CIVHC

CENTER FOR IMPROVING VALUE IN HEALTH CARE

Community Dashboard: Methodological Notes

Spring 2023

The Community Dashboard provides communities across Colorado with information on health care cost, utilization, access and quality of care. The data is based on 2013-2021 claims from the Colorado All Payer Claims Database (CO APCD) and represents the majority of Colorado residents with health insurance. The CO APCD includes claims for Medicaid, Medicare Advantage, and Medicare Fee-for-Service, and commercially insured lives except for most ERISA-based self-insured employer claims. Federal insurance programs such as Veterans Affairs, Indian Health Services, and Tricare are not included.

Below are methodological considerations applicable to both the interactive Community Dashboard and to the associated data files. The data files include additional measures and demographic breakdowns for the measures included on the interactive dashboard. Both the interactive report and the data files are available publicly at www.civhc.org.

Description of Measures

Cost of Care Measures

Cost measures reflect payments made by health insurance payers and insured individuals for medical services and prescriptions filled Per Person Per Year (PPPY) for Colorado residents. The PPPY calculation does NOT include premium information and only reflects payments made for actual services received or prescriptions filled. Prescription drug costs also do not include drug rebates received by payers after paying for prescription drugs.

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 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. For all cost measures, **lower values are better**.

There are three cost breakdowns displayed in the report:

1. Health Plan Only Cost PPPY, or the amount of dollars paid solely by health insurance plans,
2. Patient Only Cost PPPY, or the amount of dollars paid solely by the patient, also known as "out-of-pocket" cost, which includes copay, coinsurance and deductibles, and
3. Total Cost (Health Plan and Patient) PPPY, the sum of Health Plan Cost and Patient Cost.

Dollar amounts were calculated in two ways: 1) without any adjustments for population risk, and 2) with risk-adjustment applied. Both sets of calculations are available in the detailed data files, whereas the interactive dashboard online displays only the risk-adjusted measures. The risk-adjusted amounts are based on the Johns Hopkins Adjusted Clinical Groups (ACG) System, which assigns weights to patients

based on diagnoses, disease patterns, age, and gender to account for differences in member's illness burden. These weights are then used to calculate the risk-adjusted measures. By using these weights, the calculated amounts yield more apples-to-apples comparisons of cost between different populations, within a specific year and payer type.

Neither cost calculation (with or without risk-adjustment) includes any adjustment for inflation over time. For Medicaid, the allowed amounts impacting the health plan portion include supplemental hospital payments that Medicaid pays to hospitals outside of the claims process.

There are four major service categories displayed for cost measures 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. Inpatient services include payments for facility services only. It is important to note that Medicaid pays for services that are not covered by commercial payers (e.g., long term care services and nursing facilities). It is important to keep this in mind when comparing Medicaid inpatient costs with inpatient costs from other Payer types.
- **Outpatient** services are health care services received in a place of service such as an acute care or critical access hospital, without being admitted, home health services, or services received in ambulatory surgery centers, rural health clinics, Federally Qualified Health Centers (FQHCs), or other outpatient facilities. Outpatient services include payments for facility services only.
- **Professional** services are those provided by physicians or other health care professionals, such as a nurse practitioner, chiropractor, psychiatrist, or oncologist, and refer primarily to non-institutional costs for evaluation and management services (e.g., office visits, specialist consultations, hospital and emergency room visits, home visits, nursing home visits) and procedures (e.g., major and minor surgical procedures, ambulatory procedures, anesthesia, endoscopies, imaging procedures). These services can be provided in conjunction with an inpatient or outpatient visit across a variety of health care facility types, but are displayed separately in the dashboard. This category also includes additional costs from non-institutional providers or suppliers for lab tests, cardiovascular tests, durable medical equipment (e.g., the administration of selected drugs, prosthetic devices, oxygen and other supplies), ambulance, chemotherapy, vaccinations, and other services and supplies.
- **Pharmacy** services refer to prescriptions filled and paid for through health insurance for generic or brand and specialty brand medications. Please note pharmacy costs do not include any rebates, discounts, or subsidies that may have been received by either the payer or the patient after fulfillment. These costs also exclude physician-administered drugs that were received in an inpatient or outpatient setting.

