

New Hampshire Ground Ambulance Cost Study

Final Report

Public Consulting Group LLC

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EXECUTIVE SUMMARY

Senate Bill 407 (SB 407) of 2024 directed the New Hampshire Insurance Department (NHID) and New Hampshire Health Plan (NHHP) to conduct an independent cost study of New Hampshire ground ambulance services. NHHP engaged Public Consulting Group LLC (PCG) via an RFP process to gather and analyze data from Licensed Emergency Medical Service Units (Licensed EMS Units) operating in New Hampshire and recommend a state-wide cost-based ground ambulance rate schedule to be utilized by fully insured commercial payors. PCG engaged Lewis & Ellis (L&E) to conduct an actuarial analysis to determine the proposed rate schedule impact on commercial insurer premiums.

The proposed rate schedule will support fully insured commercial payers reimbursing nonparticipating ground ambulance providers. The rate structure was developed to meet the following criteria:

- The fee schedule may be expressed as a percentage of Medicare rates, or it may be an independently developed schedule.
- Reimbursement shall be designed to cover the costs attributable to the provision of covered services assuming:
 - All public and commercial payers in the State are paying at the same rate, and;
 - The rate of revenue received for ground ambulance services in the State through public funds remains constant;
- Costs are required to include the cost of pre-hospital care and the cost of sustaining a reasonable operating margin as necessary to fulfill the expectation that ground ambulance providers in the State maintain readiness to meet future demand for services.
- Cost estimates shall assume that services shall be provided in a reasonably cost-effective manner.

The PCG Team undertook a multiple step process to calculate the final rate schedule.

- Identified the eligible source population of Licensed EMS Units operating in the State and what proportion (by EMS type and rurality status) was included in the study sample.
- Created and executed a data collection plan.
- Validated the data collected and the representativeness of the data sample.
- Performed qualitative analysis and applied quantitative statistical methods to derive statewide cost per transport, summarized below:
 1. Identified and excluded Licensed EMS Units that have gone out of operation or recently begun operations.
 2. Identified and excluded Licensed EMS Units with incomplete data submissions.
 3. Prorated cost and transport data for Licensed EMS Units based outside of New Hampshire to reflect only the portion of services rendered within the State of New Hampshire.
 4. Identified and excluded outliers using statistical analysis.
 5. Excluded costs funded by local taxes earmarked for EMS.
 6. Included costs for volunteer labor based on provider-reported cost data for paid positions.
 7. Calculated statewide weighted average cost per Transport, Treat No Transport response, cost, and mileage cost.
- Derived a fee schedule from the statewide cost per transport utilizing the geographic adjustment factors and Relative Value Units (RVU) utilized by the Centers for Medicare and Medicaid Services (CMS) in calculating Medicare rates, as follows:

1. Calculated a base rate from a statewide weighted average cost per transport or treat no transport response based on the average acuity level of transports conducted by Licensed EMS Units in the eligible sample and the geographical makeup of the State.
2. Increased the base rate by a 20% Provision for Adverse Deviation (PAD). The PAD, also known as a risk margin or margin for uncertainty, represents a percentage increase designed to account for uncertainty inherent in rate development as well as increased assurance of rate sufficiency. The selected PAD results in an estimated average operating margin of 2.4% for Licensed EMS Units operating in NH.
3. Applied the Medicare RVU developed by CMS to the calculated base rate for services. This RVU differs for each procedure code, thus creating distinct rates for each procedure based on service-specific acuity.
4. Applied Urban, Rural, and Super Rural factors to calculate distinct rates by location.

Finally, L&E conducted an actuarial analysis to determine the actuarial soundness of the rate. The final rate calculations were determined by the method shown in Figure 1, below.

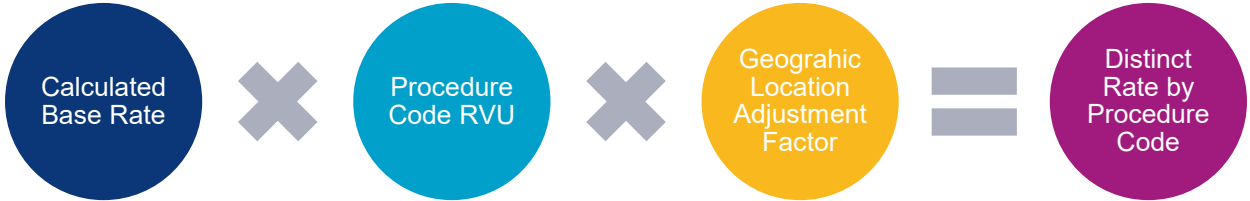


Figure 1: Rate Calculation Method

The final rate calculations, in Table 1, reflect the outcome of this cost study. These have been reviewed by the Core Project Team, which consisted of representatives from the New Hampshire Insurance Department (NHID), New Hampshire Health Plan (NHHP), and the New Hampshire Department of Safety (DOS), as well as the PCG Team. Rate calculations were then confirmed as actuarially sound by L&E.

Table 1: NH Rate Recommendations				
Procedure Code	Description	Urban	Rural	Super Rural
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency	\$691.24	\$698.02	\$855.77
A0427	Advanced Life Support, Level 1 (ALS1), Emergency	\$1,094.46	\$1,105.19	\$1,354.97
A0428	Basic Life Support (BLS), Non-emergency	\$576.03	\$581.68	\$713.14
A0429	Basic Life Support (BLS), Emergency	\$921.65	\$930.69	\$1,141.03
A0432	Paramedic Intercept, Volunteer Ambulance Co	\$1,008.06	\$1,017.94	\$1,248.00
A0433	Advanced Life Support, Level 2 (ALS2)	\$1,584.09	\$1,599.62	\$1,961.14
A0434	Specialty Care Transport (SCT)	\$1,872.11	\$1,890.46	\$2,317.71
A0998 (BLS)	Response and Treatment, no transport	\$414.07	\$418.13	\$512.63
A0998 (ALS 1)	Response and Treatment, no transport	\$491.71	\$496.53	\$608.75
A0998 (ALS 2)	Response and Treatment, no transport	\$711.69	\$718.67	\$881.09
A0425	Mileage	\$19.14	\$19.33	\$28.99

Table 1: NH Rate Recommendations

These rates exceed all current Medicare base rates. Overall, the recommended base rate is 202% of the Medicare base rate for transport procedure codes and 209% of the Medicare base rate for the mileage procedure code. It is important to note that many ambulance claims are billed under procedure codes A0425, A0427, A0428, and A0429.

L&E estimated, using the New Hampshire All Payer Claims Database, that these proposed rates would result in a commercial premium increase of 0.1%, which equates to \$4.3M total per year or \$0.36 per member per month (PMPM).

The PCG Team notes the following key points regarding rate recommendations:

- Recommended rates are what commercial payers would pay at a minimum and would be the reimbursement floor for commercial reimbursement.
- All recommended rates and processes are subject to New Hampshire legislative approval.

The full report details the steps taken to calculate these rates, including the methods used, and shows the influence of data factors on the final calculations.

SECTION 1: INTRODUCTION

1.1 BACKGROUND

Sixty-two percent of Granite Staters have private health insurance, primarily through managed care plans that incentivize using in-network providers¹. These plans aim to negotiate lower rates for services, but a serious issue arises when insured individuals receive care from out-of-network providers without their knowledge, leading to "surprise billing." This often occurs in emergencies, including emergencies requiring ambulance services.

Recent data from the NHID highlights complaints about surprise billing for ground ambulance services, with median bills reaching \$3,570 per occurrence. These high costs disproportionately affect financially vulnerable households, many of which struggle to cover regular expenses.

State and Federal legislation, including the New Hampshire Managed Care Law and the federal No Surprises Act, have made strides to prevent balance billing, but ground ambulance services remain exempt from these protections. The Federal Ground Ambulance and Patient Billing Advisory Committee (GAPB) is working on recommendations to address this gap, advocating for new payment standards while recognizing the complexities involved with ambulance services. State-level efforts are also ongoing, with several states enacting laws to protect consumers from surprise ambulance bills.

Despite the GAPB's recommendations, concerns persist about the adequacy of proposed measures to control costs and ensure fair reimbursement for providers. Various states, including New Hampshire, are exploring solutions to address balance billing, with some enacting protective legislation. NHID has initiated ground ambulance summit meetings to engage stakeholders in addressing these issues and improving the financial stability of ground ambulance services in the State.

1.2 SCOPE OF WORK AND DELIVERABLES

In accordance with session law SB 407², a law that was passed by the New Hampshire legislature in the Spring of 2024, the primary goal of this study is to accurately assess self-reported cost data to estimate a reimbursement rate that aligns with the costs of providing these essential services. The PCG Team sought to evaluate the average total cost of providing EMS service(s) by conducting a secondary data analysis of previously submitted cost data from a convenience sample of Licensed EMS Units. This information was used to derive a set of default reimbursement rates for a selected cohort of ground ambulance services.

After data was assessed for accuracy and validated through statistical methods, the team calculated cost-based rates for all identified procedure codes and then worked³ with L&E to provide an actuarial estimate of the rate schedule's impact on premiums for fully insured coverage. The final report includes an analysis of cost and revenue data, the proposed rate schedule, and additional information requested by the Insurance Commissioner.

1.3 STAKEHOLDER ENGAGEMENT IN THE DATA COLLECTION PROCESS

From the onset of this project, the Core Project Team was committed to an open and inclusive process. To best accomplish this goal, the PCG Team commissioned regular working meetings of the Core Project Team, starting on a weekly to biweekly basis. Members of the Core Project Team as well as their department affiliations are listed in Appendix B. In consultation with the Core Project Team, the PCG Team

¹ https://www.insurance.nh.gov/sites/g/files/ehbemt861/files/inline-documents/sonh/nhid-annual-hearing-report-2024_final.pdf

² https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?sy=2024&id=2127&txtFormat=pdf&v=current.

³ As of the writing of this report and based on claims data, 0.5 % of the current premium is comprised of ambulance spending. This was determined by using New Hampshire's All Payer Claims Data which was made available to PCG and L&E for reference

developed a comprehensive project “workplan to guide activities and Core Project Team meeting agendas as well as ensure progress toward final deliverable dates.

The Core Project Team also established two distinct stakeholder groups, the Stakeholder Engagement Group (SEG) and the Stakeholder Advisory Group (SAG), each of which is described further below. The PCG Team hosted multiple meetings of both the SEG and the SAG, as well as forums open to the Licensed EMS Units operating in NH. The full breadth and scope of these meetings are outlined in Appendix C.

Stakeholder Engagement Group (SEG)

The PCG Team worked with the Core Project Team to establish the Stakeholder Engagement Group (SEG) and its meeting cadence. The group was comprised of a diverse range of participants who were selected for their significant interest in and concern over EMS provision and the financial pressures facing Licensed EMS Units. Many SEG members have previously attended Summit Meetings and are dedicated to fulfilling the legislative mandate associated with this initiative. Their deep commitment to the outcomes of these discussions, combined with their influential roles within their respective peer groups, positioned them to make a substantial and meaningful impact on the dialogue surrounding EMS services in the State. To enhance transparency and accessibility, a dedicated SEG section⁴ has been added to the NHHP website, which includes relevant presentations and resources. Through an open and inclusive process, SEG members were kept informed about the process and the various steps taken. The PCG Team previewed the methodology steps, research and data findings as well as draft rates.

A list of meeting dates, topics of discussion, and other materials are in Appendix C.

Stakeholder Advisory Group (SAG)

In addition to the SEG, the PCG Team worked with the full Core Project Team to establish the Stakeholder Advisory Group (SAG) and its meeting schedule.

The SAG is composed of Licensed EMS Unit Chiefs and members from the Fire Chiefs and Ambulance Association. This group was formed to ensure an open line of communication with Licensed EMS Units. It was important to work directly with the Licensed EMS Units, and their applicable associations. Further, the PCG Team relied on their buy-in and participation to optimize the data collection efforts. This collaboration was also designed to ensure that stakeholders remain aligned and informed throughout the project.

In addition to the meetings noted above, the PCG Team hosted joint meetings of the SEG and SAG on November 13, 2024, and December 23, 2024. The November 13th meeting focused on data findings, the representative nature of the data sample, and the methodology for rate modeling. The December 23rd meeting included a brief description of the rate methodology and a preview of the recommended reimbursement rates.

SECTION 2: DATA SOURCES AND COLLECTION

The PCG Team conducted a secondary data analysis using a convenience sample to derive the average cost per transport. This was completed looking at the most recently completed Fiscal Year (FY) for Licensed EMS Units based on the existing Medicare Ground Ambulance Data Collection System (GADCS) survey. The PCG team built ample time into the overall workplan to collect and analyze data.

⁴ [Stakeholder Engagement Group \(SEG\) | New Hampshire Health Plan](#)

2.1 DEFINING THE STUDY POPULATION

To develop a data-driven methodology, the PCG Team first defined the study population. To do this, the team used the number of Licensed EMS Units operating in the State of New Hampshire as a representative proxy for the population of entities providing ground ambulance services. The New Hampshire Division of Fire Standards and Training & Emergency Medical Services at the Department of Safety provided licensing data, which showed that there are 172 Licensed EMS Units in New Hampshire. This cohort did not include any Air Ambulance EMS units. Of the 172, 11 were determined to be new to the market, in that they started operations in 2024, or have exited the market and are no longer providing services in New Hampshire even though they remain licensed. This left a target population of 161. The scope of the study was limited to evaluating the cost of ground ambulance services rendered by the population of Licensed EMS Units and did not include costs associated with Air Ambulance services rendered.

