Cost of Care Analysis – Affordability Dashboard Methodology

Spring 2022

Overview

This document summarizes methodology for the Cost of Care tab of the Affordability Dashboard available at civhc.org. This tab provides an overview of high-level service category health care spending and more detailed outpatient spending categories in Colorado from 2017-2020 using data from the Colorado All Payer Claims Database (CO APCD).

This report enables users to identify the highest health care cost drivers and to monitor trends in spending (plan paid and patient paid amounts) to help determine areas to investigate further or identify strategies to reduce costs. More specifically, the analysis allows users to:

- Examine total (plan and patient paid amount) and per person per year (PPPY) spending and the percent of spending that is occurring in different categories.
- Evaluate how spending varies across Colorado Division of Insurance (DOI) regions.
- Identify specific sub-categories of outpatient services that are driving the highest cost.

Data Source

Medical and pharmacy claims and member eligibility data from the Colorado All Payer Claims Database (CO APCD) were used to calculate total and PPPY spending. In general, the method used to calculate the spending for different services follows the steps below. A detailed description is presented in the Methodology section.

- **Payers:** Claims (and capitation encounters with payer-reported fee-for-service equivalents) and eligibility records were selected for each payer (Commercial, Medicaid, Medicare FFS, and Medicare Advantage) for services incurred in 2017, 2018, 2019, and 2020. **Note:** Medicare FFS data in this report is only available through June of 2020.
- **Major Service Categories:** Claims were classified to six large categories – facility inpatient, facility outpatient, professional, pharmacy, long term care, and dental.
    - **Note:** Long-Term Care is a category specific *only* to the Medicaid population. It includes spending for Home and Community Based Services, Long-Term Home Health Care, and Nursing Home services.
- **Outpatient Service Categories:** Within the outpatient category, claims were then classified into key outpatient service subgroups using details such as revenue codes, CPT-4, HCPCS procedure codes, etc.
    - **Note:** Long Term Home Health Care was excluded from calculations under the Outpatient category on the Outpatient Spending Details tab.
- **Cost Calculations:** Spending, reported as total allowed amounts, were calculated for each service type. Total allowed amounts are calculated by adding any patient liability amounts (deductibles, coinsurance, copay, etc.) to the health insurance plan paid amounts.

- **Per Person Per Year (PPPY) Cost:** Eligibility, calculated as the number of member months for each payer, was used to produce spending PPPY. Separate member months were calculated for medical, dental, and pharmacy coverage.

Methodology

Assignment of Members and Claims to a Payer Type

The payer types reported are Commercial, Medicaid, Medicare Advantage, Medicare FFS, and a combination of all four types labeled, "All Payers."

Claims from the primary payer are assigned to the primary payer type and claims from the secondary payer are assigned to the secondary payer type. This is true for Medicare/Medicaid dual eligible members who have primary coverage through Medicare FFS or Medicare Advantage and secondary coverage through Medicaid.

Main Service Categories

Spending in the report is provided in six larger categories – facility inpatient, facility outpatient, professional, pharmacy, dental, and Long-Term Care. These categories are common and are generally defined by the type of claim the provider of service submitted.

- **Inpatient:** Services delivered at acute care hospitals, skilled nursing facilities (SNF), and hospice where the patient stayed in the hospital overnight. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.
- **Outpatient:** Services for ambulatory surgery, observation stays, and emergency department visits that did not result in an overnight hospital stay. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.
- **Professional:** Services provided by a physician or other health care provider for evaluation visits, management visits, and procedures. Payments also include services for providers or suppliers for tests, durable medical equipment, ambulance, and other services and supplies. Note: Professional payments are separate from Inpatient and Outpatient facility payments but often occur as a result of the same visit.
- **Prescription Drugs:** Prescription drug payments reflect only drugs dispensed at a pharmacy. Costs do *not* include any drugs administered by physicians in a facility or office setting, and do *not* reflect any rebates received from drug manufacturers.
- **Dental:** Services for dental care as indicated on a dental claim. Does not include any dental care that may have been provided under medical coverage.
- **Long-Term Care:** Medicaid services for Home and Community Based, Long-Term Home Health, and Nursing Home services. In a very small percentage of claims, Long Term Care benefits are paid through the Qualified Medicare Beneficiary (QMB) Program via Medicare Advantage.

Outpatient Service Categories

The specific types of services within the outpatient category are provided in the table below, with descriptions that define inclusions. The table below also displays a hierarchy, which was used to ensure that the types of services within each of the four main categories are mutually exclusive. For example,

within the outpatient facility category, outpatient surgery is designated "1" in the hierarchy. This means that if a member visits the ED for abdominal pain and undergoes an appendectomy as an outpatient, the spending for the member's visits are classified to outpatient surgery only, not the emergency department.

Detailed specifications used to select claims and report payments for each service are available upon request.

