Clarify

Clarify Standard Amount Methodology

Table of contents

WHITE PAPER

Background

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Efficiency is one of the most important dimensions used to evaluate providers. The United States spends more on healthcare as a percent of the economy and per capita than any other nation, yet does not have better outcomes (Nunn, 2020). Although many factors contribute to this issue, this is partly influenced by the overutilization of healthcare services and varying practice patterns. Clarify examines and surfaces insights on utilization using a standardization methodology around resource use. The standardization methodology is referred to as Clarify Standardized Amount.

What is Resource Use?

Resource use refers to the scope, intensity, and specialization of all services used in providing care for patients. This includes the labor (e.g., physician's time) and non-labor (e.g., technology) resources that a patient receives in a healthcare setting.

Over the past decades, many health care organizations have built resource use methodologies as a foundation for determining payments. For example, Centers for Medicare and Medicaid Services (CMS) developed Medicare Severity Diagnosis Related Groups (MS-DRGs) that identifies the typical set of services or resources necessary for treating a condition. Each DRG receives a weight relative to other DRGs that allows for the cross comparison of average resources across DRGs. CMS applies a series of adjustments (e.g., indirect medical education payment, geographic factors) to a base payment to calculate the final paid amount.

For physician services, many payers rely on American Medical Association's (AMA) relative value unit (RVU) as the foundation for payments. AMA's methodology also assigns resource use weights relative to each other. For example, a surgical procedure may have an RVU over 30.0 while an evaluation and management visit may have an RVU of less than 1.0.

Why does Clarify Standardize?

Remove Cost-of-Living Differences

When comparing providers nationally, Clarify removes the geographic factor that makes health care services more expensive in certain cities or regions of the country. If the paid, allowed, or charge amounts were used, providers in high-cost areas would generally appear as worse performers than low-cost areas.

Excludes Special Payments Adjustments

Payers may add or remove funds to the final paid amount that shouldn't be considered when assessing provider performance. These adjustments are also removed from evaluating the services that a provider rendered.

Emphasizes Resource Use

Clarify's standardization methodology emphasizes resource use by removing the changes in cost-of- living and adjustments mentioned in this table. The resource use of a physician service in an office in one part of the country will be equivalent to that same service in a different part of the country.

