age >65, and/or with significant comorbidities with hemoglobin A1C less than 8%.	An eligible diabetes patient is one who meets all three criteria: 1. Is between 18 and 75 years of age. 2. Has had a documented diagnosis of diabetes (as defined in Table 1 below) and/or notation of prescribed insulin or oral hypoglycemics/antihyperglycemics (as defined in Table 2 below) for at least 12 months, from the last day of the reporting period. 3. Has been under the care of the applicant for at least 12 months. This is defined by documentation of two face-to-face visits for diabetes care between the clinician and the patient: one within 12 months of the last day of the reporting period and one that predates the last day of the reporting period by at least 12 months.

Definitions Measures: Prevention (3/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
5	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) whose most recent HbA1c level during the measurement year was greater than 9.0% (poor control) or was missing a result, or if an HbA1c test was not done during the measurement year.	Patients whose most recent HbA1c level is greater than 9.0% or is missing a result, or for whom an HbA1c test was not done during the measurement year. The outcome is an out of range result of an HbA1c test, indicating poor control of diabetes. Poor control puts the individual at risk for complications including renal failure, blindness, and neurologic damage. There is no need for risk adjustment for this intermediate outcome measure.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.
6	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) testing	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who received an HbA1c test during the measurement year.	Patients who had an HbA1c test performed during the measurement year.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.
7	Comprehensive Diabetes Care: Eye Exam (retinal) performed	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who had an eye exam (retinal) performed.	Patients who received an eye screening for diabetic retinal disease. This includes people with diabetes who had the following: -a retinal or dilated eye exam by an eye care professional (optometrists or ophthalmologist) in the measurement year OR -a negative retinal exam or dilated eye exam (negative for retinopathy) by an eye care professional in the year prior to the measurement year. For exams performed in the year prior to the measurement year, a result must be available.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.

Definitions Measures: Prevention (4/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
8	Comprehensive diabetes care - LDL-c control (<100mg/dL)	National Committee for Quality Assurance	Claims Data & Clinical Records	The percentage of members 18-75 years of age with diabetes (type 1 and type 2) whose most recent LDL-C test is <100 mg/dL during the measurement year.	Number of people whose most recent level of bad cholesterol was below the recommended level	Number of people ages 18 to 75 with diabetes
9	Comprehensive Diabetes screening – All Four Tests (HbA1c, lipid profile, dilated eye exam, nephropathy monitor)		Claims Data & Clinical Records		Number of people who received at least one of each of the following tests: HbA1c test, cholesterol screening test, diabetes eye exam, and Medicaid attention for nephropathy	Number of people ages 18 to 75 with diabetes

Definitions Measures: Prevention (5/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
10	Optimal Diabetes Care (Composite Measure)	MN Community Measurement	Claims Data and Clinical Records	<p>The percentage of adult diabetes patients who have optimally managed modifiable risk factors (A1c, blood pressure, statin use, tobacco non-use and daily aspirin or anti-platelet use for patients with diagnosis of ischemic vascular disease) with the intent of preventing or reducing future complications associated with poorly managed diabetes.</p> <p>Patients ages 18 - 75 with a diagnosis of diabetes, who meet all the numerator targets of this composite measure: A1c less than 8.0, Blood Pressure less than 140 systolic and less than 90 diastolic, Statin use unless contraindications or exceptions, Tobacco-free (non-user) and for patients with diagnosis of ischemic vascular disease daily aspirin or antiplatelet use unless contraindicated.</p> <p>Please note that while the all-or-none composite measure is considered to be the gold standard, reflecting best patient outcomes, the individual components may be measured as well. This is particularly helpful in quality improvement efforts to better understand where opportunities exist in moving the patients toward achieving all of the desired outcomes. Please refer to the additional numerator logic provided for each component.</p>	<p>Patients ages 18 to 75 with diabetes who meet all of the following targets from the most recent visit during the measurement year:</p> <p>A1c less than 8.0, Blood Pressure less than 140/90, Statin Use if no contraindications/ exceptions, Tobacco non-user and Daily aspirin or anti-platelets for patients with diagnosis of ischemic vascular disease use unless contraindicated.</p>	<p>Patients ages 18 to 75 with diabetes who have at least two visits for this diagnosis in the last two years (established patient) with at least one visit in the last 12 months.</p>
11	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	AMA-convened Physician Consortium for Performance Improvement	Claims Data and Clinical Records	<p>Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months</p>	<p>Patients with documentation, at least once within 12 months, of the findings of the dilated macular or fundus exam via communication to the physician who manages the patient's diabetic care</p>	<p>All patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed</p>

