APCD Advisory Group

August 12, 2021

OHS
CONNECTICUT
Office of Health Strategy

Agenda

Agenda Item	Time
Welcome and Call to Order	1:00 PM
Public Comment	1:05 PM
Review and Approval of Minutes – May 13, 2021	1:10 PM
APCD Updates	1:15 PM
APCD Data Release Updates	1:20 PM
APCD Denied Claims Data Use Cases	1:30 PM
Denied Claims Collection Discussion	1:45 PM
CT Health Care Benchmarks and Primary Care Target Initiative	2:20 PM
Wrap up and Meeting Adjournment	3:00 PM

OHS
CONNECTICUT
Office of Health Strategy

Welcome and Call to Order

Public Comment

(2 minutes per commenter)

Review and Approval of:
May 13, 2021, Meeting Minutes

APCD Updates

Adrian Texidor, OHS

Updates

- HITO Status
- Medicaid Data
  - Identity Mapping is complete
  - DSS will send Medicaid claims data test file by August 31st
- Medicare DUA
  - Resubmitting DUA 1 Year Extension
- Federal Funding
  - $2.5 Million grant to APCDs. Awaiting guidance from the Federal Department of Labor regarding grant Requirements

APCD Data Types & Years Available

The APCD comprises **medical, pharmacy, ~~dental*~~** and ~~other insurance*~~ claims information from enrollment and eligibility files

Payer Source	Claim Type	Years Available
Commercial** - Fully insured claims - State employees & Retirees - Medicare Advantage (Medical only)	Medical claims Pharmacy claims	1/1/2012 – 03/31/2021
Medicaid	Medical claims Pharmacy claims	1/1/2012 – 9/30/2020
Medicare	Medical claims Pharmacy claims	1/1/2012- 12/31/2019 1/1/2012 – 12/31/2018

* Collection yet to begin

**Anthem, Aetna, Cigna East, Cigna West, ConnectiCare, United Healthcare, HealthyCT, Harvard Pilgrim, Optum Health, Oxford, WellCare Health, eviCORE Healthcare, Express Scripts, Caremark

Reporting threshold – 3,000 members

OHS CONNECTICUT
Office of Health Strategy

APCD Data Requests Pending - Update

DRC Approved Data Extracts & Aggregate

1. Archway Health Advisors -Identifying best performing providers for developing an episode payment market in Connecticut
2. UConn School of Medicine – Opioid prescribing and its consequences
3. UConn School of Medicine—Novel Risk Score for Suicide Readmissions

OHS & State Initiated Projects

1. Rand 4.0 Employer initiated study update

* Data Drop Complete

OHS
CONNECTICUT
Office of Health Strategy

APCD Data Release Committee Update

Dr. Patricia Checko

APCD Data Release Committee Updates

- APCD DRC Survey
- APCD DRC Application Review Committee

OHS
CONNECTICUT
Office of Health Strategy

APCD Denied Claims Use Cases

Olga Armah, OHS

OHS
CONNECTICUT
Office *of* Health Strategy

Summary of Discussions of Denied Claims Data

- Initial discussions by APCD Policy and Procedure Enhancement Subcommittee at May 8th and July 17, 2014 meetings
- Considerations in preparation for informed future deliberations
  - Carrier perspective - Focus on APCD development as priority, paid claims collection, and actionable data
  - Consumer-facing reports with practical cost and quality could be obtained with denied claims
  - Deliberations of denied claims useability reviewed from consumer, provider, researcher and policy perspective
  - Denied claims could support denial reasons to help educate consumers and focus health care system deficiencies that affect different stakeholders
- Next step also was to identify additional stakeholders such as consumer groups for their perspective of denied claims issue, possibly include racial/ethnic groups and Department of Public Health's perspective
- At Advisory Body February 13, 2020:
  - Feedback from OHS on discussions with other states revealed:
    - Most are asking for denied mainly to obtain a complete picture of service availability and accessibility
    - Denied claims may be used to access their impact on risk grouping
  - Members indicated they are critical to show how people are using their health insurance coverage
  - Denied claims will provide information on cost to consumers as they become out of pocket payments and payments
  - What services are needed that are not being addressed by carriers or legislation i.e., blind spots
  - Accessing if the underlying services are relevant to an analysis
  - To identify if the denials are due to benefit limits

OHS
CONNECTICUT
Office of Health Strategy

Denied Claims Use Case #1

- Since January 1, 2007, Medicare has been paying for BMM services for dual-energy x-ray absorptiometry (CPT code 77080) procedure used to monitor osteoporosis drug therapy.
- New CPTs have also been assigned to BMMs.
- In Connecticut, using this code and other available information showed Payer E had a denial rate of 33% in an 18-month period, while Payer A, Payer B, and Payer D had rates below 5% for a selection of Connecticut physicians during this time period.

    Denial rate for Payer E was **6 times** higher than the three other payers

- This example highlights the variation in insurers' interpretation of medical necessity in the context of this diagnostic study.
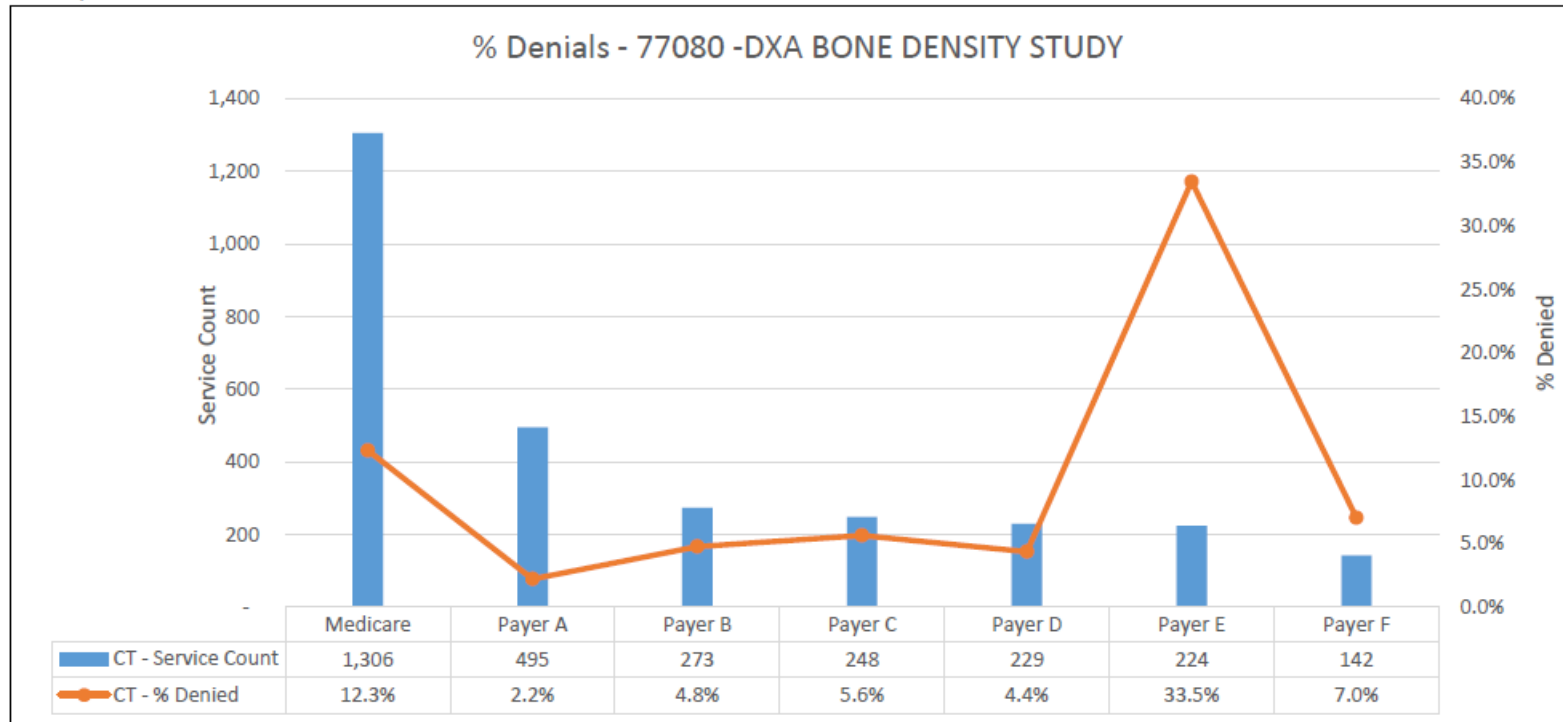
If a patient had needed this procedure due to their personal and family history of bone mass loss, this data in combination with other information would support the patient's ability to make an informed decision.