Enable Predictions

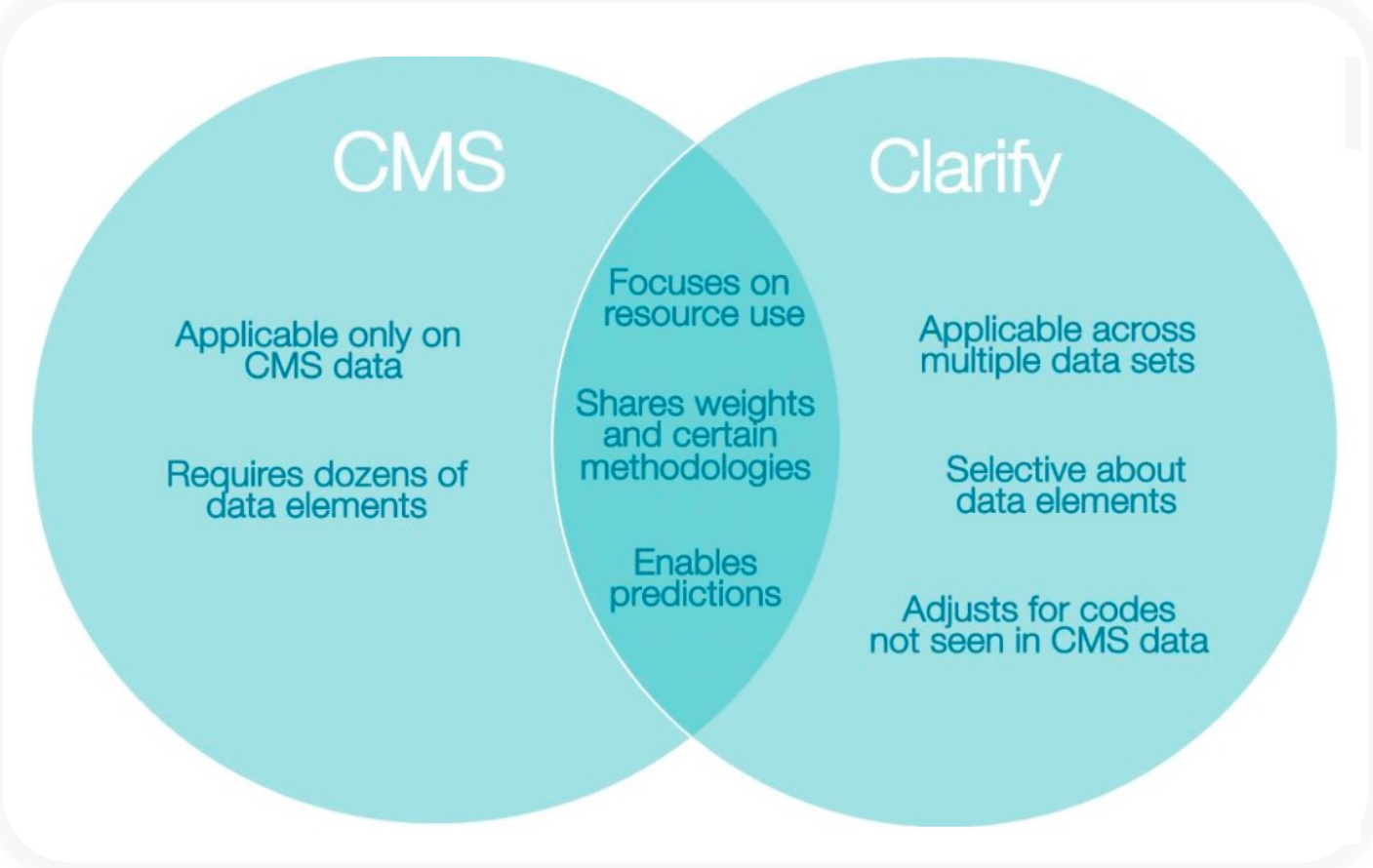
Standardization focuses on resource use as a necessary step for building predictions on the Clarify national data sets. It allows for creating national models that allow users to compare providers meaningfully and easily across the Clarify platform.

Methodology Overview

Clarify Standard Amount Methodology

Clarify's standardization methodology shares elements with CMS' standardization methodology (CMS, 2020). Both focus on resource use, but CMS' standardization logic has been implemented specifically for the Medicare program.

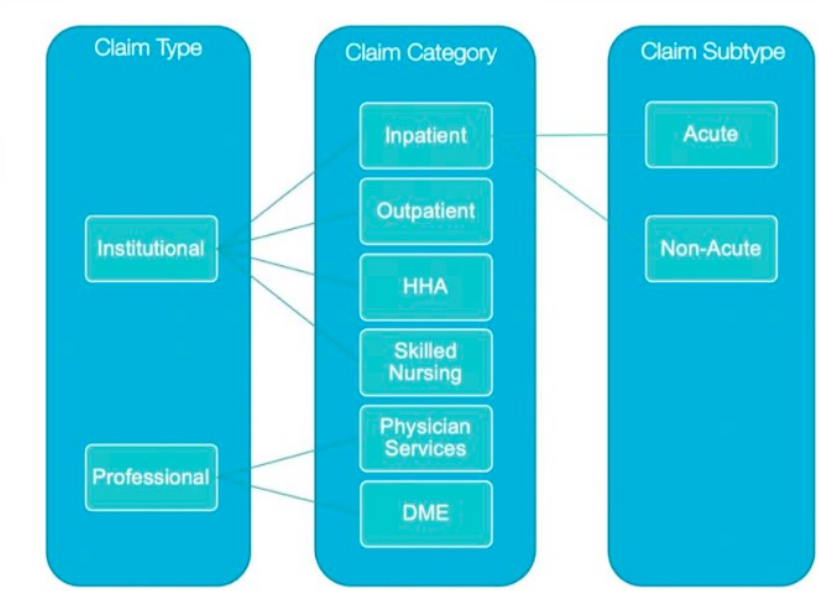
Clarify has generalized the most important elements to ensure it is applicable across commercial datasets. For example, Clarify's standardization methodology accounts for services (or codes) not covered in the Medicare program. It also adjusts for limitations of data elements that may not be well-populated on commercial data.



