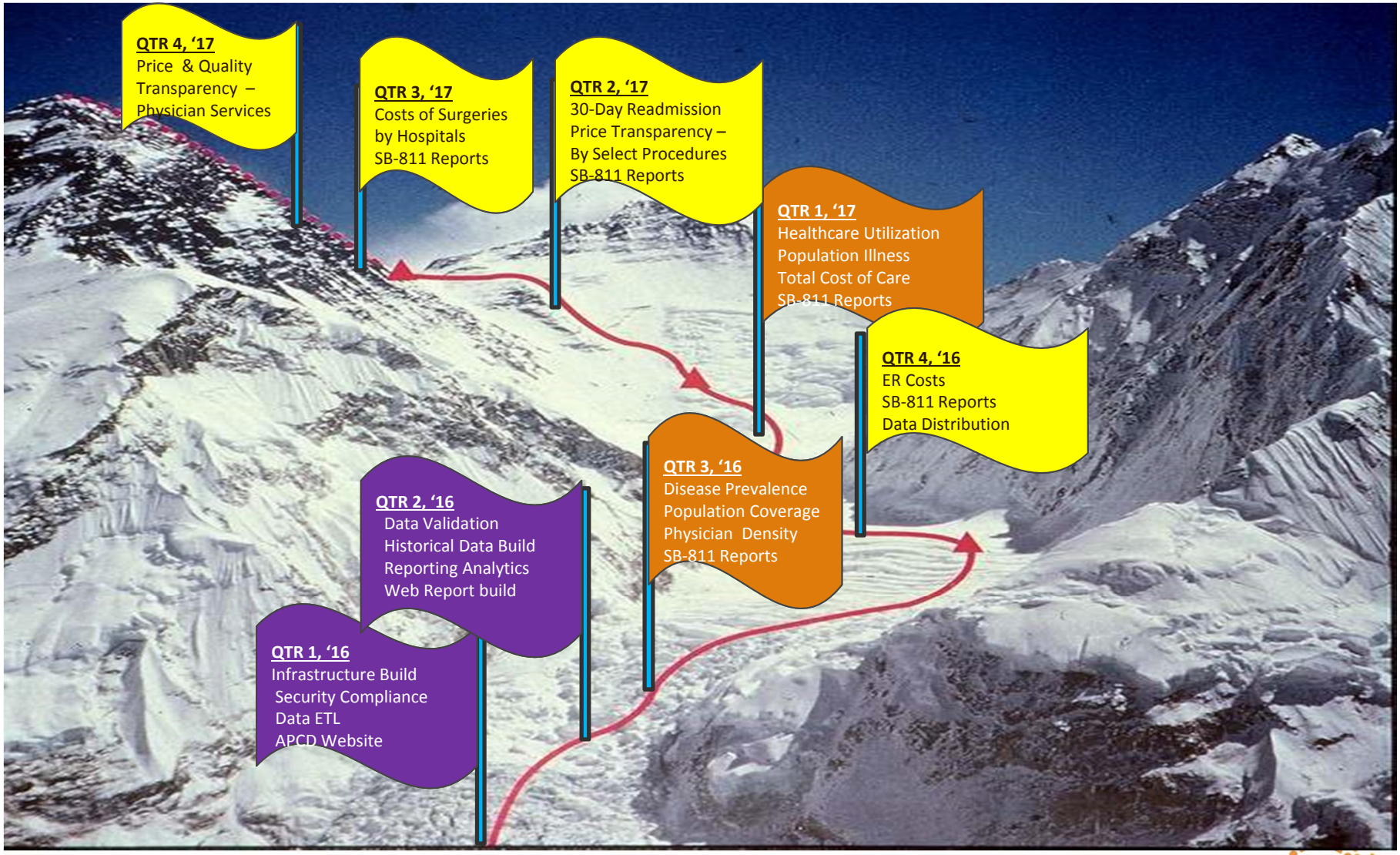
APCD Advisory Group Meeting

May 12, 2016

Presentation Overview

- Approval of November 12, 2015 and February 11, 2016 Meeting Minutes
- CEO/ED Updates -
  - ✓ APCD Implementation Timeline
  - ✓ Data Submission Status
  - ✓ Medicare Data Collection
  - ✓ Medicaid Data Collection
- APCD Data Grouping Approaches
- Discussion of Quality Measurement in Healthcare – Potentially Avoidable Complications (PACs)
- Designing Cost Transparency Report – An Overview
- Next Steps
- Future Meetings
- Adjournment

APCD Implementation Timeline



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APCD Data Submission Status

- APCD Data Collection Plan - Data collection is ongoing although data quality validation has been very slow for some of the submitting entities. Submitters are challenged with resources, having to support either multiple APCDs or are first-time submitters without prior experience. Despite that, we are targeting roughly 850,000 lives by mid-May 2016
- Once all other commercial payers complete submissions, we expect somewhere in the range of 1.4 million lives from commercial fully insured plans and an additional 200,000 members from Medicare Advantage plans (Part C)
- Medicare Part A & B population in CT is estimated at 633,000* members, which we are in the process of submitting application to acquire data from CMS (ResDAC)
- Medicaid/CHIP population was estimated at 763,000* in 2015; we would request DSS to submit data as required by PA 15-146

APCD Data Submission Status

- Total estimated population in CT is 3,577,900 in 2015*
- Non-collectable claims from ASO accounts is estimated at 558,000 lives, i.e., 28% of the commercial population
- Total estimated population in APCD in the future (even without ASO accounts) can be targeted at 3.02 million lives

Collectable Commercial: Fully Insured	Non-Collectable Commercial: ASO	Medicare Advantage	Medicare Parts A & B	Medicaid / CHIP	Total Collectable	ASO % of Commercial
1,428,701	558,295	194,904	633,000	763,000	3,019,605	28.1%

Note: These are estimates and are subject to be refinement in the future

** Estimates for commercial plans are derived from APCD data submissions; Medicaid and Medicare estimates are from Kaiser State Health Facts* (http://kff.org/statedata/)

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APCD Data Collection Status Update

Submitting Plan	Payer ID	Submitters	Data Type				Member Count
			Eligibility	Medical	Pharmacy	Provider	
Aetna	CTC0010	Aetna Life Insurance Company Traditional	D/P	D/H	D/P	L/F	274,493
Aetna	CTC0010A	Aetna Life Insurance Company HMO SI	N/A	D/H	D/H	N/A	-
Aetna	CTC0010B	Aetna Life Insurance Company HMO Medicare	D/P	D/P	D/H	N/A	10,306
Aetna	CTC0010E	Aetna Life Insurance Company Aetna Student Healt	D/P	D/H	N/A	D/P	25,288
Aetna	CTC0011	Aetna Health Insurance HMO FI	D/P	D/P	D/H	L/F	26,730
Aetna	CTC0011A	Aetna Health Insurance HMO on ACAS FI	D/P	D/P	D/P	N/A	14,667
Aetna	CTC0177	First Health Life and Health Insurance Company (Co	D/P	N/A	D/P	N/A	10,576
Anthem	CTC0663	Anthem Health Plans, Inc	D/H	D/H	D/H	D/H	382,286
Cigna	CTC0025	Cigna Health and Life Insurance Company - East	D/P	D/P	D/P	D/P	147,357
Cigna	CTC0025F	Cigna Health and Life Insurance Company - West	D/P	D/P	D/P	D/P	240
ConnectiCar	CTC0719	ConnectiCare, Inc	D/P	D/P	D/P	D/P	220,229
ConnectiCar	CTC0719A	ConnectiCare, Inc - Medicare Advantage	D/P	L/F	P/F	D/P	50,316
Harvard	CTC0213	Harvard Pilgrim Health Care of Connecticut, Inc	D/P	D/H	D/P	L/F	4,965
HealthYCT	CTC0021	HealthyCT Inc	D/H	P/F	D/H	P/F	7,362
UHG	CTC0193	Golden Rule Insurance Company	D/P	D/H	D/P	D/P	5,040
UHG	CTC0423	UnitedHealthcare Insurance Company	D/P	D/P	D/P	D/P	46,885
UHG	CTC0423A	Oxford Health Insurance Inc, (UHC)	D/P	D/H	L/F	D/H	252,279
UHG	CTC0423B	UnitedHealthcare - OrthoNet (Oxford)	N/A	D/P	N/A	N/A	-
UHG	CTC0423C	UnitedHealthcare Insurance - Medicare & Retireme	D/H	D/H	D/H	D/P	130,081
UHG	CTT0322	OptumHealth (UHC)	N/A	D/P	N/A	D/P	-
Wellcare	CTC0534	WellCare Of Connecticut, Inc	D/P	D/H	D/H	D/P	14,507
Wellcare	CTT0005	Caremark, LLC	L/F	N/A	P/F	N/A	-
ALL							**1,623,605**

N/S	**Not Sent.** Submitter has not yet provided a file for this data type
P/F	**Prelim fail.** File has a formatting issue that needs to be resolved by the submitter.
L/F	**Load fail.** File does not conform to required thresholds.
D/H	**DQ Hold.** Passed initial file load (met all thresholds) but Onpoint is questioning the quality of some of the data.
D/P	**DQ Pass.** All thresholds and data quality validations have been passed and this file will be accepted for inclusion into the APCD.
N/A	**Not Applicable.** Submitter will not be providing this file type.

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APCD Medicare Data Update

- Received confirmation from CMS that our APCD will be considered as eligible to receive Research Identifiable Files (RIF) data under the CMMI funded SIM program category of data request
- There will be no cost for data acquisition from CMS due to SIM support
- SIM will be able to use this data to develop performance metrics; inclusion of Medicaid data in the APCD will complete a true all-payer construct
- APCD intends to develop multi-payer reports for population analytics and for cost transparency based on appropriate claims experience from payer-specific population
- Working with SIM on finalizing data from CMS (details regarding how much history, frequency of updates, types of data, etc.)

APCD Data Support to SIM for Performance Measures

Metric Title	Data Source	Reporting Frequency (Monthly, Quarterly, Annual, Biannual)	Definition
Adults with Regular Source of Care	APCD	Quarterly	NQMC 9851. Percentage of members 20 years and older who had an ambulatory or preventive care visit. Medicaid and Medicare members who had an ambulatory or preventive care visit during the measurement year Commercial members who had an ambulatory or preventive care visit during the measurement year or the two years prior to the measurement year
Well Child Visits-Low Income	APCD	Quarterly	NCMC 9059. Children and adolescents' access to primary care practitioners: % of members 1-19 years who had a visit with a pcp
Mammograms	APCD	Quarterly	NQF 2372. The percentage of women 50-74 years of age who had a mammogram to screen for breast cancer.
Colorectal Screening	APCD	Quarterly	NQF 0034 The percentage of patients 50-75 years of age who had appropriate screening for colon cancer during the measurement year (fecal occult blood test, flexible sigmoidoscopy, colonoscopy). Excludes patients with a diagnosis of colorectal cancer or total colectomy.
Diabetes care	APCD	Quarterly	NQF 0059. 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.
Hypertension control	APCD	Quarterly	The percentage of patients 18-75 years of age with diagnosis of HTN who are filling prescriptions for HTN
Cost of Outpatient Care	APCD and Payers	Yearly	Total charges and co-pays per enrollee for outpatient care
Cost of Inpatient Care	APCD and Payers	Yearly	Total charges and co-pays per enrollee for inpatient care
Plan All-Cause Readmissions	HIDD; APCD is an alternative source	Yearly	NQF 1786. This measure summarizes acute readmissions for patients 18 years of age and older. Data are reported in the following categories: 1. Count of Index Hospital Stays (denominator) 2. Count of 30-Day Readmissions (numerator) 3. Average Adjusted Probability of Readmission

APCD Data Support - Other Performance Measures

Draft SIM Quality Council Provisional Measure Set: Core Quality Measures
PROVISIONAL RECOMMENDATION_PENDING STEERING COMMITTEE REVIEW PUBLIC COMMENT

#	Core Measures	NQF #	ACO #	Steward	Data Source	Health Equity Focus
	Consumer Engagement					
1	PCMH – CAHPS measure	0005		NCQA		✓
	Care Coordination					
2	Plan all-cause readmission	1768		NCQA	Claims	✓
3	Emergency Department Usage per 1000			NCQA	Claims	✓
4	Annual monitoring for persistent medications	2371		NCQA	Claims	
	Prevention					
5	Breast cancer screening	2372	20	NCQA	Claims	
6	Cervical cancer screening	0032		NCQA	Claims	
7	Chlamydia screening in women	0033		NCQA	Claims	
8	Colorectal cancer screening	0034	19	NCQA	EHR	✓
9	Adolescent female immunizations HPV	1959		NCQA	Claims	
10	Weight assessment and counseling for nutrition and physical activity for children/adolescents	0024		NCQA	EHR	
11	Preventative care and screening: BMI screening and follow up	0421	16	CMMC	EHR	
12	Developmental screening in first 3 years of life	1448		OHSU	EHR	
13	Well-child visits in the first 15 months of life	1392		NCQA	Claims	
14	Adolescent well-care visits			NCQA	Claims	
15	Tobacco use screening and cessation intervention	0028	17	AMA/ PCPI	EHR	
16	Prenatal Care & Postpartum care	1517		NCQA	EHR	
17	Screening for clinical depression and follow-up plan	0418	18	CMS	EHR	✓
18	Behavioral health screening (Medicaid only)			Custom	Claims	
	Acute & Chronic Care					
19	Medication management for people w/ asthma*	1799		NCQA	Claims	✓
20	Asthma Medication Ratio*	1800		NCQA	Claims	✓
21	DM: Hemoglobin A1c Poor Control (>9%)	0059	27	NCQA	EHR	✓
22	DM: HbA1c Testing**	0057		NCQA	Claims	✓
23	DM: Diabetes eye exam	0055	41	NCQA	EHR	
24	DM: Diabetes: medical attention for nephropathy	0062		NCQA	Claims	
25	HTN: Controlling high blood pressure	0018	28	NCQA	EHR	✓
26	Use of imaging studies for low back pain	0052		NCQA	Claims	
27	Avoidance of antibiotic treatment in adults with acute bronchitis	0058		NCQA	Claims	
28	Appropriate treatment for children with upper respiratory infection	0069		NCQA	Claims	
	Behavioral Health					
29	Follow-up care for children prescribed ADHD medication	0108		NCQA	Claims	
30	Metabolic Monitoring for Children and Adolescents on Antipsychotics (Medicaid only, custom measure)				Claims	
31	Depression Remission at 12 Twelve Months	0710	40	MNCM	EHR	
32	Child & Adolescent Major Depressive Disorder: Suicide Risk Assessment	1365		AMA/ PCPI	EHR	
33	Unhealthy Alcohol Use – Screening			AMA/ PCPI	EHR	