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. An eligibility month with both medical and prescription drug coverage counts as a single month when calculating insured-years. **Not all people with insurance**

coverage are eligible for both medical and pharmacy services. As a result, the Total PPPY values do not equal the sum of the PPPY values for Inpatient, Outpatient, Professional, and Pharmacy services.

Utilization Measures

General Health Care Use Measures

The Johns Hopkins ACG grouping system[1] developed Resource Use categories to group people who use similar levels of health care resources. The data provided in the Community Dashboard includes the two categories of the ACG classification that describe the lowest use of health care resources, to provide complementary statistics for the higher intensity health care utilization measures (e.g., use of emergency departments) described in the next section, reflecting individuals with low through very high morbidity. The measure values provided represent the count of people who meet the resource use criteria reported as a rate per 1,000 insured people, and are calculated for all people with at least one month of eligibility in the reporting period.

- **Non-Users (lower rates are better)** – count of people with insurance coverage, but without a CO APCD claim during the year (ACG Resource Utilization Band level 0). This measure indicates people with insurance who are not using their insurance. This count also includes people who do not have enough diagnostic information on their claims to be accurately classified into the appropriate resource use category.
- **Healthy Users (higher rates are better)** – count of people whose diagnostic information contains only data about preventive services and minor conditions during the year (ACG Resource Utilization Band level 1). This measure indicates people who are “healthy” and use their health insurance for well-visits, preventive and minor acute care.

Emergency Department Use Measures

The Community Dashboard includes a subset of measures referring to Emergency Department visits, calculated as the count of emergency department visits per 1,000 insured people. These measures were derived using the Patched New York University Emergency Department (ED) visit algorithm[2] (NYU algorithm). In addition to overall ED visits, the algorithm calculates the probability that an emergency department visit was preventable based on the primary diagnosis code of the visit. The interactive dashboard displays two categories: **Emergency Department Visits: All**[1], and **Emergency Department Visits: Potentially Preventable**. Breakouts of the potentially preventable Emergency Department visits categories, listed below, are available in separate data files. Each measure represents the count of emergency department visits of a specific type per 1,000 insured people aged 18 or older with medical

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[1] The Johns Hopkins University Bloomberg School of Public Health (2014). The Johns Hopkins ACG System Technical User Guide, Version 11.0. Retrieved from https://www.healthpartners.com/ucm/groups/public/@hp/@public/documents/documents/cntrb_035024.pdf on October 14, 2016.

[2] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5517669/

[1] Please note that in the 2020 Community Dashboard, the methodology used for calculating this measure was different, and it was based on output from the Johns Hopkins ACG grouping system. Due to the change in methodology, we advise against comparing measure output from the previous Community Dashboard iteration with the current output.

insurance coverage at least 11 months out of the measurement year. For all ED measures, **lower rates are better**.

- **Emergency Department Visits: All** – number of outpatient visits with an emergency department revenue code, procedure code, or place of service code, regardless of reason of the visits defined by primary diagnosis.
- **Emergency Department Visits: Potentially Preventable** – number of outpatient visits with an emergency department revenue code, procedure code, or place of service code; and a primary diagnosis code for which the NYU algorithm indicated that there was at least a 50% combined probability that the ED care need fell into one of the two preventable categories below:
    - **Emergency Department Visits: Potentially Preventable, Nonemergent** – number of outpatient visits with an emergency department revenue code, procedure code, or place of service code and a primary diagnosis code for which the NYU algorithm indicated at least a 50% probability that the need was nonemergent (did not require contact with the medical system within 12 hours). *Note that this measure is available only in the data files that accompany the interactive dashboard.*
    - **Emergency Department Visits: Potentially Preventable, Emergent but Primary Care Treatable** – number of outpatient visits with an emergency department revenue code, procedure code, or place of service code; and a primary diagnosis code for which the NYU algorithm indicated at least a 50% probability that the need was emergent and could have safely been treated in a lower-severity setting. *Note that this measure is available only in the data files that accompany the interactive dashboard.*
- **Emergency Department Visits: Potentially Preventable, Emergent, ER Care Needed but Avoidable** – number of outpatient visits with an emergency department revenue code, procedure code or place of service code; and a primary diagnosis code for which the NYU algorithm indicated at least a 50% probability that the need was emergent and could not have been treated in a lower-severity setting, and where the need could have been avoided with earlier management. *Note that this measure is available only in the data files that accompany the interactive dashboard.*