OHS
CONNECTICUT
Office of Health Strategy

Variation in insurers' interpretation of medical necessity

Case #1: % Denied Claims for DXA Bone Density Scan[1,2]
Service Count/% Denied by Masked Payer
Time Span: 5/1/2012 – 11/1/2013

% Denials - 77080 -DXA BONE DENSITY STUDY

	Medicare	Payer A	Payer B	Payer C	Payer D	Payer E	Payer F
CT - Service Count	1,306	495	273	248	229	224	142
CT - % Denied	12.3%	2.2%	4.8%	5.6%	4.4%	33.5%	7.0%

1) Source: MDEdge
2) Claims and denial information derived from a repository containing information for approximately 5% of physicians in CT and for more than 5,700 physicians across NY, NJ, MA and CT

OHS
CONNECTICUT
Office of Health Strategy

Source: https://agency.accesshealthct.com/wp-content/uploads/2016/12/Presentation_Cases_APCD-PP-Enhancements-20140505-1.pdf

Use Case #2

- In Connecticut, a simple X-ray exam of the foot was denied by Payer J by nearly 60%, while the rates for Payer C, Payer B and Payer D were below 2.5%.
- If a patient needs an X-ray exam due to foot injury, this information may be used to support coverage for the service of a general case of inquiry, rather than tied to a particular condition, chronic or otherwise
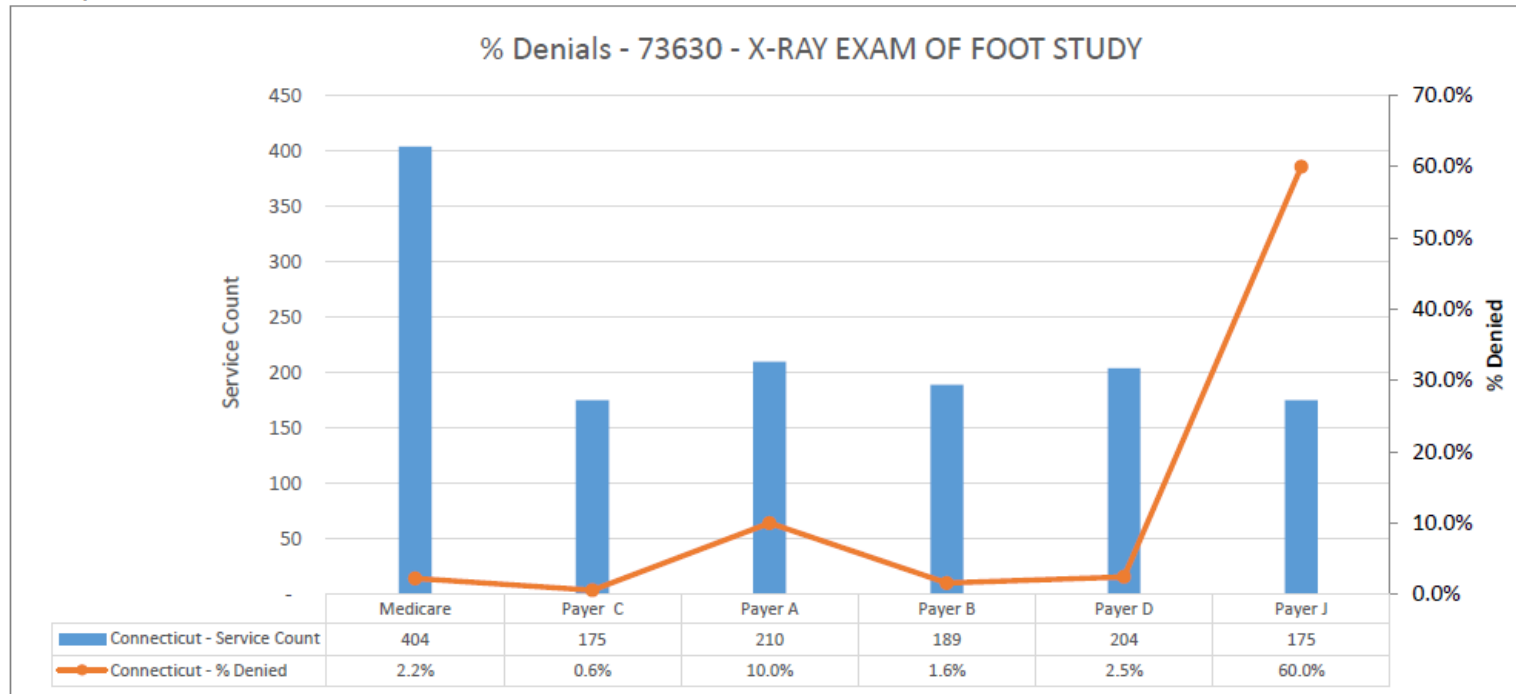- This demonstrate profound differences in denial rates by insurer by service/procedure (CPT code).

OHS
CONNECTICUT
Office of Health Strategy

Denial rates among insurer by service/procedure (CPT code)

Use Case #2: % Denied Claims for X-Ray Exam of Foot[1,2]

Service Count/% Denied by Masked Payer

Time Span: 5/1/2012 – 11/1/2013

% Denials - 73630 - X-RAY EXAM OF FOOT STUDY

	Medicare	Payer C	Payer A	Payer B	Payer D	Payer J
Connecticut - Service Count	404	175	210	189	204	175
Connecticut - % Denied	2.2%	0.6%	10.0%	1.6%	2.5%	60.0%

1) Source: MDEdge
2) Claims and denial information derived from a repository containing information for approximately 5% of physicians in CT and for more than 5,700 physicians across NY, NJ, MA and CT

OHS CONNECTICUT
Office of Health Strategy

Use Case #3: To inform individuals' health plan choice decision-making

- Jane is a 40 year old independent IT consultant who directly purchases health insurance and is evaluating multiple insurance companies and plans.
- Jane has a family history of colorectal cancer and therefore needs frequent colonoscopies
- She wants to know which insurers may more often deny the medically necessary diagnostic procedure.
- She would like additional information through her assessment to demonstrate the importance of having an early colonoscopy.
- She asks "Is there any place this information is available?" If Connecticut were to maintain claim data on denied medical services and procedures, frequency of denial, which insurers denied the procedure more often, and other relevant data, Jane would have a wealth of information to inform the decision on which insurance company or plan would be best for her.