2.2 DECISION TO USE THE GROUND AMBULANCE DATA COLLECTION SYSTEM (GADCS) AS THE PRIMARY DATA SOURCE

The GADCS is an existing survey tool developed by CMS that has been sent to all providers of ground ambulance services across the United States. This comprehensive tool collects detailed data over a distinct one-year reporting period and encompasses the data that the PCG Team needed to calculate a rate schedule. This made the GADCS tool a convenient option for data collection in a truncated period. Soliciting the existing responses allowed the PCG Team to collect the needed data quickly with less burden placed on Licensed EMS Units than if they were required to respond to a separate new data collection tool. GADCS also has other advantages. GADCS data submitted by Licensed EMS Units is subject to potential audit by CMS, thus increasing the likelihood of accurate data collection. Additionally, the sample size of respondents is large, and the data is relatively current due to the ongoing nature of the GADCS process⁵.

2.3 THE INITIAL PROFILE SURVEY

To understand what data was available from Licensed EMS Units the PCG Team sent out an initial profile survey to the full universe of 172 Licensed EMS Units identified by the Core Project Team. This profile survey asked if the organizations had completed their GADCS response. In addition, the team collected confirmation of their National Provider Identification Number (NPI), self-reporting of how many transports they provided in their most recently completed calendar year, and confirmation of the name and contact information of their staff who could answer questions related to data collection. This survey was sent out on August 27, 2024, with a due date of September 3, 2024, accompanied by a letter from Insurance Commissioner Bettencourt. The profile survey responses informed the data collection steps outlined below.

The PCG team received 126 responses to the profile survey, which was approximately 73% of the targeted population. Of those who responded, 98 indicated that they had previously submitted the GADCS. These responses supported the use of the GADCS responses where possible, as many Licensed EMS Units had previously completed it.

2.4 THE COLLECTION OF EXISTING MEDICARE GADCS SURVEY RESPONSES

The PCG Team next sent a distinct request to those 98 self-identified Licensed EMS Units that submitted GADCS responses and requested them to submit the GADCS to the team directly. This data request was sent on September 4, 2024, with a due date of September 11, 2024. This request outlined multiple steps and included instructions on how to obtain GADCS responses from CMS if Licensed EMS Units did not have it on hand.

81 Licensed EMS Units submitted GADCS responses. That represented 83% of those who had reported previously submitting the GADCS in the profile survey.

⁵ CMS issued a report from their GADCS data collection on December 20, 2024. This reports on nationwide data, not solely New Hampshire, and does not reference a rate setting methodology or recommendation.

2.5 THE COLLECTION OF ADDITIONAL DATA FROM NON-GADCS SUBMITTERS

While a significant number of Licensed EMS Units had completed a GADCS survey, the PCG Team recognized that limiting data collection to GADCS submitters may not provide a fully representative data sample on its own. To best incorporate additional Licensed EMS Units, the team developed a distinct data collection survey for those Licensed EMS Units that had not completed a GADCS. This survey was known as the “Data Collection: Non-Medicare GADCS Submitters (Non-GADCS).” This survey aimed to collect relevant data from Licensed EMS Units operating in New Hampshire who had not or were not yet required to complete a GADCS survey. This survey sought data from four different types of reporting schedules. Those are:

1. Depreciation
2. Expenditures
3. Billing & Revenue Data
4. Transport Data

This survey was designed to ask similar questions to the GADCS survey to capture the same types of data as the GADCS but in a shorter, less time-consuming format. While the team considered using the GADCS questions as part of the Non-GADCS survey, because the GADCS included more information than was needed and because the time period for data collection was shorter than the five-month GADCS reporting timeframe, the PCG Team determined that using similar questions that more succinctly hit upon the data needs would be more likely to solicit an adequate number of responses in the short timeframe available to us. The PCG Team worked with the Core Project Team to ensure the questions were reflective of information Licensed EMS Units would have available and to avoid unnecessary details and information.

This additional data request was sent on September 8, 2024, with a requested due date of October 1, 2024. This timeline was determined to allow sufficient time for Licensed EMS Units to respond, while also allowing the PCG Team time to analyze the received data and calculate input factors. The survey was sent in a JotForm format, thus allowing for responses to be easily aggregated and reviewed in a Microsoft Excel spreadsheet. The PCG Team created data resource guides and additional information that was posted to the NHHP website to assist Licensed EMS Units.

In total, 27 Licensed EMS Units submitted responses, bringing the total responses to 108, or 63% of the target population.

2.6 THE USE OF HEALTH INSURANCE CLAIMS DATA

The PCG Team’s data collection efforts also included requesting claims data from the New Hampshire Comprehensive Health Care Information System (CHIS),⁶ the state’s All-Payer Claims Database. At the onset of the project, PCG worked with the State to request detailed claims data. The PCG Team reviewed the NH CHIS data dictionary to align the standard data request with the fields available in the CHIS data extract and ensure all data needed to conduct a fiscal impact analysis and provide accurate forecasting was requested. After reviewing the data dictionary, the team requested a detailed list of fields from the NH CHIS data as shown in Appendix D.

This data was requested to align with the years of the Medicare Ground Ambulance Data Collection System (GADCS) responses, which ran from January 1, 2022, until June 30, 2024. Thus, the initial request was for Dates of Service spanning January 1, 2022, through June 30, 2024. The claims data was received through April 30, 2024, which is what was fully available from the NH CHIS.

Claims data was reviewed to understand year-over-year trends and to directly assist with financial impact modeling conducted by L&E. The PCG Team also used the claims data to calculate the average billable

⁶ <https://nhchis.com/>

miles per transport. This proved invaluable to the final data analysis and gave a strong baseline for transport counts by the individual Licensed EMS Units.

SECTION 3: ASSESSING THE REPRESENTATIVENESS OF THE SAMPLE POPULATION

3.1 METHODOLOGY

To assess the external validity of the report findings, the PCG Team compared the sample population to the original target population. The team reviewed the total cohort of responses in multiple distinct ways, including a direct comparison to the proportional distribution within the total universe of Licensed EMS Units.

The team reviewed the response samples for the following criteria:

- Overall number of responses – noted by source
- Licensed EMS Units Size
- Licensed EMS Units Type
- Licensed EMS Units Classification
- Geographical Representation

Using these data points, the PCG Team, in conjunction with the full Core Project Team, determined that the response sample was representative of a high degree of overall accuracy in the final calculations.

3.2 THE NUMBER OF RESPONSES COLLECTED COMPARED TO THE TOTAL COHORT

Before analyzing the GADCS and non-GADCS data, the PCG Team sought to ensure the sample of respondents was representative of the landscape of Licensed EMS Units operating in New Hampshire.

Overall Number of Responses

There were 81 GADCS submissions and 27 non-GADCS submissions totaling 108 responses. To understand how this compares to the full universe, the PCG Team calculated a simple percentage of total Licensed EMS Units.

The team originally sought responses from 172 Licensed EMS Units. After further review, collaboration with the full Core Project Team, and feedback from Licensed EMS Units, the PCG Team removed 11 from the total cohort, including units that are no longer in service or have just begun to provide services. The team determined that it would not be possible to get data responses from them or that the responses would not be indicative of true operating cost and volume. This reduced the total universe of Licensed EMS Units to 161.

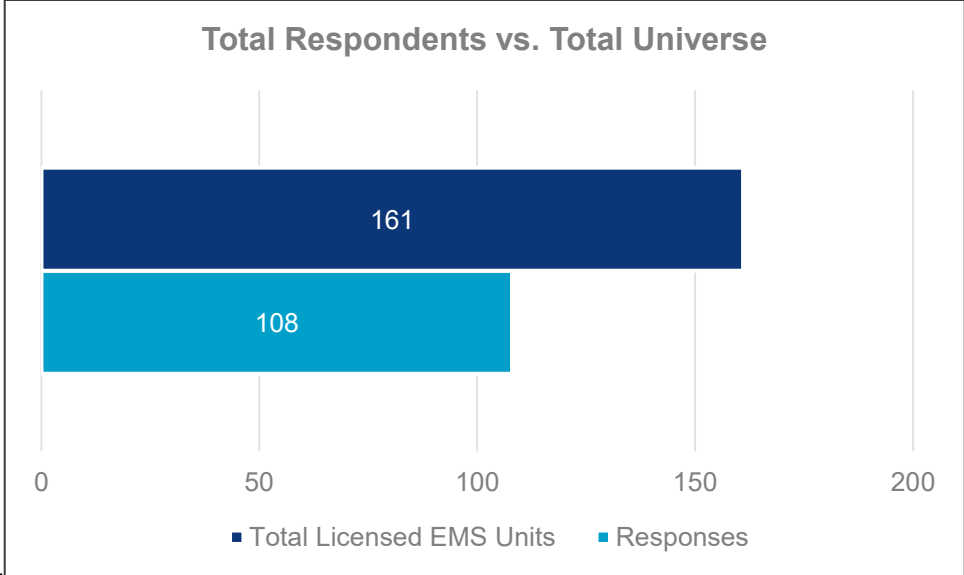


Figure 5: Total Respondents vs. Total Universe

The number of responses received (108) encompassed two-thirds of the total universe of Licensed EMS Units operating in New Hampshire (161) (see Figure 5). Based on PCG’s experience conducting rate studies, this is a strong response rate.

Approximately three-fourths of the respondents were GADCS, and the remaining one-fourth were non-GADCS (see Figure 6).

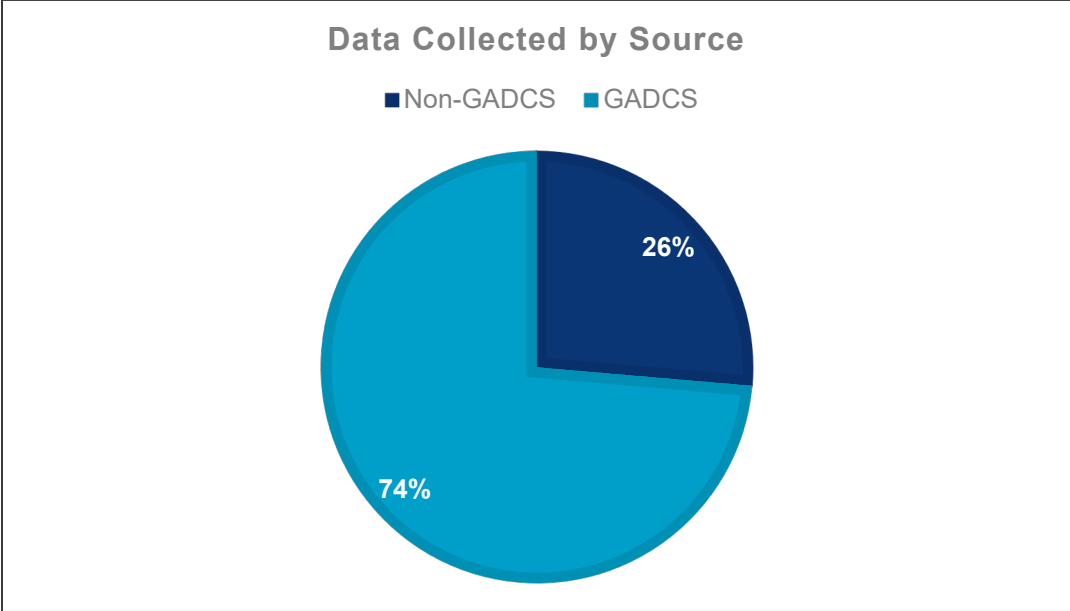


Figure 6: Data Collected by Source

Upon review of the initial data submissions 23 were excluded for having incomplete data, this is fully outlined in Section 4. This left 85 remaining in the data sample for further review. It is these 85 that are reflected in the tables below.

Licensed EMS Unit Characteristics

The initial profile survey sent to all Licensed EMS Units, in part, asked for a self-reported total number of annual transports. This information enabled the PCG Team to determine if the final response sample was representative of the size breakdown of Licensed EMS Units operating in New Hampshire.

The survey asked respondents of the initial profile survey to categorize their annual transports in one of the five ways listed below:

- 0 – 100 transports per year
- 101 – 1,000 transports per year
- 1,001 – 3,000 transports per year
- 3,001 – 7,500 transports per year
- More than 7,500 transports per year

The information about transport volume from the total cohort of initial profile survey respondents as well as the providers in the sample who provided such information is summarized in Table 2 below.

EMS Unit Size	n(%) – in sample	% of total NH-Licensed EMS Units*
0-100 Transports Per Year	7 (8%)	18 (14%)
101-1,000 Transports Per Year	42 (49%)	57 (45%)
1,001 – 3,000 Transports Per Year	22 (26%)	34 (27%)
3,001 – 7,500 Transport Per Year	8 (9%)	9 (7%)
More than 7,500 Transports Per Year	6 (7%)	8 (6%)
Total (n)	85	126

*126 of the 172 Licensed EMS Units in the State responded to the original profile survey with information about their overall size.

Table 2: Distribution of Licensed EMS Units by Size

While there were slight differences in the percentages of 101-1,000 and 1,001–3,000 transports per year, they were still proportionally the highest number of respondents, and in line with the initial profile survey cohort.