Definitions Measures: Prevention (6/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
12	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	AMA-convened Physician Consortium for Performance Improvement	Claims Data and Clinical Records	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months	Patients who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy AND the presence or absence of macular edema during one or more office visits within 12 months	All patients aged 18 years and older with a diagnosis of diabetic retinopathy
13	Diabetes: Foot Exam	National Committee for Quality Assurance	Claims Data and Clinical Records	The percentage of patients 18-75 years of age with diabetes (type 1 and type 2) who received a foot exam (visual inspection and sensory exam with mono filament and a pulse exam) during the measurement year.	Patients who received a foot exam (visual inspection and sensory exam with monofilament and pulse exam) during the measurement period.	Patients 18-75 years of age by the end of the measurement year who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year.

Definitions Measures: Prevention (7/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
14	Diabetic Foot & Ankle Care, Ulcer Prevention – Evaluation of Footwear	American College of Cardiology	Claims Data	Percentage of patients aged 18 years and older with a diagnosis of diabetes mellitus who were evaluated for proper footwear and sizing	<p>Patients who were evaluated for proper footwear and sizing at least once within 12 months</p> <p>Definition: Evaluation for Proper Footwear – Includes a foot examination documenting the vascular, neurological, dermatological, and structural/biomechanical findings. The foot should be measured using a standard measuring device, and counseling on appropriate footwear should be based on risk categorization.</p> <p>Numerator Quality-Data Coding Options for Reporting Satisfactorily:</p> <p>Footwear Evaluation Performed</p> <p>G8410: Footwear evaluation performed and documented</p> <p>OR</p> <p>Footwear Evaluation not Performed for Documented Reasons</p> <p>G8416: Clinician documented that patient was not an eligible candidate for footwear evaluation measure</p> <p>OR</p> <p>Footwear Evaluation not Performed</p> <p>G8415: Footwear evaluation was not performed</p>	All patients aged 18 years and older with a diagnosis of diabetes mellitus

Definitions Measures: Prevention (8/8)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
15	Smoking Cessation discussed and documented	ADA	Clinical Records	Percentage of patients aged 18 through 75 years with diabetes who have documentation of tobacco use, and if a tobacco user, received cessation counseling or treatment.	Patients aged 18-75 years with a diagnosis of diabetes and documentation of tobacco use status, and if tobacco user, date of cessation counseling or treatment. See "Patient Eligibility Criteria" for further information on codes to identify patients with diabetes.	An eligible diabetes patient is one who meets all three criteria: 1. Is between 18 and 75 years of age. 2. Has had a documented diagnosis of diabetes (as defined in Table 1 below) and/or notation of prescribed insulin or oral hypoglycemics/antihyperglycemics (as defined in Table 2 below) for at least 12 months, from the last day of the reporting period. 3. Has been under the care of the applicant for at least 12 months. This is defined by documentation of two face-to-face visits for diabetes care between the clinician and the patient: one within 12 months of the last day of the reporting period and one that predates the last day of the reporting period by at least 12 months.
16	BMI/Nutrition Counseling	ADA	Clinical Records	Percentage of patients' aged 18 through 75 years with diabetes for whom a documented body mass index (BMI) is calculated and nutrition counseling is performed and documented.	Patients aged 18-75 years with a diagnosis of diabetes and a documented BMI calculated. See "Patient Eligibility Criteria" for further information on codes to identify patients with diabetes.	An eligible diabetes patient is one who meets all three criteria: 1. Is between 18 and 75 years of age. 2. Has had a documented diagnosis of diabetes (as defined in Table 1 below) and/or notation of prescribed insulin or oral hypoglycemics/antihyperglycemics (as defined in Table 2 below) for at least 12 months, from the last day of the reporting period. 3. Has been under the care of the applicant for at least 12 months. This is defined by documentation of two face-to-face visits for diabetes care between the clinician and the patient: one within 12 months of the last day of the reporting period and one that predates the last day of the reporting period by at least 12 months.
17	Depression screening (PHQ2 or 9) annually	ADA	Claims Data	Percentage of diabetic patients age 18-75 who have had screening for depression with PHQ-2 or PHQ-9 annually.	Diabetic patients aged 18-75 years who have had depression screening with PHQ-2 or PHQ-9 in the last 12 months. See "Patient Eligibility Criteria" for further information on codes to identify patients with diabetes.	An eligible diabetes patient is one who meets all three criteria: 1. Is between 18 and 75 years of age. 2. Has had a documented diagnosis of diabetes (as defined in Table 1 below) and/or notation of prescribed insulin or oral hypoglycemics/antihyperglycemics (as defined in Table 2 below) for at least 12 months, from the last day of the reporting period. 3. Has been under the care of the applicant for at least 12 months. This is defined by documentation of two face-to-face visits for diabetes care between the clinician and the patient: one within 12 months of the last day of the reporting period and one that predates the last day of the reporting period by at least 12 months.