OHS
CONNECTICUT
Office of Health Strategy

Use Case #4: To inform doctors and patients on financial risk of a procedure

- A patient sees a doctor who orders an expensive diagnostic procedure.
- The insurance company has not published its denial rules and the doctor is unaware that the claim for the already provided procedure will be denied.
- More than two weeks after the diagnostic procedure is completed the insurance company denies the doctor's claim.
- When the doctor informs the patient that he is financially liable, the patient is upset and confused and asks repeatedly,
  - "Why couldn't someone tell me there was a substantial risk that the insurance company would deny the procedure?
  - Is this a common thing that happens?
  - Which insurance company in Connecticut would pay for the procedure, so I can determine if I need to change insurance companies?"

OHS
CONNECTICUT
Office of Health Strategy

Use Case #5: To inform employers plans purchasing decision

- Ruth is the Human Resources manager for a CT small employer and is reviewing their insurance coverage.

- They are a tight knit group and have just lost one of the staff to cancer which has made the staff keenly aware of cancer screening.

- Being a small company, she is using an Insurance Broker to help her evaluate insurance companies and plans.

- While she likes her broker, she is also aware that insurance companies compensate brokers based on volume, which can bias their recommendations. She asks "Is there anywhere that I can independently research how often insurance companies are denying cancer screenings?

OHS CONNECTICUT
Office of Health Strategy

APCD Denied Claims Data Collection

Wesley Davie, Onpoint
Jesse Drummond, Onpoint

Denied Claims in the CT APCD

- Denials are received for only the following scenarios:
  - Adjustments to claims that have been paid previously
  - Partially denied claims
- Denial codes are not reported consistently across payers
  - Local codes and descriptions vs. standard X12 Claim Adjustment Reason Codes (CARCs) and Remittance Advice Reason Codes (RARCs)
    - Grouping denial codes is cumbersome
    - Analysis and research will be difficult

Adjustment Code Definitions

Code Set	Name	Description	Type	Number of Codes
CAGCs	Claim Adjustment Group Codes	These are payment adjustment categories.	Standard	4
CARCs	Claim Adjustment Reason Codes	These codes identify the reason for the positive or negative financial adjustment.	Standard	291
RARCs	Remittance Advice Remark Codes	These codes provide additional information for adjustments.	Standard	<1,000
Local	Submitter-specific codes	These are submitters' internal, proprietary codes.	Non-Standard	<36,500

Additional detail: https://x12.org/codes/claim-adjustment-reason-codes

*CARCs preferred standard

OHS
CONNECTICUT
Office of Health Strategy

Adjustment Code Example

CAGC	CAGC Description	CARC	CARC Description	RARC	RARC Description
PI	Payer initiated reduction	4	The procedure code is inconsistent with the modifier used.	M20	Missing/incomplete/invalid HCPCS.
				MA130	Your claim contains incomplete and/or invalid information, and no appeal rights are afforded because the claim is unprocessable. Please submit a new claim with the complete/correct information.
				N56	Procedure code billed is not correct/valid for the services billed or the date of service billed.
				N517	Resubmit a new claim with the requested information.
				N519	Invalid combination of HCPCS modifiers.

Denial Data in CT APCD

- In 2018, there were more than 3,366,700 claims with reported denial codes
  - Only 5,305 (<1%) claims had standard codes
    - 45 distinct codes
  - 3,361,405 claims had codes that were non-standard
    - 2,151 distinct denial codes
- Denied claim line reason descriptions
  - 1,904 distinct descriptions

Option 1: CARCs

- Follow the APCD Council's Common Data Layout (APCD-CDL™) specifications for the Claim Adjustment Reason Code field (CDLMC159)
  - "Report the claim adjustment reason code. If CDLMC158 = 1, report the code that defines the reason for the denial of the claim line. If not available leave blank. Reason codes are maintained by ANSI ASC X12." (Note that CDLMC158 = Denied Claim Line Indicator.)
- Using standard X12 codes will make it easier to group denials by type
  - 291 distinct CARCs

OHS
CONNECTICUT
Office of Health Strategy

Option 2 – Crosswalk Tables

- Submitters submit crosswalk tables used to map their local codes to X12 codes
  - These will need to be updated as new codes are added
- This will be much more labor intensive for Onpoint and submitters
- Factors that will impact the cost associated with this option:
  - Dependent on the number of crosswalks that will need to be mapped
  - Increase in claim volume and number of files received monthly
  - Once requirements are finalized, a cost proposal can be provided

Technical Changes

- Update the Onpoint CDM submission portal
- Update validation and data quality checks
- Update reference tables
- Update extract layouts
- Update documentation (e.g., data submission guide, data dictionary)
- Provide submitter training
- Cost for this work will be based on finalized requirements
  - Cost also will be dependent on the increase in claim volume and the number of files received monthly

Recommendations

- Submission of CARCs
  - Less labor intensive for Onpoint and submitters
  - More cost effective
    - No ongoing costs
    - No need to update crosswalks on an ongoing basis
    - Consistent schedule for updates
  - Receipt of standardized codes
    - Updated less frequently
    - Adheres to national industry standards
    - Included in APCD-CDL™ standards

OHS
CONNECTICUT
Office of Health Strategy

Next Steps

- Consider denied claims use cases, collection options and cost implications

- What additional information is needed to decide path forward

- Provide feedback before December meeting via email to Tina.Kumar@ct.gov by ***Friday, October 22nd, 2021***.

- Further discussion and possible decision making about collection at ***November 4th,2021*** meeting

CT Health Care Benchmarks & Primary Care Target

Olga Armah, OHS

Governor Lamont's Executive Order #5 Directs Connecticut's Office of Health Strategy to:

1. Develop annual **healthcare cost growth benchmarks** by December 2020 for CY 2021-2025.

2. Set **targets for increased primary care spending** as a percentage of total healthcare spending to reach 10% by 2025.

3. Develop **quality benchmarks** across all public and private payers beginning in 2022, including clinical quality measures, over/under utilization measures, and patient safety measures.

4. Monitor and report annually on healthcare spending growth across public and private payers.

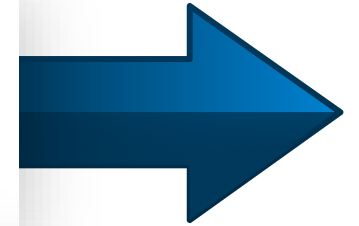5. Monitor accountable care organizations and the adoption of alternative payment models.

OHS CONNECTICUT
Office of Health Strategy

Connecticut's Executive Order #5

1 Cost Growth Benchmark — Recommendations for a cost growth benchmark that covers all payers and all populations for 2021-2025.
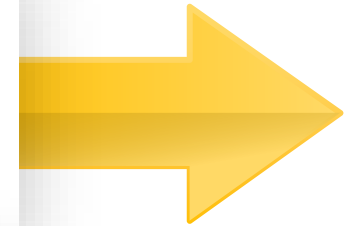
2 Primary Care Spend Target — Recommendations for getting to a 10% primary care spend as a share of total healthcare expenditures by CY 2025, applied to all payers and populations.
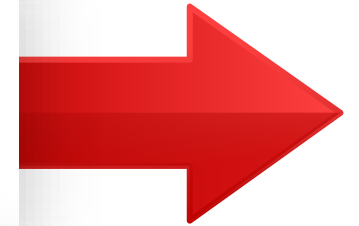
3 Data Use Strategy — A complementary strategy that leverages the state's APCD, and potentially other sources, to analyze cost and cost growth drivers, and more.

4 Quality Benchmarks — Recommendations for quality benchmarks applied to all public and private payers, effective 2022.

OHS
CONNECTICUT
Office of Health Strategy

OHS' Policy Development Process

- A **Technical Team** consisting of 10 state agency executives and outside stakeholders, and excluding insurers and large health systems, has functioned as the primary advisory body to OHS.

