#### Connecticut's Healthcare Benchmark Initiative: Data Analytics Workgroup Meeting

February 7, 2024



#### **Meeting Agenda**

- 1. Welcome and Roll Call
- 2. Approval of the November 15<sup>th</sup> Meeting Minutes Vote
- 3. Developing a Cost Growth Driver Measure Set
- 4. Follow-Up Analyses to Assess the Representativeness of APCD Data
- 5. Public Comment
- 6. Wrap-up



#### **Welcome and Roll Call**



# Vote: Approval of the November 15<sup>th</sup> Meeting Minutes



#### Developing a Cost Growth Driver Measure Set



#### Background

- OHS has set a 2024 goal to develop a cost growth driver measure set for annual public reporting.
- To date, the analyses that OHS has updated on an annual basis have included an assessment of commercial market:
  - trends in per member per month (PMPM) spending by service category, and
  - the relative roles of changes in payment rates and utilization on trend.
- We will briefly review the latest iteration of this analysis (presented to the Steering Committee in late January) and then discuss what should be the measure set for future annual reporting.

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#### **Measured Population**

- Connecticut residents, 2017-2022
- Commercial (fully insured, and State employees and retirees)
  - Self-insured not included
- Exclusions
  - Non-Connecticut residents
  - Secondary payers
  - Denied, reversed, and non-primary claim lines
  - Claim lines with negative payment or cost-sharing
  - Payments made six months or longer after the service year
- <u>Reminder</u>: non-claims-based payments and pharmacy rebates are not in the APCD

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# Commercial Medical and Retail Pharmacy Spending, 2017-2022

|           |       | Com   | mercial M | Average | 2021 - |       |        |        |            |
|-----------|-------|-------|-----------|---------|--------|-------|--------|--------|------------|
| Davor     |       |       |           |         |        |       | annual | 2022   | Total      |
| Payer     | 2017  | 2018  | 2019      | 2020    | 2021   | 2022  | change | change | change (%) |
|           |       |       |           |         |        |       | (%)    | (%)    |            |
| All-payer | \$369 | \$397 | \$418     | \$381   | \$460  | \$489 | 6.2%   | 6.5%   | 32.7%      |

|           |      | Commer | cial Retail | Average | 2021 - | Total |        |        |        |
|-----------|------|--------|-------------|---------|--------|-------|--------|--------|--------|
| Payer     |      |        |             |         |        |       | annual | 2022   | change |
| i dyci    | 2017 | 2018   | 2019        | 2020    | 2021   | 2022  | change | change | (%)    |
|           |      |        |             |         |        |       | (%)    | (%)    | (/0)   |
| All-payer | \$78 | \$78   | \$77        | \$78    | \$85   | \$96  | 4.4%   | 13.2%  | 23.1%  |



#### Commercial Spending Breakdown by Service Category, 2017-2022

| Somico Cotogomy        |       | Percentage of Spending |       |       |       |       |  |  |  |  |  |
|------------------------|-------|------------------------|-------|-------|-------|-------|--|--|--|--|--|
| Service Category       | 2017  | 2018                   | 2019  | 2020  | 2021  | 2022  |  |  |  |  |  |
| Total PMPM             | \$447 | \$475                  | \$495 | \$459 | \$545 | \$585 |  |  |  |  |  |
| Inpatient              | 18.1% | 18.4%                  | 18.6% | 19.0% | 17.9% | 17.3% |  |  |  |  |  |
| Outpatient*            | 27.9% | 28.8%                  | 30.1% | 29.5% | 30.5% | 31.4% |  |  |  |  |  |
| Outpatient<br>hospital | 26.1% | 27.0%                  | 28.1% | 27.5% | 28.1% | 28.9% |  |  |  |  |  |
| Outpatient ASC         | 1.8%  | 1.9%                   | 2.0%  | 2.0%  | 2.3%  | 2.5%  |  |  |  |  |  |
| Professional           | 33.3% | 33.2%                  | 32.7% | 31.3% | 32.1% | 31.4% |  |  |  |  |  |
| Retail Pharmacy**      | 17.5% | 16.4%                  | 15.6% | 17.0% | 15.6% | 16.4% |  |  |  |  |  |
| Other***               | 2.8%  | 2.8%                   | 2.8%  | 3.0%  | 3.7%  | 3.2%  |  |  |  |  |  |

\* Outpatient includes outpatient hospital and ambulatory surgical center (ASC) spending.

