EMS Ambulance Rate

Consulting Report

Submitted to

The El Dorado County Health and Human Services Agency

By

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Purpose

The County of El Dorado engaged The Polaris Group to review patient fees charged by the EMS Agency, a subdivision of the Public Health Division of the Health and Human Services Agency. These rates were last reviewed and updated in 2010. Since then, changes in healthcare reimbursement and demographics have resulted in declining fund balances.

Background

The El Dorado County EMS System has two distinct types of responsibilities. First, it serves, under state law as the Local EMS Agency (LEMSA) as the regulator of EMS activities within the County. In this capacity, it is responsible for Medical Direction, certifying and credentialing personnel, overseeing quality improvement and establishing policies, procedures and standards for the system. This area of responsibility also involves enforcement of system standards, investigation of complaints and diversions from standards as well as discipline in the form of certification action. Various fees are charged to individuals and agencies for some of these activities.

The second major responsibility for the Agency is to serve directly as the exclusive provider of ambulance service for the County under the Public Utility Model (PUM). The PUM system design is specifically structured to provide security to the County in terms of EMS performance, continuity of service and financial oversight. Under this model, the EMS Agency is responsible for all billing and collection of patient fees. This is accomplished using a Revenue Cycle Management (RCM) company that has served the County for many years.

All billing is done under the County's name and using County Medicare and MediCal identification numbers. This provides continuity of cash flow and security in the event of a sudden change in the operations contractors. It also allows the Board of Supervisors to make internal County decisions regarding adjustments in patient fees versus tax subsidy. Finally, this arrangement provides some insulation from the vagaries of healthcare reimbursement and reform for the operations contractors.

Under the PUM model, the County contracts for the operation of the ambulances with three entities. In CSA#3, the operations contractor is the CalTahoe Emergency Services Operations Authority, a Joint Powers Authority of Fire Departments. The CalTahoe JPA was selected in 2001, through a competitive Request for Proposals (RFP) that included private for-profit and not-for profit competitors. After the contract renewals expired, CalTahoe was reselected in a subsequent RFP based on the substance and value of their offer. CalTahoe is paid on a monthly basis, based on the prices submitted in their proposal.

On the West Slope, County Service Area (CSA) #7 has been "grandfathered" by the Board of Supervisors as the provider with services contracted to the El Dorado County Emergency Services Authority, which is a Joint Powers Authority consisting of nine fire agencies, five of which staff transport capable ambulances for the County. The JPA is currently paid a percentage of fees collected by the County for

EMS . Discussions are underway to possibly modify the payment arrangements to provide a predictable revenue flow for the West Slope, in a format that is similar to the CalTahoe contract.

A portion of CSA #3, west shore of Lake Tahoe, including Meeks Bay, is covered, through a small non-exclusive contract with North Tahoe Fire Protection District. El Dorado County also provides some coverage to portions of other Counties, such as Alpine. These cooperative arrangements are largely due to access and proximity issues.

The Board of Supervisors last approved changes in EMS patient fees five years ago. Since that time, changes in healthcare reimbursement, payor mix, demographics, costs and regulation have created conditions requiring a review and adjustment of fees.

Methods

The Polaris Group reviewed the current ambulance rate structure and compared them to similar rates throughout California. Direct comparisons are difficult because many agencies either do not disclose or cannot clearly identify their levels of subsidy. Many public agencies treat patient revenue as "incremental" without considering the overall cost of providing the services.

Payor mixes also vary greatly from one area to another and differences in performance requirements, demographics and geography cause wide variation in the cost of providing services and rates of collection. Nevertheless, a broad comparison to gage what the market will bear is useful.

Conference calls and review of the current status of the sources of revenue and costs of providing service were conducted to analyze trends in funding the system.

Specific reports detailing payor mix, charges for service and collections were requested and received from the County's RCM. These were analyzed for changes in the overall collection rates influenced by these factors.

In regard to patient charges, it is necessary to adjust rates using a model that accounts for cost shifting and the inelasticity of payments by government payors including Medicare and Medicaid. This involved evaluating the projected collections required to keep pace with the CPI and then factoring the increase by the portion of the payor mix that is likely to actually pay higher rates.

