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HEALTH QUALITY PARTNERS

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Practice Pattern Variation Analysis: A Sustainable Way to Contain Costs and Improve Health Care Quality

MHQP Practice Pattern Variation
Analysis (PPVA) Project

December 12, 2014

Agenda

- Overall Goals and History of Massachusetts Health Quality Partner's (MHQP) PPVA Program
- Roles of PPVA Stakeholder and Combined Leaders Groups
- FMA PPVA Data-Analysis Process
- Conditions Selected for Cost-Driver and Variation Reports/Charts
- Conditions Selected for Implementation
- Next Steps for MHQP's PPVA Program
- Questions and Discussion

1.

Overall Goals and History

2012 - 2014

Overall Goal for MHQP PPVA

- Ensure patients receive the right care, at the right time, in the right place by:
 - Using a **respectful, accountable**, data-driven process, in collaboration with physicians, to identify areas of unexplained variation
 - Engaging the professional community in a **transparent**, data-driven process to determine under and over utilization and promote effective, efficient and affordable, high value care.

Objective: Reduce Unnecessary Practice Pattern Variation using a Collaborative Model

- Conduct multi-payer analysis, using Massachusetts All Payer Claims Database (APCD), to identify practice variation and key cost drivers
- Select community-wide priority areas for reducing variation
- Discuss findings with providers to determine best practices and influence practice patterns
- Determine appropriate community standards to achieve reductions in practice variation

Why We Chose to Look at Variation

Table 2. Basis of Decisions

	Number of Decisions*	% of Total
Experience/anecdote	441	37.1
Arbitrary/Instinct	175	14.7
Trained to do it	173	14.6
General study	146	12.3
First principles	146	12.3
Limited study	61	5.1
Specific study	34	2.9
Parental preference	6	0.5
For research	4	0.3
Avoid a lawsuit	2	0.2

*Rounded to the nearest integer. **1188**

100.0

** Darst JR, et al. Deciding without Data. Congenital Heart Disease. 2010;5:339

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The Role of the Multi-Stakeholder Group

Step 1: Develop a Multi-Stakeholder Group

PPVA Multi-Stakeholder Group

- Consisted of six plans and six provider groups
- Advised MHQP on implementation
 - Use the MA APCD
 - Selection of vendor to do analysis
 - Data use policies for plans and providers
 - Recruited 30 specialists from an array of areas to form a Combined Physician Leaders Group

Using the Massachusetts All Payer Claims Database

- Enabled analysis of more specialties and conditions than a single-payer approach
- Provided greater statistical confidence to build acceptance
- Minimized conflicting data/reports
- Supported consistent, community-wide message

Selecting Focus Medical Analytics (FMA) as Our Partner

- FMA was founded by Dr. Howard Beckman and his colleagues
- Selected for their experience
 - PPVA work in Rochester NY, with BCBSMA, and others
- Selected for their philosophy
 - Working with providers in an non-judgmental, collaborative fashion

Creating Data Use Policies

- Data could not be used for public reporting or Pay for Performance in the first year; to be reviewed in following cycles
- Plans and providers could use this data for educational purposes and to do deeper internal analyses
- If provider organizations were requesting unblinded results, they would be expected to share with the clinician and be trained by FMA in how to talk about results with clinicians

Multi-Specialty Physician Leaders Group

- Physician Leaders Group, along with the PPVA Stakeholder Group, met with over several months to:
 - Understand the our PPVA philosophy and process
 - Engage in a data-driven process to identify areas of unexplained variation
 - Select the areas of focus for this first cycle.

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FMA PPVA Analytic Process

Step 2: Analyze the Data

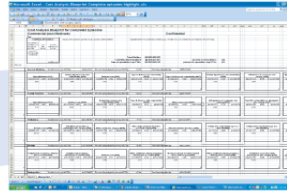
The FMA PPVA Data-Analysis Process

STEP ONE: COST ANALYSIS BLUEPRINT

MEETING ONE

Meet with Organization Stakeholders to describe:
1 - MHQP PPVA Program
2 - Specialty/Condition Selection

9/20/2013



Timing: Four weeks from receipt of data.