Hospital Use Measures

Lastly, the report includes four measures referring to hospitalizations. One of the hospitalization measures in this report is a claims-based adaptation of the Prevention Quality Indicators (PQIs). The PQIs "identify issues of access to outpatient care, including appropriate follow-up care after hospital discharge." The PQIs consist of "admission rates for ambulatory care sensitive conditions," hospital admissions that evidence suggests could have been avoided through high-quality outpatient care or that reflect conditions that could be less severe if treated early and appropriately; these indicators can be a crucial tool for community health needs assessments.[3]

The hospital use measures in this report are:

- **Hospital Admissions: Potentially Preventable, Per 100,000 People (lower rates are better)** – the Prevention Quality Overall Composite (PQI 90), also referred to as Hospital Admissions for

[3] Agency for Healthcare Research and Quality (2021). Retrieved from https://www.qualityindicators.ahrq.gov/Modules/pqi_resources.aspx#techspecs, August 6, 2021.

Ambulatory Care Sensitive Conditions, was developed by the U.S. Department of Health and Human Service's Agency for Healthcare Research and Quality[4] (AHRQ) and is a composite measure of the following individual PQI measures:

- PQI 1 Diabetes Short-Term Complications Admission Rate;
- PQI 3 Diabetes Long-Term Complications Admission Rate;
- PQI 5 Chronic Obstructive Pulmonary Disease or Asthma in Older Adults Admission Rate;
- PQI 7 Hypertension Admission Rate;
- PQI 8 Heart Failure Admission Rate;
- PQI 11 Community Acquired Pneumonia Admission Rate;
- PQI 12 Urinary Tract Infection Admission Rate;
- PQI 14 Uncontrolled Diabetes Admission Rate;
- PQI 15 Asthma in Younger Adults Admission Rate;
- PQI 16 Lower-Extremity Amputation among Patients with Diabetes Rate.

The overall composite is calculated by summing the number of hospital discharges among patients ages 18 years or older that meet the inclusion and exclusion rules for the numerator, based on ICD diagnosis and procedure data, in any of a composite's component measures and dividing by the population ages 18 years or older. Hospital discharges that meet the criteria for the numerator in more than one of the above PQIs are counted only once in the composite numerator. The denominator was adapted to the purposes of this report, and it is calculated as the number of CO APCD people ages 18 and older with medical insurance coverage for at least 11 months during the measurement year. This measure is displayed as a risk-adjusted rate, which incorporates information about the observed rate, expected rate, and a reference population. Covariates that are considered as potential risk adjusters include sex, age, and county. The risk-adjusted rate is the ratio of the observed rate and expected rate multiplied by the reference population observed rate.

- **Hospital 30-Day Readmissions Per 1,000 People (lower rates are better)** – admissions within 30 days after discharge for all cause (planned and unplanned) inpatient hospitalizations. This measure is derived with the Johns Hopkins ACG grouping system and is an observed rate.[5] The measure is calculated among CO APCD people with at least one month of eligibility in the reporting period. Higher readmission rates are associated with increased mortality and higher health care costs. Readmission can be prevented through increased quality of care at the hospital, in conjunction with appropriate post-discharge planning and care coordination, and increased support for patient self-management.
  There are two subcomponent measures included in the report, in addition to the total readmission rate:

[4] Agency for Healthcare Research and Quality (2020). Retrieved from https://www.qualityindicators.ahrq.gov/ on January 19, 2021.