Centers for Medicare and Medicaid Services, "CMS Price (Payment) Standardization - Detailed Methods", May 2020. https://qualitynet.cms.gov/inpatient/measures/payment/resources

Clarify Standard Amount Methodology

The standardization process starts with Clarify's claim classification

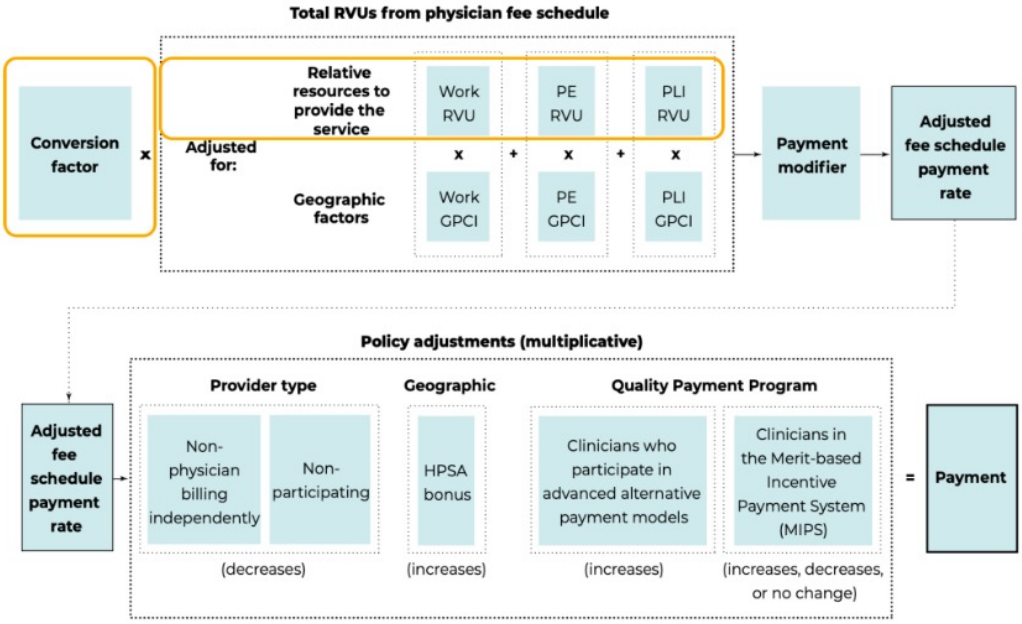


Claim Category	Key Data Elements
Inpatient Acute	• Length of Stay • Discharge Status • Discharge Status Year • Primary Diagnosis, Primary Procedure, MS-DRG
Outpatient	• HCPCS • Status Indicator • Units
Professional Physician Services	• HCPCS • HCPCS Modifiers • Units • Place of Service (POS)
Skilled Nursing Facility (SNF)	• Facility Type • Utilization Days • Primary Diagnosis
Home Health (HHA)	• Home Health Visits • Revenue Center

Each claim category or claim category subtype has a slightly different methodology. For example, inpatient acute standardization builds on the MS-DRG methodology and uses data elements such as principal diagnosis, principal procedure, length of stay, and discharge status to generate a Clarify Standard Amount.