Illustrates which specialties and conditions are most common and which cost the most. Clients and selected physician leaders use this information, combined with local priorities, to select which conditions make the most sense to analyze in search of unwarranted variation.

MEETING TWO

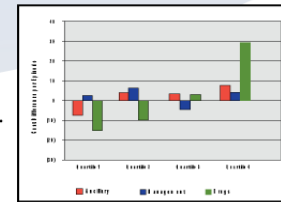
Meet with Physician Leaders and Stakeholders Group:
1 - Select 30 Specialty/Conditions

2/25/2014



STEP TWO: KEY COST DRIVER REPORTS (30 Rolling Delivery)

An individual report for each specialty/condition as selected by the client in Step One. The report identifies what is driving the variation and how it affects overall cost. Common cost drivers can be lab, office visits, pharmacy, radiology, etc.



Timing: Four weeks from selection of 30 specialty/condition combinations.

STEP THREE: POTENTIAL SAVINGS BLUEPRINT

ETG	Specialties	Category	Project	Do
Diabetes	FM, IM	Drugs	DPP-4 Inhibitors	\$1,
Cataract	Ophth	Procedure	# Surgeries	\$2,
GERD	Gastro	Procedure	% Endoscopy	\$87
Sinusitis	OTO	Procedure	% Endoscopy	\$75
HBP	FM, IM	Drugs	ARB v. Generic	\$9,
Arthritis	RHEUM	Drugs	Inject v. Oral	\$1,
Sinusitis	FM, IM	Procedure	% Endoscopy	\$21
HBP	CARDIO	Drugs	ARB v. Generic	\$5,
Arthritis	RHEUM	Drugs	Inject v. Oral	\$1,

Timing: Two weeks from delivery of final Key Cost Driver Report.

Organizes, by specialty, which conditions have the most variation (in dollars). Conditions are color coded making it easy to match similar conditions for cross-specialty projects. Allows launching of MedEngage programs with focus on desired changes and expected results.

We are currently here.

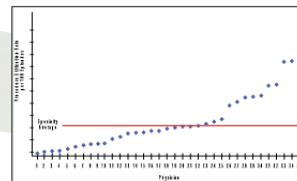
MEETING THREE-FOUR

Select Two Specialty/Conditions to discuss with Medical Community

Meet with Physician Leaders, Patients and Employers to review reports

5/6/2014

STEP FOUR: DETAILED VARIATION CURVES (10)



Timing: Three weeks from selection of 10 services.

A graph that plots individual physician utilization for a given Key Cost Driver. A valuable tool to show physicians how they practice as compared to their peers.

MEETING FIVE

Educate Physicians on how to talk effectively to their groups about variation

TBD

MHQP FMA PPVA Data-Analysis Process

- **Cost Blueprint** – Table with top 10 ETGs for top 25 specialties with highest cost and key cost-driver categories
- **Cost-Driver Reports** – 30 reports for specialty/ETG combinations, detailing specific drivers of costs (e.g., drug, surgical procedure, imaging, etc.)
- **Cost-Saving Reports** - Potential savings associated with specific drivers for each specialty/condition
- **Variation Curves** - 11 graphs with variation by individual provider (identified or de-identified)