\*\* Retail pharmacy includes all members with pharmacy coverage, with or without medical coverage.

\*\*\* "Other" services include DME, home health, hospice, ICF and SNF claims.

Source: APCD



#### Service Category Contributions to Spending Growth, 2017-2022

| Payer     |       |       | Cumulative |       |       |       |        |
|-----------|-------|-------|------------|-------|-------|-------|--------|
| Гаусі     | 2017  | 2018  | 2019       | 2020  | 2021  | 2022  | change |
| All-payer | \$447 | \$475 | \$495      | \$459 | \$545 | \$585 | +\$139 |

| Contribution to Cumulative Commercial PMPM Growth by Service Category |            |              |                    |       |  |  |  |  |  |
|---|------------|--------------|--------------------|-------|--|--|--|--|--|
| Inpatient   | Outpatient | Professional | Retail<br>Pharmacy | Other |  |  |  |  |  |
| 15%   | 43%        | 25%          | 13%                | 4%    |  |  |  |  |  |



#### Impact of Price vs Utilization on Spending Growth: Commercial Medical and Retail Pharmacy

|                   | Commercial Medical |       |       |       |       |       |             |  |  |  |  |  |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------------|--|--|--|--|--|
|                   |                    |       |       |       |       |       | Avg. Annual |  |  |  |  |  |
| Measure           | 2017               | 2018  | 2019  | 2020  | 2021  | 2022  | Change (%)  |  |  |  |  |  |
| Spending (PMPM)   | \$369              | \$397 | \$418 | \$381 | \$460 | \$489 | 6.2%        |  |  |  |  |  |
| Price (PPU)       | \$365              | \$399 | \$417 | \$405 | \$386 | \$433 | 3.7%        |  |  |  |  |  |
| Utilization (UPK) | 12114              | 11936 | 12043 | 11315 | 14280 | 13560 | 2.9%        |  |  |  |  |  |

|                   | Commercial Retail Pharmacy |       |       |       |       |       |             |  |  |  |  |  |
|-------------------|----------------------------|-------|-------|-------|-------|-------|-------------|--|--|--|--|--|
|                   |                            |       |       |       |       |       | Avg. Annual |  |  |  |  |  |
| Measure           | 2017                       | 2018  | 2019  | 2020  | 2021  | 2022  | Change (%)  |  |  |  |  |  |
| Spending (PMPM)   | \$78                       | \$78  | \$77  | \$78  | \$85  | \$96  | 4.4%        |  |  |  |  |  |
| Price (PPU)       | \$77                       | \$77  | \$77  | \$85  | \$90  | \$98  | 4.9%        |  |  |  |  |  |
| Utilization (UPK) | 12985                      | 13027 | 13055 | 12869 | 13397 | 14159 | 1.8%        |  |  |  |  |  |

## Impact of Price vs Utilization on Spending Growth: Commercial Inpatient and Outpatient Hospital

|                   | Commercial Inpatient Hospital |          |          |          |          |          |             |  |  |  |  |
|-------------------|-------------------------------|----------|----------|----------|----------|----------|-------------|--|--|--|--|
|                   |                               |          |          |          |          |          | Avg. Annual |  |  |  |  |
| Measure           | 2017                          | 2018     | 2019     | 2020     | 2021     | 2022     | Change (%)  |  |  |  |  |
| Spending (PMPM)   | \$81                          | \$87     | \$92     | \$87     | \$97     | \$101    | 4.8%        |  |  |  |  |
| Price (PPU)       | \$20,784                      | \$25,102 | \$27,853 | \$29,879 | \$31,341 | \$32,957 | 9.8%        |  |  |  |  |
| Utilization (UPK) | 47                            | 42       | 40       | 35       | 37       | 37       | -4.4%       |  |  |  |  |

|                   | Commercial Outpatient Hospital |        |        |        |       |        |                           |  |  |  |  |  |
|-------------------|--------------------------------|--------|--------|--------|-------|--------|---------------------------|--|--|--|--|--|
| Measure           | 2017                           | 2018   | 2019   | 2020   | 2021  | 2022   | Avg. Annual<br>Change (%) |  |  |  |  |  |
| Spending (PMPM)   | \$117                          | \$128  | \$139  | \$126  | \$153 | \$169  | 8.2%                      |  |  |  |  |  |
| Price (PPU)       | \$1086                         | \$1259 | \$1369 | \$1213 | \$949 | \$1361 | 7.0%                      |  |  |  |  |  |
| Utilization (UPK) | 1288                           | 1221   | 1218   | 1250   | 1935  | 1492   | 5.8%                      |  |  |  |  |  |

