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EMS Articles

Understanding Why EMS Systems Fail

Mon, Jan 26, 2015 | By Jonathan D. Washko, BS

Unfortunately, many "failed" EMS systems are measured by recent events, no matter how successful they may have been in the past. Finances, changing political climates, poor leadership, or a significant high-profile event can all trigger a system to be declared as "failed." In some cases, a combination of these factors can create a perfect storm (what I've come to call a "critical change trigger point") that ultimately yields a replacement of the existing system or incumbent provider.

Because no industry-accepted standards exist in terms of measuring success of an EMS system, oftentimes decision-makers have only anecdotal or best practice comparative data to contrast against. This lack of standardized industry benchmarking gives a wide berth for naysayers to cast stones, often relying on raw emotions or carefully crafted data to influence public policy or decision-makers.

Also, as systems begin to financially fail, a tradeoff is usually applied by leadership where quality, service reliability and compensation are sacrificed in order to remain viable or to meet financial targets. If done improperly, this can begin a downward spiral that feeds upon itself, thus creating a negative synergistic effect and decreasing the time of survival versus prolonging it.

This article is written with the intent of sharing experiences in EMS system turnarounds as a mechanism to help EMS leaders and political decision-makers better understand the variables that influence EMS system success and failure, with the hope that future EMS system collapses can be avoided. Additionally, I hope to provide the tools necessary to help make unbiased, informed decisions if your EMS system finds itself being called into question or labeled as "failed."

Understanding EMS Finance & Economics

One of the most significant critical change trigger points is finances. An EMS system living beyond its means is unquestionably challenged.

Although finance troubles are often blamed on poor leadership, they actually have many root causes. Labor rates, benefits, poor productivity, operational design and market regulation all have a significant direct impact on the financial viability of an EMS organization, as does revenue cycle management and payor mix. Being a consummate steward of the complex financial drivers and interrelationships of an EMS system is an important leadership requirement that often exceeds even the most seasoned leader's acumen and capability.

Two fundamental yet misunderstood topics are the finances and economic variables that drive EMS systems. EMS systems typically generate revenue through billing insurance, tax subsidies, memberships, direct sales, diversification into other lines of business or grants or fundraising. They spend a majority of these revenues on direct and indirect labor and benefits, with the remaining dollars going to infrastructure, fuel, medical supplies, fleet maintenance, dispatch, billing and other essential items with hopefully some left over for recapitalization and profit or fund balance development.

Billing in EMS is a complex myriad of government and private reimbursement mechanisms designed to provide compensation when a patient is transported. EMS is normally reimbursed on a set schedule of fees, negotiated rates or charges based on a convoluted and complex set of rules and regulations that often reimburse an EMS provider below its actual costs. Reimbursement is typically based on the type of response (emergency or nonemergency), the level of service provided (BLS, ALS, specialty care transport), the distance the patient was transported and the geographic location of the patient (rural vs. urban). Some other regional reimbursement mechanisms exist for rural providers and tiered response systems.

Private insurances typically pay based on negotiated rates or will pay full charges to a point, but in these cases will often (unless illegal in the state) penalize a non-network provider by sending the payment directly to the patient, thus making it difficult for the provider to collect. This is done as a way to strong-arm the provider into a lower negotiated rate.

More important to understand is that governmental and commercial EMS reimbursement rates aren't tied to local EMS market conditions, competition, regulations or EMS operational system design, and therefore have a baked-in cost assumption. Demand for EMS services within a particular market place (a county for example) doesn't ebb and flow based on price and availability of EMS service, as a normal market would, but rather is influenced by uncontrollable things like population demographics and size, socioeconomics, population health, education and outside influences such as seasonality or things like influenza.

Given this, there's essentially a set amount of dollars that are available in the marketplace, and how these dollars are spent or divided among competitive providers can affect long-term financial stability. Marketplaces where more than one EMS provider exists yields a diseconomy of scale; things like dispatch, administrative, billing, fleet and other EMS functions are duplicated, thus driving up costs without an equal rise in dollars available to meet these expenses. In addition, competition often drives prices down in things like facility-paid, nonemergency work or loss-leader wheelchair work in order to move market share from one provider's pocket to another, thus shrinking the pool of dollars available toward the lower band in the marketplace.