Step 3. Select the Conditions working with the Combined Physician Leaders Group

MHQP Cost Analysis Blueprint

Data Period for Episodes End Dates July 1, 2008 through June 30, 2011. Dates of services July 1, 2008 through June 30, 2011. Commercial Products, Complete episodes, Cost Attributed

highest cost etg		lowest cost etgs												
Ob/Gyn			Total dollars in displayed ETGs:			\$1,284,561,869			Percent Specialty dollars in displayed ETGs:			76.3%		
1			2			3			4			5		
Pregnancy, with delivery (601100)			Non-malignant neoplasm of female genital tract (634700)			Routine exam (779400)			Conditions associated with menstruation (634900)			Contraceptive management (779600)		
Number Cost			Number Cost			Number Cost			Number Cost			Number Cost		
Analyzed episodes 39,082 \$728,530,915			Analyzed episodes 61,942 \$174,352,913			Analyzed episodes 363,847 \$113,163,612			Analyzed episodes 105,508 \$76,928,940			Analyzed episodes 81,385 \$61,028,255		
All episodes 41,614 \$775,730,144			All episodes 70,746 \$199,134,209			All episodes 368,999 \$114,765,986			All episodes 119,640 \$87,232,991			All episodes 88,548 \$66,399,581		
Avg cost per episode \$18,641			Avg cost per episode \$2,815			Avg cost per episode \$311			Avg cost per episode \$729			Avg cost per episode \$750		
Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:		
inpt 52%; surg 27%			surg 40%; inpt 23%; rad 12%			EM 53%; lab 27%; rad 19%			surg 26%; EM 24%; lab 18%; rad 15%; RX 14%			surg 52%; EM 20%; RX 16%		
Internal Medicine			Total dollars in displayed ETGs:			\$1,073,226,693			Percent Specialty dollars in displayed ETGs:			28.5%		
1			2			3			4			5		
Hypertension (388100)			Diabetes (163000)			Ischemic heart disease (386500)			Routine exam (779400)			Asthma (438800)		
Number Cost			Number Cost			Number Cost			Number Cost			Number Cost		
Analyzed episodes 425,500 \$267,312,379			Analyzed episodes 133,669 \$204,805,617			Analyzed episodes 62,481 \$140,214,218			Analyzed episodes 427,196 \$131,724,124			Analyzed episodes 62,536 \$65,625,812		
All episodes 500,994 \$314,740,066			All episodes 155,864 \$238,812,460			All episodes 75,791 \$170,083,318			All episodes 465,129 \$143,420,608			All episodes 71,432 \$74,961,350		
Avg cost per episode \$628			Avg cost per episode \$1,532			Avg cost per episode \$2,244			Avg cost per episode \$308			Avg cost per episode \$1,049		
Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:		
EM 41%; RX 33%; rad 12%			RX 52%; EM 28%			RX 20%; EM 18%; rad 13%			EM 55%; lab 27%; rad 15%			RX 48%; EM 29%		
Orthopedic			Total dollars in displayed ETGs:			\$1,005,613,578			Percent Specialty dollars in displayed ETGs:			57.5%		
1			2			3			4			5		
Joint degeneration, localized - knee & lower leg (712202)			Joint degeneration, localized - thigh, hip & pelvis (712203)			Joint degeneration, localized - back (712208)			Joint derangement - knee & lower leg (714302)			Closed fracture or dislocation of upper extremity - hand, wrist & forearm (713104)		
Number Cost			Number Cost			Number Cost			Number Cost			Number Cost		
Analyzed episodes 65,761 \$305,603,981			Analyzed episodes 19,904 \$186,979,194			Analyzed episodes 20,283 \$132,854,812			Analyzed episodes 23,802 \$128,080,026			Analyzed episodes 22,907 \$55,188,315		
All episodes 74,518 \$346,299,440			All episodes 22,964 \$215,724,991			All episodes 23,224 \$152,118,530			All episodes 27,228 \$146,515,543			All episodes 25,160 \$60,616,318		
Avg cost per episode \$4,647			Avg cost per episode \$9,394			Avg cost per episode \$6,550			Avg cost per episode \$5,381			Avg cost per episode \$2,409		
Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:			Percent of dollars by service category:		
inpt 53%; surg 19%			inpt 70%; surg 15%			inpt 49%; surg 24%			surg 56%; rad 16%			surg 47%; EM 21%; rad 16%		