Licensed EMS Units Type

The full universe of Licensed EMS Units included a distinct category for unit type. Unit type is meant to illustrate the ownership and management status of each Licensed EMS Unit, and if they are part of a larger organization. This listing, part of the overall data provided by the Core Project Team, categorized the Licensed EMS Units in four types:

- Fire
- Hospital-based
- Governmental, non-fire
- Private, non-hospital

The results of the unit type analysis showed a clear majority of Licensed EMS Units operating in New

Hampshire are also fire departments, with the smallest distribution being hospital-based. Based on the data response sample, the PCG Team calculated a similar proportion representation of Licensed EMS Unit size. Table 3 below outlines the representation of the collected data sample by unit type.

Table 3: Distribution of Licensed EMS Units in Sample Population by Unit Type		
EMS Unit Size	n(%) – in sample	% of total NH-Licensed EMS Units
Fire	57 (67%)	109 (63%)
Hospital Based	2 (2%)	7 (4%)
Government, non-fire	10 (12%)	17 (10%)
Private, non-hospital	16 (19%)	39 (23%)
Total (n)	85	172

Table 3: Distribution of Licensed EMS Units by Type

There was a strong similarity between the table and the data response sample, with the data respondents' sample being strongly representative of the overall Licensed EMS Unit cohort operating in NH.

Licensed EMS Unit – Classification

An additional aspect of representativeness considered was the Licensed EMS Unit Classification. This information, made available by the Core Project Team, indicates if the Licensed EMS Unit is classified as:

- EMS Transport
- EMS Transport with Fire

The total universe of Licensed EMS Units organized by classification is reflected in Table 4, below.

Table 4: Distribution of Licensed EMS Units in Sample Population by Unit Classification		
EMS Unit Size	n(%) – in sample	% of total NH-Licensed EMS Units
EMS Transport	28 (33%)	63 (37%)
EMS Transport with Fire	57 (67%)	109 (63%)
Total (n)	85	172

Table 4: Distribution of Licensed EMS Units by Classification

When compared to the data response sample, the proportional breakdown was closely aligned.

Geographic Representation

The final aspect of the review was to determine if the sample was representative based on geographic representation. This was done using categories outlined by CMS:

- Urban
- Rural
- Super Rural

The regional determination was based on zip code. The PCG Team compared the most recent CMS zip code file⁷ issued on August 20, 2024, to the zip codes data survey based on information provided to the PCG Team by NH DOS.

The PCG Team created a map showing data respondents organized by geographic classification based on this information.

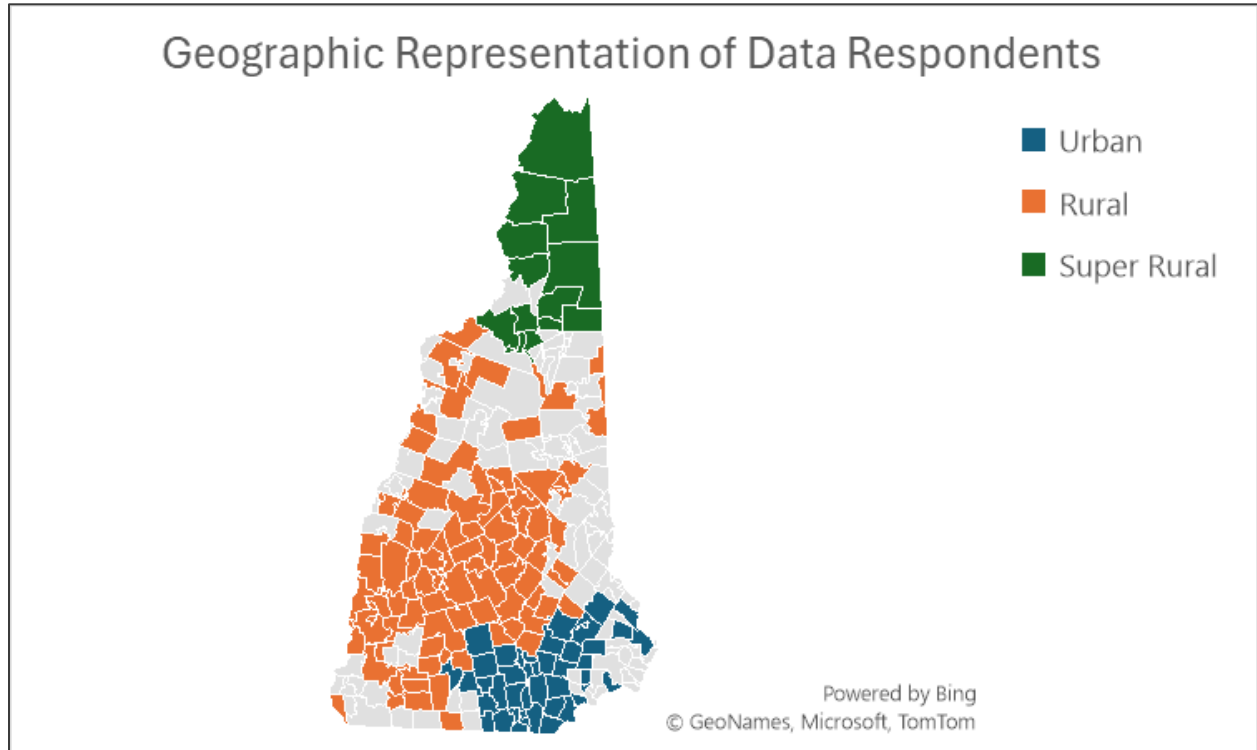


Figure 7: Geographic Representation of Data Respondents

The results of the geographical analysis showed that the data survey responses were spread out amongst all three geographic classification types, including Super Rural Licensed EMS Units as defined by CMS. This is particularly important as the Super Rural classification is the smallest.

3.3 CONCLUSION ABOUT THE REPRESENTATIVENESS OF THE DATA SAMPLE

Using the process outlined above, the PCG Team in conjunction with the Core Project Team concluded that the data response sample was strong, which was indicative of the universe of Licensed EMS Units operating in the State. There was proportional representation based on size, type, and classification in addition to varied geographic samples. By using benchmarked methods such as the CMS regional classification, The PCG Team ensured that the sample review was based on data-driven processes.

With this in mind, and considering the overall number of responses received, the PCG Team determined that additional responses were no longer needed from Licensed EMS Units operating in New Hampshire.

⁷ <https://www.cms.gov/files/zip/zip-code-carrier-locality-file-revised-08/20/2024.zip>

Thus, all response data that was reviewed was received by October 30, 2024.

SECTION 4: PROCESS FOR ARRIVING AT THE FINAL ANALYTICAL SAMPLE

4.1 QUALITY ASSURANCE

Upon receipt of the data, the PCG Team conducted a Quality Assurance (QA) process to ensure data integrity. This QA process included multiple distinct steps to ensure the data was an accurate reflection of the cost of providing ground ambulance services in the State. The figure below summarizes those steps and is followed by a written description of the QA steps taken. Additional details on the team's QA process are detailed in Appendix D.

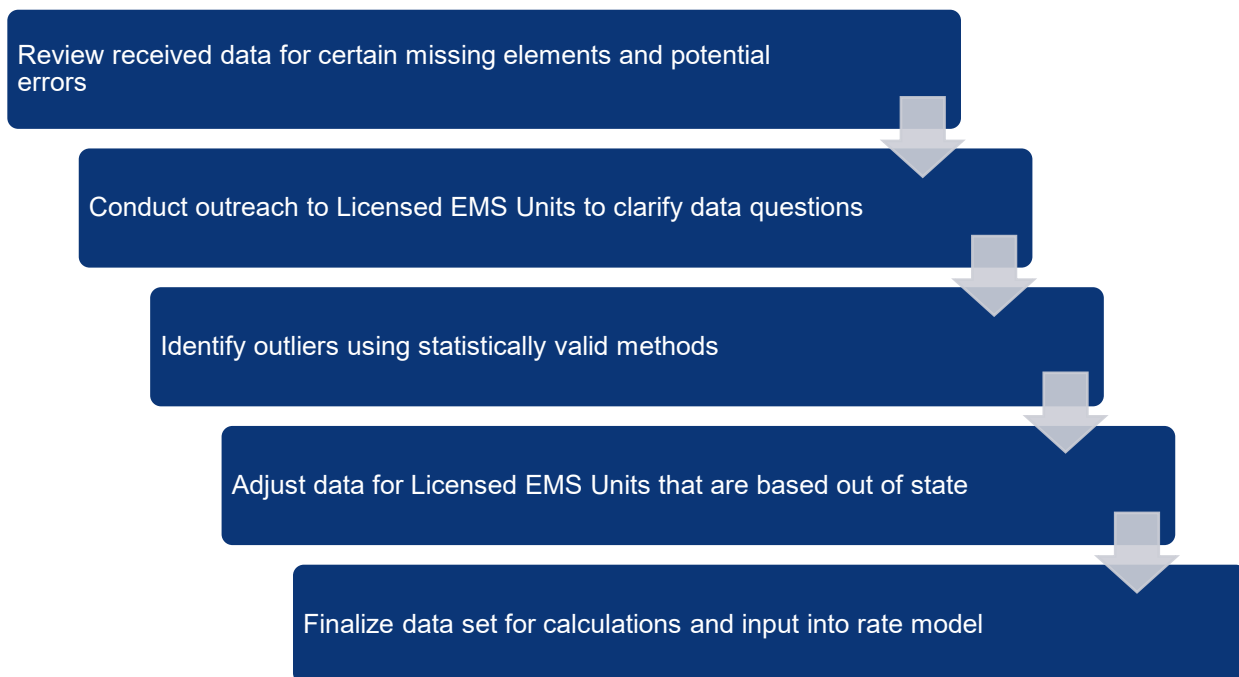


Figure 8: Data QA Process

The data review QA process included multiple steps to reach the final data set used for calculations and inputs into the rate model. Reviewing the data in multiple steps enhanced the statistical validity of the final calculations within the allowable time period to conduct the study.

The PCG Team reviewed selected data components in line with GADCS cost categories and accounted for provider size and differences in the reporting year. As part of this, the team conducted follow-up communications with select Licensed EMS Units to clarify any questions around their data submissions. The team identified potential errors as values that did not seem reasonable to a layperson's standard. For example, one response had total transport costs in the hundreds of millions of dollars, which did not seem reasonable for a Licensed EMS Unit operating in New Hampshire. The team also identified extremely low values, such as total personnel costs in the hundreds of dollars total. The team also extended the review to include missing values.

PCG attempted to conduct outreach to Licensed EMS Units that had minor discrepancies. Due to time constraints, if a response showed significant data omissions such as limited-to-no cost data or limited-to-no transport data, PCG excluded the response for incompleteness. If missing data was limited to a small

number of minor omissions, the team conducted email follow-up to obtain additional clarification where possible.

A total of 23 submissions were excluded due to incomplete data, which included 1 GADCS submission and 22 non-GADCS submissions, leaving 85 left for the analysis.

4.2 ADJUSTING FOR INFLATION

One of the key aspects of the data analysis to ensure veracity in the methodology was accounting for inflation. The GADCS and Non-GADCS data submissions included information about the reporting year. The GADCS submissions were given a reporting year from CMS, classified as Year One, Year Two, Year Three, and Year Four. Within those classifications, each Licensed EMS Unit could report based on a calendar year or their own Fiscal Year. The Non-GADCS data survey asked for a distinct reporting year, again with the option of reporting based on their own Fiscal Year.

The PCG team conducted outreach to collect the reporting year from each Licensed EMS Unit. Two (2) Licensed EMS Units did not provide their reporting year, and no inflation was applied. For the remaining 83 Licensed EMS Units, the team calculated the midpoint of the reporting year. This is defined as the final day of the 6th month of the reporting year.

The inflation adjustment was calculated by applying a benchmark factor using the Consumer Price Index, specific to medical services in the Northeast region.⁸ This factor, published by the Bureau of Labor Statistics (BLS) allowed the adjustment for inflation up to the most recent time period available at the time of this report, November 2024. This ensured that the data received would be standardized for the period of this analysis.

4.3 ADJUSTING FOR LICENSED EMS UNITS BASED OUT OF STATE

The Core Project Team identified seven Licensed EMS Units that are based outside of New Hampshire. The GADCS survey asked for total transport counts and did not distinguish the portion of those transports that occurred in New Hampshire. Members of the Core Project Team reviewed their records and confirmed the proportion of transport rendered within New Hampshire for four Licensed EMS Units based out of state. For three additional Licensed EMS Units, the PCG Team reached out directly to confirm the proportion of transports rendered in New Hampshire. The related transport numbers and related costs were adjusted accordingly to ensure an accurate reflection of services provided within the State (see Section 5.1 below).

4.4 THE USE OF STATISTICAL METHODS TO NORMALIZE THE DATA AND ARRIVE AT A FINAL ANALYTIC SAMPLE

Based on the data received and the needs of this study, the PCG Team determined that cost per transport was the appropriate metric to identify outliers. The PCG Team calculated the cost per transport by dividing total inflation-adjusted ambulance service expenses by the reported transport volume to arrive at a Licensed EMS Unit-specific cost per transport.