In these marketplaces, a fragile balance may exist in terms of tradeoffs between quality, wages and long-term viability depending on payor mix, commercial rates, available subsidies and things like cost of living. Markets that have great payor mixes, lower costs of living or have adequate state regulations on commercial insurance payors may have better opportunity for successful competition versus those that don't.

Because of these diseconomies of scale, subsidies may be needed in order to meet a certain level of operational and clinical performance expectations. This is especially true in markets where exclusive emergency rights exist, but the nonemergency market is unregulated and competitive in nature.

Even in an exclusive, noncompetitive marketplace, revenues may not exceed expenses due to inadequate volume, operational system design, payor mix and over regulation. However, it does maximize the potential revenue into one consolidated entity, which provides for a much higher financial threshold and expense tolerance as the same pool of dollars aren't divided among many agencies.

No matter your EMS market situation, it's clear that a focus on getting every dollar available owed to your EMS system is a key variable that must be diligently cultivated and monitored to help keep your system viable. If you operate in a competitive marketplace, the financial fragility of your agency is dependent on many variables including market share, payor mix, market driven loss-leader practices and market share gaining competitive practices. The more aggressive these variables become, the more unstable a provider may become.

Unregulated vs. Regulated MarketPlaces

EMS market regulations exist for a variety of reasons. Many communities have learned the hard way what an unregulated EMS market can mean, and much of the work Jack Stout did in the 1980s dealt with unregulated competitive emergency marketplaces where the lack of regulation allowed for bad consequences for patients and employees and provided for an unstable and unreliable public safety design.

While much of the U.S. has regulated its emergency marketplaces, it has left nonemergency markets somewhat alone. This, too, has had unintended negative consequences. But even worse, some unregulated markets in the U.S. have left the door wide open for rampant fraud and abuse. Because of the lack of local market regulations in some states or municipalities, the federal government has recently had to step in to put a moratorium on the provision of new NPIs (the numbers issued to an agency by Medicare for billing purposes). Many at the federal level are blaming private EMS for the problem, when in fact it's the lack of market share

regulation that allowed this to occur.

For legitimate EMS agencies in these affected regions, the impact of these problems can be financially devastating. When the predatory pricing these thugs use shifts the market share, the legitimate company is left on the losing end of the equation.

Too much regulation can also have unintended consequences that affect long-term system viability. Overregulation of response times or excessive fees imposed by a regulator are key examples of significant cost drivers that may exceed the revenues available within a marketplace. Careful due diligence by regulators and the consultants they hire to help competitively bid a regulated market is a must if they desire to build a long-term viable and sustainable EMS system.

EMS System Design

System design is the largest factor in influencing the costs of service provision.

Station-based static models are more expensive than high-performance-based temporally deployed ones and often require a tax subsidy to survive. This is mainly due to productivity issues of each design (they're on opposite sides of the spectrum) as well as the cost of infrastructure and capital needed to carry each (again, on opposite sides of the spectrum).

Although often controversial based on who has a dog in the fight, the facts speak for themselves in the many turnarounds I've been involved with over my 28-year career: High-performance EMS systems that operate in a temporally deployed fashion are more cost effective than any other design and can frequently be self-sustaining, meaning they can live off of their reimbursements without the need for tax subsidies. This is especially true in areas with 100% exclusive market rights to the entire pot of revenues. Those that declare otherwise aren't fully accounting for all their costs.

However, sitting in an ambulance for 12 hours on a street corner can be a frustrating circumstance, especially for those who've never done it before. Additionally, productivity of a high-performance EMS system also needs to be balanced so that staff can get appropriate breaks, meals and facility use.

Every system has a sweet spot that balances patient care, employee well-being and long-term financial sustainability, but finding that sweet spot is both an art and a science that only skilled operators are able to attain.

The Politics

Internal, local, state and federal politics associated with our EMS systems and industry can also influence success. I've seen well-run, highly effective and efficient EMS systems become devastated due to poor politics where votes or political pandering are put in front of proper, pragmatically driven decisions. Ultimately, it's the patients, taxpayers and providers who get hurt in these situations, but unfortunately the public is typically uninformed.