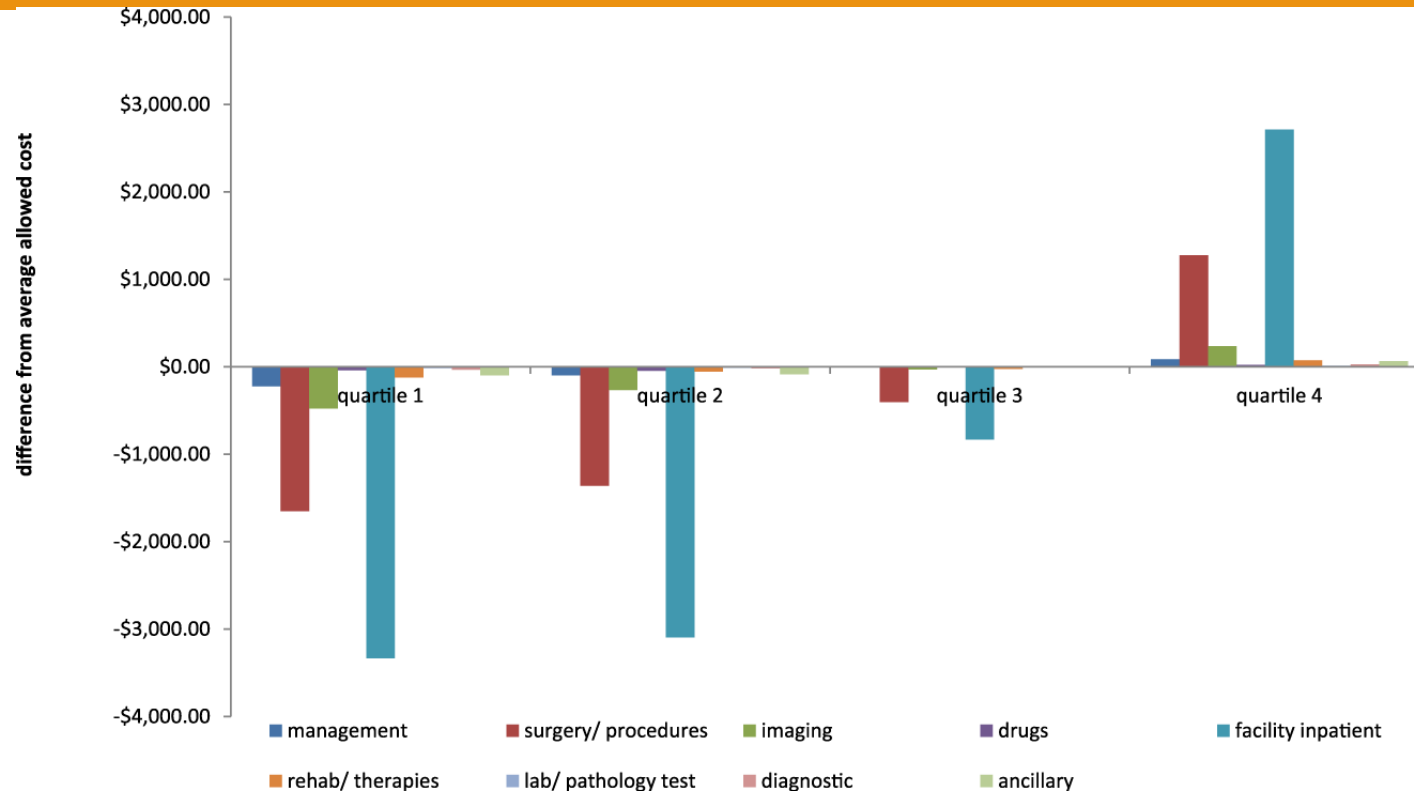
MHQP's Selection Criteria

- Focus on quality improvement where data suggests there is variation
- Select services with high costs and volume in cases that plan specific data would not be sufficient
- Avoid conditions that are purely visit coding issues
- Select conditions where variation could harm patients
- Encourage projects where FMA or other organizations have experience and success:
 - Influencing clinician behavior is reasonably likely
 - Plans do not have programs already
 - Guidelines do not exist or not being followed