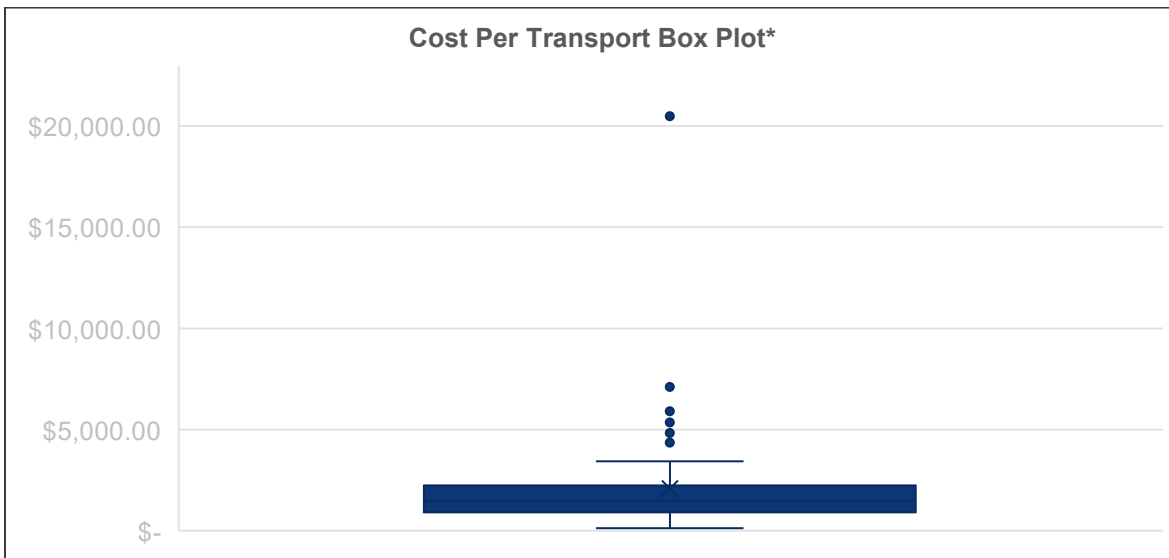
The team broke the total cost per transport into two parts, Total Cost Per Transport-Vehicle, which encompassed the vehicle and mileage costs, and Total Cost Per Transport-Non-Vehicle, which calculated the non-vehicle cost divided by the number of transports reported. This allowed the team to see a distribution of the cost per transport across all Licensed EMS Units.

The PCG Team utilized the Licensed EMS-Unit specific cost per transport values to arrange the data into percentiles, outlining the statistical mean, median (50th percentile), interquartile range (IQR) as well as the standard deviation. This analysis supported understanding variability of select cost per transport across the Licensed EMS Units and highlighted potential outliers.

⁸ [Bureau of Labor Statistics Data](#)

There was a wide range of resulting cost per transport across the Licensed EMS Units. To comply with the legislative mandate that costs should reflect services provided in a reasonably cost-effective manner, PCG used statistical analysis to exclude the extremely high cost per transport. The skewed distribution of the average cost per transport values created a concern that a small number of Licensed EMS Units could have a disproportionate impact on the recommended rates. The PCG Team reviewed cost variability among the major data categories, as well as by Licensed EMS Unit size. The final adjustment for outliers was completed using the rightward censoring method, $[1.5 \times IQR]$, to screen out high-cost outliers. This approach is well-validated and may best achieve the intent of the report, which is, in part, to recommend a rate that reflects the costs of efficiently delivered care incurred by Licensed EMS Units.

Figure 3 below demonstrates the variability in reported cost per transport as well as the distribution of cost per transport for all Licensed EMS Units in the data sample.



**The Cost Per Transport Box Plot intentionally omits one additional outlier exceeding \$25,000 in reported Cost Per Transport*

Figure 3: Cost Per Transport Box Plot

This box plot graphically shows the spread of the calculated cost per transport. The upper and lower quartiles are represented by the lines above and below the box, while the singular data points represent extreme outliers within the data set.

Using the described method, 12 outliers were identified and excluded. Upon completion of the QA process, the PCG Team included 73 Licensed EMS Unit data submissions in the final data cohort. Figure 4 below shows the progression from the original overall sample of 172 Licensed EMS Units to the 73 included in the final data cohort.

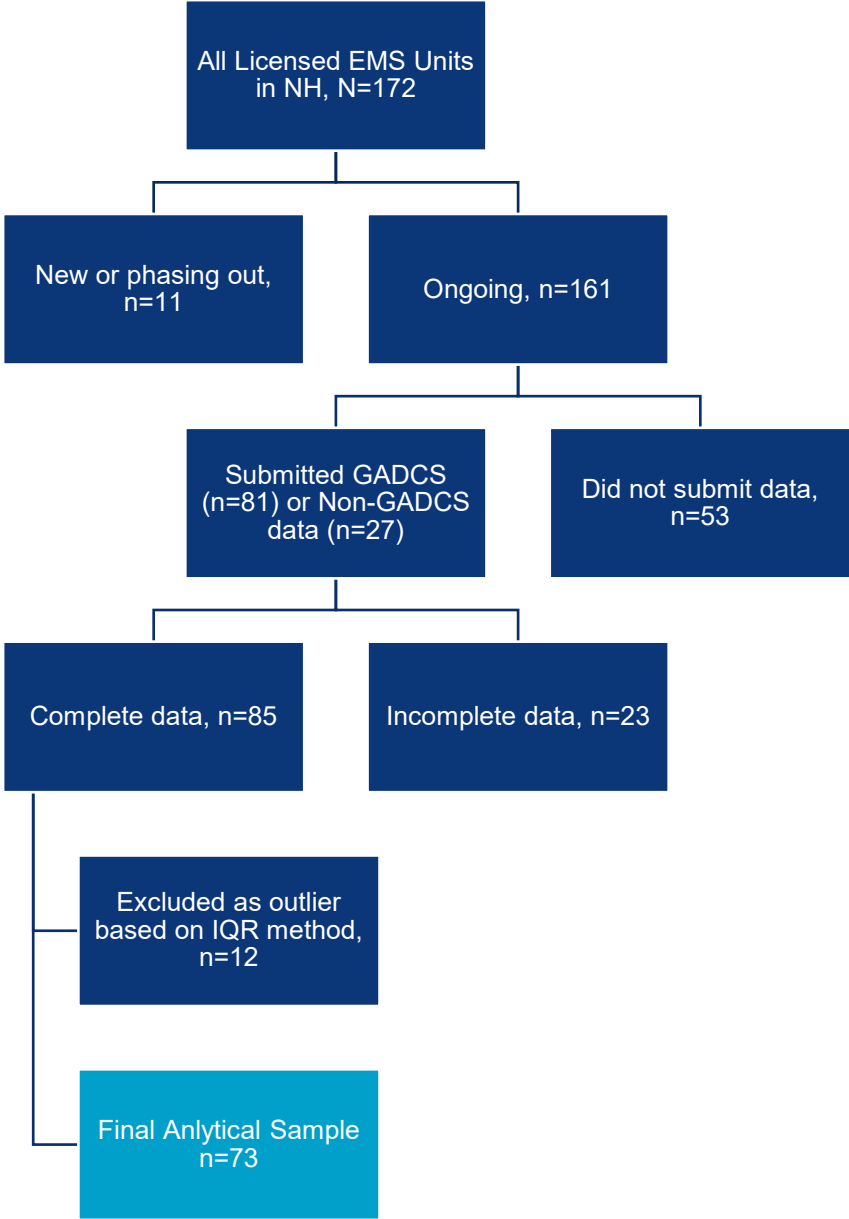


Figure 4: Data Sample Flow Chart

SECTION 5: ANALYSIS OF THE DATA SAMPLE

5.1 APPLIED STATISTICAL APPROACHES

To develop rates that aligned with the legislative mandate that rates are “sufficient to cover the reasonable cost of providing efficiently delivered care and a reasonable operating margin”, the PCG Team utilized two statistical methods in calculating a base rate – a weighted average cost and a Provision for Adverse Deviation (PAD).

A weighted average cost was utilized to estimate the cost of a typical transport rendered in the State of New Hampshire. The weighted average cost was calculated by summing the total reported cost of ground ambulance services for all included Licensed EMS Units to obtain a statewide total cost basis for included Licensed EMS Units. The total cost basis included the following three adjustments applied to applicable individual Licensed EMS Unit costs:

- Each individual Licensed EMS Unit's CPI-based inflation factor.
- Prorating the cost reported by Licensed EMS Units that are based out of state to reflect only the cost associated with the proportion of their transports that occurred in the State of New Hampshire.
- Added cost for Licensed EMS Units that reported utilizing volunteer staff equal to the estimated cost that would have been incurred to employ comparably credentialed staff.

To calculate a statewide average cost per Transport or Treat No Transport service, the PCG Team divided the total cost basis by the total number of Transports and a portion of Treat No Transport responses reported. More information on the methodology utilized to calculate Treat No Transport base rates is described in Section 6.7, below.

A PAD of 20% was utilized to address uncertainty in rate development and increased confidence in rate sufficiency. The PAD was applied as a 120% multiplier to the total cost for included Licensed EMS Units. The rationale behind applying a 20% PAD is described in greater detail in Section 7.1 Actuarial Soundness, below.

5.2 ASSUMPTION REGARDING CURRENT TAX FUNDING

SB 407 requires that the fee schedule take into consideration the current level of public fund revenue received for ground ambulance services. The PCG Team calculated the amount of tax revenue collected from local taxes earmarked for EMS based on the GADCS data submissions. This was added to the rate model calculation as an input factor to the calculated rate model. It was calculated that by including offset tax revenue it would lead to a decrease in the base rate calculation. In developing the fee schedule, the team recommended including the tax revenue offset to ensure compliance with the enabling legislation.

5.3 CALCULATION OF THE AVERAGE NET COST

The PCG Team calculated an average net cost that was offset by the local tax revenue earmarked for EMS. The average net cost was further apportioned to Transports, Treat No Transport responses, and mileage.

SECTION 6: APPLICATION OF THE RATE MODEL TO THE FINAL CALCULATION OF COST PER TRANSPORT

6.1 THE DECISION TO USE CORE MEDICARE METHOD FOR DERIVING RATES FROM A BASE RATE

The PCG Team used a combination of New Hampshire-specific costs coupled with the existing Medicare methodology to calculate final rates. This approach enabled us to calculate rates that encompassed the data received from Licensed EMS Units, as well as accounting for differences in acuity across different types of responses and differences in anticipated cost based on Urban, Rural, and Super Rural geographical considerations.

Medicare calculates ground ambulance rates in a multi-step process, starting with a base rate and then applying a unique Relative Value Unit (RVU) to each base rate. The RVU differs for each procedure code based on the level of care involved in the service. For example, an Advanced Life Support (ALS) service will have a higher RVU than a Basic Life Support (BLS) service. This is because the level of cost incurred for an ALS service is higher due to more advanced techniques, training, credentialing, supplies, and equipment that are needed to treat the patient. Once an RVU is applied to each distinct procedure code, Medicare applies a geographic adjustment factor. This factor is split up into three classifications: Urban, Rural, and Super Rural. These classifications are based on the originating location of the transport. The purpose is to account for the higher cost that occurs when operating in more rural areas.

This existing methodology was leveraged because it is a known and vetted method used by CMS. It accounts for the unique geography of a state, which is important given the diverse geographical landscape in New Hampshire, and accounts for the differing levels of care needed to perform the differing ground ambulance services.

6.2 THE ELEMENTS THAT COMPRISE TOTAL PROGRAM COST

The team needed to capture the total cost for Mileage, Transport, and Treat No Transport services. Recognizing ambulance staffing is constant, with the outcome and timing of each emergency response incident not being known ahead of time, the team was tasked with accounting for readiness as part of the cost of rendering ground emergency ambulance services. As such, all paid EMT/Response staff compensation as well as administrative staff support, and estimated cost applied to volunteer labor were included to ensure that the rate model accounted for the cost of readiness time when an active response is not being provided.

Cost elements included in the analysis include the following:

Transport and Treat No Transport Costs

- Personnel Costs
 - Direct Service Personnel
 - Medical Staff
 - Emergency Medical Responders (EMRs)
 - Emergency Medical Technicians (EMTs)
 - Paramedics
 - Indirect Personnel Costs
 - Administrative Staff
 - Medical Directors
- Non-Personnel Costs
 - Direct Service Non-Personnel
 - Direct Equipment, Consumables, and Supplies
 - Indirect Non-Personnel Costs
 - Facilities Costs

- Indirect Equipment, Consumables, Supplies
- Other Costs

Table 5 below demonstrates the proportion of total Transport and Treat No Transport costs stemming from each applicable cost center outlined above.

Transports and Treat no Transport Rate Model Cost Basis			
Grouping	Cost Center	Description	%
Inflation-Adjusted Personnel Cost Allocated to EMS	Direct	Medical Staff	0.01%
		EMR	0.78%
		EMT	40.46%
		Paramedic	25.76%
	Indirect	Admin	12.64%
		Medical Director	0.01%
Personnel Total			79.66%
Inflation-Adjusted Non-Personnel Cost Allocated to EMS	Direct	Direct Equipment, Consumable, and Supply Costs	4.53%
	Indirect	Facilities Costs	4.18%
		Indirect Equipment, Consumable, and Supply Costs	0.93%
		Other Costs	10.69%
	Non-Personnel Total		

Table 5: Transports and Treat no Transport Rate Model Cost Basis

These elements comprise all transport services and encompass the staffing of the ambulance, the equipment and supplies that keep the ambulance operable, and the indirect staffing that impacts service delivery. This cost covered both Transports and Treat No Transport responses. In a future step, the PCG Team separated the cost of Transports from the cost of Treat No Transport to calculate a cost per transport distinct to transport codes, separate from Treat No Transport and mileage. The mechanism for allocating cost to Treat No Transport is described in further detail in Section 6.5, below.