Given this, EMS leaders must both understand the climate as well as how to influence it. This typically means having someone in your organization involved in government affairs or leveraging a leader who's built relationships with decision-makers that allow for open and transparent dialogues. Meeting your city council, mayor or city manager for the first time when a problem arises is too late.

Poor Management & Leadership

Even if it's not always the fault of your administrators, lack of management or leadership that led to the situation at hand is the reason that gets the most attention in a failed EMS system. Obviously, bad decision making, poor leadership and bad management practices can all put an EMS organization into a tailspin.

A good friend of mine told me this proverb: "Leaders who don't know what they don't know are unconsciously incompetent; leaders who do know what they don't know and do nothing about it are consciously incompetent."

Both are egregious as it's a leader's responsibility to keep a vigilant lookout on the horizon for the next iceberg that needs to be dodged.

Bad leadership and management decisions can also have long-term and expensive financial impacts on an EMS system's existing and future operators, as well as its viability. I can't tell you how many request for proposals I've seen where the regulations get piled on because of the incumbent's or previous operator's bad behaviors. While a regulator's intent here is a valid one, placing excessive moratoriums or fines for bad behavior as a prevention mechanism can completely devastate the fragile financial balance of an EMS system, thus driving up costs that reimbursements may not cover or that get passed on to taxpayers if a subsidy is involved.

Bad Outcomes

Every EMS system has bad outcomes whether we like to admit it or not. These are usually patient care related, but can also be related to employee, vehicle operation or another type of insurable risk or liability. If a bad outcome leads to a lawsuit that comes with a substantial

award to the plaintiff, the impact can be devastating.

Additionally, high-profile situations where an individual was harmed by a clinician, a bad system design, a bad process design or a failed piece of equipment, can cause havoc in the media and negatively impact the organization's reputation, which erodes the public's and regulator's confidence of the EMS agency or operator. This is why a solid quality improvement program for all aspects of an EMS system is essential. While many leaders see quality improvement as a cost center, think of it as a cost savings center that's hopefully preventing bad outcomes, no matter the type of liability.

Other Critical Change Trigger Points

Staff and staffing issues, union issues, compliance issues and organizational cultural issues are just a few other trigger points.

These are less frequent than those discussed earlier, but are still worth mentioning. Excessive human resource issues—union or otherwise— can clearly impact an agency's ability to survive and can be large distractors, especially for smaller EMS organizations that aren't equipped or experienced in dealing with such situations. The same holds true for workplace or Medicare billing compliance issues.

The one thing to highlight here are the sizeable financial costs to the EMS agency these issues can all have. High turnover is expensive, as are poorly negotiated collective bargaining agreements and fines and levies for poor compliance practices.

If you operate on a paper-thin margin like most EMS systems do, the costs of these items can be enough to put the organization into the red and ultimately lead to its demise—even not-for-profit systems. Remember: no margin, no mission. This holds true for all business structures.

In Summary

EMS leaders must be skilled in a variety of acumens and have situational awareness so they're always "consciously competent" about their businesses and the impacts their decisions can have on their organization's survival and success.

EMS isn't the business it used to be. It's a complex intertwined mesh of clinical, operational, financial, regulatory and managerial variables. Learning these intricacies takes time, proficiency, mentoring, education and diverse hands-on experiences.

Sidebar - From the Minds of Many

By A.J. Heightman, MS, EMT-P

During the development of this important article, I reached out to a diverse group of EMS leaders to ask them to candidly tell why they believe EMS systems fail. This included well-respected EMS managers, consultants, attorneys, EMS association leaders, educators, operations directors, medical directors and past and present federal officials.

What follows are key comments in specific categories, without their names presented, because it's their message and not their name and position that's most important. Some were edited for clarity.

Read these powerful comments carefully to see if your agency needs to address any of the areas of concern presented to stay fiscally and operationally intact.