*Recommend one of the two for health equity, pending public comment

**Continued need for this measure will be re-evaluated after NQF 59 is in production

Source: Slide from Matt Katz's presentation to the APCD Advisory Group on 2/11/2016

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APCD Data Support - Other Performance Measures

Draft SIM Quality Council Provisional Measure Set: Reporting Measures / Development Measures
PROVISIONAL RECOMMENDATION_PENDING STEERING COMMITTEE REVIEW PUBLIC COMMENT

Reporting Measures	NQF #	ACO #	Steward	Data Source	Health Equity Focus
Care Coordination					
30 day readmission			MMDLN	Claims	
% PCPs that meet Meaningful Use		11	CMS	EHR	
Prevention					
Well-child visits in the third, fourth, fifth and sixth years of life (Medicaid only)	1516		NCQA	Claims	
Frequency of Ongoing Prenatal Care (FPC)	1391		NCQA	EHR	
Oral Evaluation, Dental Services (Medicaid only)	2517		ADA	Claims	✓
Acute and Chronic Care					
Cardiac stress img: Testing in asymptomatic low risk patients	0672		ACC	EHR	
Behavioral Health					
Anti-Depressant Medication Management	0105		NCQA	Claims	
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	0004		NCQA	Claims	
Follow up after hospitalization for mental illness, 7 & 30 days			NCQA	Claims	
Adult major depressive disorder (MDD): Coordination of care of patients with specific co-morbid conditions			APA	EHR	

Development Measures	NQF #	ACO #	Steward	Data Source	Health Equity Focus
Care Coordination					
ASC admissions: chronic obstructive pulmonary disease (COPD) or asthma in older adults	0275	9	AHRQ	Claims	
ASC: heart failure (HF)	0277	10	AHRQ	Claims	
All-cause unplanned admission for MCC		38	CMS	Claims	
All-cause unplanned admissions for patients with heart		37	CMS	Claims	
All-cause unplanned admissions for patients with DM		36	CMS	Claims	
Asthma in younger adults admission rate	0283		AHRQ	Claims	✓
Preventable hospitalization composite (NCQA)/Ambulatory Care Sensitive Condition composite (AHRQ) (adult)			NCQA / AHRQ	Claims	✓
Asthma admission rate (child)	0728		AHRQ	Claims	✓
Pediatric ambulatory care sensitive condition admission composite			Anthem	Claims	✓
ED Use (observed to expected) – New NCQA			NCQA	Claims	✓
Annual % asthma patients (2-20) with 1 or more asthma-related ED visits			None	Claims	
Prevention					
Oral health: Primary Caries Prevention	~~1419~~		None	Claims	
Acute and Chronic Care					
Gap in HIV medical visits	2080		HRSA	EHR	
HIV/AIDS: Screening for Chlamydia, Gonorrhea, and Syphilis	0409		NCQA	EHR	
HIV viral load suppression	2082		HRSA	EHR	
DM: Diabetes foot exam	0056		NCQA	EHR	

Source: Slide from Matt Katz's presentation to the APCD Advisory Group on 2/11/2016

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U.S. Supreme Court Decision Impact on APCD

- SCOTUS Decision Impact: Due to recent Supreme Court decision, two carriers have stopped submitting data until they are able to separate ERISA data from fully insured — estimated at 12+ weeks. It remains unclear what will happen with ERISA data in the future.
- The National APCD Council has been working with the National Academy for State Health Policy (NASHP) to address strategy following SCOTUS decision. They have outlined issues for next steps.
  - Feasibility of voluntary submissions by self-funded ERISA plans (employers)
  - Questions regarding how ERISA employers' opt-out process is structured currently and documentation that would be required for implementation by plans
  - NASHP has reached out to the U.S. Department of Labor (USDOL); USDOL is trying to understand where its authority lies
- National Association of Health Data Organization (NAHDO) has also approached USDOL with the idea of collecting uniform data from various states as a remedy to ERISA restrictions. NAHDO also has developed a uniform data lay out detail. CT's APCD is evaluating the proposed uniform data lay out standard currently. This is a promising approach.

APCD Data Grouping Approaches

1. Meeting with various stakeholders, seeking inputs and collaboration. Discussions were held with Qualidigm, Universal Healthcare Foundation, Data Haven, and Connecticut Health Foundation. Scheduling meetings with Connecticut Hospital Association and Connecticut State Medical Society (CSMS). Intend to meet others, including Consumers Union, Choosing Wisely, etc.

2. Developed a modified Hospital Service Area (HSA) distribution list based on town and zip code mapping following Dartmouth Atlas schema. We modified some of the HSA mapping due to changes in acute care hospital geography and remapping towns on the border of CT to in-state hospitals rather than out-of-state hospitals

3. Researching various approaches to measuring disparities in care – identifying surrogate measures (groupers) like Health Reference Groups (HRG), The Five Connecticuts, Opportunity Index, Planning Regions, Educational Reference Groups (ERG), District Reference Groups (DRG), Racially Concentrated Areas of Poverty (RCAP)

APCD Data Grouping Approaches – Hospital Service Area (HSA) Regional Grouping

- Based on Dartmouth Atlas grouping
- Modified slightly to improve distribution and proximity of hospitals
- There are 25 HSAs in CT
- Rationale – instead of town-level reporting and encountering small number problems, modified HSAs are alternative geographic reporting units

HSA #	HSA City	Resident Population (2013)
7001	Bridgeport	324,204
7002	Bristol	113,723
7003	Danbury	200,212
7004	Derby	102,265
7005	Farmington	54,356
7006	Greenwich	62,396
7007	Hartford	528,356
7008	Manchester	101,866
7009	Meriden	105,597
7010	Middletown	188,203
7011	Milford	53,137
7012	New Britain	111,349
7013	New Haven	411,876
7014	New London	178,996
7015	New Milford	35,218
7017	Norwalk	164,307
7018	Norwich	76,721
7019	Putnam	77,171
7020	Rockville	109,472
7021	Sharon	16,689
7023	Stafford Springs	24,096
7024	Stamford	147,786
7025	Torrington	79,606
7026	Waterbury	285,822
7027	Willimantic	42,656
Total CT		**3,596,080**

- Each modified HSA city is further broken down by towns and zip codes
- Reporting will be done at County, HSA, and Town Level (where data permits)
- HIPAA requirements is >10 patients in the numerator

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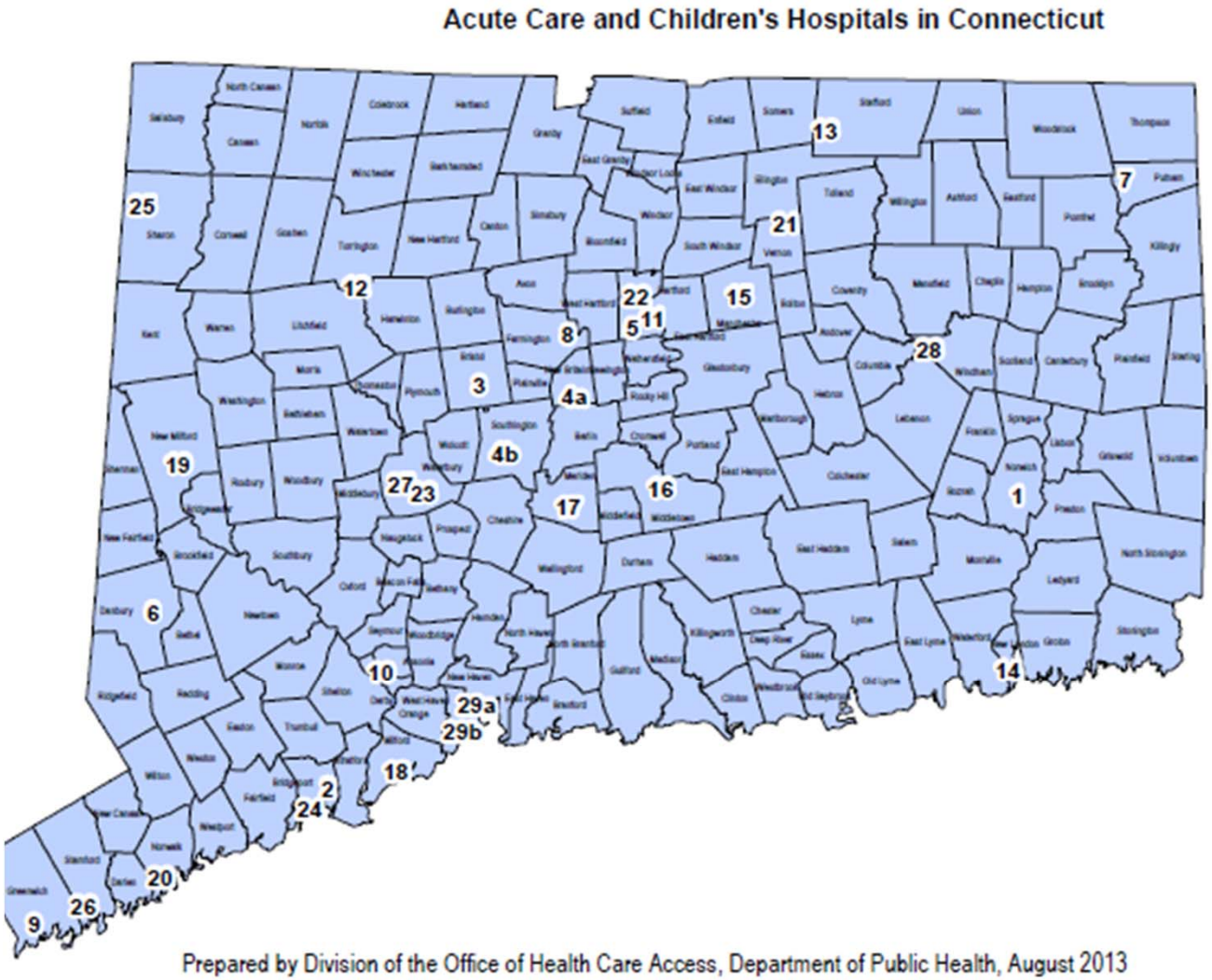
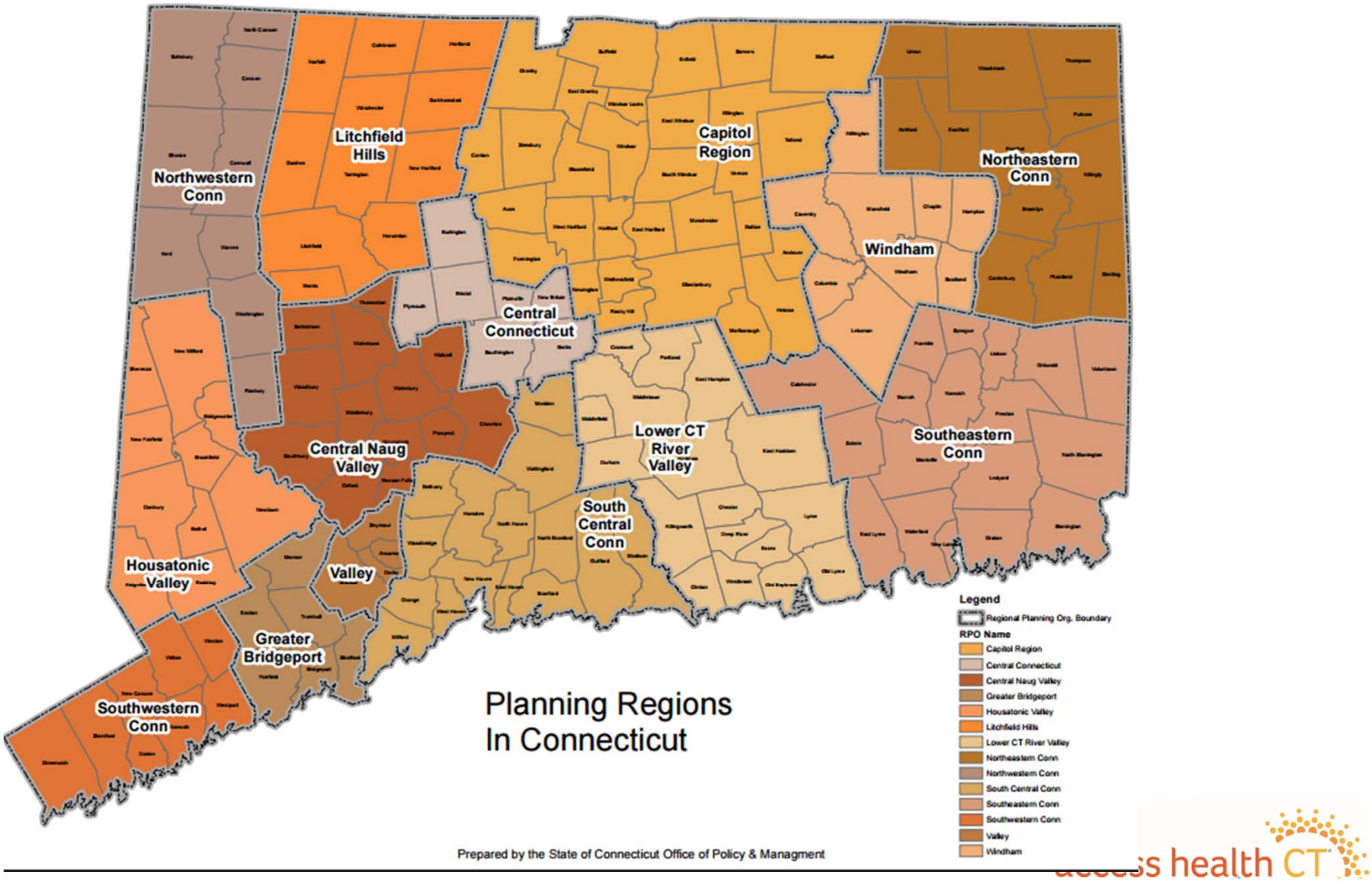
APCD Data Grouping Approaches – Hospital Service Area (HSA) Regional Grouping