Clarify Standard Amount Methodology

CMS Payments and Resource Use Components: Professional Physician Services



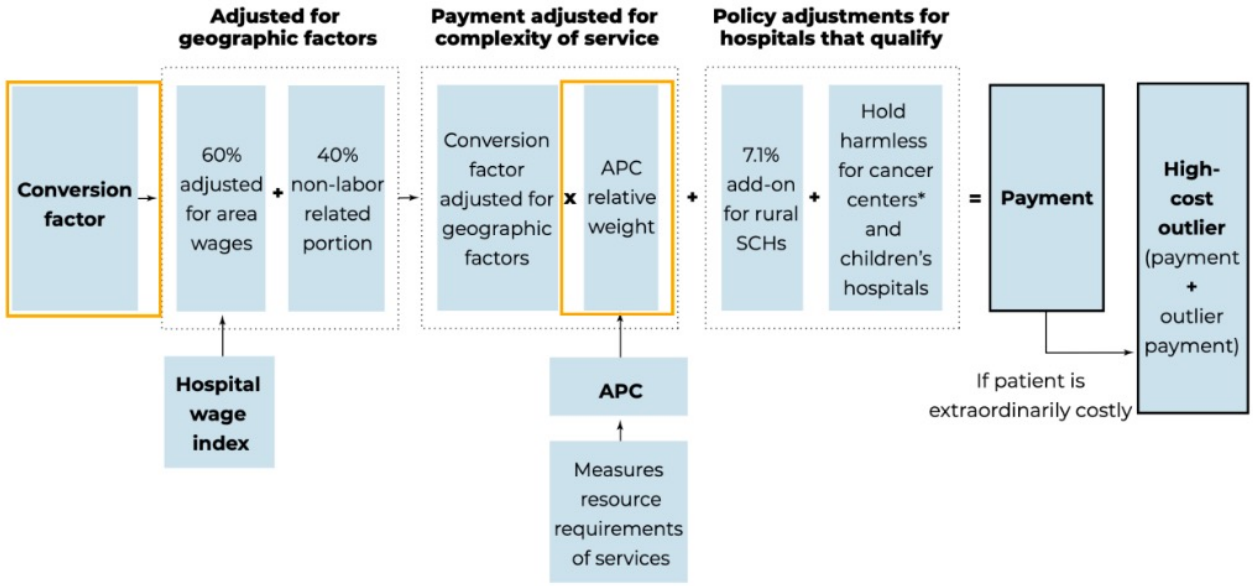
Note: RVU (relative value unit), GPCI (geographic practice cost index), PE (practice expense), PLI (professional liability insurance), HPSA (health professional shortage area). This figure depicts Medicare program payments only. The fee schedule lists separate PE RVUs for facility and nonfacility settings. Fee schedule payments are often reduced when specified nonphysician practicioners bill Medicare independently, but not when services are provided "incident to" a physician's service and billed under a physician's billing number. Clinicians who participate in advanced alternative payment models receive an incentive payment of 5 percent of their professional services payments. Clinicians in MIPS receive a positive or negative payment adjustment (or no change) based on their performance in four areas: quality, resource use, advancing care information, and clinical practice improvement.

The CMS allowed amount for physician services includes many components in its calculation. The calculation starts with a base rate (i.e., "conversion factor") and is processed through a series of calculations to arrive at a payment amount. Within this calculation there are geographical adjustments, adjustments by provider type, and incentives for quality payment programs. All these components are important considerations in payments, but for Clarify Standardization Amount purposes, the conversion factor and relative value units (RVUs) are the only attributes that are considered, as they are the only attributes that capture "resource use".

All the other adjustments are excluded from Clarify Standardized Amount so that we have national comparisons (i.e., exclude geographic adjustments) and are not skewed by other program goals not tied to resource use (i.e., exclude provider type and quality adjustments). DRG methodology and uses data elements such as principal diagnosis, principal procedure, length of stay, and discharge status to generate a Clarify Standard Amount.

