P1002 Cost Report: Methodological Notes

11/3/2017

Description of Cost Measures

This series of reports reflects payments made by health insurance payers and members for medical services and prescriptions filled Per Person Per Year (PPPY), for Coloradans with health insurance. The PPPY calculation does NOT include premium information, and only reflects payments made for actual services rendered or prescriptions filled.

The PPPY measure is calculated by summing all dollars spent on medical and pharmacy services divided by the total number of insured-years. The total dollars spent on medical and pharmacy services are based on insurance claims submitted to the Colorado All-Payer Claims Database (CO APCD) by health insurance plans. Insured-years are calculated by summing the months of insurance eligibility for all people with at least one month of eligibility in the reporting period, then dividing the result by 12. The PPPY value is displayed as a dollar amount.

There are three cost measures displayed in these reports:

1. Health Plan Cost PPPY, or the amount of dollars paid solely by the health plan,
2. Patient Cost PPPY, or the amount of dollars paid solely by the patient, also known as "out-of-pocket" cost, and
3. Health Plan and Patient Cost PPPY, the sum of Health Plan Cost and Patient Cost.

Dollar amounts were calculated without any adjustments for inflation or illness burden of the population.

Demographic Characteristics

Demographic characteristics reflect the information available in a person's most recent record in a calendar year. For example, if the most recent record is from March 2015, the person's demographic information—location of residence, gender, etc. —will reflect their status as of March 2015. The only exception to this is the age characteristic, which is calculated as of December 31st of the reporting year. Age groups available in this report are: 0 to 17 ("Child"), 18 to 34 ("Young Adult"), 35 to 64 ("Mature Adult"), 65 or older ("Senior Adult").

Only residents of Colorado are reflected in the data. State resident status is also determined based on the most recent record, which indicates whether the person resides in a ZIP code within Colorado. The measures are displayed by rural and urban counties, a grouping based on the U.S. Office of Management and Budget county-level designation: counties that are part of a Metropolitan Statistical Area are considered "urban"; all other counties are considered "rural."[1]

Geographic Groupings

Geographic breakdowns in the report are counties and Health Statistics Regions (HSR). HSR geographic areas are derived by the Colorado Department of Public Health and Environment in partnership with state and local public health officials[2]. Typically, an HSR represents a group of adjacent counties. Some HSRs, however, represent the area of a single county.

---

[1] Colorado Rural Health Center (2016). *Colorado: County Designations, 2016.* Retrieved from http://coruralhealth.wpengine.netdna-cdn.com/wp-content/uploads/2016/03/2016.CountyDesignations.pdf on July 13, 2017.

[2] http://www.chd.dphe.state.co.us/HealthDisparitiesProfiles/dispHealthProfiles.aspx

Service Categories

There are four major service categories displayed in this report: Inpatient, Outpatient, Professional and Pharmacy. Inpatient services refer to health care services received after being admitted to a hospital, skilled nursing facility or another institution offering inpatient services. Outpatient services are health care services received in a place such as a hospital or clinic without being admitted. Professional services are services delivered by a physician or other health care professional, such as a nurse practitioner, chiropractor, psychiatrist, or oncologist, and can be received as either an inpatient or outpatient in a variety of health care facility types. Pharmacy services refer to prescriptions that were filled and paid for through health insurance for generic or brand medications. Please note that pharmacy costs do not include any rebates, discounts or subsidies that may have been received by either the payer or the patient after fulfillment.

PPPY values for Inpatient, Outpatient and Professional services are based on insured-years for people with at least one month of *medical* eligibility in the reporting period. PPPY values for Pharmacy services are based on insured-years only for people with at least one month of *prescription drug* eligibility. Overall PPPY values are calculated using insured-years for people with at least one month of either *medical* or *prescription drug* eligibility. Not all people with insurance coverage are eligible for both medical and pharmacy services and, as a result, the Total PPPY values do not equal the sum of the PPPY values for Inpatient, Outpatient, Professional and Pharmacy services.

Payer Types

Payer type is created by assigning each person to an *annualized* payer type based on their primary medical insurance information during a reporting year, regardless of whether the person had insurance for just a single month, the full year, or any number of months in-between. For months with overlapping insurance for distinct payer types, a hierarchy is implemented, favoring the month-level assignment to Medicare Advantage first, commercial second, Medicaid last. The annualized assignment is based on the payer type with the highest number of months with commercial, Medicaid or Medicare Advantage insurance, based on the initial month-level assignment. In the event of a tie in number of months with insurance for a particular payer type, a similar hierarchy is implemented. For example, a person with commercial insurance for six months and Medicare Advantage insurance for the other six will receive the Medicare Advantage payer type at the annual level. A person with just four months of insurance during a year, two of them commercial, two Medicare Advantage, will receive the same annualized payer type, i.e., Medicare Advantage.

Pharmacy and dental insurance eligibility information, or secondary insurance information, is not considered when assigning a payer type. Once a person is assigned a payer type, all medical and pharmacy claim records for that person are associated with that assignment, regardless of the insurance type information on the claim record.

The payer types available in this report are: Commercial, Medicaid, Medicare Advantage, and a combination of all three types labeled as "All Payers."

For more information on how the CO APCD Medicaid and the Colorado Department of Health Care Policy and Financing Medicaid reported costs differ, please click here.

Comparison to Statewide and Ratio Benchmark

The statewide PPPY is used to compare the PPPY of counties or HSRs[3]. The ratio to statewide is constructed by dividing each county or HSR PPPY by the statewide PPPY. The resulting ratio values can be interpreted as follows:

- A ratio value below 1.0 means that the county / HSR PPPY is lower than statewide PPPY, for example a ratio of .85 reflects a county value that is 15% below the statewide PPPY.
- A ratio value above 1.0 means that the county / HSR PPPY is higher than statewide PPPY, for example a ratio of 1.15 reflects a county PPPY that is 15% above the statewide PPPY.
- A ratio value of 1.0 means that the county / HSR PPPY is equal to the statewide PPPY.

---

[3] See Description of Cost Measures section above for more information on the PPPY calculation.

Data Suppression

Following privacy protection standards used by the Centers for Medicare & Medicaid Services (CMS), data are suppressed for values based on fewer than 11 insured-years. Throughout the reports, a blank table cell or a data point not displayed in a chart indicates that data has been suppressed due to low volume.

Data Limitations

Data presented in this report are the result of a process that strives to ensure the high quality, reliability, and accuracy of the final product. Potential areas of concern are investigated and addressed accordingly, on a regular basis, and while every effort is made to address all known areas of concern for this report, some may remain.

Data for small population breakdowns or for rare events should be interpreted with caution, since they are prone to significant fluctuations. Colorado counties with small populations (fewer than 5,000 people overall) include: Baca, Cheyenne, Costilla, Custer, Dolores, Gilpin, Hinsdale, Jackson, Kiowa, Lincoln, Mineral, Ouray, Phillips, San Juan, Sedgwick, Saguache, and Washington.

Data Vintage

Information regarding the payers and covered lives represented in this public report is available in the Data Vintage reference guide.

Terms & Conditions of Use

This report and any such data made available on or obtained through the APCD website is subject to the current Terms of Use and Privacy Policy.