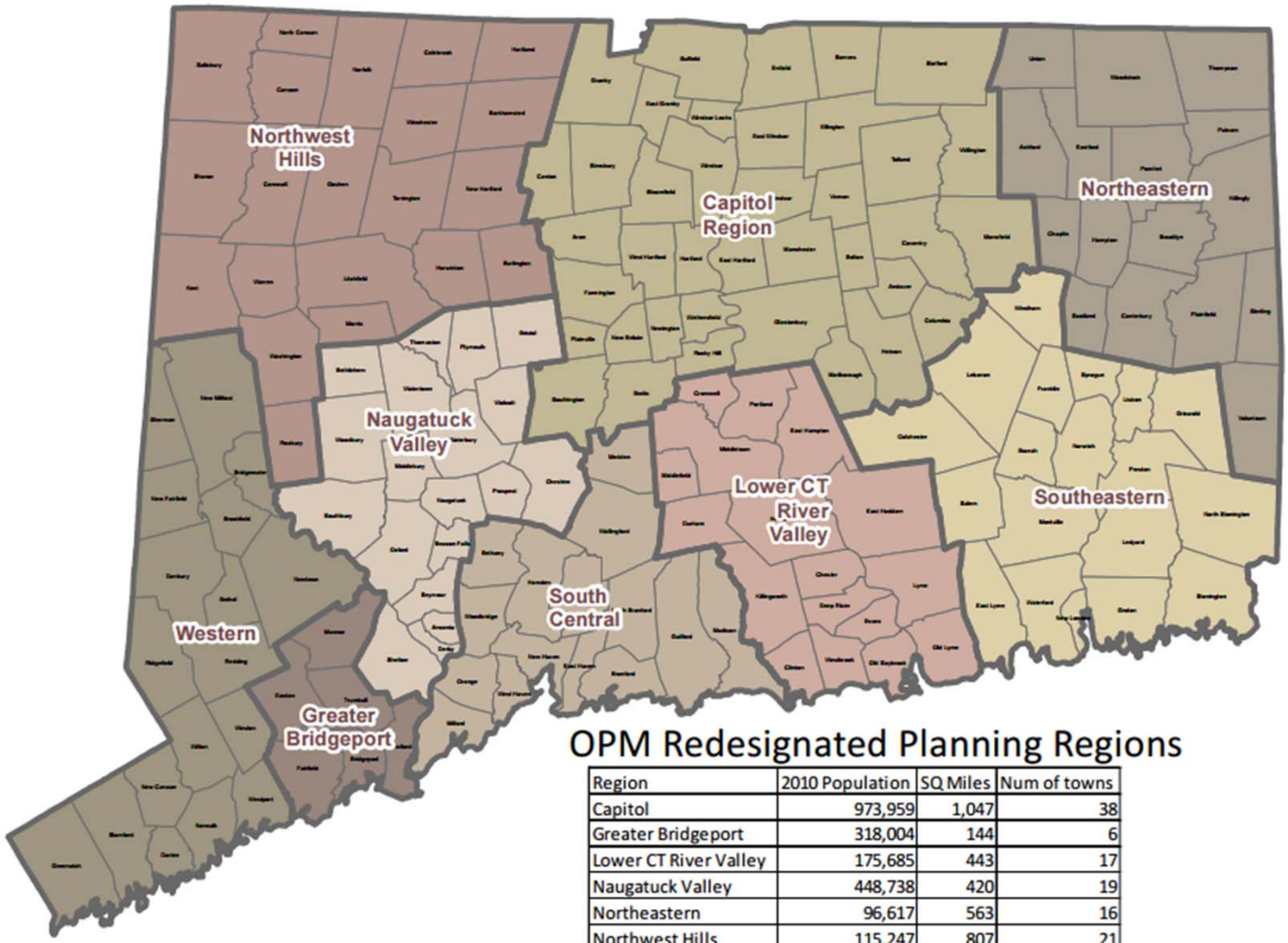


1 William W. Backus Hospital
2 Bridgeport Hospital
3 Bristol Hospital
4a Hospital of Central Connecticut - New Britain Memorial Campus
4b Hospital of Central Connecticut - Bradley Memorial Campus
5 CT Children's Medical Center
6 Danbury Hospital
7 Day Kimball Hospital
8 John Dempsey Hospital
9 Greenwich Hospital
10 Griffin Hospital
11 Hartford Hospital
12 Charlotte Hungerford Hospital
13 Johnson Memorial Hospital
14 Lawrence & Memorial Hospital
15 Manchester Memorial Hospital
16 Middlesex Hospital
17 MidState Medical Center
18 Milford Hospital
19 New Milford Hospital
20 Norwalk Hospital
21 Rockville General Hospital
22 Saint Francis Hospital and Medical Center
23 Saint Mary's Hospital
24 Saint Vincent's Medical Center
25 Essent-Sharon Hospital
26 Stamford Hospital
27 Waterbury Hospital
28 Windham Community Memorial Hospital
29a Yale-New Haven Hospital
29b Yale-New Haven Hospital - Saint Raphael Campus

APCD Data Grouping Approaches – Planning Regions



APCD Data Grouping Approaches – Redesigned Planning Regions



OPM Redesignated Planning Regions

Region	2010 Population	SQ Miles	Num of towns
Capitol	973,959	1,047	38
Greater Bridgeport	318,004	144	6
Lower CT River Valley	175,685	443	17
Naugatuck Valley	448,738	420	19
Northeastern	96,617	563	16
Northwest Hills	115,247	807	21
South Central	570,001	374	15
Southeastern	286,711	619	19
Western	589,135	550	18

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Combining Connecticut's APCD with DPH Birth Records

- Collaboration involving UConn, Access Health CT, DPH, Onpoint, CSMS
- Two step process:
  1. Merge birth records with APCD member file
     - ~ 60% of CT residents born in CT; have child in CT (?)
  2. Use multiple imputation to impute race and ethnicity for patients not in birth records
     - Uses patient demographics (address, name, age etc.) to build a predictive model for patients race/ethnicity
- Results included in APCD files

Source: Slide from Dr. Robert Aseltine's presentation to the APCD Advisory Group on 2/11/2016

APCD Data Collection Status Update – Race Data Completion

- AI/AN
- Asian
- Black/African
- American Native Hawaiian or Pacific Islander
- White
- Other Race
- Unknown/Not – Specified
- Hispanic

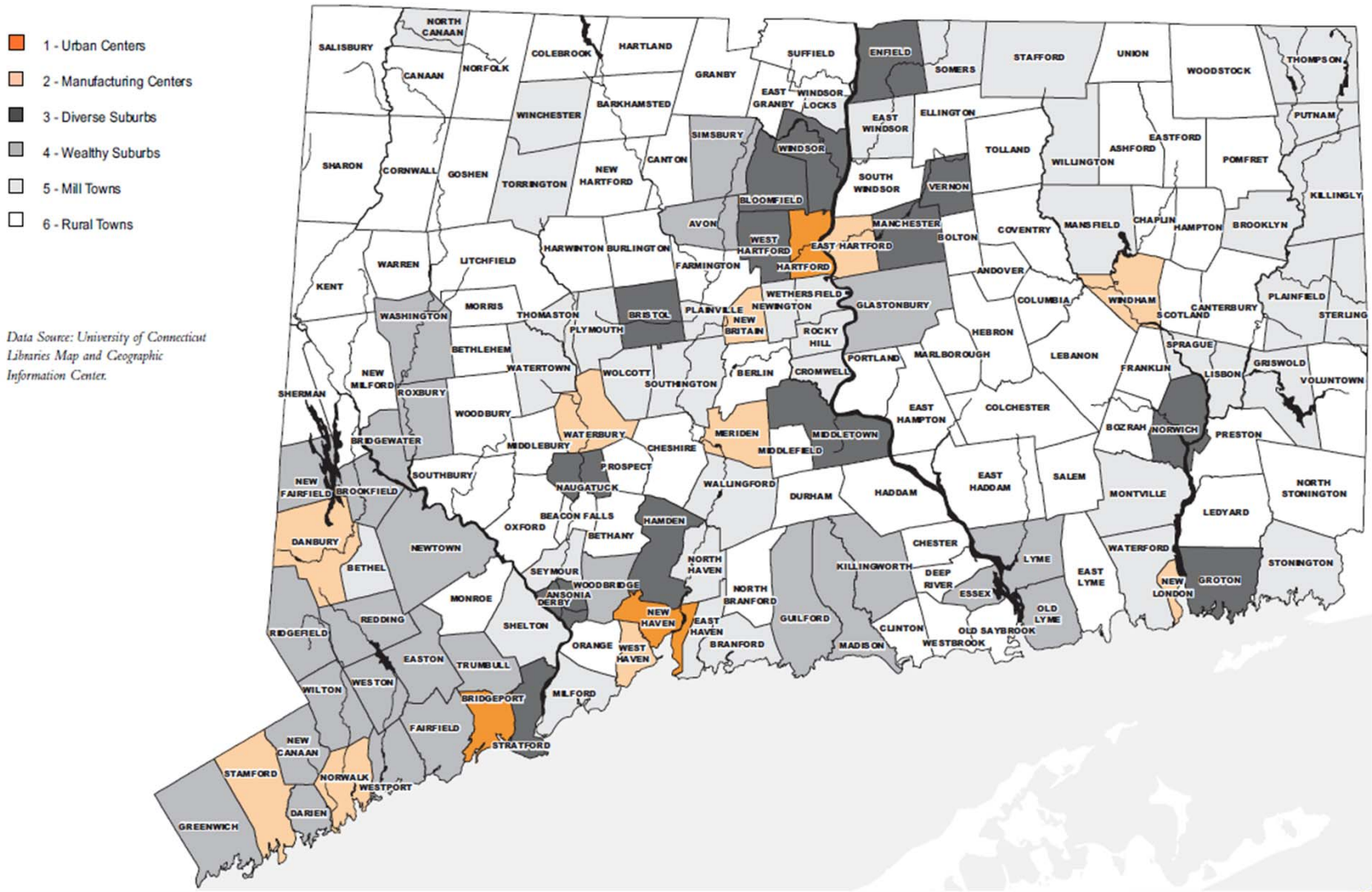
Submitters	Race Information Completion Rate	Population Weights
Aetna	32.6%	19.8%
Anthem	0.3%	24.4%
Cigna	0.0%	9.4%
ConnectiCare	3.2%	17.3%
Harvard Pilgrim	5.2%	0.3%
United Health Group	0.1%	27.8%
Well Care	49.4%	0.9%
OVERALL	**7.6%**	

Note: *Based on test data for year 2012; current completion rate may be different.*

APCD Data Grouping Approaches – Health Reference Group (HRG)

HEALTH REFERENCE GROUP DESCRIPTIVE TOTALS AND AVERAGES	1 Urban Centers (UC)	2 Manufacturing Centers (MC)	3 Diverse Suburbs (DS)	4 Wealthy Suburbs (WS)	5 Mill Towns (MT)	6 Rural Towns (RT)
Number of Cities/Towns	3	10	15	27	39	75
Total Population	384,733	662,398	587,504	487,620	698,517	584,793
Percent of Total Property Valuation that is Residential	51.7	66.7	72.8	88.8	74.1	84.7
Residential Property Valuation Per Capita	$11,989	$26,216	$28,459	$106,0665	$32,688	$51,197
Average Town Population	128,244	66,240	39,167	18,060	17,911	7,797
Percent of Family Households Headed by Single Females with Children Under 18	32.3	17.2	12.4	4.6	8.7	5.9
Percent Black-alone Not Hispanic Population	33.6	12.2	11.2	0.8	1.8	1.0
Percent Hispanic Population	31.2	18.9	5.4	2.0	2.7	1.7
Population Density Per Square Mile	7,435	3,315	1,830	649	821	277
Percent College Graduates Among Residents 25 and Over	17.2	21.9	26.3	56.2	23.8	34.5
Percent Below Poverty Criteria	46.9	28.7	18.7	7.2	15.8	10.9

APCD Data Grouping Approaches – Health Reference Group (HRG)