[5] The Johns Hopkins University Bloomberg School of Public Health (2014). The Johns Hopkins ACG System Technical User Guide, Version 11.0. Retrieved from https://www.healthpartners.com/ucm/groups/public/@hp/@public/documents/documents/cntrb_035024.pdf on October 14, 2016.

- **Hospital 30-Day *Unplanned* Readmissions Per 1,000 People (lower rates are better)** – unplanned admissions within 30 days after discharge for all cause (planned and unplanned) inpatient hospitalizations
- **Hospital 30-Day *Planned* Readmissions Per 1,000 People (lower rates are better)** – planned admissions within 30 days after discharge for all cause (planned and unplanned) inpatient hospitalizations

Quality of Care

The Institute of Medicine[6] defines quality of care as "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." Using CO APCD data, CIVHC has produced many nationally-endorsed[7] quality measures used by national and state-sponsored programs.

Preventive Care: This report includes two preventive measures. Preventive care is an important part of health care quality by helping populations remain healthy. The measures of preventive care include:

- **Breast Cancer Screening (higher is better):** calculated as the percentage of women 50 to 74 years old who had one or more mammograms to screen for breast cancer during the measurement year and two years prior to the measurement year. To be included, patients must have medical insurance coverage for at least 11 months during the measurement year, during the prior year and also during October through December two years prior to the measurement year.
- **Cervical Cancer Screening (higher is better):** calculated as the percentage of women 21 to 64 years old with one or more screenings for cervical cancer. Appropriate screenings are defined by any one of the following criteria:
  - Cervical cytology (pap test) performed during the previous three years for women who are at least 21 years old at the time of the test;
  - Cervical cytology/human papillomavirus (HPV) co-testing performed during the previous five years who are at least 30 years old at the time of the test.

  To be included, patients with Medicaid insurance must have medical insurance coverage for at least 11 months during the measurement year, and for those with commercial insurance—medical insurance coverage for at least 11 months during the measurement year and also during each of the prior two years.

Appropriate Medical Treatment: The Community Dashboard also includes a measure that indicates whether a chronic condition is being managed according to current professional knowledge. Managing chronic conditions appropriately is an important part of health care quality and improving health

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[6] Institute of Medicine. (1990). *Medicare: A strategy for quality assurance*, Vol.1. Washington, DC, National Academy Press.

[7] The quality measures used in this report which are endorsed by the National Quality Forum (NQF) and based on HEDIS® measures are: Breast Cancer Screening NQF 2372; Cervical Cancer Screening NQF 0032; Diabetes HbA1c testing NQF 0057; Follow-Up After Emergency Department Visit for Mental Illness NQF 3489. The logic used to produce these HEDIS® measure results has not been certified by NCQA. The results are based on unadjusted HEDIS specifications and have not been audited by an NCQA-Certified Auditor. Such results are for reference only and are not an indication of measure validity.

because it prevents further complications in populations who already have a disease. The measure included in the report is related to diabetes management:

- **Diabetes HbA1c Testing (higher is better):** calculated as the percentage of patients 18 to 75 years old with diabetes type I or II who received a diabetes Hemoglobin A1c (HbA1c) test during the measurement year. To be included, patients must have medical insurance coverage for at least 11 months during the measurement year.