#### Impact of Price vs Utilization on Spending Growth: Commercial Professional

|                   | Commercial Professional |       |       |       |       |       |             |  |  |  |  |  |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------------|--|--|--|--|--|
|                   |                         |       |       |       |       |       | Avg. Annual |  |  |  |  |  |
| Measure           | 2017                    | 2018  | 2019  | 2020  | 2021  | 2022  | Change (%)  |  |  |  |  |  |
| Spending (PMPM)   | \$149                   | \$158 | \$162 | \$144 | \$175 | \$184 | 4.8%        |  |  |  |  |  |
| Price (PPU)       | \$179                   | \$192 | \$197 | \$193 | \$201 | \$211 | 3.4%        |  |  |  |  |  |
| Utilization (UPK) | 10018                   | 9871  | 9875  | 8919  | 10462 | 10476 | 1.3%        |  |  |  |  |  |



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## Impact of Price vs Utilization on Spending Growth: Commercial ED and Radiology

|                   | Commercial Emergency Department |       |        |        |        |        |                           |  |  |  |  |  |
|-------------------|---------------------------------|-------|--------|--------|--------|--------|---------------------------|--|--|--|--|--|
| Measure           | 2017                            | 2018  | 2019   | 2020   | 2021   | 2022   | Avg. Annual<br>Change (%) |  |  |  |  |  |
| Spending          |                                 |       |        |        |        |        |                           |  |  |  |  |  |
| (per member)      | \$173                           | \$199 | \$239  | \$202  | \$245  | \$290  | 11.9%                     |  |  |  |  |  |
| Price (PPU)       | \$778                           | \$978 | \$1183 | \$1272 | \$1283 | \$1299 | 11.3%                     |  |  |  |  |  |
| Utilization (UPK) | 7.2                             | 6.6   | 6.5    | 5.3    | 6.4    | 7.4    | 1.8%                      |  |  |  |  |  |

|                   | Commercial Radiology |       |       |       |       |       |                           |  |  |  |  |  |
|-------------------|----------------------|-------|-------|-------|-------|-------|---------------------------|--|--|--|--|--|
| Measure           | 2017                 | 2018  | 2019  | 2020  | 2021  | 2022  | Avg. Annual<br>Change (%) |  |  |  |  |  |
| Spending          |                      |       |       |       |       |       |                           |  |  |  |  |  |
| (per member)      | \$262                | \$260 | \$257 | \$220 | \$261 | \$277 | 1.7%                      |  |  |  |  |  |
| Price (PPU)       | \$446                | \$425 | \$407 | \$402 | \$383 | \$384 | -2.9%                     |  |  |  |  |  |
| Utilization (UPK) | 18                   | 19    | 20    | 18    | 22    | 24    | 6.1%                      |  |  |  |  |  |

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# Impact of Price vs Utilization on Spending Growth: Commercial Administered Drugs and Lab/Pathology

| Commercial Administered Drugs |       |       |       |       |       |       |                           |
|-------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
| Measure                       | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | Avg. Annual<br>Change (%) |
| Spending                      | 2017  | 2010  | 2017  |       |       |       | change (70)               |
| (per member)                  | \$113 | \$136 | \$155 | \$157 | \$158 | \$177 | 9.6%                      |
| Price (PPU)                   | \$188 | \$227 | \$242 | \$275 | \$213 | \$220 | 4.3%                      |
| Utilization (UPK)             | 19    | 19    | 21    | 19    | 25    | 27    | 7.3%                      |

| Commercial Lab/Pathology |       |       |       |      |       |       |                           |
|--------------------------|-------|-------|-------|------|-------|-------|---------------------------|
| Measure                  | 2017  | 2018  | 2019  | 2020 | 2021  | 2022  | Avg. Annual<br>Change (%) |
| Spending                 |       |       |       |      |       |       |                           |
| (per member)             | \$121 | \$120 | \$119 | \$98 | \$131 | \$131 | 2.8%                      |
| Price (PPU)              | \$40  | \$43  | \$42  | \$43 | \$42  | \$42  | 1.0%                      |
| Utilization (UPK)        | 97    | 91    | 88    | 77   | 105   | 103   | 2.5%                      |

#### Cost Growth Driver Measure Set Proposal (1 of 2)

- OHS has considered historical OHS reporting practices, plus Dr. Gifford's interest in adding measurement of payment variation, to develop a first-draft proposal for Workgroup consideration.
  - The first draft is preliminary; it was created for Workgroup discussion purposes.
- We'll review that proposal on the next slide, and then seek your ideas for modifications to the draft proposal.