Final List of Conditions for Cost-Driver Reports

- Joint Degeneration – Back (712208)
- Joint Degeneration, localized –knee and lower leg (712202);
- Joint Degeneration of thigh, hip and pelvis (712203);
- Joint Degeneration localized neck (712211)
- Ischemic Heart Disease (386500) (Cardiology and Primary Care separately)
- Diabetes (163000)
- Chronic sinusitis (403500)
- COPD (439300)
- Non-malignant neoplasm of intestines and abdomen (475600),
- Non-malignant neoplasm of the female genital tract (634700)
- Non-malignant neoplasm of skin (668200)
- Depression- (238800) (Psychiatry and primary care separately)
- Hypertension (388100)
- Malignant neoplasm of breast (635600) (Oncology /hematology and surgery separately)
- Cataract (351700)
- Pregnancy with delivery (601100)
- Multiple sclerosis (315100)
- Inflammation of esophagus (473300)
- Kidney stones- Urology (587800)
- Asthma (438800)
- Migraine (316900)
- ADHD (240100)
- Cholelithiasis (522300) (Gastroenterology and General Surgery separately)
- Hernias, except hiatal (476600)
- Adult Rheumatoid Arthritis (711400)
- Inflammatory bowel disease (475300)

Key Cost Driver, Clinical Findings Joint Degeneration, Back – Orthopedic / Neurosurgery



Key Cost Driver(s): The primary cost driver is the surgery/procedure category representing 30% of cost variation. The facility inpatient shows a 58% cost variation, however, surgery/procedures category is the driver for facility inpatient services. **When facility inpatient is removed, the cost variation for surgery/procedures increases to 67% with the imaging category coming in at 16%.**