Behavioral Health Follow-Up Care: The Community Dashboard includes two behavioral health measures that indicate if a follow-up service was received after a visit to the Emergency Department (ED) for a mental health reason. To be included for both measures, patients must have medical or behavioral health insurance coverage on the date of the ED visit through 30 days after the ED visit. The measures are:

- **Mental Health Emergency Department Visits: Follow Up Within 30 Days (higher is better):** calculated as the percentage of ED visits for patients ages 6 or older with a principal diagnosis of mental illness or intentional self-harm which had a follow-up visit for mental illness within 30 days of the ED visit.
- **Mental Health Emergency Department Visits: Follow Up Within 7 Days (higher is better):** calculated as the percentage of ED visits for patients ages 6 or older with a principal diagnosis of mental illness or intentional self-harm which had a follow-up visit for mental illness within 7 days of the ED visit.

Literature suggests that it is more likely for an outpatient follow-up visit to occur if the appointment occurs sooner rather than later, especially if the visit is scheduled within a week from the ED discharge.

Access to Care

The Community Dashboard also includes several access to care measures[8], a category of measures that provides information on the accessibility of primary or specialty health care encounters.

The measures of access to care include the following measures:

- **Access to Care: Adults (higher is better):** calculated as the percentage of patients 20 years and older who had an ambulatory or preventive care visit during the measurement year for Coloradans covered by Medicaid and Medicare, or during the measurement year and the two years prior to the measurement year for the commercially insured. To be included, patients with Medicaid or Medicare insurance must have medical insurance coverage for at least 11 months during the measurement year, and for those with commercial insurance—medical insurance coverage for at least 11 months during the measurement year and also during each of the prior two years.
- **Access to Care: Children and Adolescents (higher is better)**: calculated as the percentage of patients 12 months to 19 years of age who had at least one visit with a Primary Care Practitioner (PCP) over a slightly different time frame depending on age group, as follows:

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[8] The logic used to produce these HEDIS® access to care measure results has not been certified by NCQA. The results are based on unadjusted HEDIS specifications and have not been audited by an NCQA-Certified Auditor. Such results are for reference only and are not an indication of measure validity.

    - Children 12 to 24 months and 25 months to 6 years who had a visit with a PCP during the measurement year. To be included, children must have medical insurance coverage for at least 11 months during the measurement year.
    - Children 7 to 11 years and adolescents 12 to 19 years who had a visit with a PCP during the measurement year or the year prior to the measurement year. To be included, children must have medical insurance coverage for at least 11 months during the measurement year and also during the prior year.
- **Well-Child Visits: First 15 Months, Six or More Visits (higher is better):** calculated as the percentage of patients who turned 15 months old during the measurement year and had six or more well-child visits with a PCP at any time since birth. To be included, children must have medical insurance coverage between 31 days and 15 months of age, with no more than 1 month of gap in coverage during this time frame.
- **Well-Child Visits: 16 to 30 Months, Two or More Visits (higher is better):** calculated as the percentage of patients who turned 30 months old during the measurement year and had two or more well-child visits with a PCP at any time in the past 15 months. To be included, children must have medical insurance coverage between 16 and 30 months of age, with no more than 1 month of gap in coverage during this time frame.
- **Well-Care Visits: Children and Adolescents (higher is better):** calculated as the percentage of patients ages 3 to 21 who had at least one comprehensive well-care visit with a PCP or an obstetrician/gynecologist (OB/GYN) practitioner during the measurement year. To be included, patients must have medical insurance coverage for at least 11 months during the measurement year.

Demographic Characteristics

The dashboard presents measure values by **geographical location** (by county and Division of Insurance Region) of the insured person's residence. Additional demographic breakdowns by age group and gender are available separately in the downloadable data files. However, some measures have consistently low cell sizes, and these demographic breakdowns have not been produced (e.g., Hospital Admissions: Potentially Preventable, Per 100,000 People). Individuals for whom age or gender information is not available or unknown are excluded from all analyses.

Demographic characteristics reflect the result of an assessment of all available claims at the person level. Age is calculated as of December 31st of the reporting year. The typical age groups used in this report are: 0 to 17 ("Child"), 18 to 34 ("Young Adult"), 35 to 64 ("Mature Adult"), 65 or older ("Senior Adult"). Quality of care and access to care measures have specific age ranges and, in some cases, age subgroup requirements.