Mileage Costs

Vehicle costs were included but allocated entirely to the calculation of a rate for mileage billed under procedure code A0425.

6.3 RATE MODEL RECOMMENDATIONS

As outlined in the legislation, the rate schedule was to be designed to cover the reasonable cost of providing efficiently delivered care. To show this, the PCG Team calculated the estimated percentage of transport rendered which resulted in direct cost recovery and/or full cost recovery.

Estimated cost recovery percentages are shown as a percentage of direct transport costs, defined as costs related to the provision of ground ambulance services such as direct service personnel and direct service equipment. The team also calculated a full cost recovery percentage which included both direct and indirect costs incurred in the delivery of services. The next step was to compare calculated rates applied to the anticipated annual ground ambulance Transport, Treat no Transport, and Mileage activity for each Licensed EMS Unit to the inflation-adjusted net direct and total cost reported for each Licensed EMS Unit. The team then determined the aggregate percentage of transports with direct cost recovery and total cost recovery.

By using the statewide weighted average as the cost basis, the expected outcome was that Licensed EMS Units with lower-than-average costs would be more likely to achieve full cost recovery and Licensed EMS Units with higher-than-average costs would be less likely to achieve full cost recovery. Full (100%) cost

recovery would indicate that the rates were set based on the highest average cost per transport incurred by any of the included Licensed EMS Units and that all Licensed EMS Units achieve full cost recovery for all Transports. To meet the directive of ensuring that rates “cover the reasonable cost of providing efficiently delivered care and a reasonable operating margin,” the PCG Team assessed the direct and full cost recovery percentages. By achieving a direct cost recovery percentage of approximately 80% and a full cost recovery percentage of approximately 70%, the team was able to demonstrate that the majority of Transports rendered in New Hampshire and reimbursed under the recommended fee schedule are expected to achieve cost recovery.

The use of the weighted average as the cost basis with the inclusion of a PAD allowed for a rate model that would result in an estimated reimbursement equal to over 102% of the total reported provider cost and 120% of the net provider cost after adjusting for local taxes earmarked for EMS. The total Licensed EMS Unit cost is inclusive of inflation, volunteer cost adjustments, and out-of-state adjustments as outlined in Section 5.2, above.

This approach results in total reimbursement that adequately covers Licensed EMS Unit costs for covered services, the full range of pre-hospital care costs, and a reasonable operating margin while maintaining readiness for future service demands. Table 6 below shows the estimated cost coverage percentage based on recommended reimbursement rates.

Cost Coverage Percentage	
Cost Coverage Percentage Category	Estimated Value
% transports with direct cost recovered (estimated)	80.42%
% transports with full cost recovered (estimated)	69.51%

Table 6: Cost Coverage Percentage

6.4 FURTHER REASONS FOR USING THE WEIGHTED AVERAGE TO DERIVE COST BASIS

For the cost basis for Treat No Transport services, Transports, and Mileage, the PCG Team recommended using aggregated statewide cost and response data which resulted in a weighted average cost per Treat No Transport, Transport, and billable Mile. After accounting for outliers in the extensive data QA process outlined above and identifying and working to resolve discrepancies as also outlined above, the weighted average is representative of the cost of providing ground ambulance services in the State. This also aligns with statistical best practices.

6.5 RATE MODEL CALCULATION

This section outlines the methodology used to establish reimbursement rates for Mileage, Treat No Transport responses, and Transports. Further detail on the individual calculations for Mileage, Treat No Transport responses, and Transports is provided subsequently.

Step 1 Apportion Total Cost Basis to Mileage, Treat No Transport Responses, and Transports

Applicable to Mileage, Transport, and Treat No Transport Rate Calculations

The total Licensed EMS Unit cost basis is inclusive of inflation, volunteer cost adjustments, and out-of-state adjustments as outlined in Section 5.1, above. To establish rates for discrete services, the total cost basis was apportioned to Mileage, Treat No Transport Responses, and Transports as described below:

- ▶ **The Mileage cost basis** was equal to the total reported EMS vehicle costs.
- ▶ **The Transport and Treat No Transport cost basis** was equal to the non-vehicle portion of EMS costs reported including personnel, facilities, equipment, and others described in greater detail in section 6.2, above. The cost basis was apportioned between Transports and Treat No Transport services using the relative incidence of each response type reported. For Treat No Transport

services a discount factor of 50% was applied to account for the differences in service delivery and expected inputs between Treat No Transport services and Transports. This resulted in a net average per response cost for Treat No Transport services that was equal to half of the net average per response cost for Transport responses.

The overall breakdown of costs across the three categories is demonstrated in Figure 9, below.

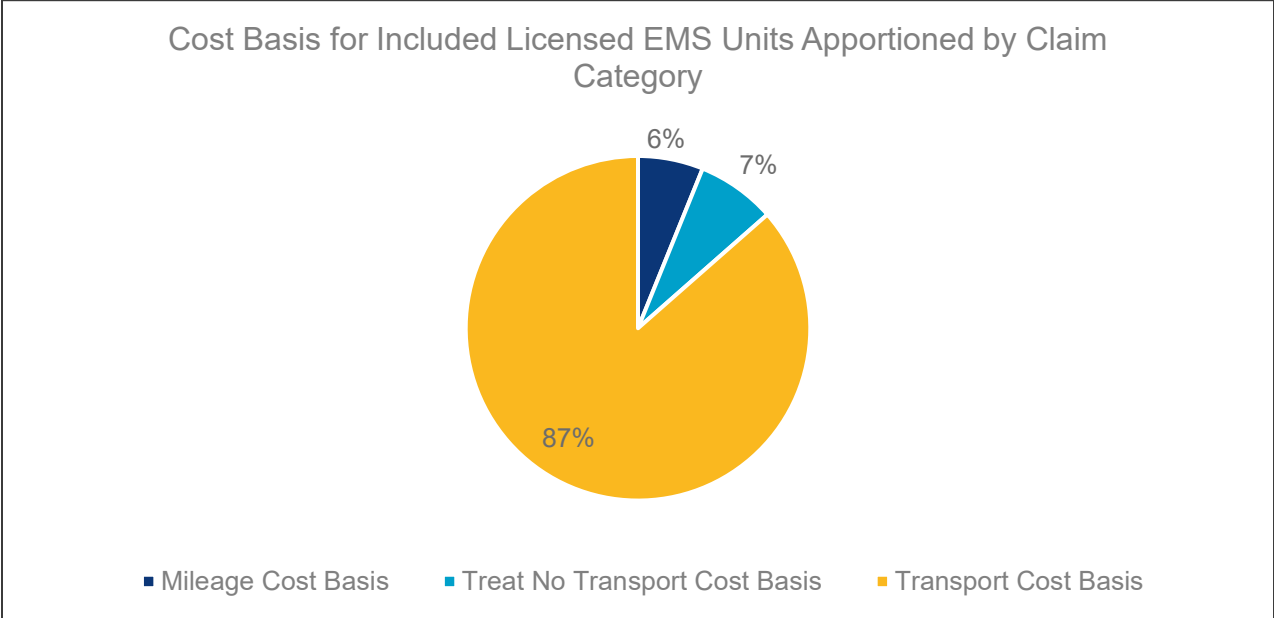


Figure 9: Cost Basis by Claim Category

Step 2. Calculate Total Net Cost by Claim Category

Applicable to Transport and Treat No Transport Rate Calculations Only

The total reported Licensed EMS Unit local taxes earmarked for EMS were allocated proportionately to Transports and Treat No Transport responses to calculate a net cost basis for each category of service.

Step 3. Apply a 20% Provision for Adverse Deviation to Net Cost

Applicable to Mileage, Transport, and Treat No Transport Rate Calculations

The net cost basis for Mileage, Transport, and Treat No Transport was multiplied by 120% to add in a 20% PAD. This step resulted in the final cost basis used to calculate per unit reimbursement rates.

Step 4. Calculate a Per Unit Average Cost

Applicable to Mileage, Transport, and Treat No Transport Rate Calculations

The final cost basis calculated in step 3 was divided by the estimated annual billable units for each claim category across all payers. Estimated annual billable units were defined as follows:

- **Transport Units:** the total number of ground ambulance transports reported by each included Licensed EMS Unit during each Licensed EMS Unit’s data collection period, across all payer types, regardless of the level of service or geography.
- **Mileage Units:** estimated billable mileage units were calculated by multiplying the transport units defined above by an estimated average billable miles per transport of four (4). The estimated average billable miles per transport of four (4) was calculated using CY2023 CHIS data. The PCG

Team utilized the median unit count from all mileage claims billed under procedure code A0425 after excluding unusually high mileage claim lines with greater than 30 miles per transport.

- **Treat No Transport Units:** The total number of ground ambulance responses that did not result in a ground ambulance transport during each Licensed EMS Unit's data collection period multiplied by the percentage of Non-Transport responses where a patient received medical treatment on site.

Dividing the final cost basis for each claim category by the calculated units resulted in the following average cost per unit values:

Per Unit Average Cost by Claim Category	
Claim Category	Per Unit Average Cost
Transport	\$ 929.93
Treat No Transport	\$ 464.96
Mileage	\$ 19.51

Table 7: Per Unit Average Cost by Claim Category

Step 5. Calculate a Base Rate

Applicable to Mileage, Transport, and Treat No Transport Rate Calculations

The final steps of the calculation outlined in Step 6 requires adjusting for claim-specific Relative Value Units relating to the level of care provided (and the corresponding procedure code billed) as well as claim specific Urban/Rural/Super Rural adjustment factors. To develop a base rate which will later be multiplied by RVU and Urban/Rural/Super Rural adjustment factors specific to each individual claim, the PCG Team applied the following adjustment factors to the average per unit cost calculated in step 4:

- **Reduction for average Urban/Rural/Super Rural adjustment.** The PCG Team recommended the use of the Medicare methodology for accounting for geographical cost differences between transports that originate within Urban, Rural, or Super Rural zip codes. More information about this process is contained within Section 6.6 Urban, Rural, and Super Rural Adjustments.

To account for this, the PCG Team also calculated a reduction to the average cost per unit to account for future increases. The team used the CMS zip code list, updated as of August 20, 2024, to get the current list of zip codes in New Hampshire and their regional classification. The team then compared this to the census population for each zip code, based on US Census data from 2020 to determine the percentage of the population per each classification. The formula for calculating the reduction was as follows:

$$1 \div [(\text{Urban Population \%} * \text{Urban multiplier}) + (\text{Rural Population \%} * \text{Rural multiplier}) + (\text{Super Rural Population \%} * \text{Super Rural multiplier})]$$

These percentages were used to apply an average reduction to the base rate to account for future increases based on the Urban, Rural, and Super Rural classification. This calculation came to 96.96% of the cost per unit for Transports and Treat in Place responses and 96.17% of the cost per unit for mileage, which will be counterbalanced by the corresponding positive adjustments to the final rates applied in step 6.

- **Reduction for average Relative Value Unit.** Similarly, the PCG Team recommended the use of the Medicare methodology for accounting for differences in level of care across Transport and Treat No Transport procedure codes. To account for this, the Team also calculated a reduction to the average cost per unit, to account for future increases:
 - For Mileage, no reductions were needed for RVU because mileage is reimbursed at a relative value unit of 1.

- For Transport codes, the team utilized the RVU percentage of all services reported based on the GADCS data to arrive at an average Relative Value Unit of 1.60.
- For Treat No Transport codes, the team utilized the percentage of BLS, ALS 1, and ALS 2 services reported based on the GADCS data to arrive at an average RVU of 1.78. The team utilized BLS, ALS 1, and ALS 2 Emergency Transport codes only to mirror the RVUs applied to the three distinct levels of recommended Treat No Transport reimbursement rates.

After applying these reductions, the PCG Team calculated the following per-unit base rates which amounted to 202% of the Medicare base rate for transport codes and 209% of the Medicare base rate for mileage codes.

Base Rate by Claim Category		
Claim Category	Per Unit Base Rate	Percent of NH-Adjusted Medicare Base Rate
Transport	\$ 564.74	202.47%
Treat No Transport	\$ 253.72	N/A-Not Covered by Medicare
Mileage	\$ 18.76	209.23%

Table 8: Base Rate by Claim Category

Step 6. Apply Claim-Specific Adjustment Factors to Calculated Base Rate

In step 6, the team applied applicable RVUs and Urban/Rural/Super Rural adjustments to each base rate to arrive at a recommended rate model. This step offset step 5 to arrive at a final fee schedule which differentiated rates by procedure code and Urban/Rural/Super Rural designation while still aligning with calculated average cost per unit values calculated in step 4.

- **Increase for claim-specific Urban/Rural/Super Rural adjustment.** Each procedure code has distinct rates for Urban/Rural/Super Rural locations. More information about this process is contained within Section 6.6 Urban, Rural, and Super Rural Adjustments.
- **Increase for claim-specific Relative Value Unit.** Similarly, each distinct procedure code has an assigned Relative Value Unit which represents the level of care and corresponding impact on Licensed EMS Unit cost incurred. The PCG Team applied each distinct RVU to arrive at final rates that are applicable to each procedure code. For mileage, the RVU value is simply 1 and no RVU adjustment was needed.

The final fee schedule resulting from the application of RVUs and Urban/Rural/Super Rural adjustments can be viewed in the Executive Summary as well as Section 6.9 Final Rate Recommendations.