- A **Stakeholder Advisory Board** representing a broad range of stakeholders, including 24 consumers, employers, insurers, providers, labor representatives, community funders and consumer advocates, has responded to draft recommendations, and provided feedback for Technical Team consideration.

- Multiple additional meetings and presentations were conducted with stakeholder groups.

Technical Team Members

- **Rebecca Andrews –** American College of Physicians CT
- **Zack Cooper –** Yale University
- **Judy Dowd –** Office of Policy and Management
- **Paul Grady –** Connecticut Business Group on Health
- **Angela Harris –** Phillips Metropolitan CME Church
- **Paul Lombardo –** Insurance Department
- **Pat Baker –** Connecticut Health Foundation (retired)
- **Luis Perez –** Mental Health Connecticut
- **Rae-Ellen Roy –** Office of the State Comptroller
- **Vicki Veltri –** Office of Health Strategy

The Technical Team met 11 times between March and September 2020. Public comment was invited at each meeting.

OHS
CONNECTICUT
Office of Health Strategy

36

Stakeholder Advisory Board Members

- **Vicki Veltri –** Office of Health Strategy
- **Reginald Eadie –** Trinity Health of NE
- **Kathy Silard –** Stamford Health
- **Janice Henry –** Anthem BCBS of CT
- **Rob Kosior -** ConnectiCare
- **Richard Searles –** Merritt Healthcare Sol.
- **Ken Lalime -** CHCACT
- **Margaret Flinter –** Community Health Ctr
- **Karen Gee –** OptumCare Network of CT
- **Marie Smith –** UConn School of Pharmacy
- **Tekisha Everette –** Health Equity Solutions
- **Pareesa Charmchi Goodwin –** CT Oral Health Initiative

- **Howard Forman –** Yale University
- **Nancy Yedlin –** Donaghue Foundation
- **Fiona Mohring –** Stanley Black and Decker
- **Lori Pasqualini –** Ability Beyond
- **Sal Luciano –** CT AFL-CIO
- **Hector Glynn –** The Village for Fam & Children
- **Rick Melita –** SEIU CT State Council
- **Ted Doolittle –** Office of the Healthcare Adv
- **Susan Millerick -** patient representative
- **Kristen Whitney-Daniels -** patient representative
- **Jonathan Gonzalez-Cruz -** patient representative
- **Jill Zorn -** Universal Health Care Foundation

The Stakeholder Advisory Board met 6 times between March and September 2020.
Public comment was invited at each meeting.

OHS
CONNECTICUT
Office of Health Strategy

Cost Growth Benchmark: Recommendation

- The Technical Team has tentatively recommended cost growth benchmarks for the five years, using a **20/80 weighting of projected CT Potential Gross State Product and CT Median Income**. The resulting value of the benchmark would be **2.9%**.

- The Technical Team recommended increasing the benchmark value for the first two years, before settling at 2.9% for the latter years.

  - 2021: 3.4% (Base Value **+ 0.5%**)

  - 2022: 3.2% (Base Value **+ 0.3%**)

  - 2023 – 2025: 2.9% (Base Value)

OHS
CONNECTICUT
Office of Health Strategy

Primary care target: setting the target

- The Technical Team recommended deferring setting targets for 2022-2024 to an OHS-convened Work Group focused on primary care after baseline payer-reported data are available.

5.2% pts to reach target

CT spending **4.8%**

target **10%**

0%   1%   2%   3%   4%   5%   6%   7%   8%   9%   10%

OHS CONNECTICUT
Office of Health Strategy
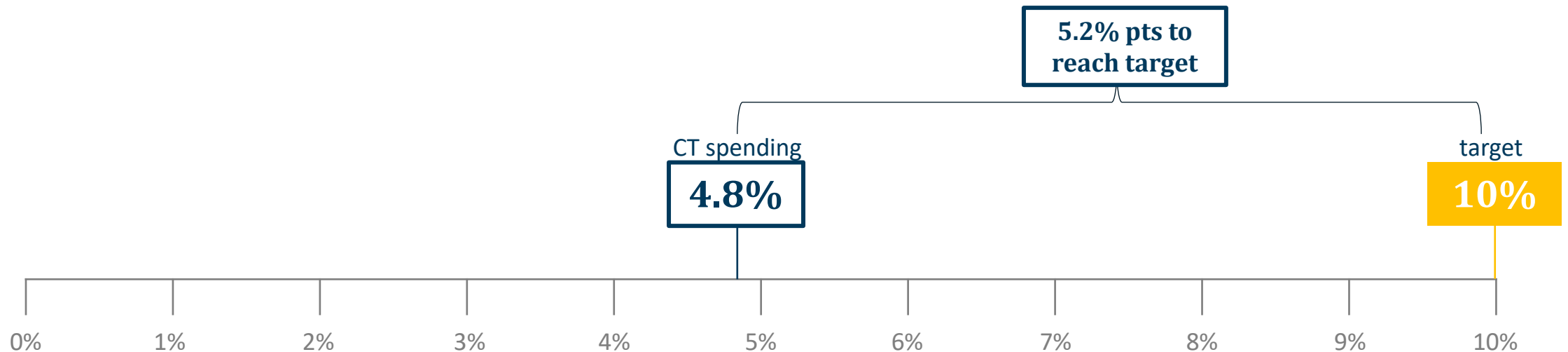
Data For Measuring Benchmarks and Primary Care Target

The Technical Team recommended that aggregate spending data be **collected from payers** because the APCD lacks self-insured data, non-claims-based payments, and drug rebate data. This is the approach that has been taken by all other states.

Cost Growth Benchmark Reporting Levels

As in DE, MA, OR and RI, performance against the cost growth benchmark will be reported at four levels:

1. State
2. Market
3. Insurer
4. Provider Entity
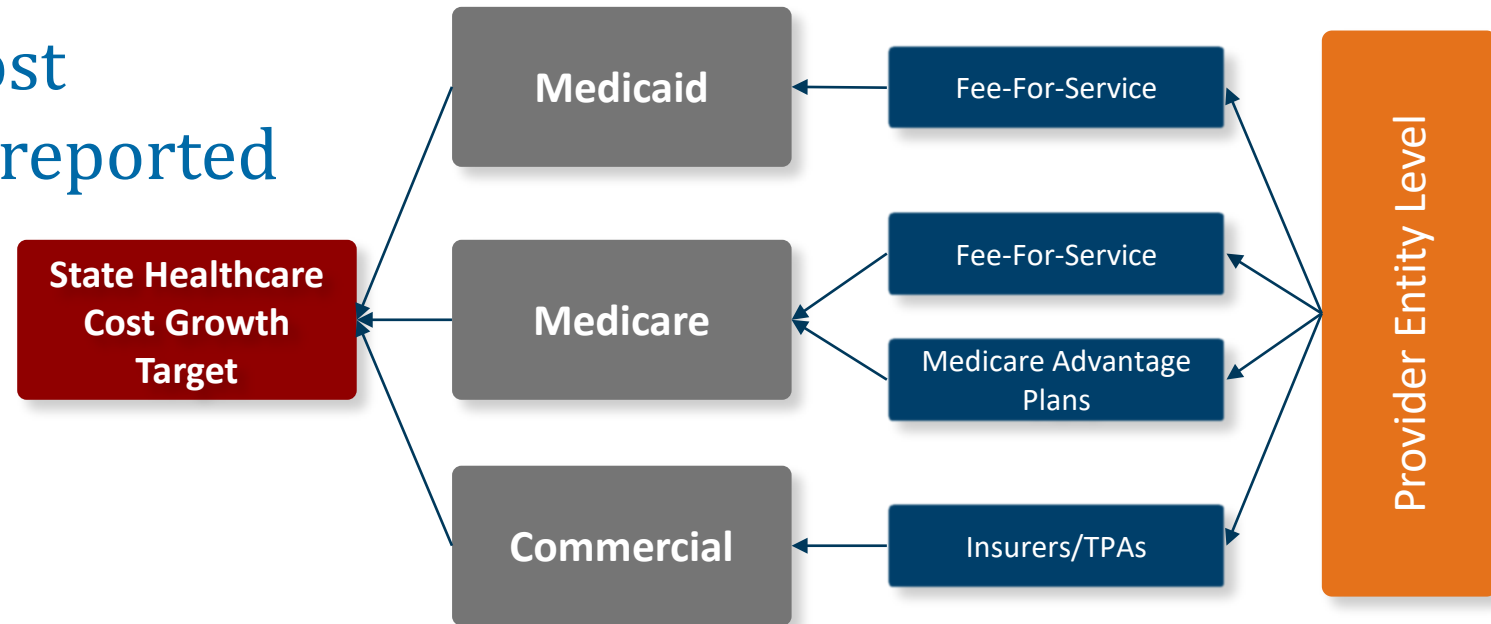
OHS will report per capita change in spending from one calendar year to the next, along with any contextual information that highlights known reasons spending was above or significantly below benchmark.