Conditions Selected for Variation Charts

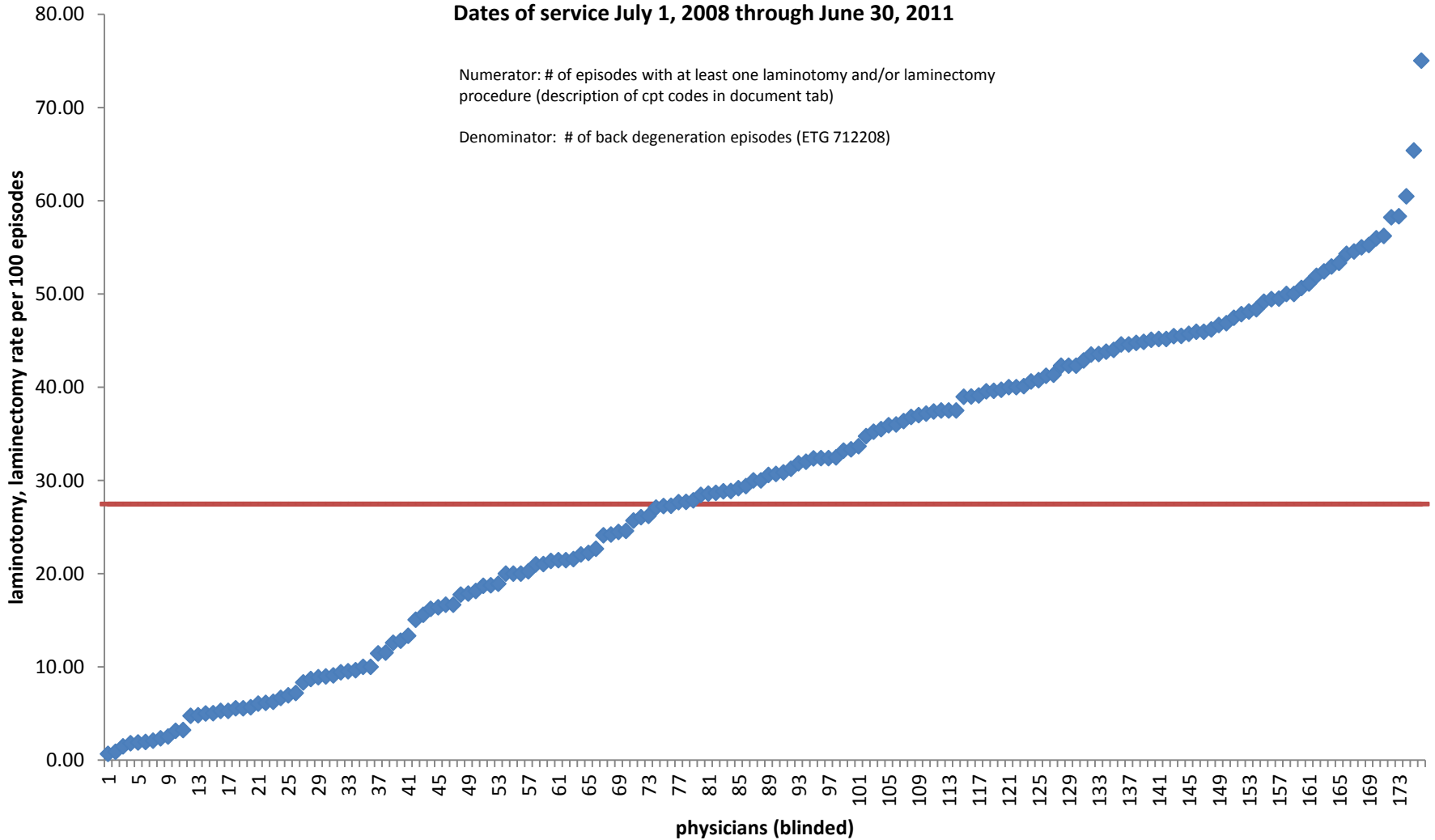
1. **Back joint degeneration -Orthopedic/ Neurosurgery**
2. Knee joint degeneration -Orthopedic
3. Non Malignant Neoplasms of Skin - Dermatology
4. Cataract - Ophthalmology
5. **Ischemic Heart Disease - Cardiology groups**
6. Ischemic Heart Disease - Family Practice/ Internal Medicine
7. Kidney Stones -Urology
8. Hernias, except hiatal - General Surgery
9. Mood disorder, depressed - Psychiatry
10. Pregnancy, with delivery - Ob/Gyn.
11. Hypertension -Family Practice/ Internal Medicine

**Massachusetts Health Quality Partners
 Orthopedic and Neuro-Surgery
 Back joint degeneration (ETG 712208)
 Laminotomy, Laminectomy rate per 100 episodes
 cpt codes: 63030, 63035, 63042, 63047, 63048 (see cpt definitions tab)**