Sidebar - Finance

>> EMS is underfunded and poorly reimbursed. The lack of dedicated and stable funding sources will continue to kill EMS systems.
>> The current federal reimbursements don't meet the average cost of running a call. A 9-1-1 system must be funded to be staffed and ready to answer calls; not just funded for the calls that they answer that happen to have insurance or the ability to pay. Without this funding, systems are doomed to fail.
>> In EMS, physical infrastructure (e.g., ambulances, equipment) has a fixed cost and steadily increases. The only thing that can be fiscally-adjusted is employee costs and benefits. Jim Page called public utility models, "one of the worst threats to EMS ever." The reason: They were essentially set up to keep EMS employees out of the civil service system and public sector—to keep costs down.
>> While finances are critical, the process to achieve financial stability is the key point. If you look at successful communities like Seattle and King County, Wash., you'll often find taxpayer-supported levies that allow total financial stability. However, it's not all roses. While ALS transport in Seattle is "free," BLS isn't and is often provided by private agencies.
>> Many EMS services don't get a subsidy and, in some cases, must pay the cities to operate. The only private companies that have done well are large companies like AMR and Paramedics Plus that spread their costs across multiple markets (wealthy and poor).
>> We need to "manage our business" and stop relying on handouts (donations, tax dollars, grants) and other non-sustaining funds.
>> We must begin to show that we make a difference in outcomes, can be fiscally responsible in running our healthcare business and develop with the next wave of public health.
>> A number of EMS public providers use deficit spending to cover budget shortfalls. These

agencies dip into reserves until they're gone. Then, service must decrease in order to prevent spending more than is received. Solutions should be identified and implemented as soon as revenue doesn't cover expenses; there shouldn't be a "hope" that the economy/tax collections will increase.
>> Home rule: In order to compensate for underfunding, systems need to regionalize and take advantage of economies of scale. When home rule comes into play, costs are multiplied by each agency and none of them can succeed.

Sidebar - Politics, Unions & Poor Public Relations

>> Unions demanding to be paid for additional tasks can sink the ship.
>> Politics often chase good leaders from positions because the employees don't like being held accountable for their actions.
>> The employers/managers put "puppets" in place who pretend to be leaders but actually don't make a single decision without consulting with the employees first.
>> The more our agency is accurately represented in the public eye, the more it works against the frustration of paramedics and EMTs who feel like no one has any idea who they really are and what they really do.
>> Failure to regularly engage the public and/or local elected officials can impact staffing and the overall budget of the department.
>> Lack of a true balanced review process during RFP processes drives controversy, lawsuits and often result in wasted time and resources when rebidding is required.
>> If your community knows who you are, then your elected officials will too [and] you're in the best position to get the community and financial support you need.
>> Lack of a common message to political leadership on issues. (One voice, one mission, one vision.)
>> Failure to demonstrate value: If the community, including the general public, elected officials, payers, hospitals and other stakeholders, doesn't believe you bring them value, EMS becomes a commodity, and something to be bargained with.

Sidebar - Leadership

>> Even the best aircraft carrier, with the best crew, will go in the wrong direction if the captain doesn't know how to steer the ship in the right direction.
>> A key leadership component is the medical director! He or she can (often) arch over bureaucratic hurdles with a single bound.
>> A top-down management style can hurt system development. (This doesn't allow lower-level, bright officers to participate in the leadership process.)
>> A "non-EMS" manager in the hierarchy above the EMS leader is a big reason for system and morale decay. This sabotages the program through ego, limited EMS "attention," fear

instilled in those proposing change, or any of the other seven deadly sins.
>> Leaders need to be consistent in their message about the mission of the organization. They shouldn't allow external or internal forces to change the delivery of quality patient care.
>> Many fire departments have the EMS management structure, but not the EMS leadership they need to develop and prosper.
>> Supervisory positions must be about serving and supporting the crews. It can't be all about the individual who got the position. He or she must work for the crews, and the crews must work for the community. It's vital this not be reversed.
>> EMS leaders must be transparent and honest from their financial standing to their protocols, policies and procedures, and hiring practices. They must openly acknowledge errors and work toward solutions.
>> Whether chief, director, shift supervisor, trainer, experienced paramedic, or just "not the new guy," ego protection at any level ultimately results in system problems.
>> The public will forgive mistakes; they won't forgive dishonesty.
>> EMS leaders must understand that a static management style doesn't work in a rapidly changing medical environment. With constant changes in medicine, governmental processes, billing and technology, leaders must evolve their services.
>> EMS leaders must captivate, educate, and solicit buy-in from both internal and external stakeholders. Personnel want to work for good leaders. The public requires EMS for lifesaving capabilities and wants to be able to trust their leaders. When a system functions without these concepts, degradation begins to set in.
>> Lack of mentorship: This ultimately cripples the system when good seasoned leaders haven't taught, or haven't been able to teach, lessons learned to the next generation.
>> Leaders who are afraid to make a decision are worse than those that make bad decisions while trying to improve things. After a while, the employees begin to realize that issues aren't dealt with and problems aren't solved. They then either start making their own decisions regardless of the outcome or they don't do their job properly—which affects everyone.
>> Some leaders don't keep up with the industry and fail to make improvements and changes before they're mandated to change. They aren't role models or mentors to their employees.

