

A BRIEF REPORT ON FEE SCHEDULES

The source for the Fee Schedule files is part of the Medi-Cal Rates section on the California Department of Health Care Services (DHCS) website. These rates are updated every 15 days and the data related to these updates can be downloaded from this page. The "Rates" tab on this site likely contains detailed information about the current medical fee schedules, including various billing codes, rate descriptions, effective dates, and possibly the applicable provider types or regions. The information is aimed at providers to inform them of the reimbursement rates for different medical services under Medi-Cal.

For an in-depth analysis of the columns and data in the file, let's examine the contents of the Excel file.

Here's a breakdown of the columns in the file:

Proc Type: Indicates the type of procedure, possibly identifying different categories or groups of medical services.

Proc Code: The procedure code, likely corresponding to specific medical services or treatments.

Procedure Description: Describes the medical service or treatment corresponding to the procedure code.

Unit Value: The assigned value for the procedure, which might be used to calculate the final rate or payment.

Basic Rate: The standard reimbursement rate for the procedure.

Child Rate: Specific rate applicable to pediatric cases, if different from the basic rate.

ER Rate: Emergency room rate, if applicable.

Conv Ind: A code indicating specific conditions or additional indicators relevant to the procedure.

ER Ind: Indicates whether the procedure is associated with emergency services.

Cutback Ind: Could indicate adjustments or reductions applicable under certain conditions.

Prof %: Percentage applicable to professional fees, if different from the basic rate.

Rental Rate: Rate applicable if the procedure involves rental of equipment or facilities.

Non-Physn Med Prac Ind: Indicates whether the procedure is applicable to non-physician medical practitioners.

These columns provide detailed information about the payment and billing guidelines for various medical procedures under the Medi-Cal program. The data would be critical for healthcare providers in understanding how different services are reimbursed and any special conditions that affect these rates.

Below is the over-all process flow:

The process for updating the HRP with the monthly Medi-Cal fee schedule involves a structured and systematic approach. Here's a detailed overview of the map medical file to HRP format.

1. Input Data Structure (Medi-Cal Fee Schedule): The input consists of a comprehensive Excel spreadsheet with procedure codes and corresponding rates. These codes are categorized into "Proc Types" for classification. The fee schedule displays different rates for criteria such as Basic Rate, Child Rate, ER Rate, age, place of service, and procedure modifiers.

2. Mapping to HRP Format: The HRP system utilizes "Proc Types" for initial categorization. A mapping exercise has been undertaken to convert the Medi-Cal data into the format required by HRP, considering the specific criteria for each procedure type. This includes splitting multiple fees within a single Medi-Cal record into multiple rows for HRP.

3. Output Data Structure (HRP Config): The output files generated with mapping will be in the required format for HRP to load. The Fee Tables will align with the fee schedule and the Details will contain the code. The HRP system requires the details to accommodate the variance in fees as indicated in the Medi-Cal schedule.

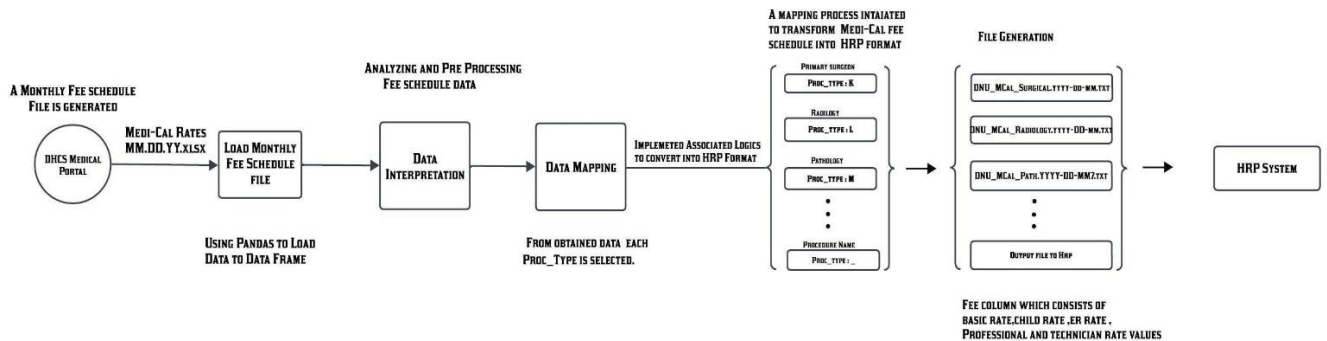
4. Process Automation: The goal is to develop an automated and repeatable process. This involves loading the fee schedule into Python Code, interrogating the data based on the established criteria, generating data files compatible with HRP, and facilitating audits.