Definitions Measures: Medication (1/5)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
18	Adherence to ACEIs/ARBs for Individuals with Diabetes Mellitus	Centers for Medicare & Medicaid Services	Claims Data and Clinical Records	The measure addresses adherence to angiotensin converting enzyme inhibitors (ACEIs)/angiotensin receptor blockers (ARBs). The measure is reported as the percentage of eligible individuals with diabetes mellitus who had at least two prescriptions for ACEIs/ARBs and who have a Proportion of Days Covered (PDC) of at least 0.8 during the measurement period (12 consecutive months).	Individuals in the denominator with at least two prescriptions for ACEIs/ARBs with a PDC of at least 0.8 for ACEIs/ARBs.	Individuals at least 18 years of age as of the beginning of the measurement period with diabetes mellitus and at least two prescriptions for ACEIs/ARBs during the measurement period (12 consecutive months).
19	Adherence to Oral Diabetes Agents for Individuals with Diabetes Mellitus	Centers for Medicare & Medicaid Services	Claims Data and Clinical Records	The measure addresses adherence to oral diabetes agents (ODA). The measure is reported as the percentage of eligible individuals with diabetes mellitus who had at least two prescriptions for a single oral diabetes agent or at least two prescriptions for multiple agents within a diabetes drug class and who have a Proportion of Days Covered (PDC) of at least 0.8 for at least one diabetes drug class during the measurement period (12 consecutive months).	Individuals in the denominator with at least two prescriptions for oral diabetes agents, in any diabetes drug class, with a PDC of at least 0.8 for at least one diabetes drug class.	Individuals at least 18 years of age as of the beginning of the measurement period with diabetes mellitus and at least two prescriptions for a single oral diabetes agent or at least two prescriptions for multiple agents within a diabetes drug class during the measurement period (12 consecutive months).

Definitions Measures: Medication (2/5)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
20	Adherence to Statins for Individuals with Diabetes Mellitus	Centers for Medicare & Medicaid Services	Claims Data and Clinical Records	The measure addresses adherence to statins. The measure is reported as the percentage of eligible individuals with diabetes mellitus who had at least two prescriptions for statins and who have a Proportion of Days Covered (PDC) of at least 0.8 during the measurement period (12 consecutive months).	Individuals in the denominator with at least two prescriptions for statins with a PDC of at least 0.8 for statins.	Individuals at least 18 years of age as of the beginning of the measurement period with diabetes mellitus and at least two prescriptions for statins during the measurement period (12 consecutive months).
21	Glycemic Control - Hyperglycemia	Centers for Medicare & Medicaid Services	Clinical Records	Average percentage of hyperglycemic hospital days for individuals with a diagnosis of diabetes mellitus, anti-diabetic drugs (except metformin) administered, or at least one elevated glucose level during the hospital stay	Sum of the percentage of hospital days in hyperglycemia for each admission in the denominator	Total number of admissions with a diagnosis of diabetes mellitus, at least one administration of insulin or any anti-diabetic medication except metformin, or at least one elevated blood glucose value (>200 mg/dL [11.1 mmol/L]) at any time during the entire hospital stay