Examples of
Cost Growth Benchmark Reporting Categories

Hospital Inpatient

Hospital Outpatient

Professional (primary + specialty care separately reported)

Pharmacy

Long-term care

Incentive payments

Alternative payment arrangement settlements

Claims-based spending

Non-claims-based spending

CONNECTICUT
Office of Health Strategy

Carrier Data Validation and Reporting Process

OHS is working with payers to validate Total Medical Expense (TME)* and primary care spending data. OHS will work with payers:

1. to confirm data were submitted using specifications outlined in the Implementation Manual, and

2. to review initial PMPM spending and trend by service category.

After confirming data completeness and accuracy, OHS will review performance data with large provider entities (Advanced Networks).**

*TME is the sum of the Allowed Amount of total claims and total non-claims spending paid to providers incurred by Connecticut residents for all healthcare services.

**For this purpose, an Advanced Network is a provider organization or group of provider organizations that includes primary care providers within one or more practices.

OHS
CONNECTICUT
Office of Health Strategy

43

The Logic Model for a Cost Growth Benchmark

Measure
Measure performance relative to the cost growth benchmark

Implement
Implement strategies to slow cost growth

Cost Growth Benchmark

Analyze
Analyze spending to understand cost trends and cost growth drivers

Identify
Identify opportunities and strategies to slow cost growth

Report
Publish performance against the benchmark and analysis of cost growth drivers

OHS
CONNECTICUT
Office *of* Health Strategy

44

APCD's Role in Data Use Strategy

APCD Role in Data Use Strategy

- Using APCD data, OHS will examine cost, cost drivers and cost variability to help identify opportunities for achieving the cost growth benchmark
  - Mathematica performed the initial analysis in 2020.
  - Supplemental analyses will include out-of-pocket spending, and stratification of spending by demographic data, chronic conditions, and zip code.
  - The strategy incorporates many of the recommendations made by the Health Care Cabinet's 2018 Cost Containment Data Workgroup.

OHS
CONNECTICUT
Office of Health Strategy

Analytic framework

Domain	Initial work, 2020	Extensions
Sample	Commercial	Medicaid, Medicare
Types of claims	Medical	Pharmacy, dental
Complexity	Simple	More complex
Focus areas	Spending (Total, PMPM, change over time, OOP) Spending by category of service Utilization and spending per unit Out-of-pocket spending Chronic conditions	Avoidable hospital use Low value services Market concentration Quality Price variation
Stratifications and data enrichment	Demographic groups (age and gender), region, payer, populations defined by presence of chronic condition	Provider groups Episodes of care Adjust spending for medical risk Social determinants of health
Opportunities	Regions, populations, services, and/or conditions driving costs	More specific services and trends Variation among providers in practice patterns and spending
Actionability	Descriptive, background, establish trust in data Identify initial set of cost drivers & opportunities to reduce costs	More complex, specific, controversial, and actionable topics possible Identify more specific drivers and opportunities Promote accountability

CONNECTICUT
Office of Health Strategy

Overview of Analytic Population and Framework

Sample	• **Commercial** (fully insured, including State employees) • CT residents **under age 65** for most analyses
Types of claims	• Medical (**no pharmacy**) • Limited to claims paid by primary insurer (secondary payer claims are excluded) • Excludes claims from vision-only plans and some student plans • **2015-2018** dates of service with 6 months of runout per year • Spending **includes cost-sharing**
Focus areas	• Spending (Total, PMPM, change over time, OOP) • Spending by category of service • Utilization and spending per unit • Chronic conditions
Stratifications and data enrichment	• Payer • Age and gender • Region, including comparisons between areas with higher/lower income and differing racial composition
We include additional notes on analytic populations and methods at the end of the presentation	

Mathematica

OHS CONNECTICUT
Office of Health Strategy

From 2015 to 2018, Anthem lost market share but remained the largest payer

- Six major commercial payers, of which Anthem is the largest
- UnitedHealthcare is the second largest payer and gained market share
- Remaining 4 payers insured a bit more than a third of the fully insured commercial market in 2018
- State employees covered by Anthem and UHC

Payer	Percentage of Commercial Member Months				3 – year change (percentage points)
	2015	2016	2017	2018	
All commercial payers (#)	9,850,748	9,760,902	10,155,889	9,827,697	-0.7*
Anthem (commercial)	32.3	29.8	31.1	28.0	-4.3
Anthem (state employees)	15.3	15.3	14.2	14.3	-1.1
UnitedHealthcare (commercial)	12.5	12.1	13.0	16.0	3.5
UnitedHealthcare (state employees)	3.0	3.6	4.4	6.5	3.5
Cigna	14.1	14.8	14.3	14.3	0.2
Aetna	11.9	10.0	8.4	6.7	-5.2
Connecticare	9.6	11.8	10.9	10.7	1.1
Harvard Pilgrim	1.4	2.7	3.5	3.5	2.1

Note: Excludes members 65 and older and non-CT residents.
* Calculated as member weighted average 3-year change

Mathematica

OHS CONNECTICUT Office of Health Strategy

Demographics were fairly stable between 2015 and 2018

- From 2015 to 2018, population aged slightly and trended toward female
- Reduction in share of commercial members in 0-25 age group

Gender, Age group	Percentage of Commercial Members				3 – year growth (percentage points)
	2015	2016	2017	2018	
All <65 (#)	9,850,532	9,760,458	10,155,535	9,827,541	-
0-25	34.2	33.6	33.0	32.7	-1.5
26-44	25.2	25.3	25.8	26.3	1.1
45-64	40.6	41.1	41.2	41.0	0.4
Female	51.5	51.5	51.6	51.8	0.4
0-25	16.7	16.4	16.2	16.1	-0.6
26-44	13.2	13.3	13.5	13.8	0.6
45-64	21.6	21.9	22.0	21.9	0.3
Male	48.5	48.5	48.4	48.2	-0.4
0-25	17.5	17.2	16.8	16.6	-0.9
26-44	12.0	12.1	12.3	12.5	0.5
45-64	19.0	19.2	19.2	19.0	0.0

Mathematica

IS
CONNECTICUT
Office of Health Strategy

In 2018, 99 percent of spending was in four service categories; each contributed to spending growth

- Spending PMPMs for inpatient and outpatient hospital services grew faster than for professional services