Clarify Standard Amount Methodology

CMS Payments and Resource Use Components: Institutional Outpatient

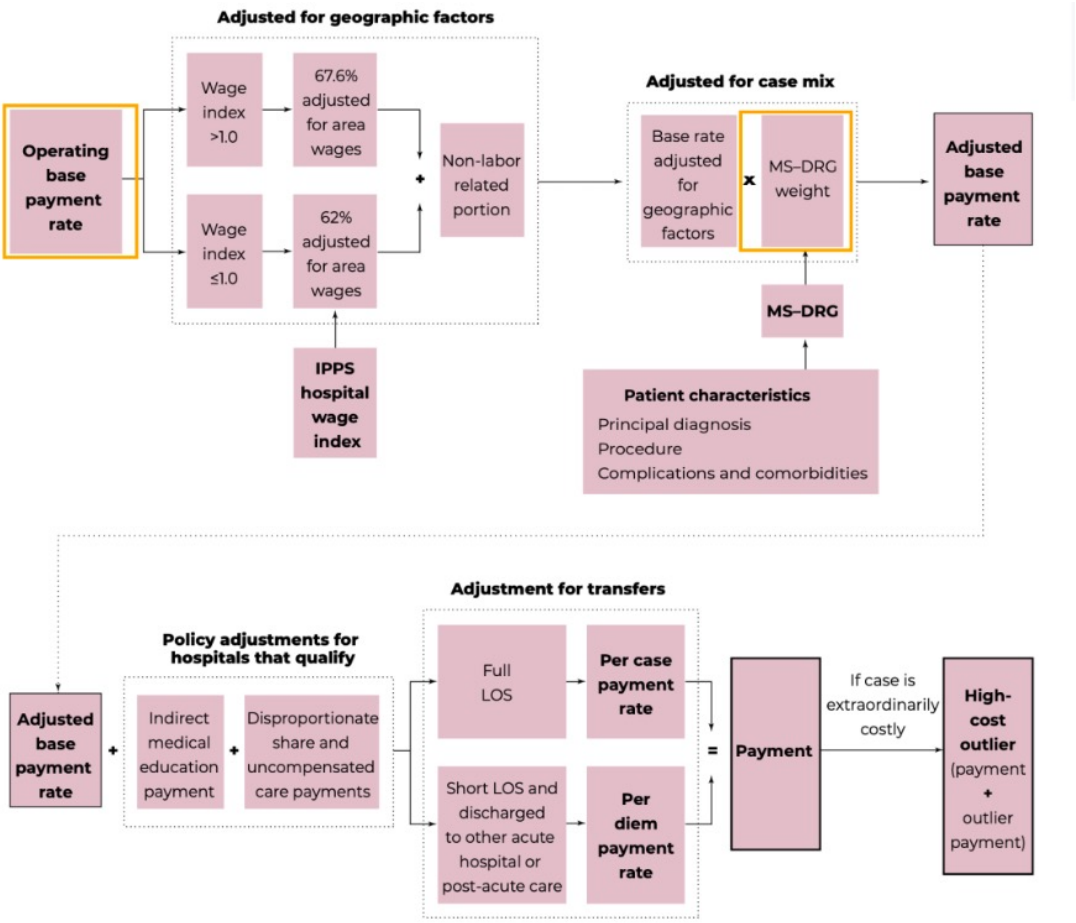


Note: APC (ambulatory payment classification), SCH (sole community hospital). The APC is the service classification system for the outpatient prospective payment system.
*Medicare adjusts outpatient prospective payment system payment rates for 11 cancer centers so that the payment-to-cost ratio (PCR) for each cancer center is equal to the average PCR for all hospitals minus 1 percentage point.

For institutional outpatient services the key components of the Clarify Standardized Amount are the conversion factor and Ambulatory Payment Classification (APC) relative weight, as those are the only "resource use" aspects of outpatient payments; the geography adjustments, policy adjustments, and high-cost outlier methodology are once again excluded.