Definitions Measures: Medication (3/5)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
22	Glycemic Control - Hypoglycemia	Centers for Medicare & Medicaid Services	Clinical Records	The rate of hypoglycemic events following the administration of an anti-diabetic agent	<p>Total number of hypoglycemic events (<40 mg/dL) that were preceded by administration of rapid/short-acting insulin within 12 hours or an anti-diabetic agent other than short-acting insulin within 24 hours, were not followed by another glucose value greater than 80 mg/dL within five minutes, and were at least 20 hours apart</p> <p>Optional numerator: Total number of hypoglycemic events (<70 mg/dL) that were preceded by administration of rapid/short-acting insulin within 12 hours or an anti-diabetic agent other than short-acting insulin within 24 hours, were not followed by another glucose value greater than 80 mg/dL within five minutes, and were at least 20 hours apart</p>	Total number of hospital days with at least one anti-diabetic agent administered

Definitions Measures: Medication (4/5)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
23	Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category	Pharmacy Quality Alliance	Claims Data and Clinical Records	<p>The percentage of patients 18 years and older who met the proportion of days covered (PDC) threshold of 80% during the measurement year. A performance rate is calculated separately for the following medication categories: Renin Angiotensin System (RAS) Antagonists, Diabetes Medications, Statins. A higher score indicates better quality.</p>	<p>The number of patients who met the PDC threshold during the measurement year for each therapeutic category separately. Follow the steps below for each patient to determine whether the patient meets the PDC threshold.</p> <p>Step 1: Determine the patient’s measurement period, defined as the index prescription date (date of the first fill of the target medication) to the end of the calendar year, disenrollment, or death.</p> <p>Step 2: Within the measurement period, count the days the patient was covered by at least one drug in the class based on the prescription fill date and days of supply. If prescriptions for the same drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.*</p> <p>Step 3: Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each patient.</p> <p>Step 4: Count the number of patients who had a PDC 80% or greater and then divide by the total number of eligible patients.</p> <p>*Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of combination product to another combination product where a least one of the drugs from the target therapeutic class is common.</p>	<p>Patients age 18 years and older who were dispensed at least two prescriptions in a specific therapeutic category on two unique dates of service during the measurement year.</p>

Definitions Measures: Medication (5/5)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
24	On ACEI/ARB if hypertension or nephropathy	ADA	Claims Data and Clinical Records	Percentage of diabetic patients age 18-75 who have diagnosis of hypertension or diabetic nephropathy that are prescribed an ACE inhibitor or Angiotensin Receptor Blocker (ARB).	Diabetic patients aged 18-75 years with a diagnosis of hypertension and/or diabetic nephropathy. See "Patient Eligibility Criteria" for further information on codes to identify patients with diabetes.	An eligible diabetes patient is one who meets all three criteria: <ol style="list-style-type: none"> 1. Is between 18 and 75 years of age. 2. Has had a documented diagnosis of diabetes (as defined in Table 1 below) and/or notation of prescribed insulin or oral hypoglycemics/antihyperglycemics (as defined in Table 2 below) for at least 12 months, from the last day of the reporting period. 3. Has been under the care of the applicant for at least 12 months. This is defined by documentation of two face-to-face visits for diabetes care between the clinician and the patient: one within 12 months of the last day of the reporting period and one that predates the last day of the reporting period by at least 12 months.