Healthcare Economics & Ambulance Rates

The level of charges required to recoup costs throughout healthcare are the result of several distortions in the market. These cause little visible relationship between costs and charges or payments.

First, there is the duty to act. Unlike most businesses, where the customer is unable to leave with the product or continue to receive the service without paying for it, healthcare providers are required to provide certain levels and types of services

without regard for the patient's ability to pay. Emergency ambulance services are certainly in this category.

Second, patients make poor shoppers for healthcare services in general and EMS services in particular. If they had multiple options, most people would not understand the choices, the prices, the value of their benefits and the relative clinical and response time differences among providers. Often people other than the patient call for the service through 911 systems. Another group of people usually decides who will respond.

In markets that do have multiple options for 911 and nonemergency ambulance providers, either the cost or reliability of service, often both, suffer through duplication of resources and overlapping coverage.

Sometimes people call to find out *if* they need an ambulance as much as to request one. At other times, the patient cannot afford the time to shop for a deal and may not be well served if able to find a cheaper option. These issues remove the patient (customer) from the buying decision in most cases. Patients with insurance or government programs are also largely removed from the financial decisions related to each service as well

Third, the complexity of reimbursement schemes and mix of payors greatly affect the charge levels required to recoup the cost of providing the service. Medicare and MediCal have fixed fee structures for various services. Changes in rates charged do not affect reimbursement from these government payors and the law restricts which, if any remaining charges may be billed to the patient directly.

In the case of MediCal, coincident with the implementation of the Affordable Care Act (ACA) and expansion of the statewide program, reimbursement for ambulance services was reduced from what had already been one of the lowest rates in the US while the percentage of people covered by the program grew.

Many private insurance payors have scaled back benefits, paying less for services and leaving agencies to bill patients for increased coinsurance and deductible amounts. Since the beginning of the ACA, many people have moved from low deductible employer plans to high deductible private plans, often requiring the patient to pay up to the first $10,000 of charges before the insurer begins paying. Ambulance services are often among the first services provided and billed to these patients and therefore have become harder to collect.

Reimbursement Changes 2010 – 2015

Overall transport volume has increased by 9.19% since 2010. The following table represents the cumulative changes in transport volume by percentage, by pay class from 2010 to 2015:

Table 1, Transports Volume by Pay Class

Pay Class	2010	2015	% Change
Medicare	46.07%	50.65%	10%
MediCal	16.60%	20.22%	22%
Insurance	28.41%	21.90%	(23%)
Private Pay	8.33%	6.83%	(13%)
Facilities/Other	0.59%	0.39%	(34%)

Due to variables in amounts charged, the percentage of total revenue billed within each category may vary in comparison to the distribution of call volume as shown in the following table

Table 2, Charges by Pay Class

Pay Class	2010	2015	% Change
Medicare	45.93%	50.25%	9%
MediCal	16.37%	20.15%	23%
Insurance	29.50%	23.17%	(21%)
Private Pay	7.63%	6.05%	(21%)
Facilities/Other	0.57%	0.38%	(32%)

Medicare and MediCal, collections, which are not affected by rate increases, now account for 70.87% of transports run by the system and 70.40% of charges billed.

During the same period, unadjusted collection rates[1] for each pay class changed as in the following table:

Table 3, Unadjusted Collection Rate by Pay Class

Pay Class	2010	2015	% Change
Medicare	31.03%	30.58%	(1%)
MediCal	12.76%	10.00%	(22%)
Insurance	91.32%	86.96%	(5%)
Private Pay	12.89%	11.25%	(13%)
Facilities/Other	100.12%	25.00%	(75%)

While Medicare has increased allowable charges for ambulance services, using the Ambulance Inflation Factor, by 5.8% since 2011, MediCal implemented an across the board 10% reduction in ambulance reimbursement in 2011. During the same period, Medicare and MediCal combined have shifted from 62.5% to over 70% of transports and fees charged while collections in both classes have declined. Other

[1] Unadjusted collection rates do not include reductions for "contractual allowances" and other deductions from revenue above the expense line. They are a comparison of the total gross billings and total collections.

jurisdictions in California have fared far worse with at least two Counties seeing MediCal shift from 15% to 50% of patients served.