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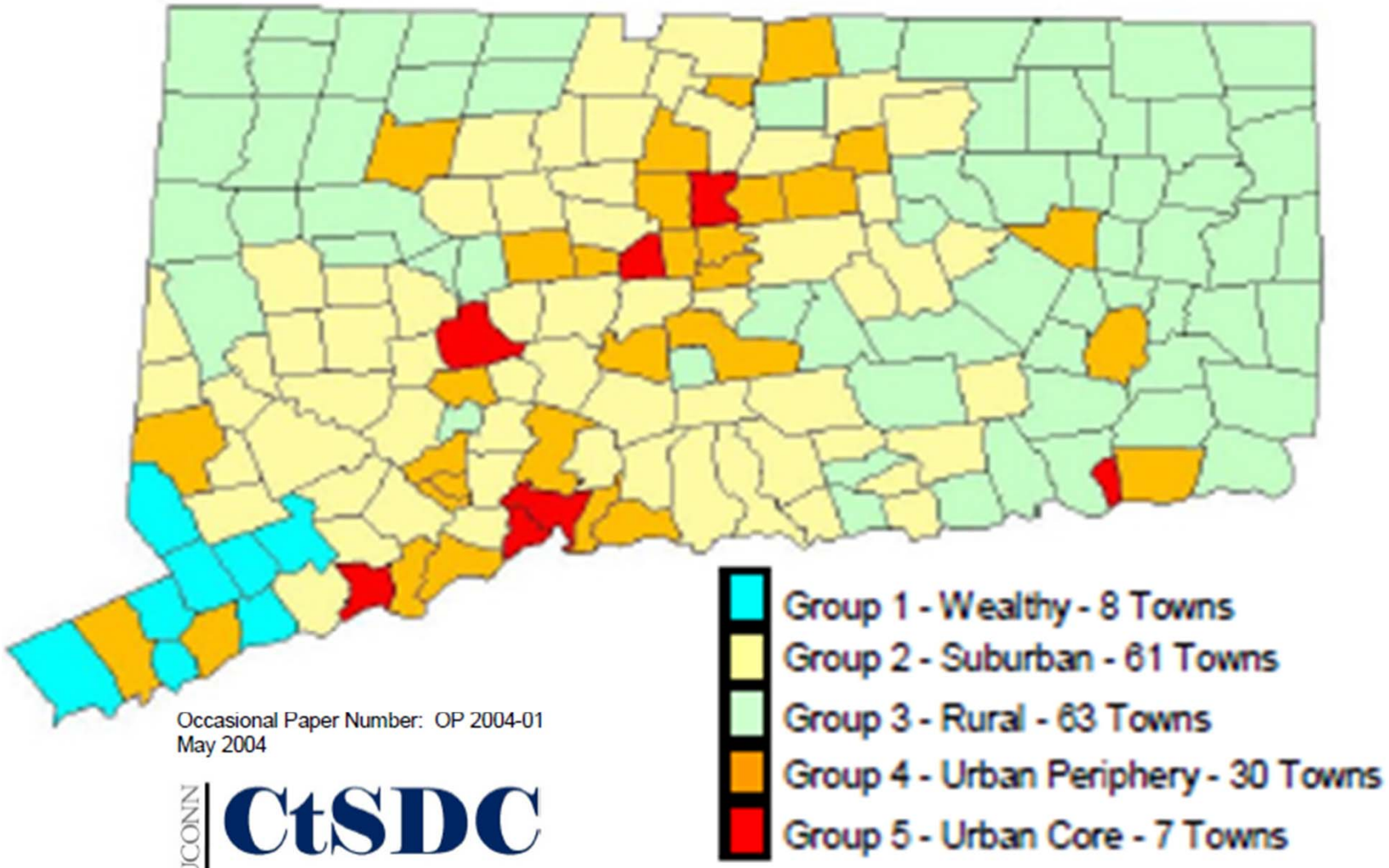
APCD Data Grouping Approaches – The Five Connecticuts



Occasional Paper Number: OP 2004-01
May 2004

UCONN CtSDC
Connecticut State Data Center

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APCD Data Grouping Approaches – Opportunity Index

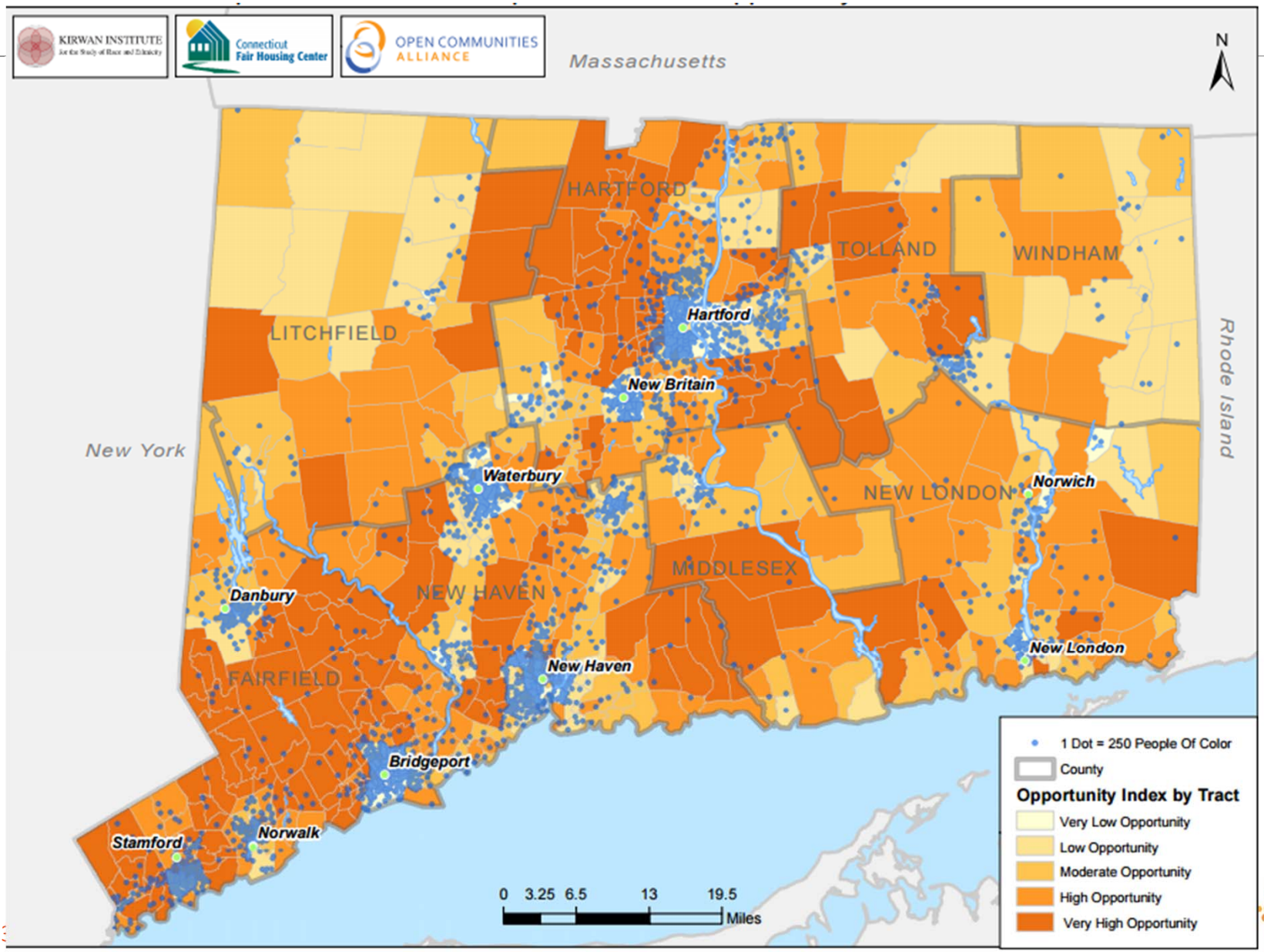
Opportunity mapping is an analytical tool that deepens our understanding of "opportunity" dynamics within regions. The goal of opportunity mapping is to identify opportunity-rich and opportunity-isolated communities.

Opportunity mapping indicators

Educational Indicators	Economic Indicators	Neighborhood/Housing Quality Indicators
Students Passing Math Test scores	Unemployment Rates	Neighborhood Vacancy
Students Passing Reading Test scores	Population on Public Assistance	Crime Rate
Educational Attainment	Job Growth	Neighborhood Poverty Rate
	Employment Access	Homeownership Rate
	Job Diversity	

Source: http://www.ctoca.org/introduction_to_opportunity_mapping

APCD Data Grouping Approaches – Opportunity Index



APCD Data Grouping Approaches – Opportunity Index

	Very Low Opportunity	Low Opportunity	Moderate Opportunity	High Opportunity	Very high Opportunity
Black (non-Hispanic)	48.98%	24.29%	13.07%	9.19%	4.47%
Hispanic (any race)	46.85%	25.86%	11.82%	9.07%	6.41%
Asian (non-Hispanic)	12.16%	23.43%	19.74%	22.38%	22.30%
White (non-Hispanic)	7.00%	18.94%	22.44%	25.00%	26.62%

Presentation of Quality Measurement Approach

Risk-standardized Rates of Complications: A Novel Approach To Provider Performance Measurement

By

François de Brantes
Executive Director
Health Care Incentives Improvement Institute

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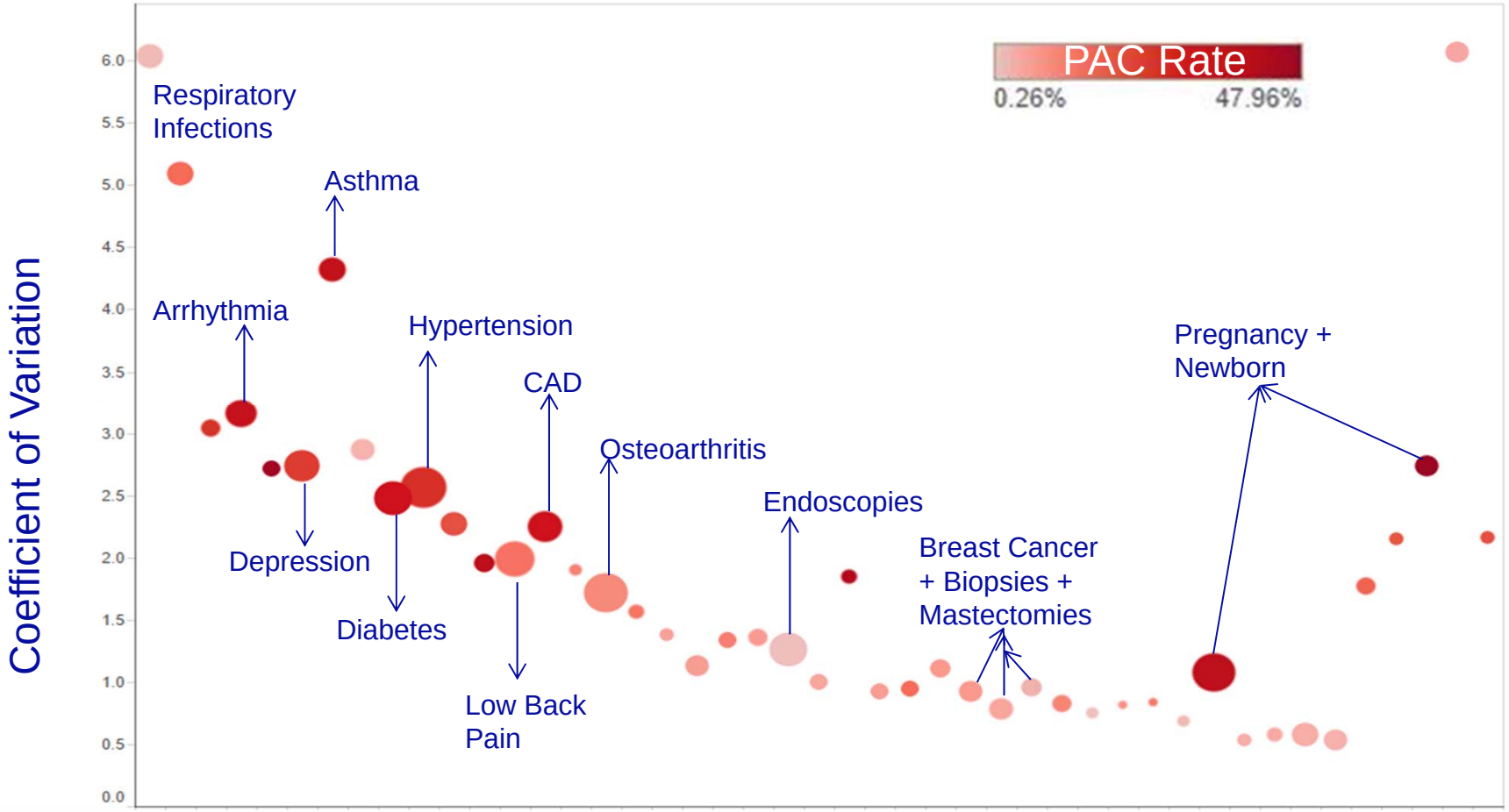
Risk-standardized Rates of Complications: A Novel Approach To Provider Performance Measurement

RSPR: A New Method To Measure Physicians

- Developed over a decade as part of the PROMETHEUS Payment model
  - With significant funding from Robert Wood Johnson Foundation, The Commonwealth Fund, The Colorado Health Foundation, The New York State Health Foundation
- Defines Potentially Avoidable Complications (PACs) by condition, illness, procedure
  - PACs are negative outcomes and clinical events that occur during, because of, or after the treatment of a patient, for example wound infections after surgery, or an acute exacerbation of a condition
- Definitions vetted by Clinical Working Groups and significant field testing