In practice, this process ensures that the Medi-Cal fee schedule data is accurately and efficiently ingested into the HRP system, with a keen focus on maintaining the integrity of data and supporting the subsequent updates for pricing claims. Detailed data manipulation and mapping are essential steps to translate the Medi-Cal schedule into the operational format for HRP, thereby enabling the application of appropriate fees for services rendered.

The fee detail file can include the following:

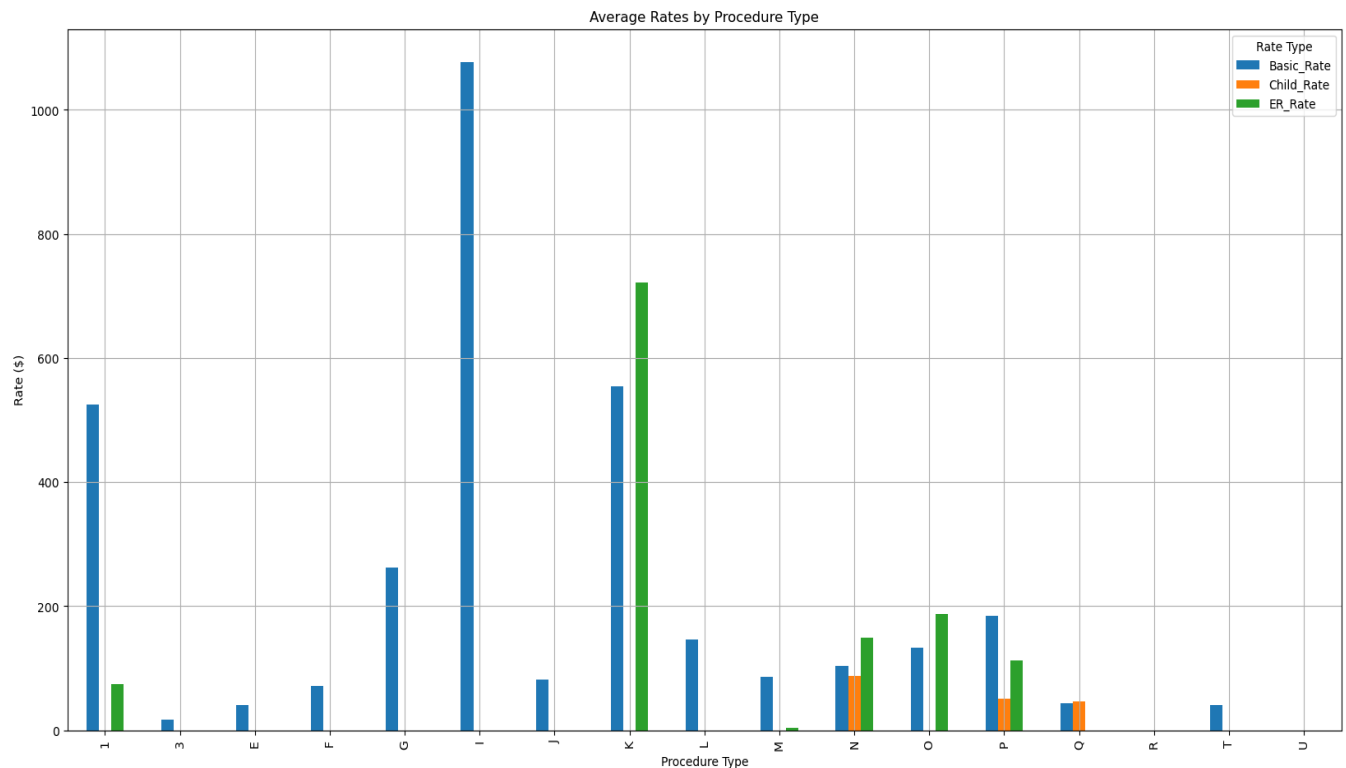
Column	Base Type	Size	Format	Mandatory	Description
SVC_CD	String	50		N	Service code. Either a service code or a revenue code must be provided.
MODIFIER_1	String	5		N	Modifier codes identify formulas created in HealthRules that allow you to apply modifiers to a fee. You can apply up to four modifiers to a fee detail record by referencing the modifier codes in the MODIFIER_1 through_4 fields.
MODIFIER_2	String	5		N	See above.