El Dorado County pursued a supplemental MediCal funding program last year and to date has received approximately $971,076 in additional funds. The portion received in 2015[2], amounts to an approximate incremental $176.17[3] per MediCal transport on top of the $159.43 collected from MediCal billing. Even if the additional revenue is considered, the average reimbursement for MediCal transports is only 69% of the meager Medicare average reimbursement and well below the average total $1,114 cost of providing service.

The program, called, Ground Emergency Medical Transport (GEMT), which is based on the cost of providing service, was spearheaded by California Fire Departments, is administered by Sacramento Metro Fire and is only available to public providers. Due to El Dorado's structure as a County owned PUM, the funding was approved. Whether this program will survive the roll out of further healthcare reimbursement changes, remains to be seen. Similar programs exist in a number of states and that may make it harder to regulate away.

Were the program not in place, the required rate increase to offset the decreases in MediCal payments would be much larger. Should the GEMT program fail to provide future supplemental funding an additional and substantial rate increase would be required.

Changes in the transport volume and collection rate for healthcare facility-responsible bills are the result of two, possibly three, developments. The first is that Marshall Hospital significantly reduced its reliance on ambulance transportation for patients in need of imaging by resolving an equipment problem and expanding services at the hospital, both of which decreased their need for transports between their facilities. Second, pursuant to discussions with Marshall regarding its role and contribution to EMS programs, as well as prompt payment, the County offered to accept payment of hospital responsible bills at 110% of the Medicare allowable rate. Overall payments would be lower due to the County's current rate structure and the fact that fewer facility-responsible transports would be classified as emergent or high acuity than those encountered in the 911 environment.

The County is researching the possibility that delayed and confusing billing, from its RCM, to the facilities (e.g.: Barton, Marshall, SNF's, etc.) may be affecting the accuracy of what the facilities are shown to have been charged and have paid. While it is important to resolve this issue, the total gross revenue of $76,000 and collections of $19,000 per year, while important are not material to the issue of adjusting public rates. The Marshall contract is no longer tied to gross public rates, but to a multiple of Medicare rates and includes an annual adjustment tied to the Medicare Ambulance Inflation Factor.

[2] GEMT Funds received in 2015 totaled: $442,911
[3] GEMT Funds ($442,911) divided by the MediCal call volume (2514 calls).

Overall Comparison of Charges and Collections

Table 4, Gross Charges versus Total Collections

Item	2010	2015	% Change
Total Charges	17,743,022	19,851,000	12%
Total Collections	7,954,438	7,604,000	(4%)
Unadjusted Collections	44.83%	38.31%	(15%)

A comparison of 2010 and 2015 shows that due to call volume and charge capture increases, total gross charges increased by $2,107,978 (12%) while total collections decreased by $350,438 (4%). This is largely attributable to changes in the payor mix and decreases in collections from all payor mixes, especially MediCal.

Overall System Funding

Funding for El Dorado County's Ambulance response system relies on several sources. Due to the largely rural nature of the County and the high performance standards established to meet public expectations, several sources of tax subsidy are used to enhance the financial stability of the program. The following table details the various funding source as estimated for the current fiscal year.

Table 5, Sources of Revenue

Source	Amount	Percentage
Property Tax	2,718,821	20.3%
Special Tax	2,184,166	16.3%
Ambulance Fees (Net)	7,604,000	56.7%
Interest	24,294	0.2%
Penalties	17,506	0.1%
HOPTR	29,000	0.2%
Miwok Contract	400,000	3.0%
GEMT Funding	422,000	3.1%
Total	**13,399,787**	**100%**

Combined Costs for CSA#3 & #7

The combined projected costs for CSAs 3 & 7 are provided in the following table:

Table 6, FYE 15 Projected Total Costs

Expenses	Amount	Percentage
JPA Funding w/ Capital	12,640,400	91.4%
Ambulance Billing Index	758,357	5.5%
CSA Contracts	378,515	2.7%
Other	50,224	0.4%
Total	**13,827,496**	**100%**

Cost versus Revenue

A comparison of revenues, including taxes, to projected 2015 contractual costs for the operation of the system is represented in the following table.