Only residents of Colorado are reflected in the data. State resident status is determined based on the most recent insurance eligibility record available in a given year, which indicates whether the person resides in a ZIP code within Colorado. All calculations are based on where Colorado residents live, not where they received care. For example, cost of care for patients living in Eagle county may not correlate directly with cost to receive care in Eagle county if residents in that area travel to other counties to receive care. For specific information regarding prices for services at particular facilities in Colorado, visit our Shop for Care or Medicare Reference-based Price webpages.

Geographic Groupings

Geographic breakdowns available in the report are Colorado counties and Division of Insurance (DOI) commercial insurance geographic rate setting areas.[9] The following is a list of counties in each DOI region, along with the label displayed for each region in this report:

- Rating Area 1 – Boulder: Boulder
- Rating Area 2 – Colorado Springs: El Paso, Teller
- Rating Area 3 – Denver: Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, Park
- Rating Area 4 – Ft. Collins: Larimer
- Rating Area 5 – Grand Junction: Mesa
- Rating Area 6 – Greeley: Weld
- Rating Area 7 – Pueblo: Pueblo
- Rating Area 8 – East: Alamosa, Baca, Bent, Chaffee, Cheyenne, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Kit Carson, Las Animas, Lincoln, Logan, Mineral, Morgan, Otero, Phillips, Prowers, Rio Grande, Saguache, Sedgwick, Washington, Yuma
- Rating Area 9 – West: Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, La Plata, Lake, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, Summit

Payer Types

The payer types available in this report are: All Payers, CHP+, Commercial, Medicaid, Medicare Advantage, Medicare Fee-For-Service (Medicare FFS). CHP+ refers to the Child Health Plan Plus health insurance coverage, a public low-cost health insurance option for certain children and pregnant women, for people who earn too much to qualify for Medicaid, but not enough to pay for private health insurance.

For cost and selected health care use measures such as rates of non-users, healthy users, and for the Hospital 30-Day Readmissions Per 1,000 People (Overall, Planned and Unplanned), payer type is assigned based on their eligibility months with primary medical insurance information for the respective payer type during a reporting year, counting the number of months with the respective payer type regardless of whether the person had insurance for just a single month, the full year, or any number of months in-between.

Pharmacy eligibility information is considered when assigning a payer type for calculating pharmacy costs, if the medical eligibility information is not present. 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. Secondary insurance information is not considered when assigning a payer type.

For quality of care, access to medical care, and the ED-related health care use measures, payer type is defined based on primary insurance information at the person-eligibility-month level with additional measure- and payer-type specific criteria for continuous enrollment during the time frame specific to each measure. Payer type is assigned if, for example, for someone with 11 or 12 months of continuous

[9] https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Market-Reforms/co-gra

enrollment in a year, six or seven of those months, respectively, have had coverage from the respective payer type.

Depending on the measure, certain payer types are unavailable, as per measure methodology specifications, and are displayed as "n/a" on the dashboard and as blank values or absent breakdowns in the detailed data files.

- The following measures are unavailable for Medicare FFS and Medicare Advantage:
  - Cervical Cancer Screening;
  - Access to Care: Children and Adolescents;
  - Well-Child Visits: First 15 Months, Six or More Visits;
  - Well-Child Visits: 16 to 30 Months, Two or More Visits;
  - Well-Care Visits: Children and Adolescents.
- The following measures are constructed for the adult population, and as such, the CHP+ payer type is largely not applicable; occasionally, some individuals with CHP+ coverage may be present in the Medicaid payer type for these measures.
  - Access to Care: Adults;
  - Breast Cancer Screening;
  - Cervical Cancer Screening;
  - Diabetes HbA1c Testing;
  - Emergency Department Visits: All, Per 1,000 People;
  - Emergency Department Visits: Potentially Preventable, Per 1,000 People;
  - Emergency Department Visits: Potentially Preventable, Nonemergent, Per 1,000 People;
  - Emergency Department Visits: Potentially Preventable, Emergent but Primary Care Treatable, Per 1,000 People;
  - Emergency Department Visits: Potentially Preventable, Emergent, ER Care Needed but Avoidable, Per 1,000 People;
  - Hospital Admissions: Potentially Preventable, Per 100,000 People (Observed);
  - Hospital Admissions: Potentially Preventable, Per 100,000 People (Risk-Adjusted).

