THE DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION

HCAI Technical Note for Healthcare Payments Data (HPD): Medical Out-of-Pocket Costs and Chronic Conditions in 2022

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Healthcare Payments Data Overview

The Healthcare Payments Database (HPD) serves as California's All Payer Claims Database (APCD), a research database made up of healthcare administrative data such as claims and encounters. These records are generated from transactions between payers and providers for insured individuals and collected from California plans and insurers. For additional information on the health plans and insurers that submitted data to HCAI, see the latest HPD Snapshot Technical Note found on the California Health and Human Services (CalHHS) Open Data Portal (ODP) page for the HPD Snapshot report.

Visit the HPD Program Overview web page for more information about the program and its aims.

Data Analysis Methods

Years of Data

The HPD Medical Out-of-Pocket Costs and Chronic Conditions in 2022 report was constructed using data from calendar year (CY) 2022. The extract date for this report was in October 2024.

Note: Medical claims were included based on the first date of service on each claim, rather than the date on which the claim was processed (or paid) by a plan ("Date Paid"). The Date Paid can be many days or months after the date the services was performed.

Claim Headers

The HPD Medical Out-of-Pocket Costs and Chronic Conditions in 2022 report uses cost data and service date information from medical claim header records. Each medical claim header record includes one or more medical service line records and is clustered by member, billing provider, submitter, submitted claim number, and service date range. The copay, coinsurance, and deductible on each medical claim header record is the sum of all copay, coinsurance, and deductible amounts, respectively, across all service lines associated with the claim excluding records with a "denied" claim status.

Chronic Condition Flags

A chronic condition flag indicates the presence or absence of a specific chronic condition at the individual member level for each calendar year based on diagnosis codes in the HPD medical claims data and criteria outlined by the Centers for Medicare & Medicaid Services (CMS) in the Chronic Conditions Data Warehouse. The following 23 chronic condition flags were used to create this report, in alphabetical order:

- Acute Myocardial Infarction
- Atrial Fibrillation

- Alzheimer's Disease
- Anemia
- Anxiety
- Asthma
- Breast Cancer
- Combined Cancer
- Chronic Kidney Disease
- Colorectal Cancer
- COPD
- Dementia
- Depression
- Diabetes
- Heart Failure
- Hip/Pelvic Fracture
- Hyperlipidemia
- Hypertension
- Ischemic Heart Disease
- Obesity
- Osteoporosis
- Rheumatoid Arthritis
- Stroke/Transient Ischemic Attack

The Chronic Conditions Data Warehouse (CCW) provides an algorithm for each chronic conditions which determines how the presence of that condition is identified. In most cases, the algorithm determines that a chronic condition is present if one of a set of associated diagnosis codes appears on at least one inpatient claim/encounter OR two outpatient or professional claims/encounters submitted for an individual member in the past 24 months.

Exceptions:

- Heart Attack (Acute Myocardial Infarction): the relevant diagnosis codes must occur on at least one inpatient claim/encounter in the past 12 months.
- Stroke (Transient Ischemic Attack): the relevant diagnosis codes must appear on at least one inpatient, outpatient, or professional claim/encounter in the past 12 months.
- Hip/Pelvic Fracture: the relevant diagnosis codes must appear on at least one inpatient or outpatient claim/encounter in the past 12 months.
- Obesity: the relevant diagnosis codes must appear on at least one inpatient claim/encounter OR two non-inpatient claims/encounters in the past 24 months.
- Anxiety: the relevant diagnosis codes must appear on at least one inpatient claim/encounter OR two non-drug claims/encounters in the past 24 months.

The All Combined Cancer flag includes diagnosis codes for Breast Cancer, Prostate Cancer, Lung Cancer, Endometrial Cancer, Urological Cancer, Colorectal Cancer

from the CCW, and diagnosis codes for Thyroid Cancer, Pancreatic Cancer, Cervical Cancer, and Bladder Cancer from the Council of State and Territorial Epidemiologists (CSTE).

See the Chronic Conditions Data Warehouse (CCW) Chronic Conditions Algorithms and Change History documentation for more information.