Service Category	2015		2018		Average annual change (%)	Total change (%)	Change in category as percent of total change
	PMPM	%	PMPM	%			
All services	$377.65	100.0	$435.55	100.0	4.9	15.3	**100.0**
Professional	$170.03	45.0	$184.24	42.3	2.7	8.4	24.5
Inpatient acute	$77.58	20.5	$94.34	21.7	6.8	21.6	29.0
Outpatient - not ER	$73.86	19.6	$90.41	20.8	7.0	22.4	28.6
Outpatient – ER	$50.62	13.4	$61.77	14.2	7.0	22.0	19.2
Other	$5.55	1.5	$4.79	1.1	-4.7	-13.7	-1.3

Categories of services derived from the CT APCD Data Dictionary claim type detail. Results are NOT age/gender-adjusted
ER = emergency room; PMPM = per member per month

Mathematica

OHS
CONNECTICUT
Office of Health Strategy

Inpatient and outpatient unit spending per unit grew considerably faster than professional unit spending
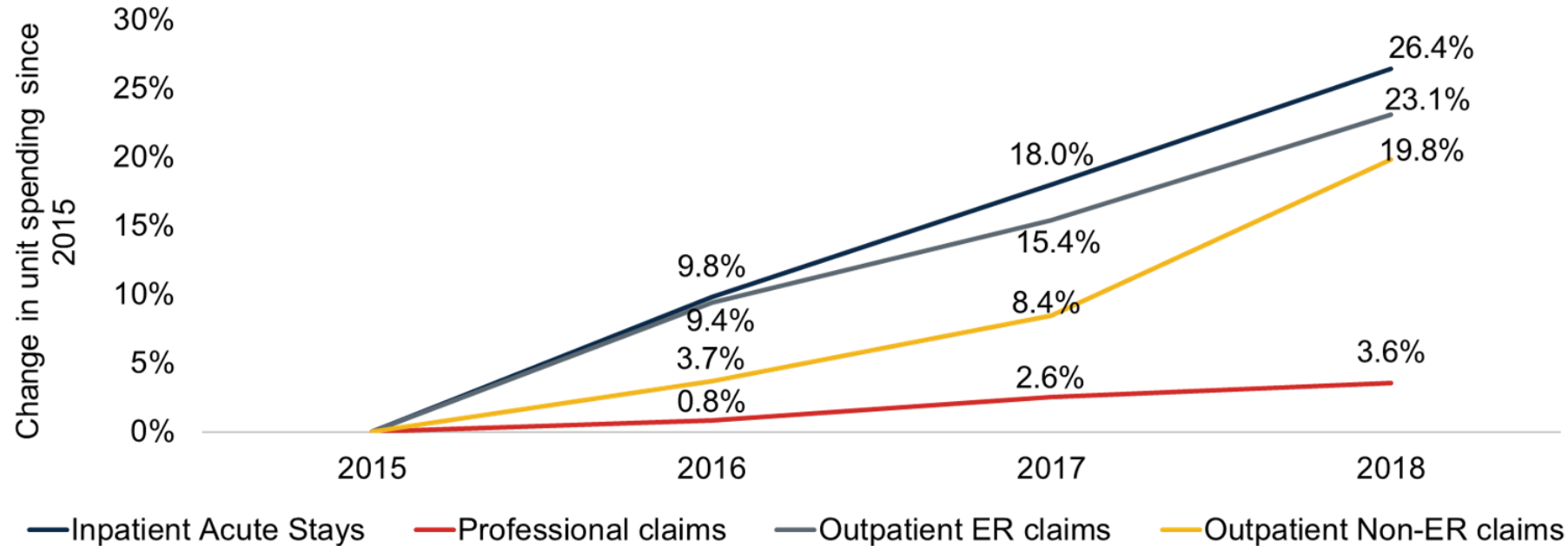
Categories of services derived from the CT APCD Data Dictionary claim type detail. Results are not age-gender adjusted. Inpatient stay units defined as discharges, which can include multiple claims. Other category of service units defined as individual claims. ER = emergency room

M MATHEMATICA

21

OHS CONNECTICUT
Office of Health Strategy

Acute inpatient PMPM spending grew 22 percent while utilization went down

Note: Percent change for all years is relative to 2015.

OHS CONNECTICUT
Office of Health Strategy
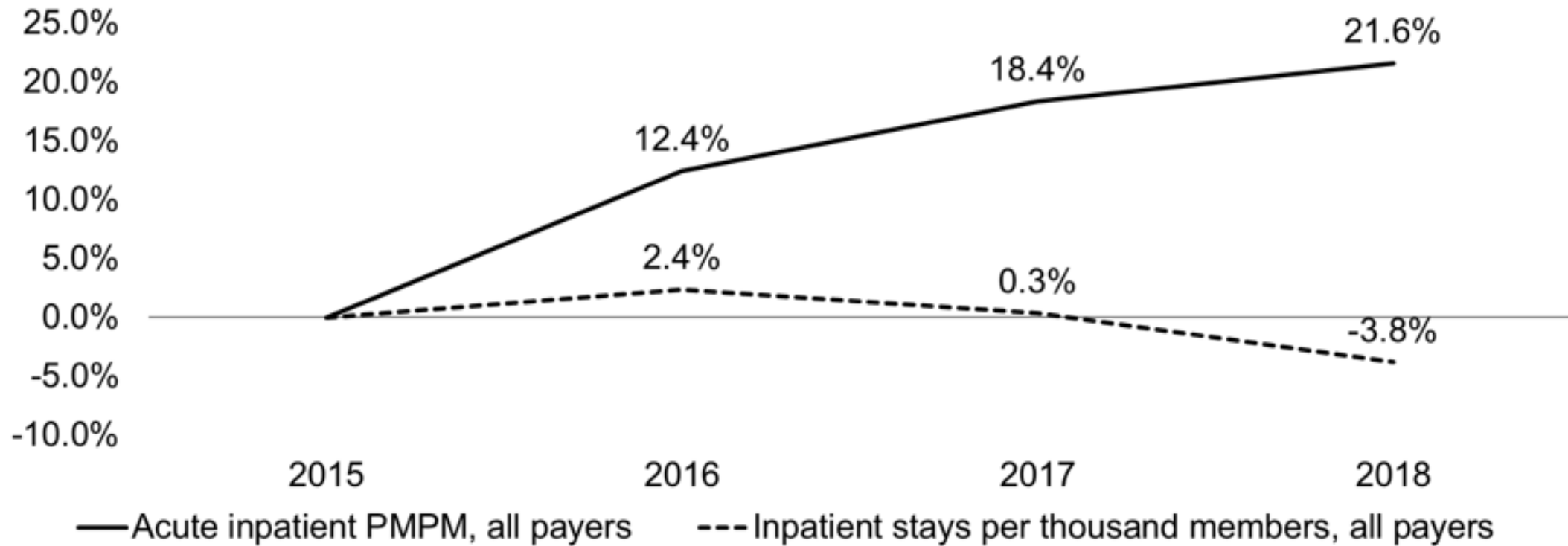
Spending PMPM for emergency department visits grew 22 percent while utilization declined
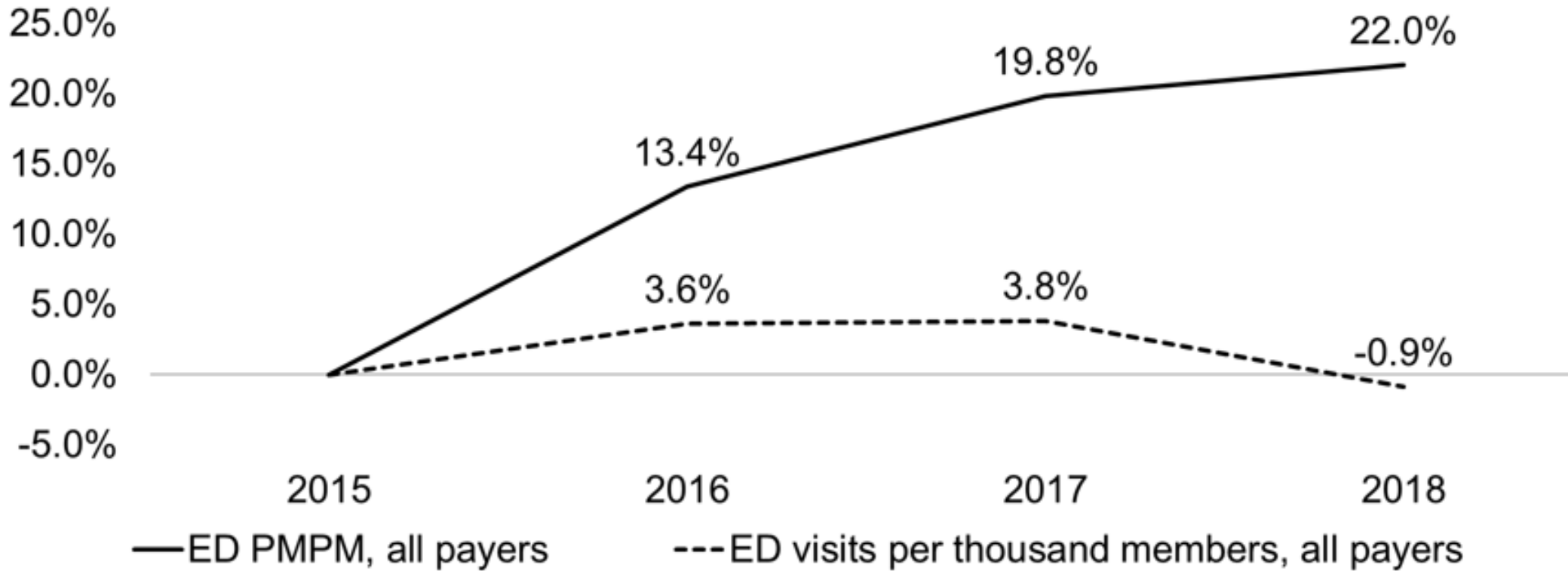