Column	Base Type	Size	Format	Mandatory	Description
MODIFIER_3	String	5		N	See above.
MODIFIER_4	String	5		N	See above.
REV_CD	String	50		N	Revenue code. Either a revenue code or a service code must be provided.
FEE	Decimal	15		Y	Amount of the fee associated with either the service code or the revenue code.
AS_OF_DATE	date		YYMMDD	N	Date from which this record should be applied. This value is taken from the file-name and overridden if supplied per record.
AGE_UNIT	integer	1		N	AGE_UNIT is mandatory if FROM_AGE is specified. Allowed values are 1, 2, or 3 (which are from AgeUnitDomain and indicate days, months, or years respectively). Hence if FROM_AGE is 2 and AGE_UNIT is 2, the fee applies from age 2 months onward. If FROM_AGE is null, any value in AGE_UNIT is ignored.
FROM_AGE	positive integer			N	If the fee applies to members in a specific age range, enter the beginning of that range in this column.
THROUGH_AGE	positive integer			N	If the fee applies to members in a specific age range, enter the end of that range in this column. If FROM_AGE is specified and THROUGH_AGE is null, THROUGH_AGE defaults to 1/1/3000.
GENDER	string	1		N	GENDER is one of three codes from GenderDomain (M, F, U).
COUNTY_CODE	string	5		N	COUNTY should be the five digit FIPS code
PLACE_OF_SERVICE_CODE	string	2		N	Place of service code, if applicable.
GEO_ZIP_AREA	string	50		N	The Entry attribute for the GeoZipAreaDomain CodeEntry.



The above flow-chart indicates the Entire flow of the Fee Schedules from source to target involving the Loading, pre-processing, and mapping of the files.

The Below graph depicts the Average Rates of Basic_Rate, Child_Rate and ER_Rate against each Proc_type for MediCal Rates 08.15.2022.xlsx source file.



The Below graph indicates the varying average basic rate for all the months from July 2022 to December 2022 and it shows a linear reduction from August to September and linear increase from September to October.

These fluctuations in the average basic rate over time could stem from several potential factors:

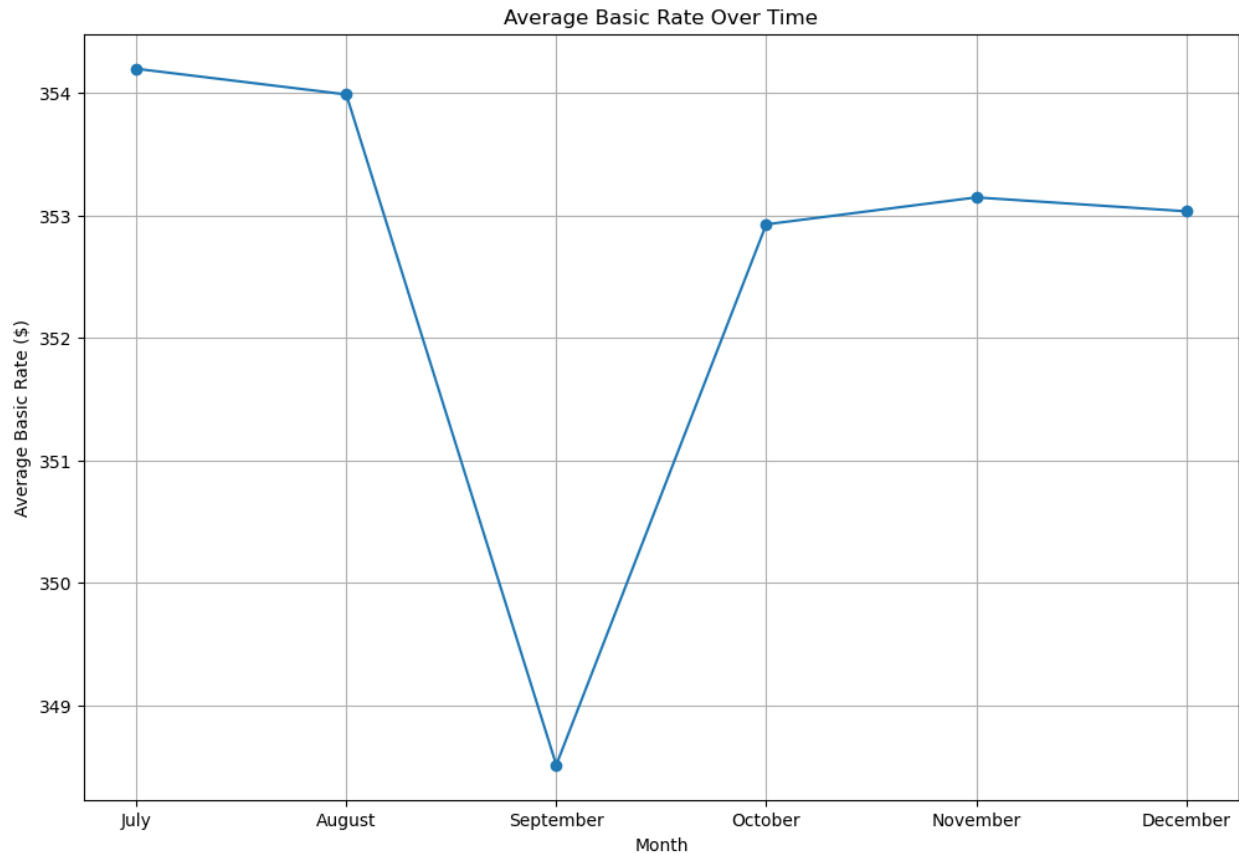
Seasonal Variations: Costs may vary with the seasons, possibly due to fluctuating procedure demands or quarterly financial planning.

Policy Changes: Temporary adjustments in healthcare policies or insurance coverage might influence the rates.

Data Anomalies: Irregularities in data collection or unique, non-recurring events could explain the trend.

Market Dynamics: The supply and demand for medical services, along with changes in the provider landscape, can impact pricing.

Special Events or Interventions: Short-term subsidies or regulatory modifications might temporarily alter costs.



Similar graphs are attached below for Child_rate and ER_rate columns against all the months.

There was a steep increase in October to November which was constant again until December.

This fluctuation could be attributed to several factors:

Scheduled Rate Increases: There might have been planned rate increases that came into effect in October.