Data Inclusions and Exclusions

Individuals (or members) in HPD with at least one medical claim record in 2022 are included in this analysis. Pharmacy claims are not included in this data, which means that if an individual had a pharmacy claim but no medical claim record in 2022, they are not included in this analysis. In dashboard 2, only members who had at least one medical claim and experienced at least one chronic condition in 2022 are included.

Medical claims were only included if the payer listed on the claim matched the payer (or one of the payers) providing medical insurance coverage to the member listed on the claim during the month in which the medical services listed on the claim were rendered according to the HPD monthly enrollment records. Claims associated with commercial and Medicare Advantage plans were matched based on specific insurance product (e.g., Anthem HMO, Health Net). All other claims were matched based on payer type (Medi-Cal and Medicare FFS). About 1.78% of HPD claim records do not have a matching enrollment record based on payer and month in 2022 and are excluded from this analysis.

Furthermore, enrollment and medical claim records were excluded for:

- Null or invalid product code
- Individuals living outside of California
- Product types not accepted in HPD data submission regulations (e.g., dental payers, Medicare Supplemental, etc.)
- Claim status is not primary, unknown, or missing
- Adjusted claims that are not paired with an original claim (orphaned adjusted claims)
- Date of service or coverage date outside of the reporting period
- Claims with out-of-pocket cost smaller than 0

Definitions:

Member counts: The number of individuals with at least one medical claim record in 2022. Note that members may have different payer types pay for their medical services and receive those services in more than one county within a year. Because of this, summing the counts across payer types or counties may produce results that do not equal the reported statewide totals. The HPD Medical Out-of-Pocket Costs and Chronic Conditions in 2022 report follows California Health and Human Services Agency's Data De-Identification Guidelines. Based on these guidelines, member counts of less than 30 individuals are removed from the analyses and suppressed in the visualizations.

Out-of-Pocket cost: The sum of the copay, coinsurance, and deductible across at the medical claim header level across all claim records associated with a member in

2022. The median out-of-pocket cost per member is reported. The 25th and 75th percentiles for out-of-pocket cost per member are also reported in dashboard 2.

Claim counts: The number of distinct medical claims associated with a member in 2022. Each claim consists of a cluster of medical service lines, a billing provider, submitter, submitted claim number, and service date range. The median claim count per member is reported. The 25th and 75th percentiles for the claim count per member are also reported in dashboard 2.

Chronic conditions: The "Chronic Conditions" measure in dashboard 1 is created based on the 23 chronic condition flags. If the chronic condition flags indicate that a member has no chronic conditions, that member is added to the "without chronic condition" group. If one or more chronic condition is present, the member is added to the "with chronic conditions" group. In dashboard 2, the chronic condition flags are used to create the "Number of Chronic Conditions" measure. Members who have only one chronic condition are added to the "one chronic condition" group. Members who have more than one chronic condition are added to the "multiple chronic conditions" group.

County: Members' most recent residential address in 2022 is used to assign them, their claims and the associated out-of-pocket costs to a county.

Payer Types: The companies, programs, and organizations that oversee insurance plans and reimburse healthcare providers. Three main types of payers make up the majority of the insurance market: Medicare, Medi-Cal, and Commercial.

- Commercial: Insurance products for which the coverage premium is paid by a private party, such as an employer, individual, or other entity.
- Medicare: A federal health insurance program funded by the Centers for Medicare & Medicaid Services under the Social Security Amendments of 1965 that provides healthcare benefits to those aged 65 years and over or to disabled beneficiaries of any age. This report disaggregates the Medicare data by Medicare Fee-For-Service and Medicare Advantage. "Medigap" supplemental coverage is not captured in the HPD but which many Medicare beneficiaries purchase to reduce their OOP costs.
- Medi-Cal: A public health insurance program that provides free or low-cost medical services and healthcare benefits to low-income individuals, financed from state and federal funds; California's version of Medicaid. The Medi-Cal data includes Fee-For-Service and Managed Care grouped together.

Payer types listed on primary claims and match with the monthly enrollment records are used in this analysis. Specifically, matching process was applied to ensure the member had coverage from the payer listed on the medical claim during the month in which the service was rendered.