Sidebar - Quality of Care, True Evaluation & Quality Improvement

>> Not closing the quality assurance (QA) loop is a big problem. You can't make the same mistakes over and over with no recourse. Many systems are also not using QA to drive education and personal change.
>> Both the fire service and other private providers should embrace a unified program for quality improvement (QI) and provider education. Many of these care teams work together daily, but they don't train together and build the important team relationships that can eventually benefit patient care.
>> EMS systems must build solid QA/QI initiatives that don't localize blame. All employees can

benefit from learning from the minor mistakes of others.
>> Many EMS systems have misinterpreted the "self-reporting" initiatives that were legislated across the country. Employees should feel comfortable and confident in self-reporting and agencies need to work toward fully legislated peer protection.
>> Some systems have created a volatile situation between QI and personnel. The targeting of employees and the resulting "non-punitive" schedule change is seemingly supported by administration. Consequently, you see mistakes repeated.
>> Agencies miss the opportunity to resolve a systemic problem and create a culture of fear and intimidation. Continuous QI shouldn't serve to alienate the workforce.
>> Poor care results in frustration, resulting in poor morale, increased sick leave usage and attrition.

Sidebar - Recruitment & Retention of Employees

>> Failing systems lack quality people due to poor recruitment, poor background checks, no probation period and no (or poorly developed/instituted) performance evaluations.
>> Provider retention issues have been on the burner for over 20 years. If a simple comparison to initial training costs were made to the costs associated with adding at least one additional unit, an agency could see benefits in decreasing the operations unit hour utilization and allowing a crew to have a few moments of rest in a busy urban system.
>> Painting the wrong picture for new recruits: No offense to the fine folks from Emergency!, but we don't need Johnny and Roy as much as we need Dixie. There are plenty of kind, compassionate, caring young people who don't even consider EMS because of the false impression we paint of some paramilitary, Kevlar-wearing group of knights in dull black armor.
>> Personnel turnover: People always coming and going. This can often be related to low pay and high call volume/demands.
>> Many see no future in EMS as an employee. There isn't much of a career ladder. Many see EMS as a dead-end job. In addition, many barely make a decent living in EMS.
>> There aren't many nongovernmental systems that offer incentives or even reasonable benefits. To top it off, many of the supervisors don't have the training or skills they need for their responsibilities in management. I have said many times that, "You couldn't pay me enough to do this job: That's why I volunteer!"

By Jonathan D. Washko, BS

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INDEPENDENT FINANCIAL REVIEW OF ELEMENTS RELATED TO THE COUNTY'S AMBULANCE RFP

County of Contra Costa, CA

July 15, 2015

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SECTION 1—EXECUTIVE SUMMARY

Citygate Associates, LLC was retained by Contra Costa County to independently review the economics of the next generation ambulance proposals expected to be received in response to the County's February 27, 2015 Emergency Ambulance Service Request for Proposals (RFP). While this fiscal review was designed to analyze competing proposals, only one proposal was received from the Contra Costa County Fire Protection District (CCCFPD) and American Medical Response, West (AMR), which they labeled the "Alliance."

1.1 WHAT THIS REVIEW IS

This fiscal review therefore was directed at evaluating the Alliance proposal economics and the key drivers of those economics for reasonableness of methods and results. Additionally, the fiscal health of each provider was analyzed to understand the capacity of the Alliance to not just provide the promised service, but to reasonably weather economic downturns. The key areas covered by Citygate's review are:

- The background of ambulance economics
- The structure of the Alliance business partnership
- Operational measures, since they drive costs (ambulance staffing)
- The reasonableness of the Alliance revenue estimations
- Citygate's Opinions, Fiscal Risk Control Strategies, and Implementation Recommendations should the Alliance approach be approved by the Board of Supervisors.