6.6 URBAN, RURAL, AND SUPER RURAL ADJUSTMENTS

For ambulance services payment, CMS calculates an adjustment factor for Urban, Rural, and Super Rural classifications, determined by zip code. The PCG Team determined that using this method would best account for the differing geographic factors in the State of New Hampshire. By applying this same methodology to the base rate calculations, the PCG Team was able to calculate rates that more accurately reflect the landscape of ground ambulance services and their costs in the State.

The Urban, Rural, and Super Rural definitions are based on categorizations set by the Office of Management and Budget (OMB). Under 42 CFR 485.610(b)(1)(i)⁹, a rural area is any area that is outside

⁹ <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-G/part-485/subpart-F/section-485.610>

a Metropolitan Statistical Area (MSA), as defined by the OMB¹⁰.

A Super Rural area is defined as a rural area determined by the Secretary to be in the lowest 25th percentile of all rural populations arrayed by population density.

This classification had a direct impact on the rates, as each procedure code has a separate adjustment based on the zip code in which the transport originated. This led to increased rates for rural and super rural locations.

For transport codes, CMS sets the value for urban at 1.02 applied to the base rate, the rural adjustment factor is 1.03 applied to the base rate, and Super Rural is 1.226 applied to the rural rate. To calculate the “Super Rural bonus” payment rate of 22.6%, the PCG Team multiplied any rural ground ambulance transport service payment rate by 1.226. This value was added to the rural rate to calculate the Super Rural rate. For mileage, the “Super Rural bonus” is 1.5 times the rural rate. For Treat No Transport codes, the team utilized the same adjustments that are applied to the Transport codes.

6.7 TRANSPORT RATES

6.7.1 Transport Rate Model Calculation

To determine the transport rates, the PCG Team multiplied the net cost total, calculated as \$104,425,629.79 by the 20% Provision for Adverse Deviation to arrive at a total Transport cost basis of \$125,310,755.75. The total Transport cost basis was divided by the total Transports reported to calculate an average cost per transport of \$929.93.

The team then took the \$929.93 cost per transport, multiplied by the Urban/Rural/Super Rural average reduction calculated at 96.96%, and divided by the average RVU value of 1.597 to reach a transport base rate of \$564.74 per transport. This is 202.47% of the Medicare base rate for the same procedure code grouping.

Calculation steps 1 through 5 described in Section 6.5, above are outlined in Table 9 below.

Table 9: Transport Base Rate Calculation			
Field	Step	Category	Value
A	Step 1. Apportion Total Cost Basis to Transports	Personnel Cost, Equipment, Facilities, and Other Non-Personnel Cost	\$123,706,141.95
B	Step 2. Calculate Total Net Cost by Claim Category	Adjustment for Tax Revenues	\$19,280,512.16
C		Net Transport Cost (A-B)	\$104,425,629.79
D	Step 3. Apply a 20% Provision for Adverse Deviation (PAD) to Net Cost	Provision For Adverse Deviation	20.00%
E		Adjusted Net Transport Cost [C*(1+D)]	\$125,310,755.75
F	Step 4. Calculate a Per Unit Average Cost	Total Transports Reported	134,753.32
G		Average Per Transport Cost	\$929.93
H	Step 5. Calculate a Base Rate	Average RVU GADCS Services Reported	1.597
I		Urban/Rural/Super Rural Average Reduction	96.96%
J		Base Rate (G*I+H)	\$564.74

Table 9: Transport Base Rate Calculation

¹⁰ <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AmbulanceFeeSchedule/Downloads/Ground-Ambulance-Data-Collection-System-Sampling-Instrument-Considerations-Recommendations.pdf>

Due to the complex nature of step 6, with 21 distinct rate combinations being set for Transport codes, step 6 is reflected in Table 10, below. To calculate individual rates, each RVU value was multiplied by the Base Rate calculated above. Additionally, urban rates were multiplied by a factor of 1.02, Rural rates were multiplied by a factor of 1.03 and Super Rural rates were an additional 22.6% higher than the Rural rates.

Table 10: Transport Rate Calculations					
Proc Code	Description	RVU Value	Urban	Rural	Super Rural
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency	1.2	\$691.24	\$698.02	\$855.77
A0427	Advanced Life Support, Level 1 (ALS1), Emergency	1.9	\$1,094.46	\$1,105.19	\$1,354.97
A0428	Basic Life Support (BLS), Non-emergency	1	\$576.03	\$581.68	\$713.14
A0429	Basic Life Support (BLS), Emergency	1.6	\$921.65	\$930.69	\$1,141.03
A0432	Paramedic Intercept, Volunteer Ambulance Co	1.75	\$1,008.06	\$1,017.94	\$1,248.00
A0433	Advanced Life Support, Level 2 (ALS2)	2.75	\$1,584.09	\$1,599.62	\$1,961.14
A0434	Specialty Care Transport (SCT)	3.25	\$1,872.11	\$1,890.46	\$2,317.71

Table 10: Transport Rate Calculations

6.8 TREAT NO TRANSPORT RATES

The procedure code A0998, for Treat No Transport, is not covered by Medicare. As such there is not a comparative rate. To create a distinct rate for this code, the PCG Team developed a methodology that encompassed the varying aspects that go into a service billed under A0998, outlined below.

6.8.1 The Elements That Comprise Total Cost

Total cost was apportioned to Treat No Transport from the costs reported by Licensed EMS Units outlined in 6.2, above. Reported non-vehicle EMS cost was split between Transports and Treat No Transport services for all included Licensed EMS Units. To apportion costs between Transport and Treat No Transport services, the PCG Team utilized a 50% reduction factor per Treat no Transport response as compared to cost allocated to responses which result in a Transport.

The team arrived at a 50% reduction factor for Treat No Transport responses in consultation with PCG's Ambulance Services Subject Matter Experts. While the overall level of acuity and care delivery varies significantly across Treat No Transport responses, it is expected that a typical Treat No Transport response requires fewer resources than a comparable incident which results in a Transport. Transport responses may involve time transporting a patient, time waiting for patient intake at a hospital Emergency Department, and additional cleaning and preparation time prior to a vehicle resuming readiness. These additional activities may not be called for when a Treat No Transport response occurs.

The same pool of total reported cost is allocated across both Transport and Treat No Transport responses. Consequently, every dollar allocated to Treat No Transport resulted in one less dollar to be applied to the cost basis for establishing Transport rates. Consequently, the impact to Licensed EMS Units of the 50% reduction is limited to the rate differential between Treat no Transport and Transport responses and has little bearing on the overall expected reimbursement to Licensed EMS Units.

6.8.2 Methodology for Determining the Number of Treat No Transport Units

The GADCS survey submissions included two specific questions that enabled the PCG Team to calculate the volume of Treat No Transport services:

- What was the total number of ground ambulance responses that did not result in ground ambulance transport during your organization's data collection period?
- Of the ground ambulance responses that did not result in ground ambulance transport, what percentage received medical treatment on site?

Using these two questions, the PCG Team estimated the number of Treat No Transport services for each individual Licensed EMS Unit who submitted a GADCS response by multiplying the reported count of Non-Transport responses by the estimated percentage of Non-Transport responses where medical treatment was provided. The team then calculated an estimated aggregate number of Treat No Transport responses across all respondents. Lastly, the aggregate number of Treat No Transport responses multiplied by the 50% discount factor was applied to the total cost elements outlined in Section 6.7.1 to calculate an estimated cost of Treat No Transport services that is distinct from services that resulted in a transport.

6.8.3 Acuity Levels Determination

The fact that Treat No Transport services do not have a consistent acuity level, or level of care, for the response is a limiting factor given the wide range of acuity levels that can be billed under Treat No Transport. The Core Project Team recommended developing distinct rates based on acuity level to account for the range of response levels that constitute Treat No Transport responses.

To separate Treat No Transport responses by acuity, the PCG Team used the existing acuity levels for emergency ambulance transport services. This approach allowed for a clear differentiation of acuity and will reduce the administrative burden on the Licensed EMS Units to classify Treat No Transport responses by leveraging an existing methodology that is currently utilized. The proposed acuity levels are as follows:

- Basic Life Support (BLS)
- Advanced Life Support Level 1 (ALS-1)
- Advanced Life Support Level 2 (ALS-2)

These acuity levels are currently in place for Transport services, with each having a distinct code and rate. Each acuity level also has a distinct RVU developed by CMS. Because of this, separating Treat No Transport rates into these three acuity levels was the most accurate approach. The team then used the existing RVU factors to multiply against the base rate to calculate distinct rates for each acuity level.

The billing for each code will require modifiers, or another indicator attached to each Treat No Transport claim to account for the differing acuity levels. If implemented, the State will need to offer detailed guidance on how to submit Treat No Transport claims appropriately.

6.8.4 Treat No Transport Rate Model Calculation

To calculate rates for Treat No Transport Responses, the PCG Team multiplied the net cost total, calculated at \$8,931,925.33 by the 20% Provision for Adverse Deviation to arrive at a total Treat No Transport cost basis of \$10,718,310.39. The total Treat No Transport cost basis was divided by the total Treat No Transport responses to derive an average cost per Treat No Transport response of \$464.96.

Next, the team took the \$464.96 cost per Treat No Transport response, multiplied by the Urban/Rural/Super Rural average reduction, calculated at 96.96% and divided by the average RVU value of 1.777, to reach a Treat No Transport base rate of \$253.72 per Treat No Transport response. There is no comparable base rate for Treat No Transport responses utilized by Medicare currently.

Calculation steps 1 through 5 described in Section 6.5, above are outlined in Table 11 below.

Table 11: Treat No Transport Base Rate Calculation			
Field	Step	Category	Value
A	Step 1. Apportion Total Cost Basis to Treat No Transport Responses	Personnel Cost, Equipment, Facilities, and Other Non-Personnel Cost	\$10,581,061.61
B	Step 2. Calculate Total Net Cost by Claim Category	Adjustment for Tax Revenues	\$1,649,136.28
C		Net Treat No Transport Cost (A-B)	\$8,931,925.33
D	Step 3. Apply a 20% Provision for Adverse Deviation (PAD) to Net Cost	Provision For Adverse Deviation	20.00%
E		Adjusted Net Treat No Transport Cost [C*(1+D)]	\$10,718,310.39
F	Step 4. Calculate a Per Unit Average Cost	Total Treat No Transport Responses Reported	23,051.94
G		Average Per Treat No Transport Cost	\$464.96
H	Step 5. Calculate a Base Rate	Average RVU GADCS Services Reported	1.777
I		Urban/Rural/Super Rural Average Reduction	96.96%
J		Base Rate (G*I+H)	\$253.72

Table11: Treat No Transport Base Rate Calculation

Due to the complex nature of step 6 with 9 distinct rate combinations being set for Treat No Transport code A0998, step 6 is split out into Table 12, below. To calculate individual rates, the RVU value was multiplied by the Base Rate calculated above. Additionally, Urban rates were multiplied by a factor of 1.02, Rural rates were multiplied by a factor of 1.03 and Super Rural rates were an additional 22.6% higher than the Rural rates.

Table 12: Treat No Transport Rate Recommendations					
Procedure Code	Description	RVU Value	Urban	Rural	Super Rural
A0998 (BLS)	Response and Treatment, no transport	1.6	\$414.07	\$418.13	\$512.63
A0998 (ALS 1)	Response and Treatment, no transport	1.9	\$491.71	\$496.53	\$608.75
A0998 (ALS 2)	Response and Treatment, no transport	2.75	\$711.69	\$718.67	\$881.09

Table 12: Treat No Transport Rate Recommendations

6.9 MILEAGE RATES

6.9.1 The Elements That Comprise Total Cost

The elements that comprise the total cost for mileage are distinct from the Transport costs and Treat No Transport costs. For mileage, only the direct vehicle costs were included. This was calculated from the GADCS submission which explicitly asked for vehicle costs and the percentage of vehicle costs that apply to ground ambulance services. Mileage only includes the number of miles put on the vehicle and is not inclusive of the other costs needed to provide ground ambulance services. This also allowed for a clear methodology that is unique to mileage costs.

6.9.2 Methodology for Determining Miles Per Transport

The PCG Team utilized an estimated average billable miles per transport of four (4). The estimated billable miles per transport was derived from the Calendar Year (CY) 2023 CHIS claims data. The team utilized the

median unit count from distinct A0425 mileage claim lines paid in CY2023 after removing unusually high-unit outliers with greater than 30 miles billed on a single claim line.

The total estimated billable miles were calculated by multiplying the average billable miles per transport of four by the number of total reported transports for the Licensed EMS Units included in the final data set, identified by NPI.

6.9.3 Mileage Rate Model Calculation

To determine the gross average cost, the PCG Team multiplied the vehicle cost total of \$8,764,452.84 by the PAD adjustment of 120% to arrive at a final cost basis of \$10,517,343.40. Next, the team divided the mileage cost basis by the estimated billable miles of 539,013.28 to calculate an average cost per mile of \$19.51.

The team then took the \$19.51 cost per billable mile, multiplied by the Urban/Rural/Super Rural average reduction, calculated at 96.17%, to reach a mileage base rate of \$18.76 per mile. This is 209.23% of the Medicare base rate for the same procedure code.

As a final calculation step, Urban rates were multiplied by a factor of 1.02, Rural rates were multiplied by a factor of 1.03 and Super Rural rates were an additional 50% higher than the Rural rates.