Dates of service July 1, 2008 through June 30, 2011

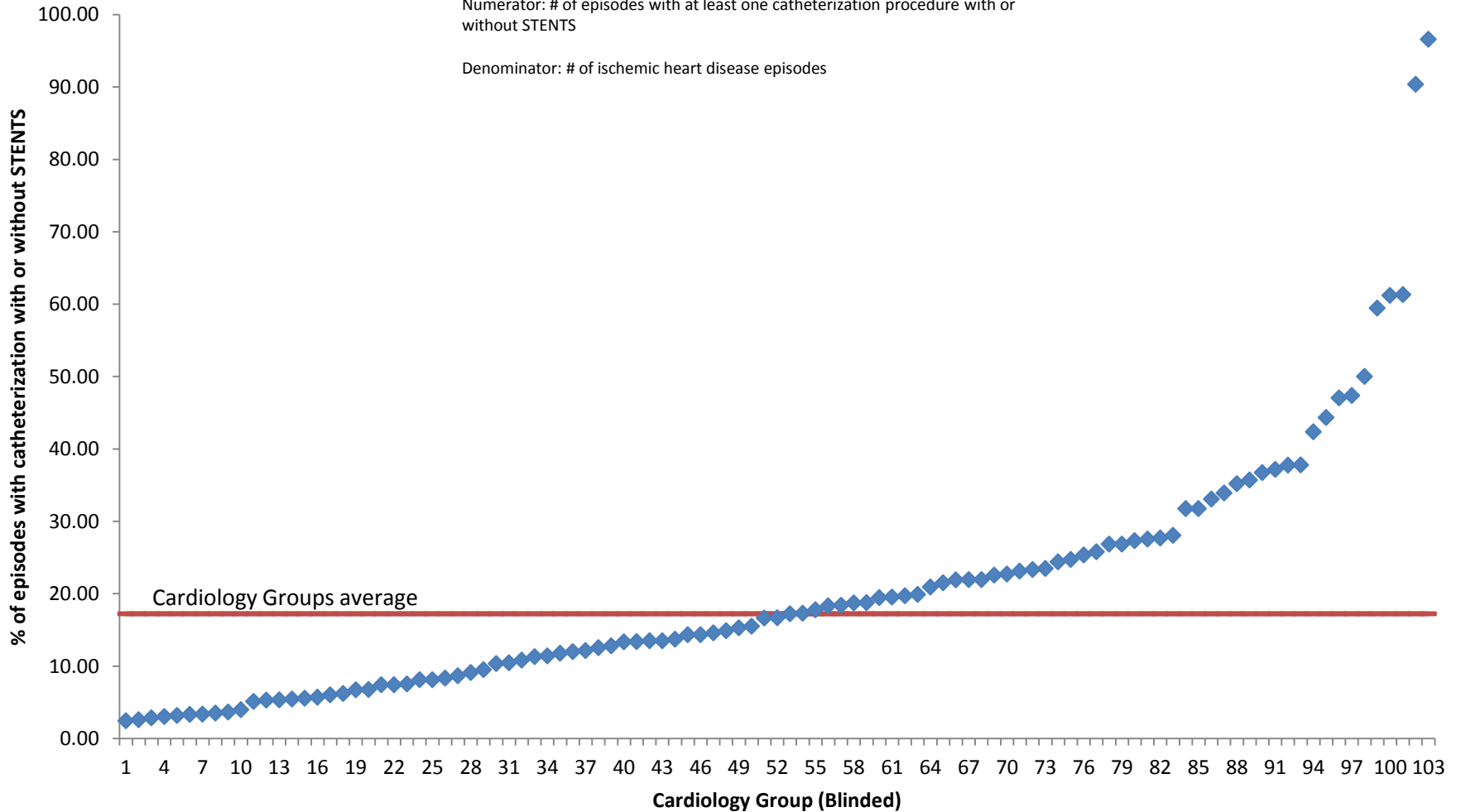
Numerator: # of episodes with at least one laminotomy and/or laminectomy procedure (description of cpt codes in document tab)

Denominator: # of back degeneration episodes (ETG 712208)



**Massachusetts Health Quality Partners
Cardiology Groups
Ischemic Heart Disease
% of episodes with catheterization with or without STENTS
Dates of service July 1, 2008 through June 30, 2011**

Numerator: # of episodes with at least one catheterization procedure with or without STENTS
Denominator: # of ischemic heart disease episodes



Next Steps

Step 4. Begin conversations with key groups

Next Steps for MHQP's PPVA Program

- Prepared a PPVA overview brief to describe the process and products
- Meeting with cardiology, orthopedic and neuro surgery specialty societies
- Meeting with physician-organization leaders about process for engaging their physicians in conversation about the individual-level data
- Seeking support to refresh the data and add Medicaid

Questions?

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