Prevalence of PACs: Data From a Recent CPR Report



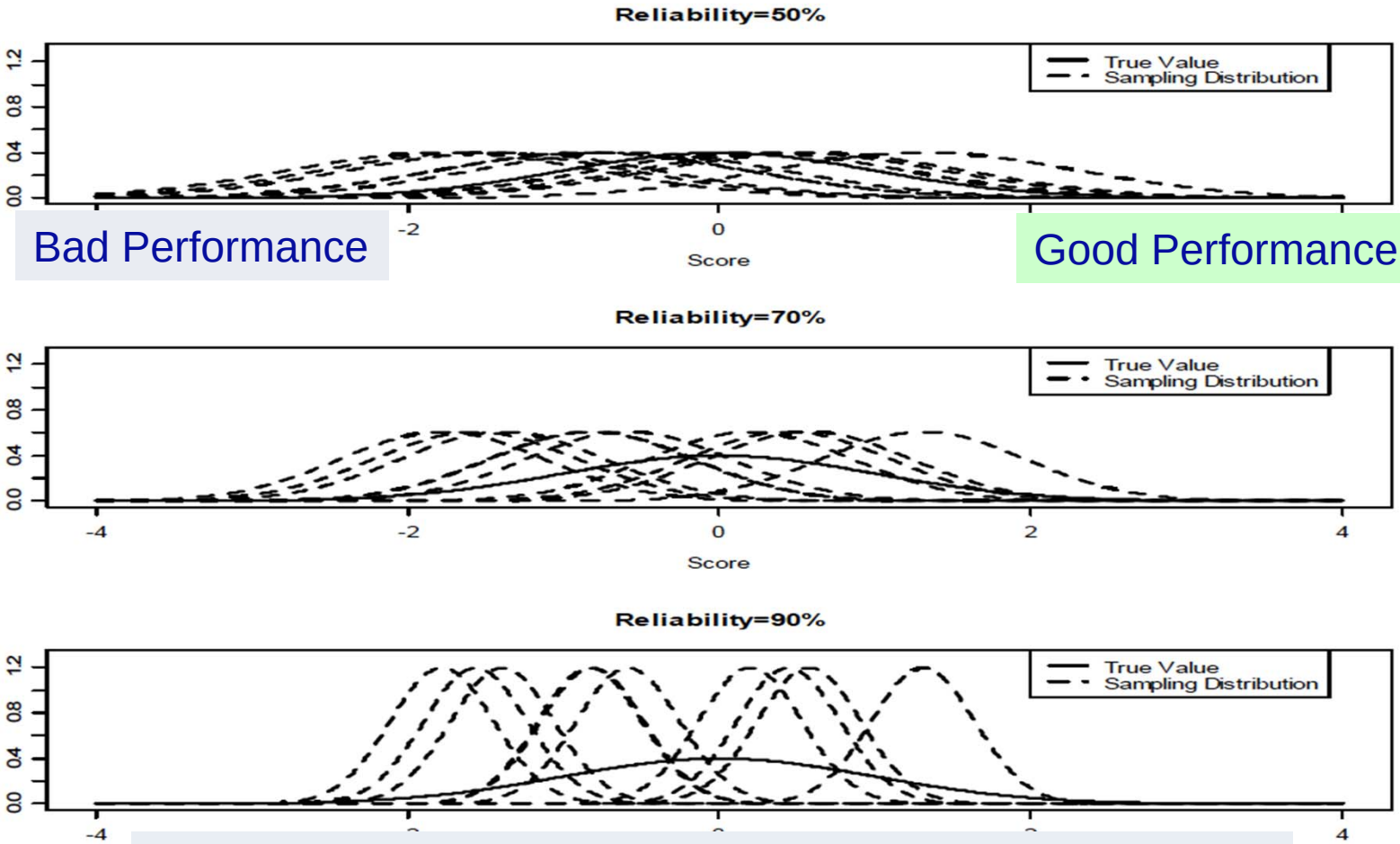
Methodological Rigor

- Comprehensive adjustment for patient severity/risk
  - Validated using split sample method. Demonstrate consistent predictive power
  - Not all variation is explained, nor should it because much of the variation has nothing to do with patient factors
  - No adjustment for socio-economic factors, but we mitigate effect by avoiding co-mingling of datasets such as Medicaid, Medicare and Commercial
- Systematic analysis of reliability of scores
  - Condition by condition, procedure by procedure, a separate reliability score is calculated which yields a specific and required minimum sample size to calculate score
  - Reliability has to be assessed for each dataset analyzed
- Conversion of severity-adjusted PAC rates into Risk-Standardized PAC Rates (RSPR), pegged on a market average of 1
  - We further split the providers into 3 groups, below average (one standard deviation below), above average (one standard deviation above), and average

What is reliability?

- Describes how one can distinguish the performance of one physician from another (or some benchmark)
- Statistically, the ratio of signal (provider's actual performance) to noise (total variance)
  - Values range from 0 to 1 (higher=better reliability)
- Measures a provider's risk of misclassification

Reliability: Signal-to-Noise



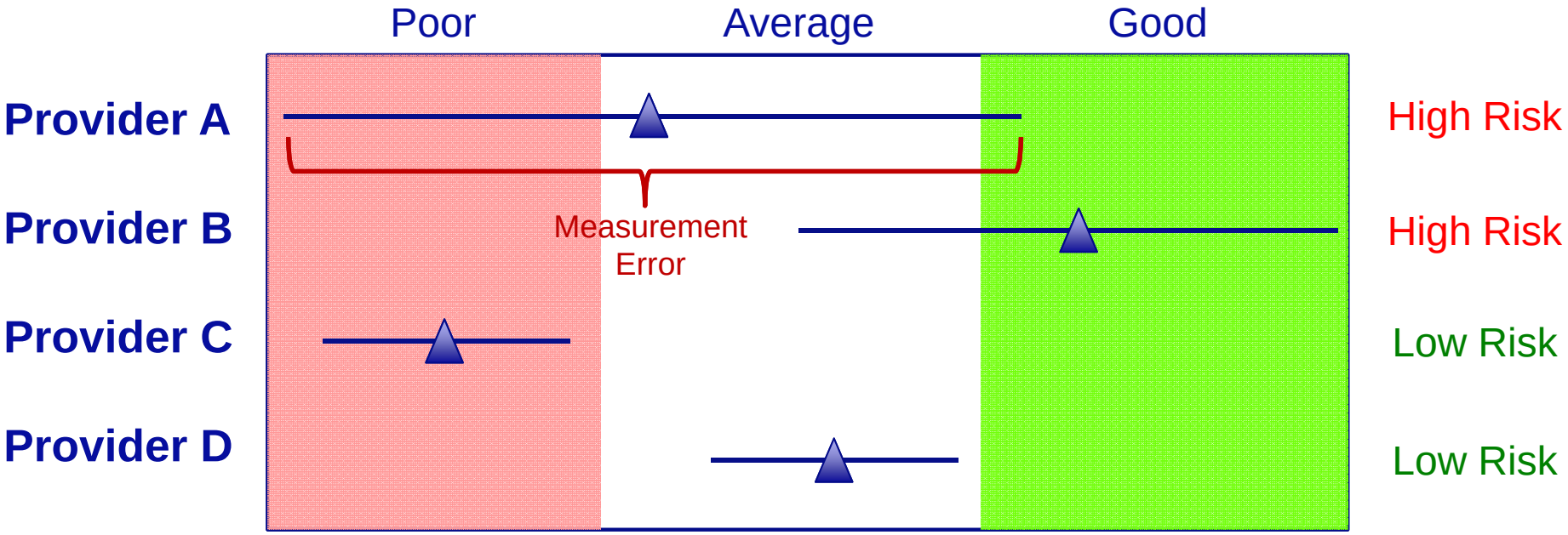
Bad Performance

Good Performance

Measure can distinguish bad providers from good ones

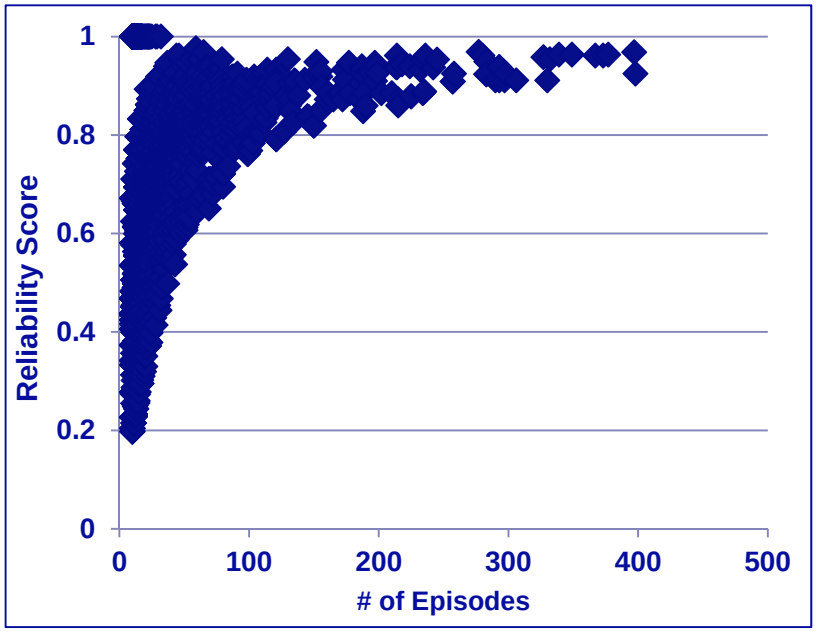
Performance Misclassification

- Reliability measures risk of misclassification
- Being labeled as 'poor' performer when actual performance is 'good' and vice versa

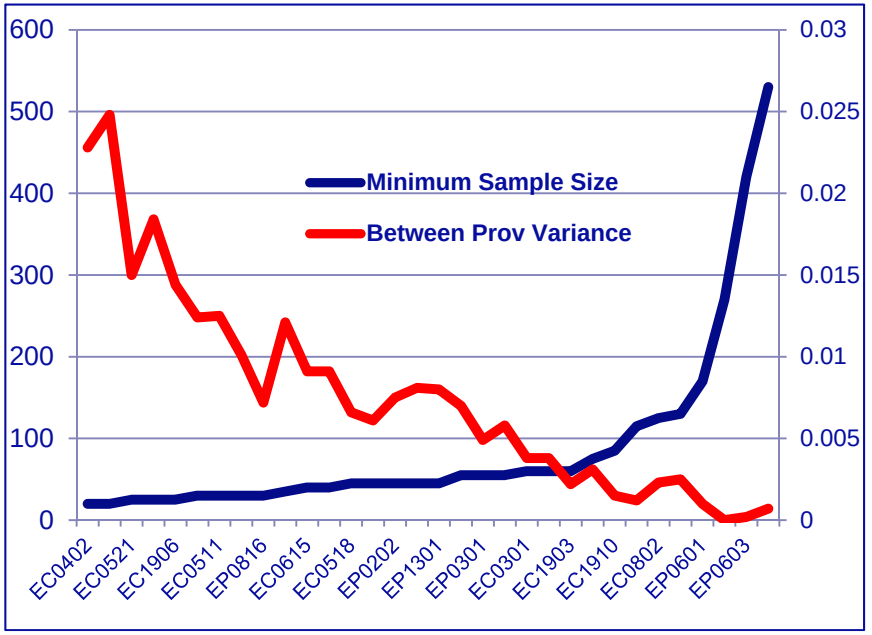


Reliability depends on…

1. Provider's Sample Size



2. Variation in provider performance



$$Reliability = \frac{Variance\_across\_physicians}{Variance\_across\_physicians + Variance\_within\_physicians}$$

Applying Reliability Scores to Reporting Reporting

- Reliability scores can be used to inform the decision about which providers' performance should be reported.
- No hard rules about what constitutes "acceptable" reliability, but generally…
  - Scores >0.70 are considered reliable enough to dinstiguish a provider from the average
  - Scores >0.90 are considered reliable enough to compare individual providers
- HCI3 adopted approach:
  - select the minimum sample size at which all providers have scores >0.70
  - For providers meeting threshold, report performance category (i.e., high, avg, low)
    - +/- 1 standard deviation from average
  - While this sometimes excludes many providers, it ensures that providers with low sample sizes are appropriately protected from being mislabeled as high or low performers.

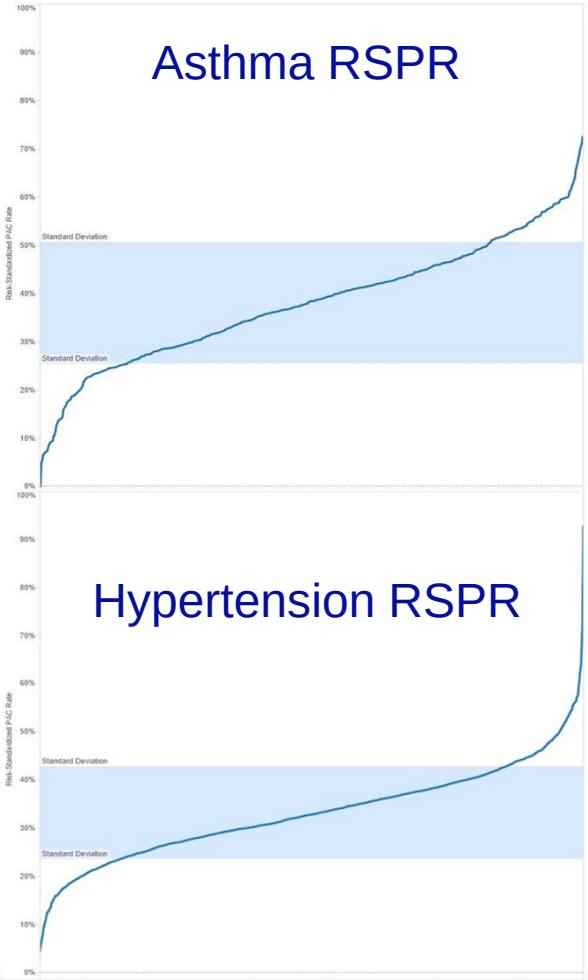
Findings (Part 1)

Episode	Total # of Providers	Overall Reliability		Point at which all scores >=0.70	
		Median	IQR*	# Episodes	% Providers or Facilities
Chronic Conditions					
Asthma	1,231	0.79	0.69 – 0.89	20	50.1%
Hypertension	3,658	0.80	0.68 – 0.89	25	54.0%
CAD	458	0.73	0.62 – 0.83	25	36.5%
Low Back Pain	2,994	0.81	0.64 – 0.96	40	27.7%
Diabetes	1,660	0.73	0.63 – 0.83	25	34.0%
Depression	1,053	0.69	0.57 – 0.81	35	19.8%
Procedures					
PCI	40	0.47	0.28 – 0.62	185	12.5%
Bariatric Surg	47	0.87	0.80 – 0.93	25	80.9%
Knee Arth	374	0.05	0.03 – 0.21	^	0.0%
Lumbar Lam	58	0.50	0.32 – 0.72	80	27.6%