1.2 WHAT THIS REVIEW IS NOT

This review is *not* a complete review of all aspects of the Alliance proposal, which is the purview of the County's separate proposal review committee and process. This fiscal analysis also does not examine the fiscal health and needs of the County EMS Agency and other EMS care needs in the County. This review provides enough background to compare the two service-to-cost plans (Plan A and B) proposed by the Alliance against reasonably expected revenues. The overall policy choice of whether to proceed with either plan proposed by the Alliance and make other decisions as to the services provided by the County EMS Agency and CCCFPD is up to the Board of Supervisors.

1.3 CITYGATE'S CAPSTONE OPINIONS

In the technical sections of this report (Sections 4 through 6), Citygate offers a total of 15 opinion statements. These statements are also found in list form for ease of reading in **Section 8** on page 56. These discrete opinions are collectively summarized in this Executive Summary.

It is undisputed that 9-1-1 ambulance system revenues are falling nationally to the point where some systems will no longer be able to operate without a public subsidy, as many have for over 30 years. Selecting the best alternative pathway and approach to managing the EMS fiscal risk will be a critical policy decision. The optimal path should contain fiscal and performance triggers as well as decision points to assist the Board in making the course corrections necessary to avoid long-term fiscal issues and hasty short-term operational changes. Identifying early warning flags that will provide the needed lead-time to make responsible and prudent decisions is a vital policy objective.

The approach to managing the ambulance system fiscal risk can take alternative forms. The Board may choose to become more fully involved by managing the ambulance service contract via its EMS Agency and the CCCFPD leadership for dispatch and field services coordination. This arrangement may contain certain operational and logistical advantages. Revenue collection and monitoring will be a key indicator of success. If a further decline of revenue collection is inevitable, early identification is critical. Timely development and implementation of mitigation alternatives is vital to long-term program sustainability. Alternatively, the Board can choose to operate under the old model of ambulance provider direct contracts and hope that the private provider would give sufficient notice if default becomes evident.

Generally speaking, as this report will describe, if there are not enough health care system payments to cover the costs of ambulance care, the taxpayers in every community are the fallback resource to fund 9-1-1 ambulance services. The current Alliance proposal shifts the ultimate economic responsibility from the ambulance contractor (which is guaranteed a fixed payment), to the taxpayers of the CCCFPD. Even if this is an acceptable policy alternative, the CCCFPD is smaller in service area than the area covered by the ambulance contract. Consequently, the taxpayers in some non-CCCFPD service areas would have less exposure to ambulance fiscal risk in the case of system default (for example, the taxpayers in the City of Richmond). This creates a greater burden on the CCCFPD taxpayer base from a risk perspective.

As for the overall economics of the Alliance proposal, they are conservative and consistent with the system demand for ambulances and the available revenues in the current and near-term system. As such, the Alliance Plan A offers similar services to the current system in a positively balanced economic model.

To the Alliance's credit, its proposed Plans A and B are not reliant on using new revenue sources, such as Ground Emergency Medical Transport (GEMT) revenues on some types of

Medi-Cal transports. As this study will describe, it is problematic that these revenues cannot be realized quickly, or at high volumes, so the Alliance was again conservative in its approach.

The Alliance's approach in projecting Average Patient Charges (APC) and expected net collections by payer type is both conservative and prudent. The question of payer mix is one of the most difficult and problematical aspects of this projection, given the uncertainties surrounding health care reform. AMR believes that much of the change resulting from the Affordable Care Act (ACA) has already been reflected in the 2014 payer mix data, that those shifts are stabilizing in 2015, and therefore projecting the status quo is the most prudent course of action at this time.

While this approach is reasonable, we believe that continued deterioration of net collections due to changes in payer mix remains one of the largest risks going forward, and one that will need to be evaluated in light of other risks and opportunities in the Alliance projections. To shield against this issue, Citygate has made several contractual implementation recommendations to separate and ensure, to the degree possible, the economic solvency *and sustainability* of the system.