Note: Percent change for all years is relative to 2015

Mathematica

Within DRG, the changes in spending per inpatient stay were typically between 11% and 25%, with a median of 15%

All DRGs

Mean of DRG-level changes	18.1
Median of DRG-level changes	15.0
Interquartile range of DRG-level changes	11.1-25.4

		Average spending		Mean percent change	Number of stays		Stays per thousand members 2018
Selected individual DRGs		**2015**	**2018**		**2015**	**2018**	
460	Spinal Fusion Except Cervical	$50,817	$64,433	26.8	331	238	0.37
470	Major Hip and Knee Joint Replacement	$29,088	$32,319	11.1	1,801	1,863	2.90
775	Vaginal Delivery	$9,070	$10,228	12.8	3,337	2,738	4.27
871	Septicemia or Severe Sepsis	$27,855	$30,533	9.5	365	556	0.87
885	Psychoses	$13,386	$15,352	14.7	963	1,004	1.57

Notes. The statistics reported for "All DRGs" are the weighted mean, weighted median, and weighted IQR of DRG-level changes, with weights equal to the number of cases in 2015. These statistics are not affected by changes in the mix of DRGs (service mix) between years. Individual DRGs were selected for display if they were common, costly, and relatively homogeneous (i.e., cases were similar within the DRG).
Limited to members 18-64 and DRGs with more than 10 cases in both 2015 and 2018. Mean percent change differs from inpatient acute spending change shown on Slide 20, because: (1) the populations are different, and (2) the statistics are different (mean of DRG-level changes vs. mean change when all DRGs are combined.) See methods document for details.
DRG = diagnosis related group; IQR = interquartile range

Mathematica

Source: CT OHS APCD Data Analysis by Mathematica for Healthcare Cost Growth Benchmark Initiative

CONNECTICUT
Office of Health Strategy

High cholesterol, high blood pressure, arthritis, and depression were common and associated with above-average costs

Condition	2018		
	Members with condition	%	PMPY for members with this condition
All members	**455,780**	**100.0**	**$6,151**
Hyperlipidemia	73,081	16.0	$11,842
Hypertension	70,419	15.5	$13,739
Rheumatoid Arthritis/Osteoarthritis	67,943	14.9	$13,866
Depression	50,979	11.2	$13,501
Diabetes	28,608	6.3	$14,197
Anemia	26,723	5.9	$25,355
Acquired Hypothyroidism	25,918	5.7	$12,911
Glaucoma	18,035	4.0	$9,004
Chronic Kidney Disease	17,732	3.9	$24,029
Asthma	17,500	3.8	$16,887
One or more of 27 chronic conditions	218,598	48.0	$10,336
Two or more of 27 chronic conditions	115,855	25.4	$14,379

Notes: This slide shows the 10 most common conditions. PMPY calculated as total costs for members with the condition divided by all members continuously enrolled from January 1, 2017 through December 31, 2018.

Mathematica

CONNECTICUT
Office of Health Strategy

Source: CT OHS APCD Data Analysis by Mathematica for Healthcare Cost Growth Benchmark Initiative

Chronic conditions are more common among residents of lower income communities

- Higher prevalence of conditions among lower-income residents

Income Decile	ED visits per 1,000 members	Percentage with condition							
		One or more conditions	Two or more conditions	Hyper-lipidemia	Hyper-tension	RA	Depression	Diabetes	Asthma
1	804.7	50.3	29.5	17.6	21.1	15.0	10.3	11.4	5.6
2	774.6	52.1	31.1	18.9	21.2	17.8	10.4	10.8	5.4
3	582.1	49.4	28.4	17.4	19.3	14.8	10.7	9.2	4.5
4	640.0	50.1	28.6	17.2	18.5	15.4	11.3	8.3	4.6
5	643.4	50.5	28.1	18.0	18.1	16.0	12.6	7.8	4.4
6	541.6	50.3	28.2	17.5	18.5	16.1	11.9	7.5	4.2
7	497.7	49.4	26.3	16.6	16.1	15.4	12.0	6.2	4.0
8	456.9	47.7	24.9	15.9	15.0	15.1	11.3	5.5	3.5
9	391.1	46.2	23.1	15.0	13.2	14.0	11.2	4.7	3.5
10	321.9	43.1	20.1	13.0	9.3	13.1	9.5	3.5	2.6

Income decile 1 includes people living in the lowest 10 percent of zip codes, when ranked by income. Except asthma, conditions displayed are the most prevalent statewide (asthma is 10th most prevalent). Chronic condition rates derived following Chronic Condition Warehouse algorithms applied to claims, and only include members with 2017 and 2018 claims where diagnosis was present. Rates may therefore be understated. RA = rheumatoid arthritis. ED visits per 1,000 members are adjusted to control for difference in age-gender mix among deciles; chronic condition rates NOT adjusted for age-gender.