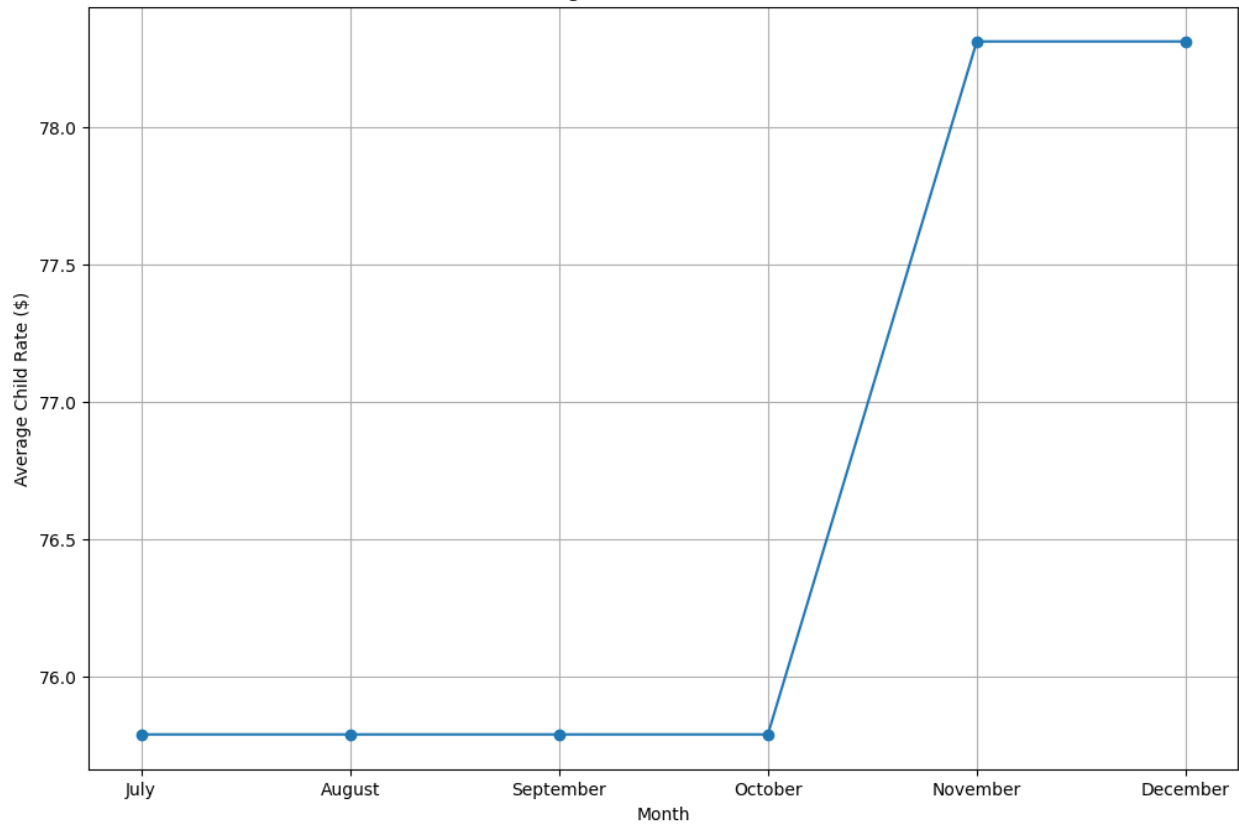
Reporting Delays: A delay in reporting or data entry could result in a sudden increase when the data is updated.

Change in Service Mix: A shift in the types of procedures included in the average calculation, possibly with more expensive procedures being performed or billed in the latter months.