Clarify Standard Amount Methodology

CMS Payments and Resource Use Components: Institutional Acute Hospital Inpatient



Note: MS–DRG (Medicare severity diagnosis related group), LOS (length of stay). Capital payments are determined by a similar system. Additional payments are also made for certain new technologies and rural or isolated hospitals. Hospitals may receive penalties or additional payments based on their performance on quality standards.

For acute inpatient services, the Clarify Standardized Amount uses the base payment rate and the MS-DRG weight, as those are the only "resource use" aspects of an acute inpatient payments; the geography adjustments, policy adjustments, and high-cost outlier methodology are excluded.

FAQ Commercial Applicability

Why does Clarify use some similar methodologies to CMS?

Using the Acute inpatient standardization methodology as an example. Using MS-DRG provides the following benefits: 1) it mirrors the common reimbursement of acute inpatient stays based on DRGs and 2) it uses the exact classification for the Medicare population that are the highest utilizers of acute inpatient services. Although some might not be aware, the CMS methodology does not only cover services for the aged, over 65 population. Since Medicare eligibility might extend across age ranges under certain criteria (e.g., ESRD, disabilities), MS-DRG classification covers a range of services relevant to the commercial or Medicaid populations, such as childbirth inpatient stays.

Are CMS methodologies relevant or applicable for commercial populations?

The use of MS-DRG is a base methodological decision that Clarify then adds layers and nuance in subsequent steps. For example, our customers sometimes ask - why not use APR-DRG since they're more suitable for commercial populations and do a better job to account for severity? In this case, besides the advantages already described for MS-DRG, Clarify employs methodologies that sit on top of MS-DRG and that adds more specificity to severity. At the CCG and data prediction phases, for example, we generate 400+ clinical factors based on a patient's clinical profile and use this in our risk – adjustment modeling. In this way, MS-DRG becomes a base classification that is furthered enhanced with Clarify methodologies to develop more precise risk-adjustment.

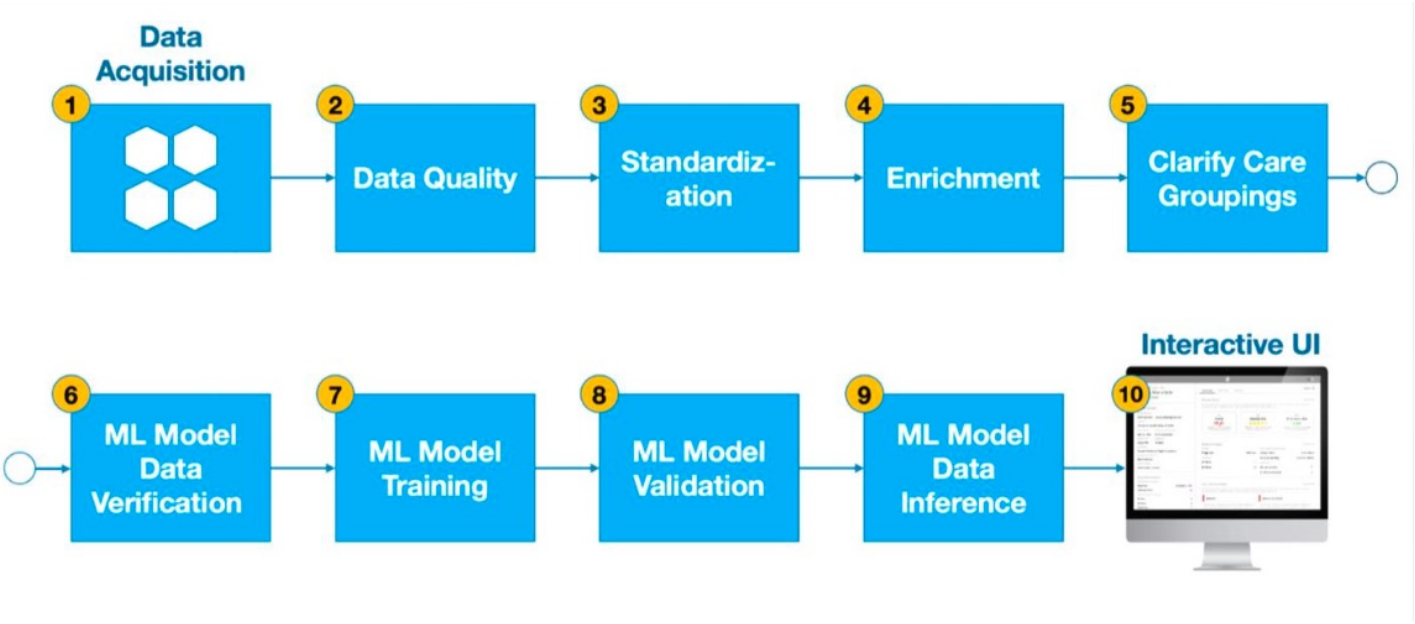
How does Clarify fill in the gaps when CMS methodologies aren't suitable?