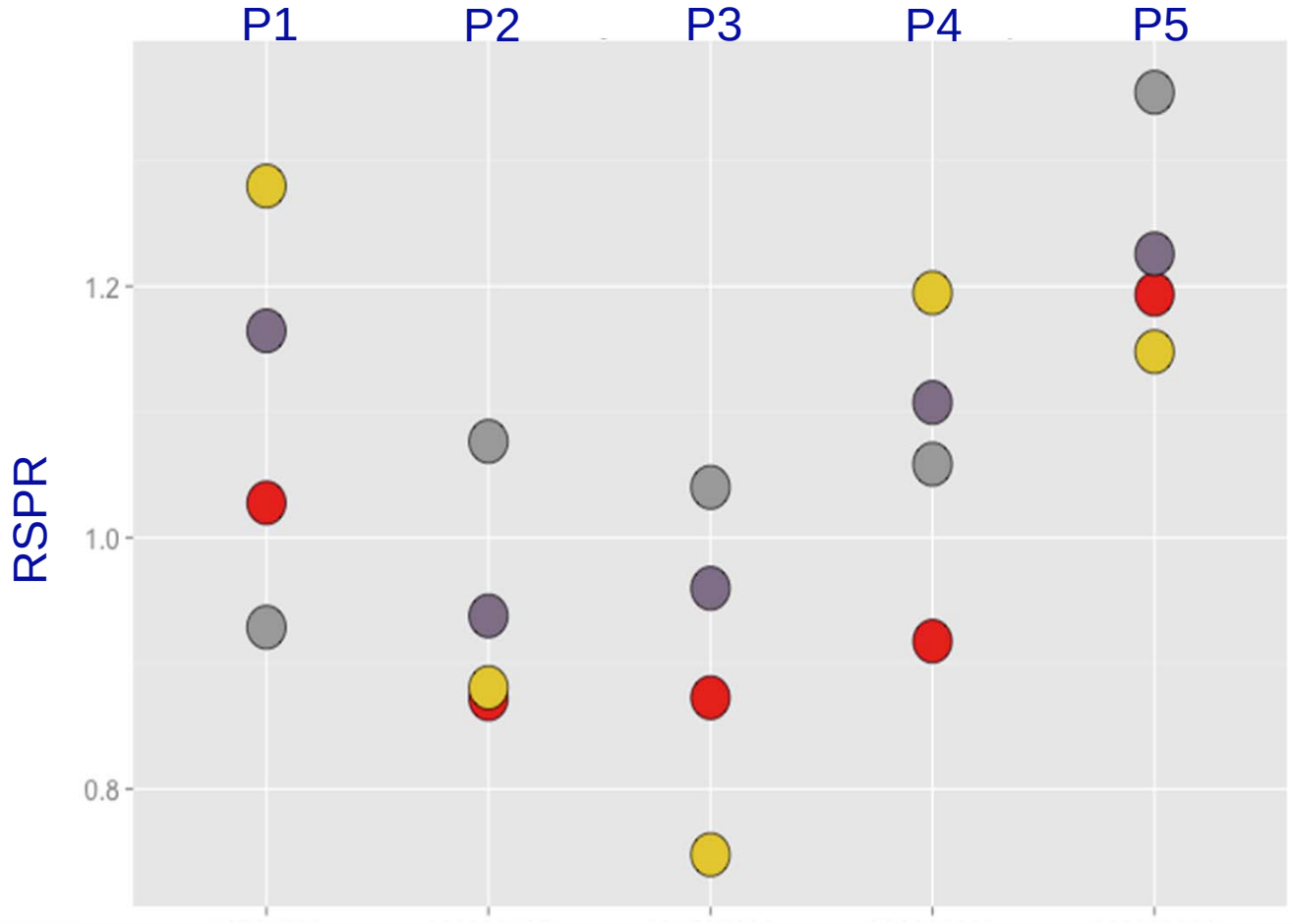
*Inter-quartile range (IQR)

Reliability analysis dictates sample size requirements:

- Not all physicians can be measured on everything
- Not all facilities can be measures on everything
- Not all conditions or procedures can be measured

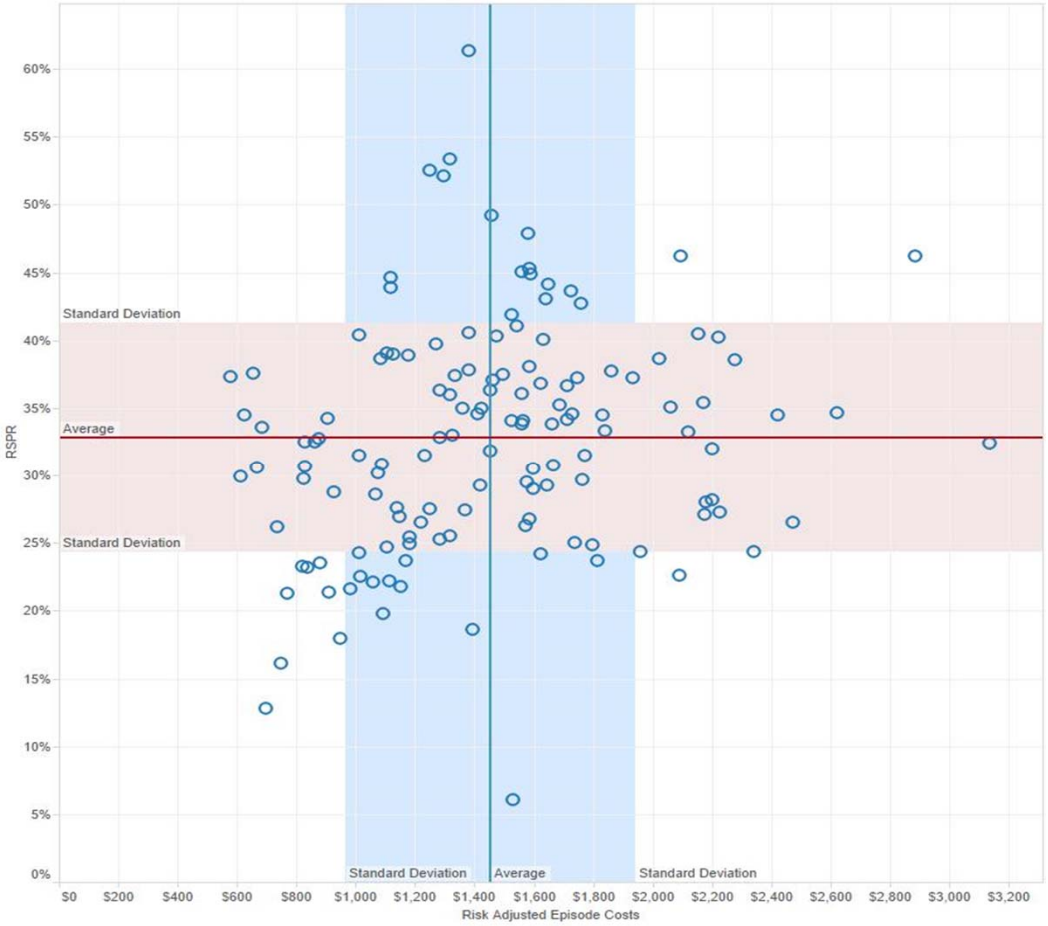


Findings (Part 2)



Not every physician (or facility) is good (or bad) at everything

Tying Quality To Price



- Research by Hibbard & Sofaer has shown that consumers understand the link between complications and costs.
- PAC scores have been focus-grouped tested as useful measures of physician quality
- We plan to release scores for certain states with APCDs when we have the rights to publish results

Policy Implications

- APCDs are key to these measures
  - This raises the stakes for proponents and opponents of APCDs
- Price information can now be linked to quality information on a consistent basis to show the variability in both

Health Care Incentives Improvement Institute (HCI³)
13 Sugar Street, Newtown, CT 06470-2046

info@hci3.org | www.hci3.org

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Designing Costs Transparency Report

Basic Components

1. Web based delivery
2. Web design simplicity
3. Choices of Services – Elective vs Nonelective, Shoppable vs Non-shoppable
4. Bundling of Services
5. Selection controls
    a. Distance (in miles)
    b. Products (POS, PPO, HMO)
    c. Carriers (health insurance companies)
    d. Comparisons (between facilities and/or providers)
6. Description of the service(s) in layman's terms
7. Outcomes – costs and quality by facility and/or provider group
8. Outlier suppressions, median values, removal of incomplete encounters

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Designing Costs Transparency Report

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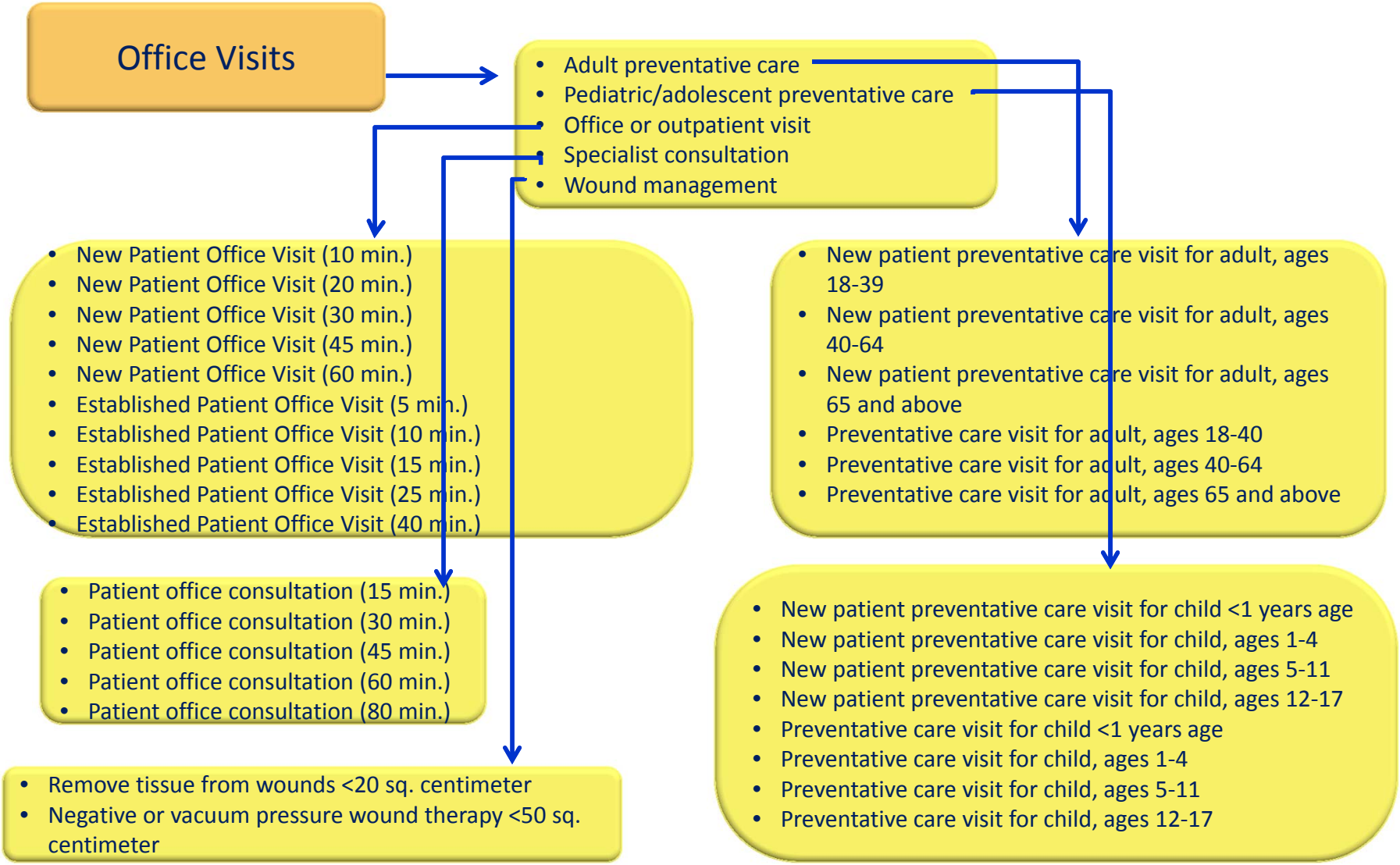
Designing Costs Transparency Report



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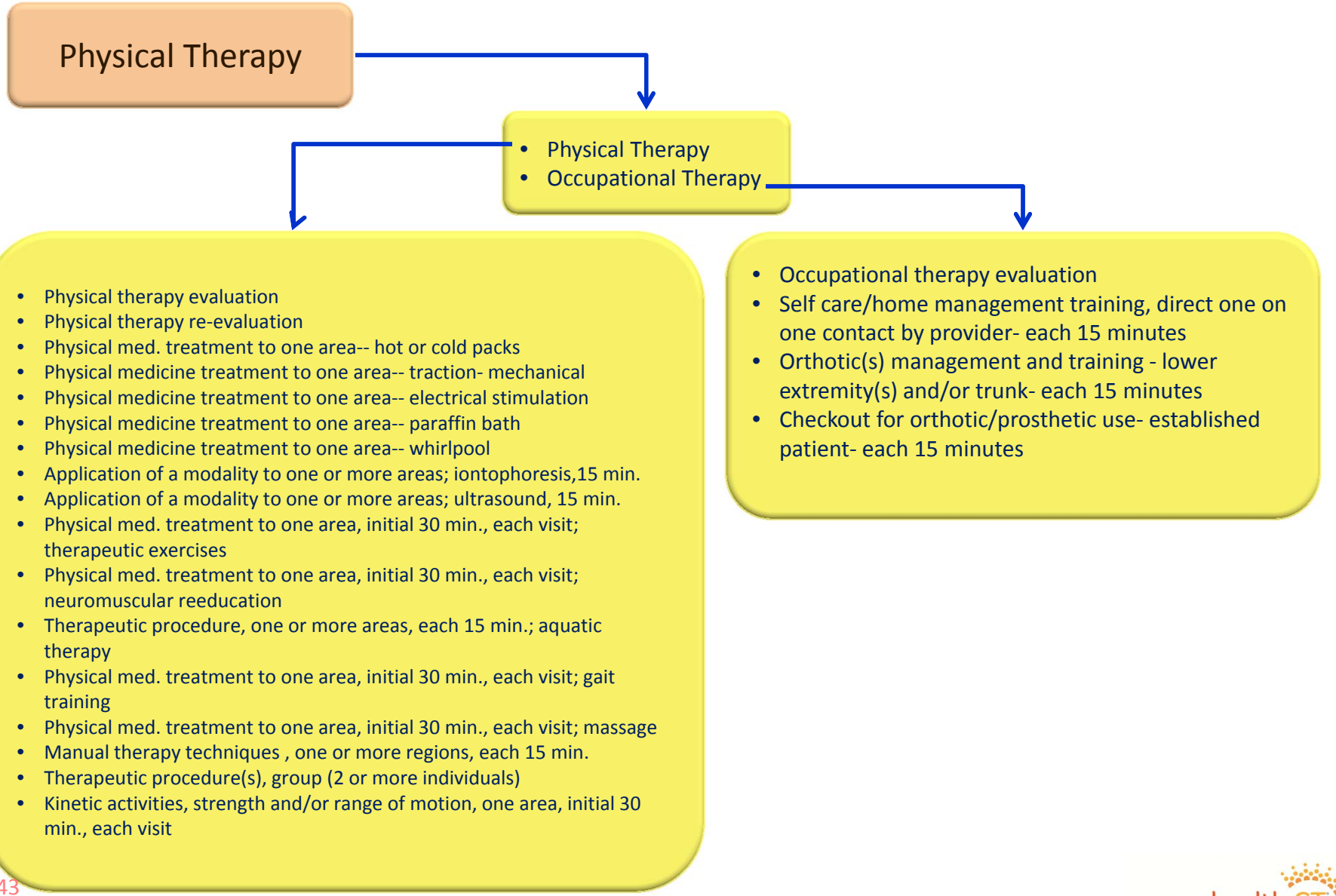