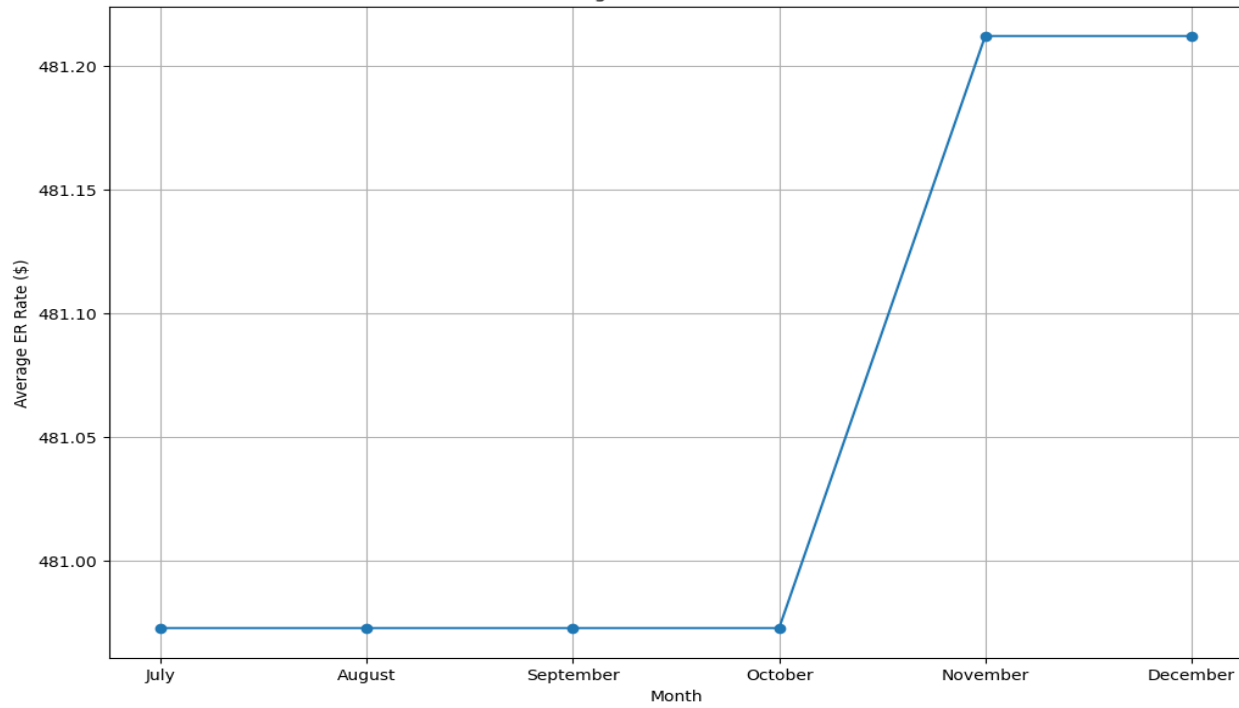
Benefit Adjustments: Adjustments to insurance benefits, which often occur at the beginning of a fiscal year, can affect rates.