For physician services, it is more common that a service (or more specifically, a HCPCS code) is not covered by CMS for a variety of reasons, including preferences on billing, bundling of services, and new technologies or services not yet approved. Generally, this occurs in roughly 10% of unique HCPCS codes, services, and percent of total paid amount. In these cases, our approach is to similarly rely on RVUs (work, practice expense, personal liability) as the basis for understanding resource use, even if CMS does not cover the service specifically. Clarify Standardized Amount, therefore becomes a proxy of the base CMS conversion factor and the RVUs, as if the service was indeed covered by CMS, and aligns with Clarify Standardized Amounts for other CMS covered services.

Steps for Processing

Data Processing

Data (e.g., medical claims, enrollment, SBDoH) is processed through the Clarify Atlas platform with key checks, transformations, and methodologies applied at each step

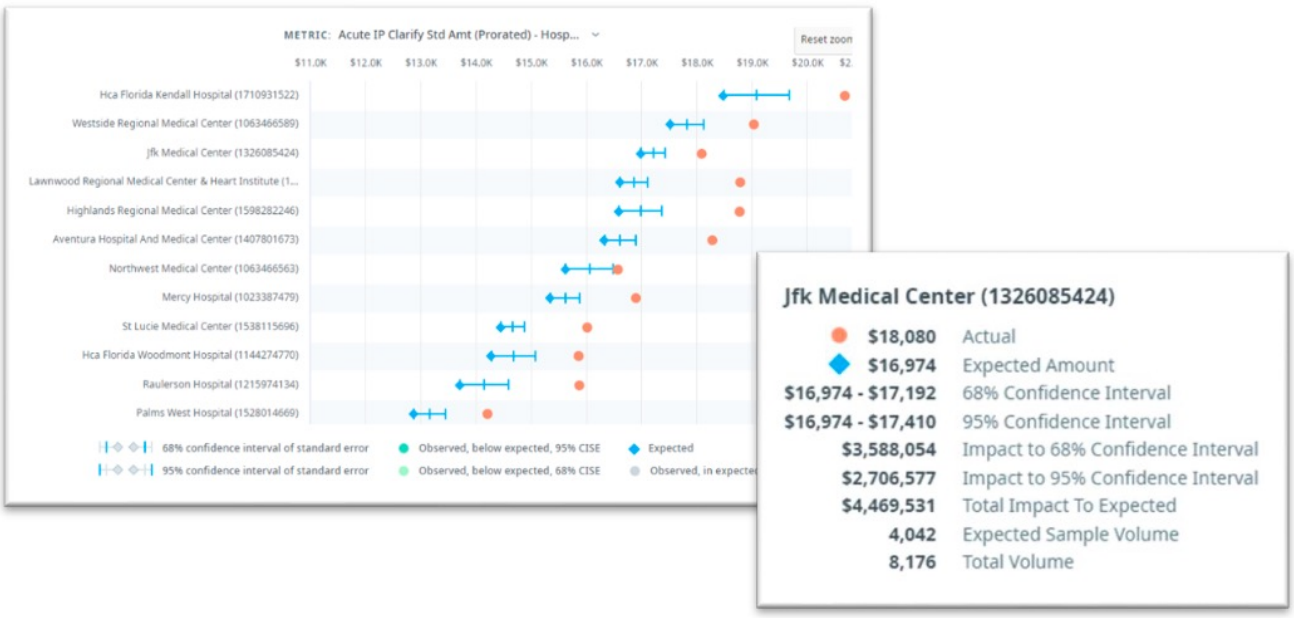


Clarify Standardized Amount is calculated during the standardization and enrichment steps noted above and follow the below processing steps:

- Align data fields in a consistent manner across all data sources (e.g., all HCPCS codes are five characters and exist on medical claim lines)
- Mapping of data values in a consistent manner (e.g., all payer plan types mapped to values such as HMO, PPO, EPO)
- If necessary, run additional processing steps to ensure consistency, such as running the CMS MS-DRG software (i.e., all data sources must have MS-DRG, even if the data source originally used APR-DRG)

After these general clean up (or "standardization") steps are completed, the data is ready to start producing the Clarify Standardized Amount Methodology.

How does Clarify generate the Clarify Standard Expected Value?



How does Clarify fill in the gaps when CMS methodologies aren't suitable?

Clarify Standard Amount is determined at the claim level. While it uses the MS-DRG base rate as a foundation, in Clarify we observe the utilization of inpatient services 90 days after a patient was seen for a procedure to determine their acute IP spend - this acute IP spend for entire 90-day episodes shows up in the UI as a metric called "Acute IP Clarify Std Amt (Prorated)."

For example, Patient A may have complications and additional follow up care after a Cardiac Valve procedure which will result in increased observed value at JFK Medical Center, while Patient B had no complications or follow up claims after a Cardiac Valve procedure at Mercy Hospital.