#### Cost Growth Driver Measure Set Proposal (2 of 2)

- 1. Per capita spending trends at the state and market levels, stratified by service category and by the relative contributions of changes in payment rates and service utilization.
- 2. Per capita hospital spending growth at the state level by service sub-category, and by hospital by service sub-category.
- **3.** Per capita pharmacy spending growth (retail and medical, separated and combined) by drug class and by drug, and by brand and generic.
- 4. Variation in payment, and payment trend, per service unit and by "market basket" for a) hospital services, and b) high volume/high spend medical specialties.
- **5.** Per capita spending and payment per service unit comparison to external benchmarks, e.g., Medicare, other states.



#### Discussion

- What do members think of the proposed analyses?
- What other analyses do members think should be included in this "cost growth driver measure set"?



Follow-Up Analyses to Assess the Representativeness of the All-Payer Claims Database (APCD)



# Background (1 of 3)

- Performance against the Cost Growth Benchmark is assessed using aggregate data for all covered lives provided by insurers and public payers. However, these data do not allow for analysis of what is driving health care cost growth. For that, OHS must use more granular (claims and/or encounter data) from the state's APCD.
- The APCD does not include the commercial self-insured market (apart from the state employee health plan), which makes up over half the commercial market. For this reason, hospitals have argued to OHS that the APCD data are not representative of commercial market spending.



# Background (2 of 3)

- To assess whether the APCD is representative of the total commercial market, OHS performed an analysis to assess whether the inpatient hospital DRGs identified as representing a) the most discharges, and b) the most spending according to APCD data were the same as those identified through analysis of the hospital inpatient discharge database (HIDD).
  - The hospital inpatient discharge database contains *all* discharges, including discharges for patients with fully insured and self-insured commercial coverage.



## Background (3 of 3)

- OHS compared the top 10 DRGs in terms of total commercial discharges and the top 10 DRGs in terms of total commercial spending identified using APCD data to those identified using HIDD data.
  - The analysis of spending compared *allowed amounts* (APCD) to *charges* (HIDD).
- This analysis was presented to this Work Group during its last meeting. Members requested the following additional information, which we will share with you now:
  - Including the proportion of total volume and spending that the top 10 services in each analysis represent for the APCD vs the HIDD
  - Repeating the analysis after excluding maternity/newborn services



#### Highest Volume Services (Discharges) Statewide, 2021

| DRG    | Inpatient Service   | Volume<br>Rank (APCD) | Volume Rank<br>(HIDD)                           |
|--------|---|-----------------------|---|
| 807    | Vaginal Delivery without Sterilization or D&C w/o Major Complication                  | #1                    | #2  |
| 795    | Normal Newborn  | #2                    | #1  |
| 794    | Neonate with Other Significant Problems   | #3                    | #3  |
| 885    | Psychoses   | #4                    | #5  |
| 788    | Cesarean Section without Sterilization w/o Major Complication                         | #5                    | #4  |
| 177    | Respiratory Infections and Inflammations with Major Complication                      | #6                    | #6  |
| 897    | Alcohol Drug Abuse or Dependence w/o Rehabilitation Therapy w/o Major<br>Complication | #7                    | #16   |
| 806    | Vaginal Delivery without Sterilization or D&C with Complication                       | #8                    | #8  |
| 871    | Septicemia or Severe Sepsis w/o MV > 96 Hours with Major Complication                 | #9                    | #7  |
| 787    | Cesarean Section without Sterilization w/ Complication                                | #10                   | #9  |
| Propor | tion of total commercial discharges these 10 services represent in each database      | 41.2%                 | 41.3%   |
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#### Highest Spend Services Statewide, 2021