Definitions Measures: Treatment (1/4)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
25	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year.	Bridges to Excellence	Claims Data	<p>Percent of adult population aged 18 – 65 years who were identified as having at least one of the following six chronic conditions: Diabetes Mellitus (DM), Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Hypertension (HTN), Chronic Obstructive Pulmonary Disease (COPD) or Asthma, were followed for one-year, and had one or more potentially avoidable complications (PACs). A Potentially Avoidable Complication is any event that negatively impacts the patient and is potentially controllable by the physicians and hospitals that manage and co-manage the patient. Generally, any hospitalization related to the patient’s core chronic condition or any co-morbidity is considered a potentially avoidable complication, unless that hospitalization is considered to be a typical service for a patient with that condition. Additional PACs that can occur during the calendar year include those related to emergency room visits, as well as other professional or ancillary services tied to a potentially avoidable complication. (Please reference attached document labeled NQF_Chronic_Care_PACs_Risk_Adjustment_2.9.10.xls). We define PAC hospitalizations and PAC professional and other services as one of three types:</p> <p>(A) PAC-related Hospitalizations:</p> <ul style="list-style-type: none"> (1) Hospitalizations related to the anchor condition (2) Hospitalizations due to Comorbidities (3) Hospitalizations suggesting Patient Safety Failures <p>(B) Other PACs during the calendar year studied:</p> <ul style="list-style-type: none"> (1) PACs related to the anchor condition (2) PACs due to Comorbidities (3) PACs suggesting Patient Safety Failures 	Outcome: Potentially avoidable complications (PACs) in patients having one of six chronic conditions: Diabetes Mellitus (DM), Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Hypertension (HTN), Chronic Obstructive Pulmonary Disease (COPD) or Asthma, during the episode time window of one calendar year (or 12 consecutive months).	Adult patients aged 18 – 65 years who had a trigger code for one of the six chronic conditions: Diabetes Mellitus (DM), Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Hypertension (HTN), Chronic Obstructive Pulmonary Disease (COPD) or Asthma (with no exclusions), and were followed for one year from the trigger code.

Definitions Measures: Treatment (2/4)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
26	Diabetes Short-Term Complications Admission Rate (PQI 01)	Agency for Healthcare Research and Quality	Claims Data	Admissions for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.	<p>Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for diabetes short-term complications (ketoacidosis, hyperosmolarity, or coma).</p> <p>[NOTE: By definition, discharges with a principal diagnosis of diabetes with short-term complications cannot have an assignment of MDC 14 (pregnancy, childbirth and the puerperium). Thus, obstetric discharges are not considered in the PQI rate.]</p> <p>See Prevention Quality Indicators technical specifications for additional details (available at http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx) and in the supporting information.</p>	Population ages 18 years and older in the metropolitan area or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

Definitions Measures: Treatment (3/4)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
27	Diabetes Long-Term Complications Admission Rate (PQI 03)	Agency for Healthcare Research and Quality	Claims Data	Admissions for a principal diagnosis of diabetes with long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified) per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.	<p>Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for diabetes with long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified).</p> <p>[NOTE: By definition, discharges with a principal diagnosis of diabetes with long-term complications cannot have an assignment of MDC 14 (pregnancy, childbirth and the puerperium). Thus, obstetric discharges are not considered in the PQI rate.]</p> <p>See Prevention Quality Indicators technical specifications for additional details (available at http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx) and in the supporting information.</p>	Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county where the hospital discharge occurred.

Definitions Measures: Treatment (4/4)

#	Measure	Measure Steward	Data Source	Description	Numerator	Denominator
28	Uncontrolled Diabetes Admission Rate (PQI 14)	Agency for Healthcare Research and Quality	Claims Data	Admissions for a principal diagnosis of diabetes without mention of short-term (ketoacidosis, hyperosmolarity, or coma) or long-term (renal, eye, neurological, circulatory, or other unspecified) complications per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.	Discharges, for patients ages 18 years and older, with a principal ICD-9-CM diagnosis code for uncontrolled diabetes without mention of a short-term or long-term complication. [NOTE: By definition, discharges with a principal diagnosis of uncontrolled diabetes without mention of short-term or long-term complications cannot have an assignment of MDC 14 (pregnancy, childbirth and the puerperium). Thus, obstetric discharges are not considered in the PQI rate.] See Prevention Quality Indicators technical specifications for additional details (available at http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx) and in the supporting information.	Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred. May be combined with diabetes short-term complications as a single indicator as a simple sum of the rates to form the Health People 2010 indicator (note that the AHRQ QI excludes transfers to avoid double counting cases).
29	Rate of Lower-Extremity Amputation Among Patients With Diabetes (PQI 16)	Agency for Healthcare Research and Quality	Claims Data	Admissions for any-listed diagnosis of diabetes and any-listed procedure of lower-extremity amputation per 100,000 population, ages 18 years and older. Excludes any-listed diagnosis of traumatic lower-extremity amputation admissions, toe amputation admission (likely to be traumatic), obstetric admissions, and transfers from other institutions.	Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for lower-extremity amputation and any-listed ICD-9-CM diagnosis codes for diabetes. See Prevention Quality Indicators technical specifications for additional details (available at http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx) and in the supporting information.	Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.