1.3.1 Total Expense to Revenue Comparison for Plan A and B

Before reviewing total revenue to expenses, it must be understood that the Alliance projected declines in *net* collections from the recent past of 27.1% to 24.6%. Such declines could actually exceed that forecast if recent trends of rising deductibles and rejected payment claims above the Medicare or regional averages continue. What makes the 24.6% net revenue also disturbing is that, before the last recession and federal health care reform pressures, for decades a "low" net ambulance collection rate was 66%. Some communities collected more than that, although no community collected more than 90%. The Emergency Medical Services (EMS) industry is openly discussing the net collection percentage at which a public subsidy would need to occur since a private provider cannot be expected to run the system, incur all the risk, and make only a profit of 3-5%.

In summary, the total revenue to expense projection of the Alliance's Plan A and B are shown below:

Table 1—Alliance Plan A and B Economics

	PLAN A			PLAN B		
Description	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**
Revenue	$39,184,619	$40,707,971	$42,293,630	$39,184,619	$40,707,971	$42,293,630
Expenses	$37,211,143	$38,327,477	$39,477,301	$36,741,220	$37,843,457	$38,978,760
Gain	$1,973,476	$2,380,494	$2,816,329	$2,443,399	$2,864,514	$3,314,870

1.4 THE FISCAL DIFFERENCES OF PLAN A AND PLAN B

The only major cost difference between the two plans is eight field employees and a small reduction in operating costs. There are no overhead personnel expense reductions. The Alliance made a public education commitment of $300,000 per plan, exceeding the Plan A requirement of $100,000 and meeting the Plan B requirement of $300,000. The Alliance also met the requirement that it price and provide paramedic-level inter-facility transports (IFT) between health care facilities upon request. The Alliance's proposed pricing is in the middle of what could be expected, and the IFT billing will be completed by the CCCFPD and any resultant revenues remain with the Alliance.

There is an addition in Plan B for a required annual payment of $750,000 to the County EMS Agency for system patient care enhancement uses and emerging issue pilot projects. This charge is theoretically funded from operational savings due to longer response times and shifted response time measurement zones in Plan B. The cost differences between the plans can be summarized as:

Table 2—Cost Differences for Plan B

Plan B Difference	Amount
Plan B Cost Reductions	~ ($1,220,000)
Plan B EMS Agency Fee	~ $750,000
Plan B Net Reductions	~ ($470,000)

Given these statements by the Alliance on Plan A versus Plan B, the fact that the cost *savings* for Plan B are only $470,000 net due to the charge for County EMS Agency program enhancement uses, and the better response times and system compliance provided by Plan A (to be explained in our report), it is obvious that Plan A provides shorter response times at a lower Unit Hour cost. In both Alliance Plan A and Plan B proposals, the **total** system costs per Unit Hour are:

Table 3—Total System Costs per Unit Hour for Plans A and B

Plan	Unit Hour Cost
Plan A	$148.89
Plan B	$152.52

Thus, the reduced coverage in Plan B actually costs *more* per Unit Hour than Plan A due to the EMS Agency programs enhancement fee mandated in Plan B.

Citygate observes that the deployment hours for Plan B are estimated from a software model used by AMR and, due to the changes in response zones, new estimations are involved. No

software model estimates are perfect. In deployment planning, different mathematical approaches yield different results.

Citygate would *strongly encourage the County* **not** to implement Plan B all at once, if at all. If chosen for implementation, the Alliance should be allowed to test some reductions in some areas and then, based on closely-observed metrics, make adjustments. This measured, incremental approach is consistent with the values of Continuous Quality Improvement (CQI).

1.5 The Fiscal Health of AMR and the CCCFPD

The AMR profit component is segregated as a separate line item in the Alliance Expense Budget, providing a level of transparency. Also, AMR allocated a reasonable 10% of total expenses to cover non-field Depreciation and Amortization, Interest, Taxes, thus leaving a reasonable level of Net Profit for AMR in the range of 3 to 6%.

We note that AMR national liquidity ratios stayed very consistent between 2013 and 2014, and the profitability ratios improved from 2013 to 2014. Given the diversity of ambulance costs and declining payer type payments across the country, for AMR to have stable liquidity and profit ratios showing slight improvement, it suggests AMR is weathering the ambulance industry revenue decline as well as, if not better than, the other large national providers.