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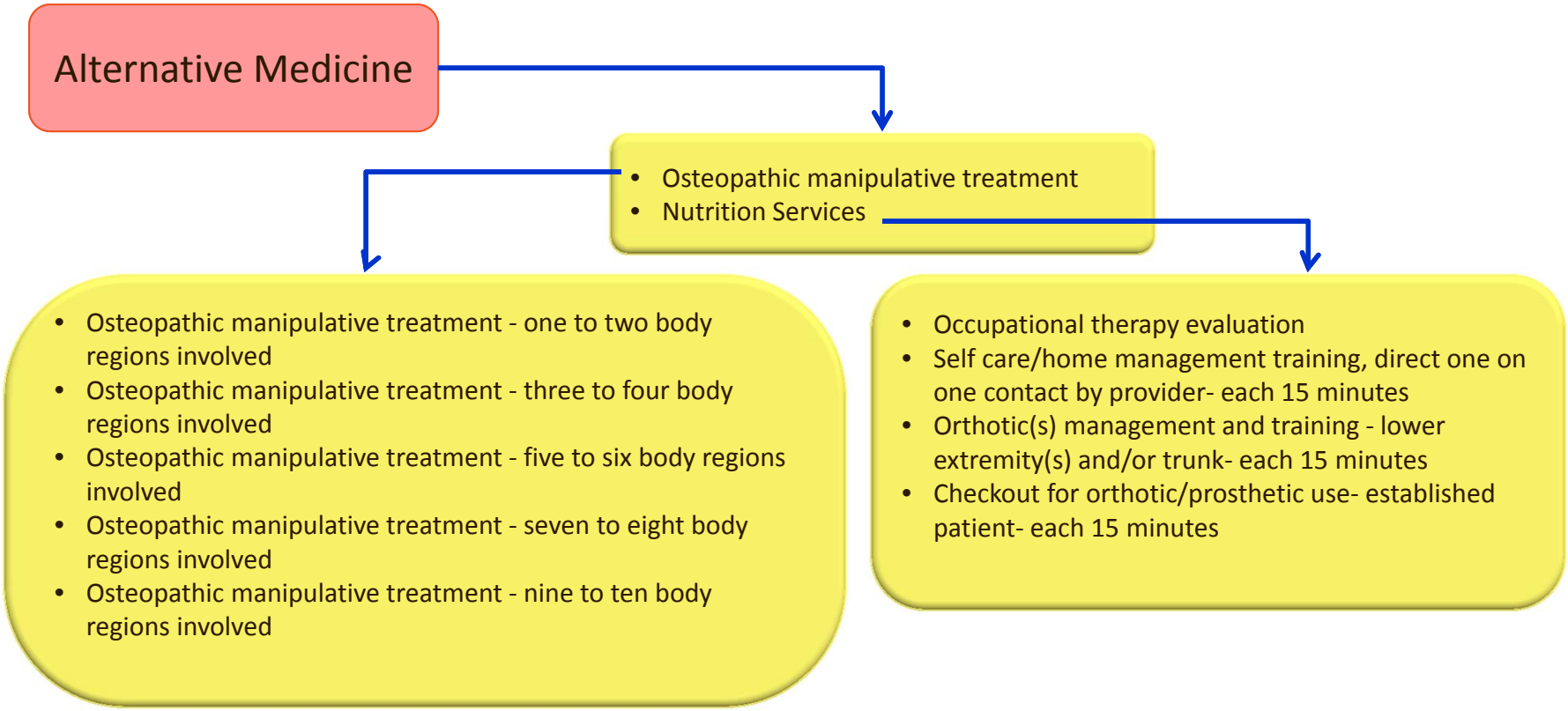

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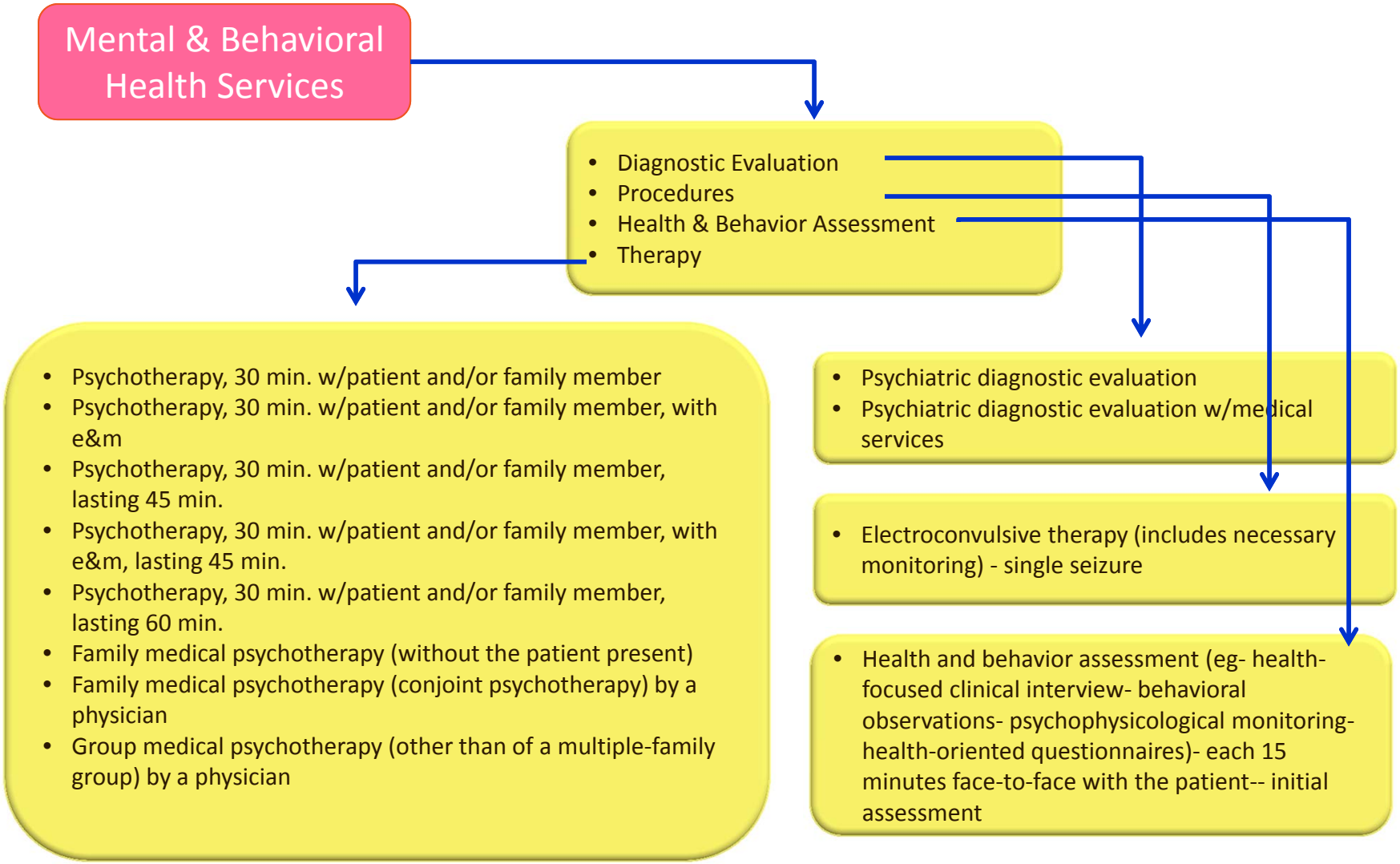

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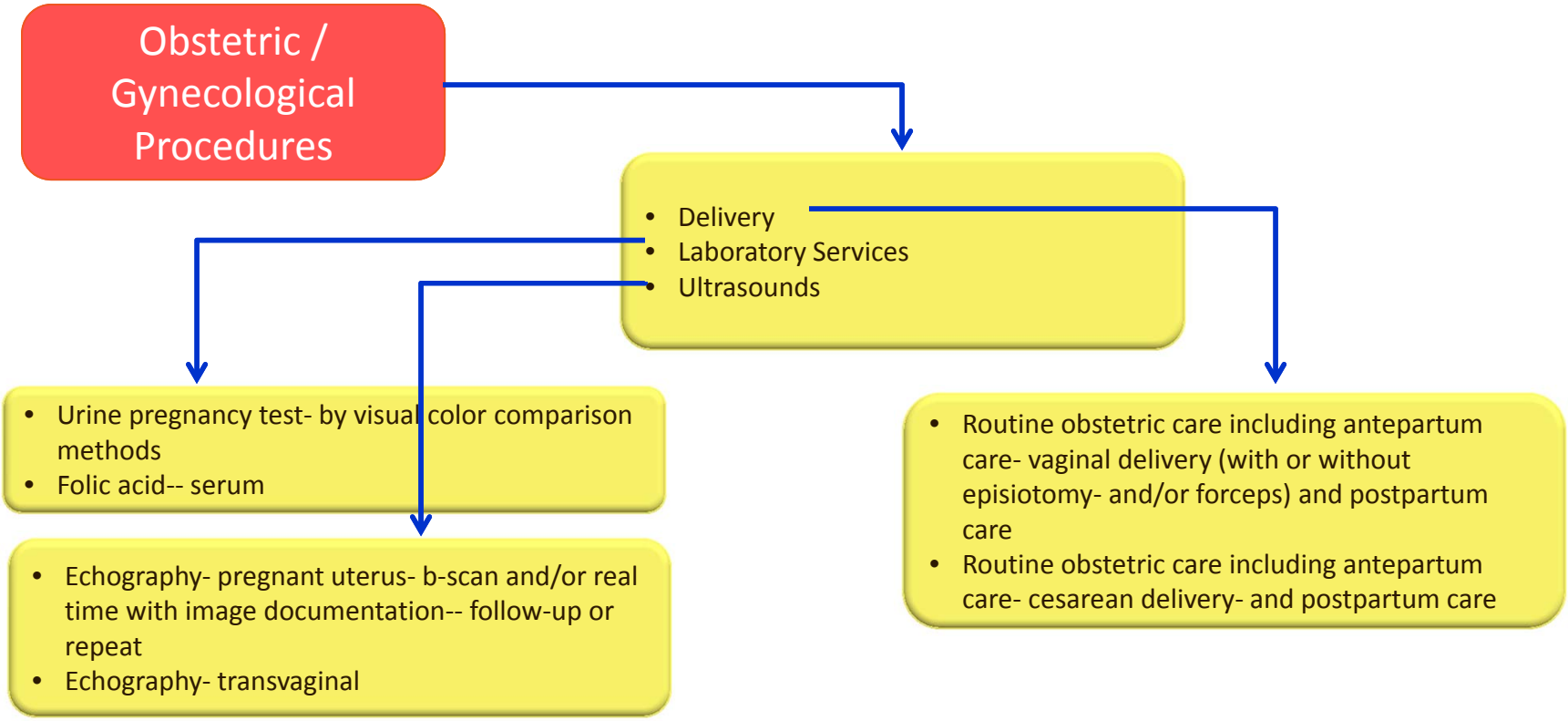

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Designing Costs Transparency Report

Radiology Imaging

- CT (computed tomography) scans
- MRI (magnetic resonance imaging) scans
- Ultrasounds
- X-rays
- Mammograms
- Other imaging procedures

- Echography- breast(s) (unilateral or bilateral - b-scan and/or real time with image documentation
- Echography- abdominal- b-scan and/or real time with image documentation--complete
- Echography- abdominal- b-scan and/or real time with image documentation--limited (e.g. single organ-quadrant- follow-up)
- Echography- pelvic (non-obstetric)- b-scan and/or real time with image documentation-- complete

- Radiologic examination- chest- two views- frontal and lateral--
- Radiologic examination- spine- lumbosacral-- anteroposterior and lateral
- Radiologic examination- shoulder-- complete- minimum of two views
- Radiologic examination- wrist-- complete- minimum of three views
- Radiologic examination- hand-- two views
- Radiologic examination- knee-- anteroposterior and lateral- with oblique(s)- minimum of three views
- Radiologic examination- ankle-- complete- minimum of three views
- Radiologic examination- foot-- anteroposterior and lateral views
- Radiologic examination- foot-- complete- minimum of three views

- CT Scan- head or brain-- without contrast material
- CT Scan- maxillofacial area-- without contrast material
- CT Scan- thorax-- without contrast material
- CT Scan- thorax-- with contrast material(s)
- CT Scan- pelvis-- with contrast material(s)
- CT Scan- abdomen-- without contrast material
- CT Scan- abdomen-- with contrast material(s)
- CT Scan- abdomen-- without and with contrast
- CT Scan of abdomen and pelvis, with contrast
- CT Scan of abdomen and pelvis, without contrast
- CT Scan of abdomen and pelvis, with and without contrast