Table 7, Cost/Revenue Comparison

Item	Amount- 2015	Percentage of Revenue
Total Net Revenue	13,399,787	100.0%
Total Costs	13,827,496	103.2%
Total Surplus (Deficit)	**(427,709)**	**-3.2%**

Fund Balances

During fiscal year 14-15 combined expenses in the CSAs are projected to draw operating funds from reserves. In fiscal year 15-16 the County projects that, revenues would be approximately flat under the current revenue model. Increased costs due to inflation and capital replacement expenses will present a significant risk of reserves falling below the required Budget Reserve level by fiscal year 17-18.

Examination of Consumer Price Indices

The federal Bureau of Labor Statistics produces Consumer Price Index information monthly. The information is drawn from a number of sources and specialized reports on various industries and regions, as well as national overall figures. Ambulance services do not fit neatly into any one category.

For this reason, the indices chosen were the US Medical Care Services and the San Francisco-Oakland All Items. The first represents cost trends in the entire medical service industry and the second is specific to consumer prices in Northern California. Each index was weighted at 50% as an estimate of the impact of each category. The indices were examined for the years since the last rate review and include 2011 through 2015. The results are detailed in the following table.

Table 8, CPI 2011- 2015

Index	CPI Increase	Weight
US Medical Care Services	15.37%	50%
SF-Oakland All Items	12.72%	50%
Weighted Total	**14.05%**	

It is important to note that the CPI as calculated by the federal government is intentionally conservative. In each category, the "basket" of goods and services changes from time to time. Price spikes in some area such as energy costs may see it excluded from the calculations and then re-included when prices drop significantly. This serves the government's need to control cost increases and fluctuations when adjusting Social Security, Medicare and VA benefits while also helping to control costs in various procurement contracts.

In effect, if any buyer indexes the price of a long-term contract to some version of the CPI s,he has the federal government running interference on price increases. However, it is the best tool we have to gage cost changes and is demonstrably conservative in its results.

Medicare & The Ambulance Inflation Factor

Annually the Centers for Medicare and Medicaid Services (CMS) issue an Ambulance Inflation Factor (AIF) by which allowable charges and payments for Medicare cases are adjusted. The AIF is based partially on the CPI and also on the availability of funds. Since 2011, the cumulative AIF has been 5.8%.

Adjustment & Calculation of Ambulance Rate Increase

To achieve an adjustment in total net revenue that is equal to the increase in the CPI, it is necessary to apply adjustments to accommodate the inelasticity of Medicare, Medicaid and Private Payors. Since a rate increase will not affect the government programs, the total increase needed must be "grossed up" to account for the cost shift in payments. This effectively passes most of the burden of any increase on to insurers.

The following table illustrates the calculation of a user fee increase required to achieve a net revenue increase equal to the 14.05% CPI calculation.

Table 9, Adjustment & Calculation of Incremental Yield

Payor	Payor Mix	Inflator	Yield	Net Collections
Medicare	50.25%	5.80%	41.30%	20.75%
MediCal	20.15%	0.00%	0.00%	0.00%
Self Pay	6.05%	14.05%	11.00%	6.05%
Insurance	23.17%	14.05%	85.00%	23.17%
Total				**49.97%**

To obtain the increase in retail rates required to achieve parity with the CPI adjustment for net revenue, the CPI is divided by the adjusted collection rate.

Net Cash Flow percentage/Adjusted Collections percentage = Rate increase percentage

14.05% / 49.97% = 28.11%

The calculation reveals that in order to collect 14.05% more net revenue, overall rates must be increased by at least 28.11%.

The recommended rate increase is estimated to provide $1.1Million to $1.3 Million in additional collections over the next year, depending on changes in payer mix, procedures charged and demographics.