Table 13: Mileage Rate Calculation			
Field	Step	Category	Value
A	Step 1. Apportion Total Cost Basis to Mileage	Vehicle Cost	\$8,764,452.84
B	Step 2. Calculate Total Net Cost by Claim Category	Adjustment for Tax Revenues	\$-
C		Net Vehicle Cost (A-B)	\$8,764,452.84
D	Step 3. Apply a 20% Provision for Adverse Deviation (PAD) to Net Cost	Provision For Adverse Deviation	20.00%
E		Adjusted Net Vehicle Cost [C*(1+D)]	\$10,517,343.40
F	Step 4. Calculate a Per Unit Average Cost	Total Transports Reported	134,753.32
G		Average Miles Billed Per Transport (median CY2023 Paid Claims)	4.00
H		Billable Miles Estimated (F*G)	539,013.28
I		Average Per Mile Cost	\$19.51
J	Step 5. Calculate a Base Rate	Average RVU GADCS Services Reported	1
K		Urban/Rural/Super Rural Average Reduction	96.17%
L		Base Rate (I*K÷J)	\$18.76
M	Step 6. Apply Claim-Specific Adjustment Factors to Calculated Base Rate	Urban Rate (L*1.02)	\$19.14
N		Rural Rate (L*1.03)	\$19.33
O		Super Rural Rate (N*1.5)	\$28.99

Table 13: Mileage Rate Calculation

6.10 FINAL RATE RECOMMENDATIONS

The PCG Team calculated the final rates as included in Table 14, below (repeated from Table 1 above). These rates are based on all the factors outlined above, using the inflation-adjusted costs as reported by Licensed EMS Units, and the benchmarked Medicare RVU and regional classification process.

Table 14: NH Rate Recommendations				
Procedure Code	Description	Urban	Rural	Super Rural
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency	\$691.24	\$698.02	\$855.77
A0427	Advanced Life Support, Level 1 (ALS1), Emergency	\$1,094.46	\$1,105.19	\$1,354.97
A0428	Basic Life Support (BLS), Non-emergency	\$576.03	\$581.68	\$713.14
A0429	Basic Life Support (BLS), Emergency	\$921.65	\$930.69	\$1,141.03
A0432	Paramedic Intercept, Volunteer Ambulance Co	\$1,008.06	\$1,017.94	\$1,248.00
A0433	Advanced Life Support, Level 2 (ALS2)	\$1,584.09	\$1,599.62	\$1,961.14
A0434	Specialty Care Transport (SCT)	\$1,872.11	\$1,890.46	\$2,317.71
A0998	Response and Treatment, no transport (BLS)	\$414.07	\$418.13	\$512.63
A0998	Response and Treatment, no transport (ALS 1)	\$491.71	\$496.53	\$608.75
A0998	Response and Treatment, no transport (ALS 2)	\$711.69	\$718.67	\$881.09
A0425	Mileage	\$19.14	\$19.33	\$28.99

Table 14: NH Rate Recommendations

SECTION 7: IMPACT ASSESSMENTS AND RATE REASONABLENESS COMPARISON

7.1 ACTUARIAL SOUNDNESS

L&E curated the following definition of actuarial soundness for this project based on Actuarial Standards of Practice (ASOPs)¹¹ :

Actuarially sound rates are:

1. Developed based on appropriate data sources that are derived from a comparable population and/or services to those anticipated, or if not, are adjusted to make them comparable.
2. Developed using adjustments to smooth data and account for expected changes from the base data period to the rate contract period, such as incomplete data adjustments, trends/inflations, population changes, changes in contracted services, etc.
3. Expected to be sufficient to cover the contracted services, not only under expected conditions, but under moderately adverse conditions, where moderately adverse conditions are defined as

¹¹ Particularly, ASOPs 1, 22, 23, 26, 31, and 49. These can be found at the following link: <https://www.actuarialstandardsboard.org/standards-of-practice/>

conditions that include one or more unfavorable, but not extreme, events that have a reasonable probability of occurring during the contract period.

4. Developed in accordance with generally accepted actuarial principles and standards of practice.

L&E collaborated with the PCG Team throughout the rate development process to ensure requirements #1 and #2 were followed appropriately. To fully address requirement #4, L&E assisted with establishing a Provision for Adverse Deviation in accordance with requirement #3. PAD, also known as a risk margin or margin for uncertainty, represents an additional amount typically expressed as a percentage increase designed to account for the following:

- **Uncertainty in Rate Development:** This includes variability inherent in the data sample used for rate development compared to the true value, as well as uncertainties in adjustments and assumptions made during the process. Examples include the selection of methodologies for smoothing data and excluding outliers, as well as setting assumptions for factors like inflation.
- **Increased Confidence in Rate Sufficiency:** PAD helps ensure that the rates remain adequate even if actual future (i.e., rating period) results turn out to be moderately adverse compared to the reporting period used as a basis for rate development.

Based on the factors outlined above, L&E selected a PAD of 20%. This selection was informed by the following considerations:

- **Data Confidence:** The final data sample used for rate development provided a confidence level exceeding 90% that the sample results are within +/-10% of the true value.
- **Project Directive:** The proposed rates should incorporate “a reasonable operating margin while maintaining readiness for future service demands.” The selected PAD results in an estimated average operating margin of 2.4%.
- **Cost Recovery:** The selected PAD supports an estimated full cost recovery for approximately 70% of the transports included in the reported data used as the basis for rate development. Additionally, the selected PAD results in estimated total costs under the proposed rate schedule, across all Licensed EMS Units included in rate development, which is approximately equal to the total costs reported in the collected surveys for all Licensed EMS Units included in the rate development.

7.2 PREMIUM IMPACT ANALYSIS

To estimate the impact of the proposed rate schedule on Commercial premiums, L&E utilized claims data from the New Hampshire CHIS. The analysis focused on commercial ambulance claims incurred during the 2023 calendar year and paid through April 2024. To account for claims incurred but not yet paid (IBNP) as of April 2024, L&E applied completion factors by procedure code. These completion factors were derived from observed payment patterns for claims incurred in calendar year 2022 and paid through April 2024. Table 20 below summarizes the observed average reimbursement rates from the 2023 CHIS claims data and the estimated average reimbursement rates under the proposed rate schedule, by procedure code¹².

¹² The estimate is based on an assumed distribution between urban, rural, and super rural utilization. The assumed distribution is based on the NH population distribution within each region

Table 15: Comparison of Average Commercial Reimbursement Rate by Procedure Code				
Procedure Code		2023 CHIS	Proposed (Estimate)	Percent Change
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency	\$824.96	\$698.95	-15%
A0427	Advanced Life Support, Level 1 (ALS1), Emergency	\$806.85	\$1,106.68	37%
A0428	Basic Life Support (BLS), Non-emergency	\$548.06	\$582.46	6%
A0429	Basic Life Support (BLS), Emergency	\$638.24	\$931.94	46%
A0432	Paramedic Intercept, Volunteer Ambulance Co	N/A	\$1,019.31	N/A
A0433	Advanced Life Support, Level 2 (ALS2)	\$1,082.79	\$1,601.77	48%
A0434	Specialty Care Transport (SCT)	\$2,446.42	\$1,893.00	-23%
A0998	Ambulance Response and Treatment, no transport	N/A	\$454.80	N/A
	Non-Mileage Average	\$785.77	\$997.39	+27%
A0425	Mileage	\$15.65	\$19.51	+25%

Table 15: Comparison of Average Commercial by Procedure Code

L&E observed that procedure codes A0432 and A0998 were not represented in the CHIS data. Due to time constraints and the absence of data to support an assumption, no assumptions were made regarding potential changes in the utilization of these two procedure codes.

In the 2023 CHIS data, non-mileage ambulance claims accounted for approximately 0.4% of all claims, while ambulance mileage claims constituted about 0.2%. Table 8 outlines the calculation of the estimated percentage impact of the proposed rates on Commercial claim costs. The resulting estimated impact was approximately 0.2%.

Table 16: Calculation of Percentage Impact on Claim Costs		
Claim Cost Subset	Subset % of Total Claim Costs	Proposed Increase
Ambulance Non-Mileage Costs	0.4%	1.27
Ambulance Mileage Costs	0.2%	1.25
All Other Costs	99.4%	1.00
Total Costs	100%	1.002

Table 16: Calculation of Percentage Impact on Cost Claims

The final step in estimating the premium impact involved weighing the claims cost impact based on the proportion of premiums allocated to claims costs. The proposed rate structure was not expected to affect the portion of premiums allocated to operating costs or other non-claim expenses. Drawing on L&E's experience with the Commercial insurance market, including premium pricing and rate review, it was assumed that, on average, 85% of premiums are allocated to claims costs. Table 25 below details the calculation of the estimated percentage impact of the proposed rates on Commercial premiums. The resulting estimated impact was approximately 0.1%.

Table 17: Calculation of Percentage Impact to Premium		
Premium Subset	Subset % of Total Premium	Proposed Increase
Claim Costs	85%	1.002
Non-Claim Expenses	15%	1.000
Total Premium	100%	1.001

Table 17: Calculation of Percentage Impact to Premium

This impact translated to an estimated dollar amount increase in Commercial premium¹³ of \$4.3M total per year, or \$0.36 per member per month (PMPM)¹⁴.

L&E emphasizes that this represents an average estimated impact across the Commercial market, and individual carriers may experience impacts slightly above or below this average.

SECTION 8: CONCLUSION

The PCG Team recognizes the importance of developing rates for ground ambulance services and the impact they will have on Licensed EMS Units in New Hampshire. It is important to conduct regular rate reviews to ensure rate fidelity as well as to ensure that rates present an accurate picture of the cost of delivering ground ambulance services in the State.

SECTION 9: ACKNOWLEDGEMENTS

PCG and L&E would like to acknowledge the Licensed EMS Units operating in New Hampshire. The team appreciates the support and engagement from the Licensed EMS Units. They provide important services to Granite Staters and society and have shown great commitment to this endeavor. This could not have been completed as accurately and effectively without the strong participation of the Licensed EMS Units.

The PCG Team would also like to acknowledge our partners within the Core Project Team. This team was extremely helpful in all aspects of this project. They proved a huge asset in connecting with Licensed EMS Units in the State of New Hampshire.

¹³ The dollar amount impact is estimated to be the same for Commercial claims cost and Commercial premium since it is assumed that the proposed rate structure is not expected to affect the portion of premiums allocated to operating costs or other non-claim expenses.

¹⁴ Membership estimate based on Census data.

APPENDIX A: SENATE BILL 407

Please see below for relevant text from Senate Bill 407¹⁵, which served as the impetus for the cost study that was conducted.

CHAPTER 256
SB 407-FN - FINAL VERSION

03/21/2024 0999s
04/11/2024 1422s
2May2024... 1641h
06/13/2024 2256CofC
06/13/2024 2318EBA

2024 SESSION

24-3036
05/10

SENATE BILL **407-FN**

AN ACT establishing a ground ambulance cost reporting program and a study by an independent actuarial and accounting expert of the cost of providing ground ambulance services in the state.

SPONSORS: Sen. Prentiss, Dist 5; Sen. Fenton, Dist 10; Sen. Watters, Dist 4; Sen. Altschiller, Dist 24; Sen. Perkins Kwoka, Dist 21; Sen. Soucy, Dist 18; Sen. Rosenwald, Dist 13; Sen. Whitley, Dist 15; Sen. Gannon, Dist 23; Sen. Innis, Dist 7; Sen. Birdsell, Dist 19; Sen. Carson, Dist 14; Sen. Chandley, Dist 11; Sen. D'Allesandro, Dist 20; Rep. Goley, Hills. 21; Rep. S. Pearson, Rock. 13; Rep. Stringham, Graf. 3; Rep. Wolf, Merr. 7

COMMITTEE: Health and Human Services

¹⁵https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?sy=2024&id=2127&txtFormat=pdf&v=current.

AMENDED ANALYSIS

This bill provides for a statewide ground ambulance cost reporting program and a study by an independent actuarial and accounting expert of the cost of providing ground ambulance services in the state. The study shall include an illustrative ground ambulance rate schedule which is such that, if fully insured health carriers were to use this schedule in reimbursing nonparticipating ground ambulance providers, it would be sufficient to cover the reasonable cost of providing efficiently delivered care and a reasonable operating margin, assuming all payers in the state are paying at the same rate.

Explanation: Matter added to current law appears in **bold italics**.
Matter removed from current law appears ~~[in brackets and struck through]~~
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.
03/21/2024 0999s
04/11/2024 1422s
2May2024... 1641h
06/13/2024 2256CofC
06/13/2024 2318EBA 24-3036
05/10

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty Four

AN ACT establishing a ground ambulance cost reporting program and a study by an independent actuarial and accounting expert of the cost of providing ground ambulance services in the state.

Be it Enacted by the Senate and House of Representatives in General Court convened:

256:1 Managed Care Law; Establishing a Ground Ambulance Cost Reporting Program and Providing for a Study by an Independent Actuarial and Accounting Expert of Ground Ambulance Costs and Ground Ambulance Reimbursement Rates.

I. Beginning on the effective date of this section, the insurance commissioner, or "commissioner", shall oversee the process provided for in this section of contracting with an independent actuarial and accounting expert to conduct a study of the costs incurred and revenue collected by ground ambulance providers related to the provision of ground ambulance services in the state, including the cost of sustaining a reasonable

operating margin in support of the expectation that ground ambulance providers in the state maintain readiness to meet demand for services. The commissioner of the department of safety shall collaborate with the commissioner in collecting cost and revenue reports, as designed by the actuarial and accounting contractor, from all ground ambulance providers in the state. The actuarial and accounting contractor may make use of the Medicare ground ambulance cost reporting template if deemed appropriate by the contractor for the purposes set out in this section. The commissioner of the department of safety shall have authority to enforce this reporting requirement upon ground ambulance providers under the general supervision and specific enforcement authority conferred by [RSA 153-A](#) and shall work with the commissioner to set a deadline for ground ambulance providers to submit their cost reports that is sufficient to facilitate the completion of the study and report provided for in this section in a timely manner.