Facility Outpatient Service Categories

Type of Service	Description	Hierarchy
Facility Outpatient (Total)	Services for ambulatory surgery, observation stays, and emergency department visits that did not result in an overnight hospital stay. Costs displayed include patient and health plan patients for facility services only, and do not include professional payments which may occur for the same visit.	
Surgery	Outpatient hospital surgical services and some ambulatory surgery facility services. Includes facility services for emergent and elective surgical care.	**1**
Cardiac Catheterization	Cardiac catheterization lab and related facility service payments.	**2**
Observation	Hospital services for patients admitted for observation without a hospital overnight stay. Does *not* include observation for outpatient surgery.	**3**
Emergency Department	Hospital-based ED services (attached or free-standing) for patients discharged from the ED. Does *not* include services for patients seen in the ED and subsequently admitted or transferred for outpatient surgery, cardiac catherization or observation.	**4**
Hospital Urgent Care Services	Urgent care services that are provided in the hospital. **Does *not* include freestanding urgent care clinics or centers.**	**5**
Lab	Lab services including chemistries, microbiology, and pathology.	**6**
Clinic	Includes hospital outpatient and freestanding clinic services for primary and specialty care. **Including Urgent Care clinics**.	**6**
• **RHC and FQHC**	A subcategory of freestanding clinics that includes services provided at or by providers at a rural health clinic (RHC) or federally-qualified health center (FQHC).	
Imaging	Diagnostic imaging tests as the combination of x-ray and advanced imaging tests	**6**
• **X-ray**	A subcategory of imaging that includes plain films and fluoroscopy diagnostic imaging services.	
• **Advanced**	A subcategory of imaging that includes CTs, MRIs, PET scans, mammography, ultrasound, and nuclear diagnostic imaging services.	
Drugs	Drugs administered in a facility outpatient setting, including specialty, brand and generic drugs, vaccines and drugs used for diagnostic and imaging procedures. Does *not* include nuclear medicine	**6**

	pharmaceuticals.	
Type of Service	Description	**Hierarchy**
• **Specialty Drugs**	A subcategory of drugs (Total Rx) for specialty drugs used in facility outpatient settings. Does not include medication administration.	**6**
Home Health Care	Skilled care provided in the home, including nursing services, infusions and physical, speech and occupational therapy billed by home health agencies.	**6**
Other	Includes radiology/chemotherapy administration, hemodialysis, physical therapy. Does *not* include Medicaid long-term home health.	**7**

Data Caveats

The data used in this analysis have limitations that impact the spending trends and should be considered when interpreting the results.

- This report is based on claims data in the CO ACPD data warehouse refresh of January 17th, 2022.
    a. For more information about number of claims in the CO APCD, please visit our website at civhc.org or contact us at ColoradoAPCD@civhc.org
- Spending for **Commercial** plans include spending for fully-insured and non-ERISA self-insured plans but **do not include the majority of ERISA self-insured plans.**
- By federal regulation, 42 CFR Part 2, payers must exclude claims for **substance use disorder** prior to submitting claims to the CO APCD. Consequently, spending in this analysis do not include the majority of services for substance use disorder.
- Total pharmacy spending for all payers in the report **has not been adjusted for any rebates** received.
- **Payers appear to have spending drops in 2020**. This drop can be explained by the unusual utilization patterns due to the COVID-19 pandemic. Additionally, payers might still have claims runout from adjudicating complex, expensive claims from 2020 that are not yet reflected in their submissions to the CO APCD.

<u>**Medicaid**</u>

- **With the exception of Medicaid supplemental hospital payments**, this report **does not include non-claims-based payments** to providers that fall outside of the traditional fee-for-service system. As a result, the report is not all-inclusive of total medical spending for Coloradans.
- In the event that a payer has an arrangement with a provider that involves prospective payments for services (such as capitation payments), the **fee-for-service equivalent is reported on the claim** and counted as spending in the Tableau report.
- **No Medicaid supplemental payments for nursing facility services** were included. In addition, because no method currently exists to identify and exclude spending for long

term nursing home services, spending for facility inpatient costs for Medicaid are not comparable to other payers.

- **Total pharmacy spend for Medicaid is likely artificially inflated** due to redundant claims coming through from both HCPF and the MCOs. CIVHC is actively working with HCPF to identify these redundancies but currently does not have a methodology to eliminate the duplicative claims.
- DentaQuest contracts with Medicaid to deliver dental services. We are currently working to incorporate DentaQuest data into the CO APCD, and while dental claims are received directly from Medicaid, without the DentaQuest data, **Medicaid dental data is likely incomplete and underrepresented in the cost data.**
- **Medicaid-specific Outpatient Spending details** includes the following:
    a. **Medicaid Fee for Service payments** submitted by the Colorado Department of Health Care Policy and Financing Department (HCPF)
    b. **Behavioral Health payments** to providers submitted by Regional Accountable Entities (RAE)
    c. Medical payments to providers submitted by **Managed Care Organizations (MCO)**

Medicare Advantage

- Spending for the **Medicare Advantage** population increased at a higher rate between 2018 and 2019 in comparison to other payer types. This can be explained by a large payer's entrance into the Medicare Advantage market in 2019.

Medicare Fee-For-Service

- Medicare Part D claims are administered by commercial payers. Pharmacy data for the Medicare Fee-for-Service (FFS) population is based on commercial submissions for all years.

Top Outpatient Spending

- **Other category** contains a high proportion of uncategorized outpatient spending. Claims that make up a high percentage of the category include those for **dialysis, radiation/chemotherapy, cardiac catheterization, and treatment room costs**.
    a. Data quality concerns with a large payer prevent accurate classification of **Medicare Advantage** outpatient claims in 2019. As a result, the detailed Facility Outpatient categories are artificially decreased while the 'Facility Outpatient – Other' category is artificially increased.
- **Long-Term Care services show a significant jump in spending between 2018 and 2019**. This jump can be explained by a significant increase in Home and Community Based Services (HCBS).

For more information about this report, please contact us at info@civhc.org.