The observed values will differ depending on what is utilized during the 90-day window during that acute
inpatient stay.

How does Clarify generate the Clarify Standard Expected Value? Contd.

How does the Clarify Standard Amount get converted into an expected benchmark?

This is primarily determined at the CCG level and takes patient complexity, demographics, etc. into account in order to determine from utilization standpoint what should the appropriate resource use for patients with similar characteristics and outcomes nationally.

If Patient C has Diabetes and is admitted to an acute Care facility for a Cardiac Valve procedure that patient may have a higher chance of experiencing inpatient follow up care or complexities as compared to a patient with no complications admitted to an acute care facility for a Cardiac Valve procedure.

Clarify benchmarks Patient C's Acute IP utilization against other patients with similar characteristics to determine what is considered "appropriate" utilization range for that patient.

What is the expected sample size versus the total volume?

The expected Sample size represents to volume of episodes that have expected value predictions, while the total volume represents the total volume of episodes at the facility. There may be some episodes that do not meet Clarify's data science criteria for building predictions.

Clarify

About Clarify Health

Clarify Health empowers customers to deliver better care and therapies through more actionable insights from all the world's patient-level data.

With an integrated enterprise analytics platform, Clarify helps customers select the best providers, map and predict care journeys, and understand the use and impact of therapy on patients.

CONTACT US
info@clarifyhealth.com to request a meeting

VISIT OUR WEBSITE
www.clarifyhealth.com

Clarify Health is an enterprise data and analytics platform company that enables providers, payers, and other healthcare organizations to improve access, affordability, and outcomes. Clarify translates one of the largest healthcare datasets into actionable insights to incentivize and engage providers, optimize their performance, and contain cost. Clarify's solutions are built on the Clarify Atlas Platform® which maps 300M+ patient journeys to deliver 20B+ AI-powered predictions and surface insights with speed and precision.