| DRG   | Inpatient Service   | Spending Rank<br>(APCD) | Spending Rank<br>(HIDD)   |
|-------|---|-------------------------|---------------------------|
| 177   | Respiratory Infections and Inflammations with Major Complication  | #1                      | #3                        |
| 807   | Vaginal Delivery without Sterilization or D&C w/o Major Complication  | #2                      | #1                        |
| 885   | Psychoses   | #3                      | #2                        |
| 871   | Septicemia or Severe Sepsis w/o MV > 96 Hours with Major Complication   | #4                      | #4                        |
| 790   | Extreme Immaturity or Respiratory Distress Syndrome, Neonate  | #5                      | #7                        |
| 788   | Cesarean Section without Sterilization w/o Major Complication   | #6                      | #5                        |
| 3     | ECMO or Tracheostomy with MV >96 Hours or PDX Except Face, Mouth and Neck with Major OR Procedure                 | #7                      | #6                        |
| 455   | Combined Anterior and Posterior Spinal Fusion w/o Complication  | #8                      | #14                       |
| 621   | OR Procedures for Obesity w/o Complication  | #9                      | #19                       |
| 219   | Cardiac Valve and Other Major Cardiothoracic Procedures w/o<br>Cardiac Catheterization with Major Complication    | #10                     | #21                       |
| Propo | rtion of total commercial allowed amounts (APCD) / charges (HIDD) these<br>10 services represent in each database | 24.5%                   | 21.5%                     |
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#### Highest Volume Services (Discharges) Statewide, 2021

#### \*excluding maternity/newborn services

| DRG    | Inpatient Service  | Volume Rank<br>(APCD) | Volume Rank<br>(HIDD) |
|--------|--|-----------------------|-----------------------|
| 885    | Psychoses  | #1                    | #1                    |
| 177    | Respiratory Infections and Inflammations with Major Complication                         | #2                    | #2                    |
| 897    | Alcohol Drug Abuse or Dependence w/o Rehabilitation Therapy w/o Major<br>Complication    | #3                    | #9                    |
| 871    | Septicemia or Severe Sepsis w/o MV > 96 Hours with Major Complication                    | #4                    | #3                    |
| 621    | OR Procedures for Obesity w/o Complication   | #5                    | #6                    |
| 392    | Esophagitis Gastroenteritis and Miscellaneous Digestive Disorders w/o Major Complication | #6                    | #5                    |
| 470    | Chronic Kidney Disease   | #7                    | #7                    |
| 872    | Septicemia or Severe Sepsis w/o MV < 96 Hours w/o Major Complication                     | #8                    | #8                    |
| 247    | Intestinal Obstruction   | #9                    | #10                   |
| 330    | Major Small and Large Bowel Procedures with Complication                                 | #10                   | #14                   |
| Propor | tion of total commercial discharges these 10 services represent in each database         | 18.7%                 | 16.0% <sup>25</sup>   |

#### Highest Spend Services Statewide, 2021

\*excluding maternity/newborn services

| DRG  | Inpatient Service  | Spending Rank<br>(APCD) | Spending Rank<br>(HIDD) |
|------|--|-------------------------|-------------------------|
| 177  | Respiratory Infections and Inflammations with Major Complication   | #1                      | #2                      |
| 885  | Psychoses  | #2                      | #1                      |
| 871  | Septicemia or Severe Sepsis w/o MV > 96 Hours with Major Complication  | #3                      | #3                      |
| 3    | ECMO or Tracheostomy with MV >96 Hours or PDX Except Face, Mouth and Neck with Major OR Procedure                  | #4                      | #4                      |
| 455  | Combined Anterior and Posterior Spinal Fusion w/o Complication   | #5                      | #9                      |
| 621  | OR Procedures for Obesity w/o Complication   | #6                      | #12                     |
| 219  | Cardiac Valve and Other Major Cardiothoracic Procedures w/o<br>Cardiac Catheterization with Major Complication     | #7                      | #14                     |
| 454  | Combined Anterior and Posterior Spinal Fusion with Complication  | #8                      | #10                     |
| 25   | Craniotomy and Endovascular Intracranial Procedures with Major Complication  | #9                      | #16                     |
| 853  | Infections and Parasitic Diseases with OR Procedures with Complication   | #10                     | #5                      |
| Prop | ortion of total commercial allowed amounts (APCD) / charges (HIDD) these 10<br>services represent in each database | 20.2%                   | <b>19.1% 26</b>         |

#### **Discussion**



#### **Public Comment**



# Wrap-Up



#### Wrap-up

- Workgroup meetings will be held every other month on the first Wednesday, contingent on OHS having sufficient content to present the Workgroup for discussion.
- The next meeting is scheduled for Wednesday April 3rd at 2 pm.