- MRI- brain (including brain stem)-- without contrast material
- MRI- brain (including brain stem)-- without and with contrast material
- MRI- spinal canal and contents- cervical-- without contrast material
- MRI- spinal canal and contents- lumbar-- without contrast material
- MRI- any joint of upper extremity
- MRI- any joint of lower extremity
- MRI scan of both breasts, with contrast

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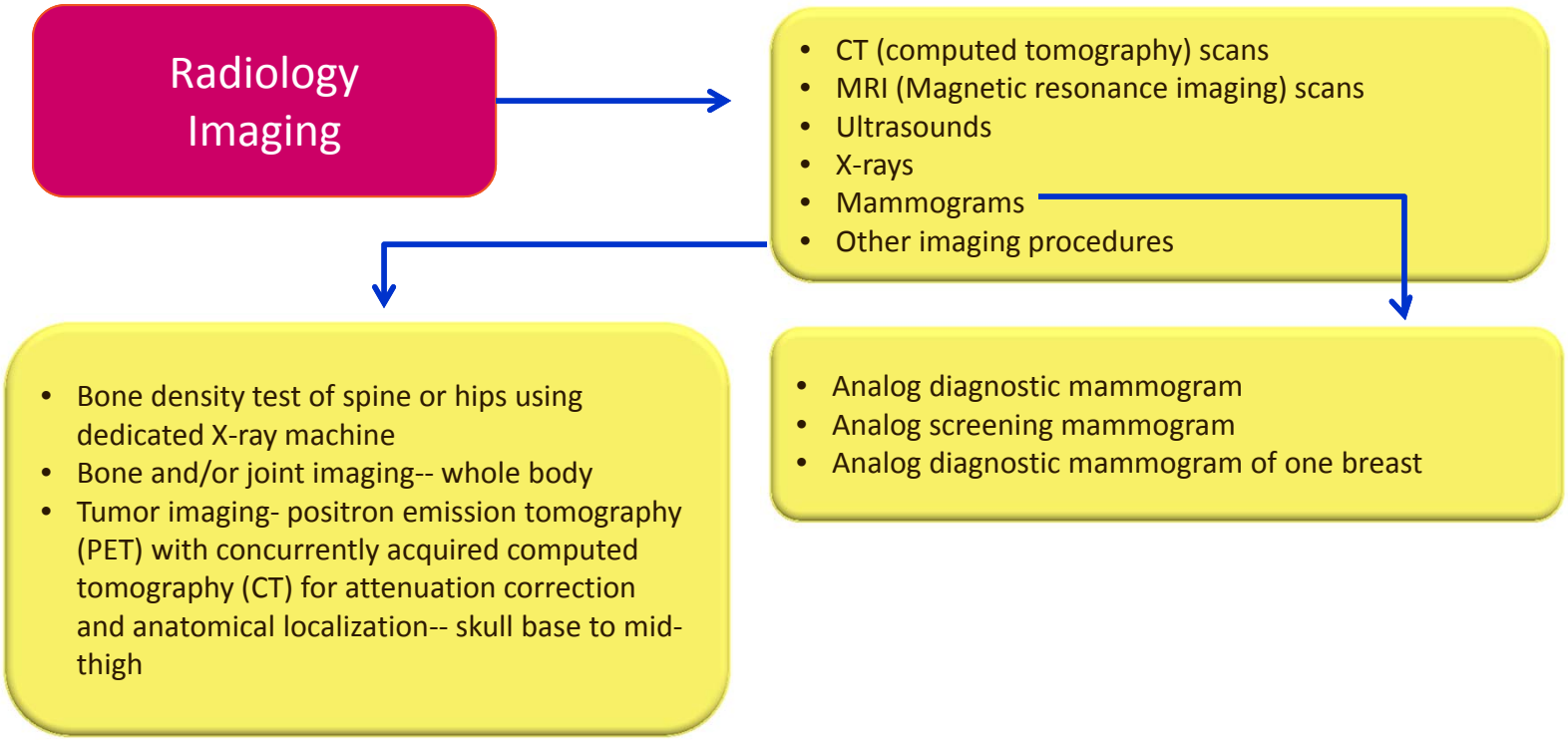

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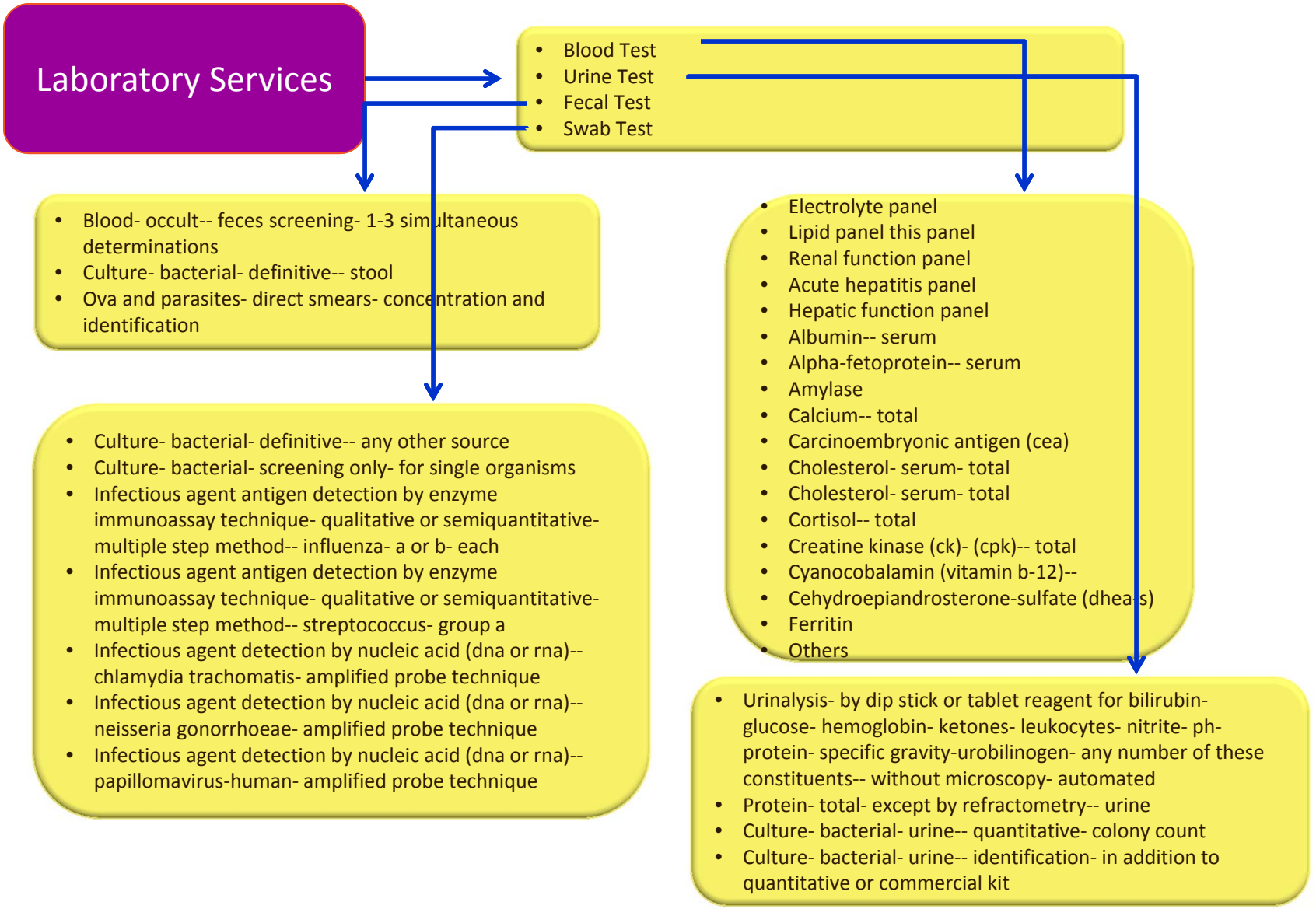

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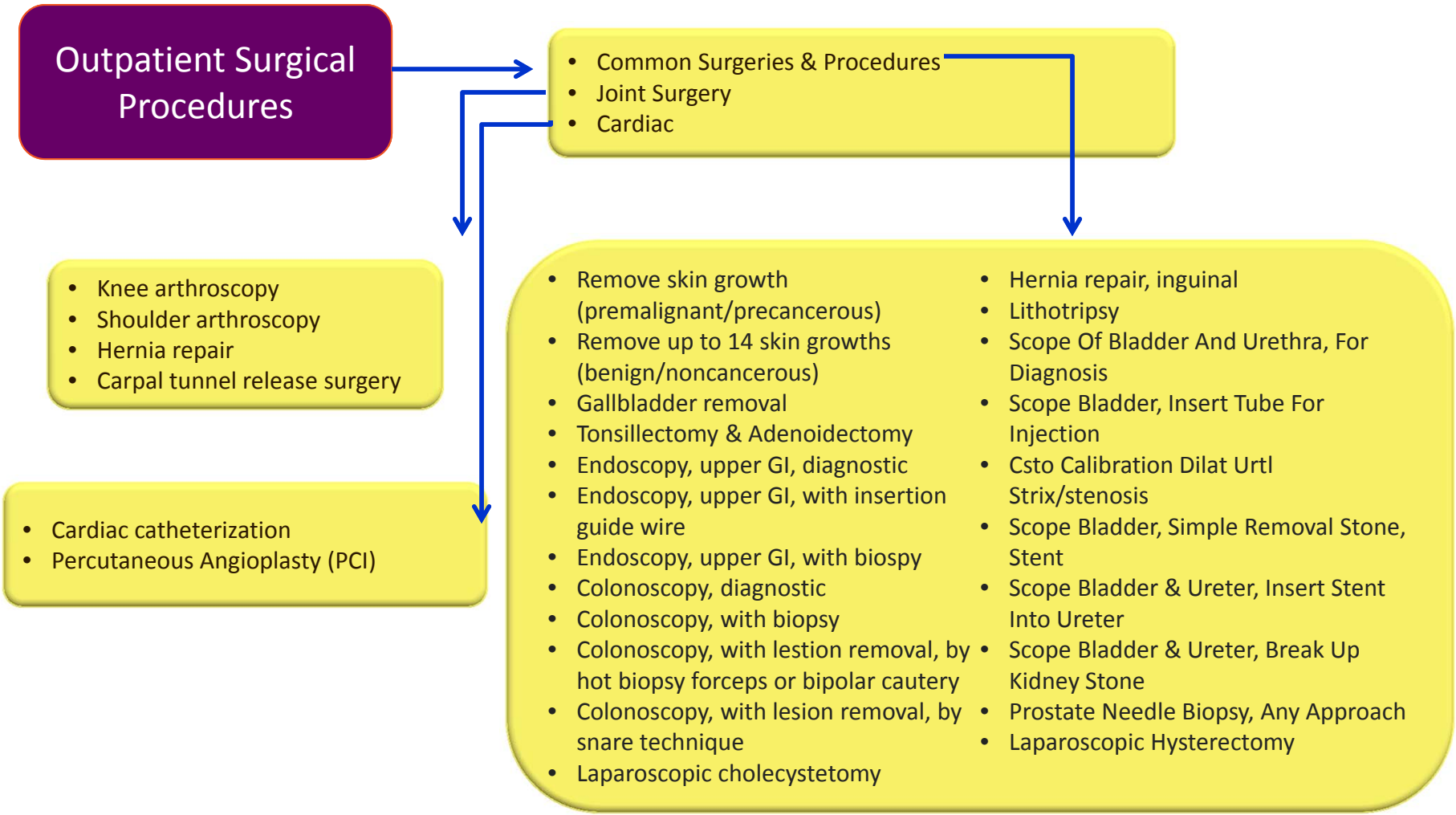

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Designing Costs Transparency Report

Inpatient Surgical Procedures

- Cardiac
- Digestive
- Common Surgeries & Procedures
- Joint Surgeries

- Cesarean Section
- Hysterectomy
- Mastectomy
- Normal Birth
- Prostatectomy
- Weight Loss Surgery

- Percutaneous Carotid Artery Procedures
- Mitral Valve Procedure
- Aortic Valve Procedures
- Coronary Bypass
- PTCA with or without Stent without AMI

- Hip Replacement Procedure
- Hip Prosthesis Revision
- Revision of Knee Replacement Procedure
- Knee Replacement Procedure
- Dorsal & Lumbar Fusion Procedure for Curvature of Back
- Dorsal & Lumbar Fusion Procedure Exec for Curvature of Back
- Lumbar Procedures for Disc Excisions and Related Procedures
- Total and Partial Shoulder Replacement
- Cervical Fusion for Spondylosis and Disc Disease
- Cervical Fusion for Stenosis

- Laparoscopic Procedures for Large Bowel Malignancy
- Resections for Rectal Malignancy
- Bowel Resection Procedures for Non Malignancy
- Laparoscopic Large Bowel Procedures for Diverticula and Vascular Insufficiency
- Laparoscopic Large Bowel Procedures for Intestinal Obstructions and Adhesions
- Major Open Large and Small Bowels Procedures for Malignancy
- Major Open Large Bowel Procedures for Intestinal Obstructions and Adhesions
- Laparoscopic Abdominal Wall Hernia Repair
- Laparoscopic Procedure for Inguinal and Femoral Hernia Procedures
- Open Procedures for Inguinal and Femoral Hernia Repair
- Open Procedures for Cholecystectomy
- Laparoscopic Procedures for Cholecystectomy

Future Meetings

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All Payer Claims Database – 2016 Meetings Schedule

All meetings are held on the second Thursday of every third month from 9:00 – 11:00 a.m. ET (unless otherwise indicated)

Date	Time	Venue
August 11, 2016	9:00 – 11:00 AM	LOB
November 10, 2016	9:00 – 11:00 AM	LOB