II. Based on the information provided through the cost and revenue reports, the actuarial and accounting contractor shall be directed to summarize the cost and revenue information collected and to derive an illustrative statewide cost-based default rate schedule appropriate for fully-insured commercial payers for use in reimbursing nonparticipating ground ambulance providers. The schedule may be based on a percentage of Medicare rates, or it may be an independently developed schedule. The schedule may vary based on geographic region. Reimbursement under the illustrative schedule shall be designed to cover the costs attributable to the provision of covered services assuming that all public and commercial ground ambulance payers in the state are paying at the same rate and assuming that the rate of subsidization of ground ambulance services in the state through public funds remains constant. Costs shall include the cost of pre-hospital care and the cost of sustaining a reasonable operating margin as necessary to fulfill the expectation that ground ambulance providers in the state maintain readiness to meet future demand for services. Cost estimates shall be based on the assumption that services shall be provided in a reasonably cost-effective manner. The illustrative rate schedule shall be accompanied by an actuarial estimate of the impact on premiums for fully-insured coverage in the state. For this purpose, the commissioner shall provide the contractor with access to all payer claims data. The contractor shall produce a final report by December 31, 2024, detailing the information required to be produced under this section and such other supplemental information as shall be directed by the commissioner. The commissioner shall assist the contractor as necessary to complete the study and report in a timely manner. The report shall be submitted to the president of the senate, the speaker of the house of representatives, the house and senate policy committees with jurisdiction over commerce and health and human services issues, the governor, and the state library.

III. The cost of the ground ambulance cost and actuarial study and illustrative rate schedule development shall be financed by the New Hampshire health plan established under [RSA 404-G](#). The New Hampshire health plan shall have authority to carry out a one-time special assessment of assessable entities as defined in [RSA 404-G:2](#) to generate a funding level that is estimated to be sufficient to retain a qualified actuarial vendor to carry out the tasks provided for in this section. With the approval of the commissioner, the New Hampshire health plan shall select a qualified actuarial and accounting vendor through a competitive bidding process to work with the commissioner and the commissioner of the department of safety to carry out the relevant provisions of this section. The performance of this special assessment and the selection and compensation of a qualified actuarial vendor shall be deemed to be a "program" of the New Hampshire health plan as defined in [RSA 404-G:2](#).

[IX](#). The commissioner shall have the authority to waive the formal plan of operation requirement under [RSA 404-G:5](#) as necessary facilitate the timely process of retaining a qualified contractor under this section and meeting the December 31, 2024 deadline for obtaining an expert study and report.

256:2 Effective Date. This act shall take effect upon its passage.

Approved: July 19, 2024

Effective Date: July 19, 2024

APPENDIX B: CORE PROJECT TEAM

Members of the Core Project Team Include:

Name	Department
Michelle Heaton	NHID
Alex Feldvebel	NHID
Jason Aziz	NHID
Jennifer Smith	NHID
Mike Degnan	NHHP
Kevin Stone	NHHP
Justin Romanello	NH Department of Safety

Table 18: Core Project Team Members

APPENDIX C: STAKEHOLDER ENGAGEMENT

The PCG Team and the full Core Project Team participated in multiple meetings with the identified stakeholder groups. These are listed below:

Meeting Type	Meeting Date
SEG	September 5, 2024
SEG	October 10, 2024
SAG	August 23, 2024
SAG	September 3, 2024
SAG	September 17, 2024
Joint SEG/SAG	November 13, 2024
Joint SEG/SAG	December 23, 2024
Open Forum	August 29, 2024
Open Forum	September 9, 2024
Open Forum	September 23, 2024

Table 19: List of Stakeholder Meeting Types and Dates

Each meeting provided an opportunity to get in front of Stakeholders and Licensed EMS Units to help them understand the purpose of this project and relay information. For each meeting, the PCG Team put together detailed agendas and meeting specific presentations to outline the intended discussion topics.

Open Forum Meetings

The Open Forums served as a direct opportunity to connect with Licensed EMS Units across the State, help them understand the data request, and what would be asked of them. The PCG Team outlined the overall timeline, the initial profile survey, the data requests, and any questions that may have come in. The team provided our direct contact information and provided the link to the NHHP website¹⁶, where many resources were to be posted for future review.

Stakeholder Engagement Group (SEG) Meetings

The PCG provided materials for SEG members, including a direct email for the project team, a comprehensive FAQ document, and detailed instructions for Licensed EMS Units on how to request their GADCS. Furthermore, additional resources can be found in the SEG section of the NHHP website.

The PCG Team hosted distinct SEG meetings on September 5th and October 10th, 2024, where key discussion topics included the purpose of the SEG, a review of the current project status, updates on project developments, analysis of current survey responses, a recap of the Open Forums conducted for Licensed EMS Units, and a discussion of the next steps in the project.

Three meetings have taken place, covering key topics such as:

- Project goals
- Virtual open forums
- Roles and expectations for the SAG
- Selection recommendations for SAG membership
- Initial communications to Licensed EMS Units
- Review of current project materials
- Profile survey submission status
- Data analysis and insights
- Certification of Licensed EMS Units in multiple states

¹⁶ <https://nhhp.org/nh-ground-ambulance-cost-study/>

- GADCS and non-GADCS reporting updates
- Follow-up on open forums and the Fire Chief" meeting

The SEG meetings included members of the New Hampshire State Legislature. The PCG Team spoke about their role, and how they could assist with this project.

Stakeholder Advisory Group (SAG) Meetings

The SAG meetings took a similar approach. During the September 17th meeting the PCG Team provided details on the data responses received, updates from the Open Forums, and any additional feedback received. The team again provided direct contact information and website links to assist with any additional questions.

The Joint SEG/SAG meeting on November 13, 2024, offered detailed information on the data analysis up to that point, as well as more details on the rate model methodology and the timeline for finalizing the methodology in the coming weeks.

In addition to posting meeting materials to the NHHP website, the PCG Team posted FAQ documents and other resource guides for data collection, and ensured all meetings linked to that site for stakeholders and Licensed EMS Units to use at their discretion.

APPENDIX D: DATA QUALITY ASSURANCE PROCESS

DATA REVIEW AND ANALYSIS

Upon receipt of the various data elements, the PCG Team conducted a thorough QA process. The team broke the data into categories, to ensure accurate representation in the final rate model calculations. These included

- Labor Data
- Non-Personnel Data
- Revenue Data

Labor Data

PCG's internal Shared Solutions Group (SSG), who specialize in data review and analysis, reviewed the responses and pulled the values into one Microsoft Excel spreadsheet allowing the PCG Team to calculate averages, and other statistical outcomes. This involved converting the GADCS submission PDF documents into a usable format, while the Non-GADCS submissions were received in an Excel format via the JotForm link.

The GADCS submissions included the following areas of data, which consisted of the labor cost data:

- Section 4 Emergency Response Time
- Section 5 Ground Ambulance Service Volume
- Section 6 Service Mix
- Section 7.1 Paid EMT/Response Staff Compensation and Hours Worked
- Section 7.2 Paid Administration, Facilities Staff, and Medical Director Compensation and Hours Worked
- Section 7.3 Volunteer Labor
- Section 12 Total Costs
- Section 13 Revenues

Once this data was received in an Excel format, the PCG Team combined it with the universe of Non-GADCS responses to create an overall data set for personnel data. The Non-GADCS submission included questions that were simplified version of the GADCS questions and combined by first ensuring the answers were in the same format (e.g., total number, percentage, etc.). The team did not adjust the data if it was in the same format, and then reviewed this overall set for accuracy and validity.

The team initially reviewed for any missing data. This first step was conducted quickly to understand if some Licensed EMS Units did not enter information, and if the response was submitted incorrectly.

The team then sorted the data in order from smallest to largest to immediately understand if any response values were out of line with the bulk of the responses. This was done for every data element, to conduct a full review. Data for each specific category was taken and calculated a statistical mean and median to understand if there were any distinct outliers that needed to be addressed.

After identifying missing information and data inaccuracies, the team began reaching out to the identified Licensed EMS Units, informing them of questions and asking for clarification/confirmation as needed. This process began on November 2, 2024, and continued over the next three weeks. Follow up was conducted with about 10% of the total number of Licensed EMS Units that submitted data responses.

As updated data was submitted, the team entered the response data spreadsheet and noted the new version to quickly update the overall data analysis which would end up feeding into the rate model calculations.

Non-Personnel Data

The GADCS submission included distinct questions for non-personnel data, which includes vehicle costs,

supplies, consumables, and equipment. The Non-GADCS submission did not capture this data in the same manner. This was a limitation of the data collection process, and a function of the compressed time period. As such any non-personnel data is from the GADCS submissions only.

An additional component of the data analysis involved the non-personnel data. This is the data regarding overhead costs, ambulance costs, and other non-labor related costs. The GADCS submissions included some robust sections for non-personnel data. These sections included:

- Section 8 – Facilities Costs
- Section 9 – Vehicle Costs
- Section 10 – Equipment, Consumable and Supply Costs
- Section 11 – Other Costs

The PCG Team reviewed the GADCS submission and input the data from these sections into a distinct Microsoft Excel spreadsheet to aggregate the data as needed and calculate portions that applied to ground ambulance services. This was calculated by using the raw response data and applying the reported percentages, provided on the GADCS submissions by the Licensed EMS Units, to those raw totals. An additional limitation was the fact that the team was relying upon data percentages calculated and submitted by the Licensed EMS Units directly. The data included reported percentages breaking out each category by how much applied to ground ambulance services.

The PCG Team conducted similar quality assurance analysis as with the personnel data, to ensure data accuracy and validity.

Revenue Data

In addition to collecting Labor and Non-Personnel costs, the PCG Team collected data on revenues received to identify “Local taxes earmarked for EMS” to understand the current landscape surrounding public fund revenues received.

Claims Data Fields

The PCG Team worked closely with the Core Project Team to identify the needed data elements from the New Hampshire Comprehensive Health Care Information System (CHIS). These data elements, identified by the claim reporting field, are outlined below:

PCG Definition	NH CHIS Data Dictionary Field
Billed Amount	AMT_BILLED
Allowed Amount	AMT_ALLOWED
Paid Amount	AMT_PAID
Claim Date of Service	FROM_DATE; TO_DATE
Claim Date Adjudicated	PAID_DATE
Adjudication Status	CLAIM_STATUS_ORIG
Unique Claim Identifier	CLAIM_ID
Procedure Code(s)	PROC_CODE
Procedure Code Description	PROC_CODE_DESC
Modifier(s)	CPT_MOD1; CPT_MOD2

PCG Definition	NH CHIS Data Dictionary Field
Modifier Description	CPT_MOD_DESC
Billing Provider ID (NPI)	BILL_PROV_ID
County	NH_COUNTY_NAME
Health Plan Indicator	PRODUCT_TYPE
Place of Service	POS
Place of Service Description	POS_DESC
Primary Diagnosis Code	ICD_DIAG_01_PRIMARY
Primary DX Code Description	ICD_DIAG_DESC
Quantity Billed (Units)	QTY
Service Provider ID	SERV_PROV_ID

Table 20: Requested Claims Fields from CHIS

APPENDIX E: GROUND AMBULANCE PROCEDURES

The following table illustrates the ground ambulance procedures and procedure codes that were part of this cost study. The PCG Team developed distinct rates for these services.

Procedure Code	Procedure Code Description
A0425	Mileage
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency
A0427	Advanced Life Support, Level 1 (ALS1), Emergency
A0428	Basic Life Support (BLS), Non-emergency
A0429	Basic Life Support (BLS), Emergency
A0432	Paramedic Intercept, Volunteer Ambulance Co
A0433	Advanced Life Support, Level 2 (ALS2)
A0434	Specialty Care Transport (SCT)
A0998	Ambulance Response and Treatment, no transport

Table 21: Procedure Codes and Descriptions

MEDICARE RVU

For ground ambulance services Medicare sets a numeric value for ambulance services relative to the value of a base level ambulance service. Since there are marked differences in resources necessary to furnish the various levels of ground ambulance services, different levels of payment are appropriate for the various levels of service. An RVU of 1.00 is assigned to the Non-Emergency Basic Life Support (BLS) level of ground service. Higher RVU values are assigned to the other types of ground ambulance services, which require a higher level of service than non-emergency BLS. Table 14 contains a list of the current RVU values for ground ambulance transport codes. All RVU values are pulled from the CMS 2024 Ambulance Fee Schedule.

HCPCS	Procedure Code Description	RVU
A0425	Mileage	1
A0426	Advanced Life Support, Level 1 (ALS1), Non-emergency	1.2
A0427	Advanced Life Support, Level 1 (ALS1), Emergency	1.9
A0428	Basic Life Support (BLS), Non-emergency	1
A0429	Basic Life Support (BLS), Emergency	1.6
A0432	Paramedic Intercept, Volunteer Ambulance Co	1.75
A0433	Advanced Life Support, Level 2 (ALS2)	2.75
A0434	Specialty Care Transport (SCT)	3.25

Table 22: Medicare RVU per Procedure Code.