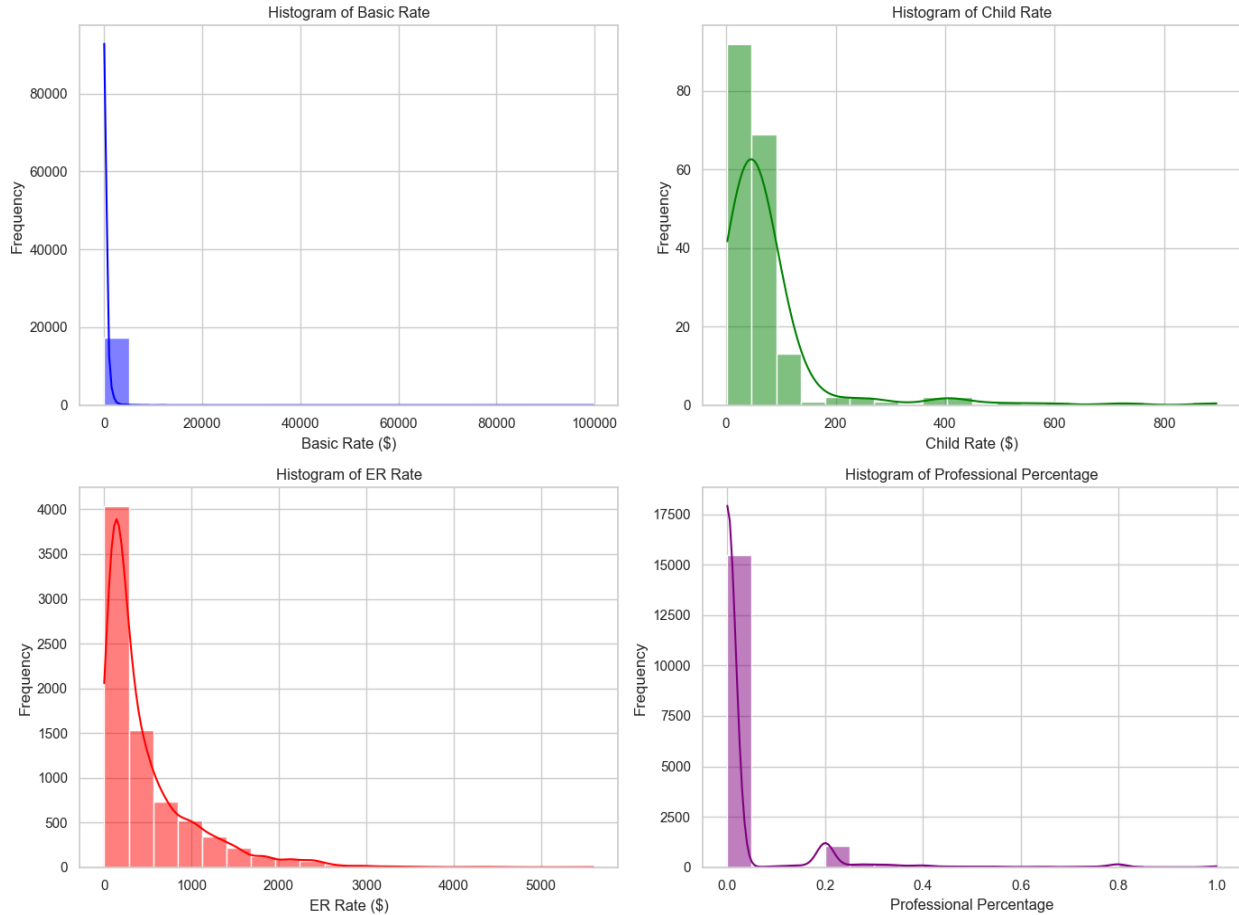
External Events: Any event affecting children's healthcare demand, such as a health scare or the introduction of a new vaccine, could also be a factor.

Average Child Rate Over Time



Average ER Rate Over Time





Histogram of Basic Rate: This plot shows the distribution of the 'Basic Rate' financial metric, typically representing the standard charge for a medical procedure. The x-axis represents different intervals of basic rates in dollars, and the y-axis shows how frequently each interval occurs in the dataset. If the 'Basic Rate' histogram shows a wide spread of values, it indicates that the cost for basic procedures varies significantly.

Histogram of Child Rate: Like the first, this histogram illustrates the distribution of 'Child Rate' values, which are likely specialized rates for child patients. Again, the x-axis shows intervals of rates in dollars, and the y-axis represents the count of occurrences in each bin. A narrow distribution in the 'Child Rate' histogram might suggest consistency in the charges for child-specific medical services.

Histogram of ER Rate: This plot details the distribution of 'ER Rate', probably denoting emergency room charges. The x-axis is segmented into rate intervals, while the y-axis shows the count of data points falling into each interval. The 'ER Rate' histogram can provide insights into the emergency service costs. A slightly skewed distribution might indicate that while most visits are less costly, a significant number of procedures or situations lead to much higher charges.

Histogram of Professional Percentage: Unlike the other three, this histogram displays the distribution of 'Professional Percentage', which might represent a portion allocated for professional fees or a percentage related to medical practitioners. The x-axis showcases percentage intervals, and the y-axis the frequency of these percentages occurring in the dataset.