Who Is and Is Not Affected By The Increase

Significant increases in ambulance rates are often met with public concern. Frequent complaints revolve around the effect on the elderly and the indigent

population. In reality, none of the 70.87% of patients covered by Medicare and MediCal will be affected at all.

The 6.83% of patients that are Private Pay[4] will receive larger bills. Today, 89% of them do not pay the bill at the current rates. Some Private Pay patients may pay higher rates[5].

The facility contract with Marshall is indexed to the Medicare rate. Therefore Marshall should not be affected by an increase in retail rates.

Insurers covering the 21.9% of patients that have private insurance will pay the bulk of the increase. This may lead to some higher coinsurance payments in some cases depending on the specific definition of benefits of each patient's policy.

Another key consideration is that many patients are tourists or others that are not County taxpayers. In these cases non-residents should pay the higher non-resident rates to offset the cost of providing EMS Services that are subsidized by County taxpayers through Special Taxes, Benefit Assessments, and a percentage of Property taxes.

Alternatives

The Board of Supervisors could maintain the current ambulance rates and raise property and special tax rates sufficient to fund the estimated $1,000,000 shortfall during the next fiscal year.

The Board could take a combination approach of raising funds through a limited rate increase and a slightly more modest tax increase.

Raising tax rates would require voter approval.

Recommendation

The Polaris Group recommends that the Board raise rates for ambulance services by approximately 28.11% across the board as detailed in Attachment 1 to this report. This will maximize reimbursement from insurers, continue to partially offset the subsidization of non-residents with local tax money and help to restore and maintain the CSA fund balances.

In future years, the County should calculate annual increases in the CPI as used in this report and adjust rates annually to keep pace with official inflation.

[4] Private Pay is defined as a type of payment where the patient's own resources pay for the care.

[5] Based on residency.

Attachment 1

Rate Class	Existing	Proposed	Dollar Change	Percent Change
ALS Base Rate NE-Resident [1]	$1,114	$1,427	$313	28.11%
ALS Base Rate E [2] - Non Resident*	$1,314	$1,683	$369	28.11%
ALS 2-Resident [3]	$1,174	$1,504	$330	28.11%
ALS 2-Non Resident	$1,374	$1,760	$386	28.11%
Mileage	$24	$31	$7	28.11%
CCT- Resident [4]	$1,648	$2,111	$463	28.11%
CCT- Non Resident*	$1,848	$2,367	$519	28.11%
Waiting Time per 1/4Hr	$205	$263	$58	28.11%
Oxygen	$87	$111	$24	28.11%
Standby per Hour	$152	$195	$43	28.11%
Treatment No Transport [5]	$317	$406	$89	28.11%
Medical Supplies & Drugs [6]	Cost +15%	Cost + 15%	0	0.00%

[1] ALS Non-Emergency Base Rate: This base rate is charged for non-emergency transfers from a private residence, convalescent care, skilled nursing facility, or hospital and does not require an emergency response (i.e., red lights and siren) to the pick up location.

[2] ALS Emergency Base Rate: This base rate is charged for all emergency transports for which the patient was transported to an acute care hospital or rendezvous point with an air ambulance at least 0.1 mile from the pick up location.

[3] ALS Level 2: This charge applies when there has been a medically necessary administration of at least three different medications or the provision of one or more of the following ALS procedures: manual defibrillation/cardioversion, endotracheal intubation, central venous line, cardiac pacing, chest decompression, surgical airway, or intraosseous line.

[4] Critical Care Transport: This charge applies when a patient receives care from a registered nurse during transport from a hospital to another receiving facility.

[5] Treatment – No Transport: This charge applies when the patient receives an assessment and at least one ALS intervention (i.e., ECG monitor, IV, glucose, etc.), but then refuses transport or is transported by other means (i.e., private car, air ambulance, etc.)

[6] Medical Supplies & Drugs: Medical supplies and drugs are billed at provider's net cost plus a handling charge of 15% to cover the costs of materials, ordering, shipping and inventory control.

* *Nonresident: Charge applies only to a patient whose home address includes a city, state or zip code located outside El Dorado County*