  Aside from the exceptions in the list above, measures have both Medicaid and CHP+ payer types available, where Medicaid represents only individuals with Medicaid coverage, and CHP+ only represents children and pregnant women that have CHP+ coverage, i.e. these payer types are mutually exclusive.

Medicare FFS claims for medical and pharmacy are submitted on an annual as opposed to a monthly basis for other payers. As a result, Medicare FFS claims are not available for both medical and pharmacy claim types and for all years displayed in the dashboard. For more information about what's currently available in the CO APCD (paid through dates), click here.

Comparison to Statewide and Urban/Rural Benchmarks

For each county or DOI region value, the dashboard displays three data points for comparison purposes: measure values at the state level, and overall for all urban counties and rural counties. The rural and urban county classification is 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”, and all other counties are considered “rural”.[10] The following is a list of rural and urban Colorado counties:

- Urban counties (17): Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, El Paso, Elbert, Gilpin, Jefferson, Larimer, Mesa, Park, Pueblo, Teller, and Weld;
- Rural counties (47): Alamosa, Archuleta, Baca, Bent, Chaffee, Cheyenne, Conejos, Costilla, Crowley, Custer, Delta, Dolores, Eagle, Fremont, Garfield, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Kiowa, Kit Carson, La Plata, Lake, Las Animas, Lincoln, Logan, Mineral, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Phillips, Pitkin, Prowers, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Sedgwick, Summit, Washington, Yuma.

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 units. For example, cost PPPY values based on fewer than 11 insured-years or emergency department rates based on fewer than 11 visits. Throughout the dashboard and the data files, data points impacted by low volume are replaced with an “n/a” on the dashboard and left as blank cells in the data files.

Data Limitations

Data presented in this report are the result of a process that strives to ensure high quality, reliable, and accurate information. 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. Additionally, when comparing costs across different payer types, keep in mind that not all Payers cover the same services, for example the Medicaid program covers long term care, and home health services that are not usually covered by other payers.

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) at one point during the reporting time frame include: Baca, Cheyenne, Costilla, Custer, Dolores, Gilpin, Hinsdale, Jackson, Kiowa, Lincoln, Mineral, Ouray, Phillips, San Juan, Sedgwick, Saguache, and Washington.

Some measures are impacted by analytic processes executed at a time when the CO APCD did not have available the 2021 medical and pharmacy claim records for Medicare FFS. This has impacted the following measures displayed in this report:

- Risk-Adjusted Cost Per Person Per Year – all breakdowns;
- Healthy Users Per 1,000 People;
- Non-Users Per 1,000 People;
- Hospital 30-Day Readmissions Per 1,000 People;
- Hospital 30-Day Unplanned Readmissions Per 1,000 People;
- Hospital 30-Day Planned Readmissions Per 1,000 People.

[10] 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.

Each measure was impacted for the following breakdowns:

- 2021, Medicare FFS, and
- 2021, All Payers.

Beyond the measures and breakdowns listed above, there was one additional breakdown combination of the Risk-Adjusted Cost Per Person Per Year measure that was impacted: 2021, Medicare Advantage.

Those impacted 2021 data points are displayed as “n/a” on the dashboard and as blank values in the detailed data files.

Data Vintage

This report is based on claims data in the CO APCD data warehouse as of the November 14, 2022 release. For more information about number of claims in the CO APCD during a particular reporting year and data discovery information regarding payer submissions, please visit our website at civhc.org.

For more information or additional questions, contact us at info@civhc.org.

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