CONNECTICUT
Office of Health Strategy

ED use is also more common among residents of communities with a lower percentage of white residents, as are some chronic conditions

| Decile | Percentage white | Median family income | PMPM (adj.) | ED visit rate (adj.) | Percentage with condition | | | | |
					One or more conditions	Two or more conditions	Hyper-tension	Diabetes	Asthma
All	0 – 100	$97,310	$526.69	494	0.48	0.25	15.5	6.3	3.8
1	0 – 31	$45,663	$545.33	736	0.51	0.30	22.2	11.8	5.6
2	31 – 50	$68,060	$561.26	606	0.49	0.27	18.1	8.6	4.5
3	50 – 61	$82,466	$562.29	591	0.50	0.28	17.3	7.9	4.6
4	61 – 71	$105,442	$494.28	477	0.48	0.26	15.2	6.7	3.7
5	71 – 77	$103,407	$497.68	494	0.48	0.26	16.1	6.6	3.9
6	77 – 82	$122,067	$499.30	434	0.47	0.25	14.1	5.4	3.5
7	83 – 87	$149,181	$506.68	413	0.46	0.23	13.6	5.0	3.5
8	87 – 91	$127,302	$481.19	457	0.47	0.24	14.1	5.0	3.4
9	91 – 94	$118,223	$484.70	493	0.48	0.25	14.7	5.0	3.5
10	94 – 100	$112,875	$526.69	476	0.49	0.26	15.4	5.1	3.7
Ratio of 1st to 10th decile			0.40	1.09	1.55	1.03	1.17	1.44	2.33	1.51

Decile 1 includes people living in the lowest 10 percent of zip codes, when ranked by percent white, i.e., communities with a lower percentage of white residents. Conditions displayed are both prevalent and show pronounced disparities by race. Chronic condition rates derived following Chronic Condition Warehouse algorithms applied to claims, and only include members with 2017 and 2018 claims where diagnosis was present. Rates may therefore be understated. ED visit rate and PMPM are adjusted to control for differences in age-gender mix among deciles; chronic condition rates are NOT adjusted for age-gender.

Mathematica

Office of Health Strategy

In 2018, more that half of out-of-pocket spending was for professional services

- Cost-sharing varied by type of service
- Patients paid 19 percent of the total cost of professional services and three percent of the total cost of inpatient services

Category of service	Total PMPM	OOP PMPM	OOP PMPM in category as percentage of all OOP	OOP PMPM as percentage of total PMPM
All services	$435.55	$55.70	100.0	12.8
Professional	$184.24	$34.04	61.1	18.5
Inpatient acute	$94.34	$2.72	4.9	2.9
Outpatient - not ER	$90.41	$9.77	17.6	10.8
Outpatient – ER	$61.77	$8.64	15.5	14.0
Other	$4.79	$0.53	0.9	11.0

Categories of services derived from the CT APCD Data Dictionary claim type detail. Results are for 2018 and are not age/gender-adjusted.
ER = emergency room; PMPM = per member per month

Mathematica

HS
CONNECTICUT
Office of Health Strategy

The driving factor for PMPM growth was spending per unit, not number of units (service volume)

Service Category	2018 Volume	2018 Spending per unit	Percent change in spending per unit				3-year percent change in volume
			2016	2017	2018	Total 3-year	
Inpatient acute stay	36,164	$25,636	9.8	7.4	7.2	26.4	-4.1
Outpatient – ER	356,647	$1,702	9.4	5.5	6.7	23.1	-1.1
Outpatient – not ER	688,207	$1,291	3.7	4.6	10.5	19.8	1.9
Professional	8,471,604	$214	0.8	1.7	1.0	3.6	4.4

Changes in spending per unit are affected by both changes in service mix and changes in service-level prices.
Categories of services derived from the CT APCD Data Dictionary claim type detail. Includes CT residents under age 65.
Results are not age-gender adjusted. Inpatient stay units defined as discharges, which can include multiple claims.
Other category of service units defined as individual claims.
ER = emergency room; PMPM = per member per month

Mathematica

CONNECTICUT
Office of Health Strategy

Out-of-pocket spending increased faster than total spending

- From 2015 to 2018, OOP spending increased 26% compared to overall spending which increased 15.3%
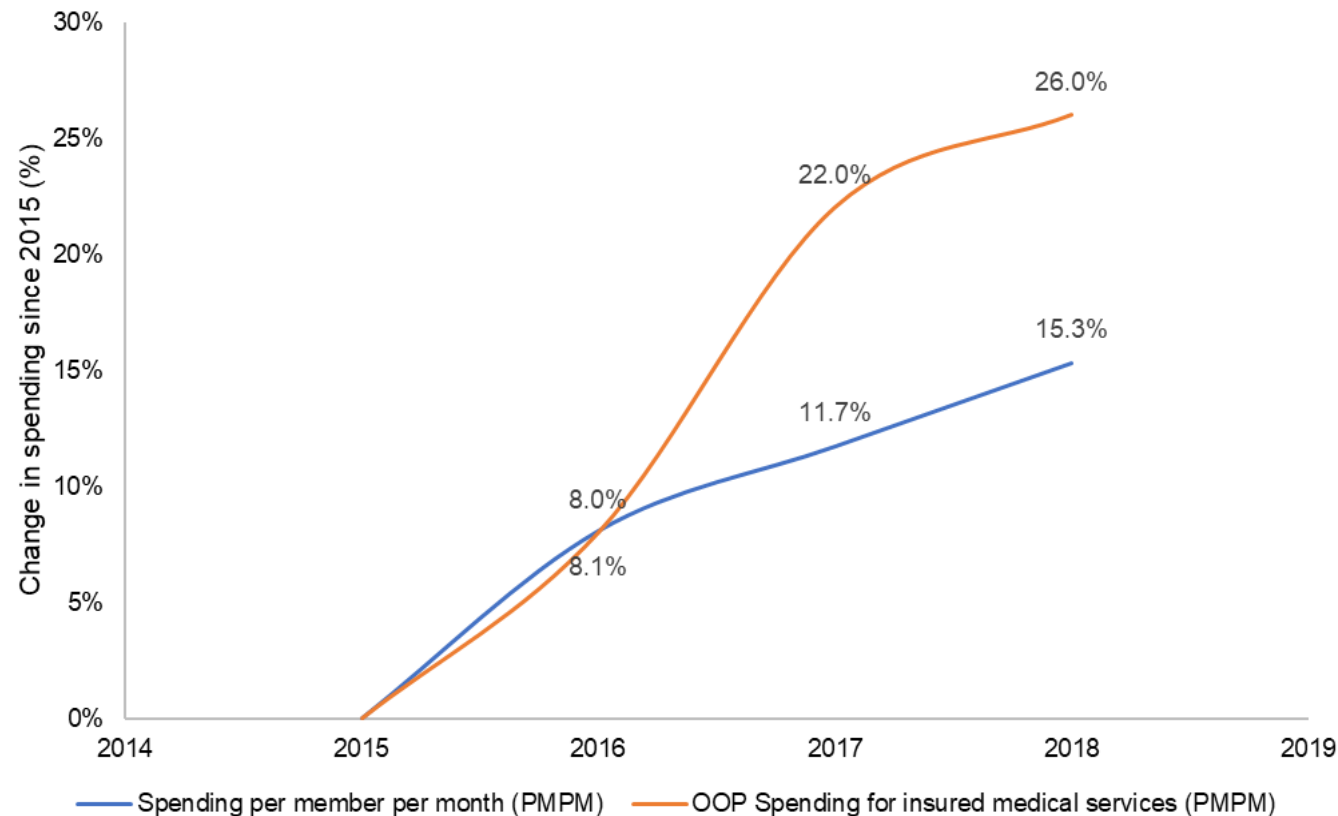
Notes: OOP PMPM is calculated as sum(copays + deductibles + coinsurance)/sum(member months). Percent change in "PMPM" columns is calculated as change in total PMPM, including insurance payments and out-of-pocket payments.

Questions?

For more information on the CT Health Car Benchmarks and Primary Care Target Initiative, visit OHS website at:

https://portal.ct.gov/OHS/Services/Cost-Growth-Quality-Benchmarks-Primary-Care-Target

Wrap up and Adjournment