Given CCCFPD's current reserves and inclusion in the overall County tax collection and distribution system, the CCCFPD has the funds to begin monthly payments to AMR for several months and fund other start-up costs, until new ambulance billing revenue catches up to expenditures. At that point, the CCCFPD must first repay its cash advances and then build the recommended ambulance enterprise reserves before it can true up revenue to ambulance rates.

1.6 Risk Control Strategies and Implementation Recommendations

In **Section 7** of this report Citygate offers several Fiscal Risk Control Strategies. They are summarized here:

- Risk Control Strategy #1: Establish Alliance contracts as an Enterprise Operation, similar to other local governmental fee-for-service programs, such as water and sewer operations.
- Risk Control Strategy #2: Establish a significant reserve fund of 6 months of revenues plus a capital equipment replacement reserve; also establish best practice financial policies as part of the business plan.
- Risk Control Strategy #3: Eventually calibrate transport fees to true costs through audits of expenses and adherence to stipulated contract provisions.

- Risk Control Strategy #4: When revenues exceed needed reserves, consider lowering transport fees, not cross-subsidizing non-Alliance CCCFPD or County EMS Agency operations.

- Risk Control Strategy #5: Establish a County Board of Supervisors and CCCFPD "Compassionate" set of billing policies for CCCFPD-managed first responder and ambulance revenue collection to include a write-down and write-off policy.

Based on our Opinions and Fiscal Risk Control Strategies, Citygate recommends the CCCFPD, AMR, and the County EMS Agency pursue final implementation contracts, and offers the following best practice-based recommendations to guide this process:

1. Fully identify the fiscal relationship between the parties, their separate fiscal exposure for each other's decisions (such as staffing levels), and start-up capital costs.

2. Board policy should require that ambulance loss risk only be transferred to the taxpayer for unforeseen, catastrophic losses, as would be the case in the current system if the ambulance contractor were to fail.

3. Fine the contractor only for material breach, not small, per-minute fines.

4. Rather than fine for small response time misses, require that the deployment plan account for equitable response time coverage for similar land use and population densities. Then if the Alliance delivers the required response time performance, only gross neglect to deploy or respond should trigger a fine and/or lead to default.

5. Define in the contract between the County EMS Agency and the CCCFPD a clear delineation of roles, responsibilities, and authorities as it pertains to operational authority and regulatory oversight.

6. Require the CCCFPD to report to the Board of Supervisors quarterly on response times, payer mix, and a rolling revenue-to-date report and near-term revenue-to-expense forecast.

7. Annually require an independent audit of the revenues to expenses and the viability going forward of the contract terms. Once ambulance reimbursements settle under health care reform, the formal audits could perhaps move to two-year cycles.

SECTION 2—BACKGROUND

2.1 CITYGATE'S DOCUMENT REVIEW

To conduct our fiscal adequacy review we collected multiple documents from the County Emergency Medical Services (EMS) Agency, including the 2014 EMS System Modernization report, the ambulance contract Request for Proposal (RFP), and current system performance data the EMS Agency receives from the existing contractor, American Medical Response, West (AMR).

Once the Alliance (comprised of the Contra Costa County Fire Protection District and AMR) proposal was received, we examined it along with the cost of services detailed fiscal information received. We then issued a substantial list of follow-up questions to the Alliance and met with its representatives to reach final understanding on the fiscal components of its proposal.

2.2 CITYGATE'S PROJECT METHODOLOGY

Citygate's review process consisted of the three critical steps described below.

First, before the proposal was received we independently built a deployment model to evaluate the response time and geographic coverage needed. This served as a baseline from which to compare the current system as understood by County staff with the single proposal received. Using this method, we endeavored to understand an appropriate level of ambulance staffing and spacing across the geography for the near term. Appropriate staffing is critical to an economically viable system since personnel costs drive the majority of system costs. We had to ensure that a proposal to provide fewer EMS field personnel than the number presently contracted would not be considered only because it could appear less expensive.

Second, once the deployment model was refined, the numbers of field personnel drove our expectations for the logistical support personnel needed, including the positions for training and Quality Assurance (QA). We also had to understand facility, supplies, equipment, and apparatus costs. The RFP requested that respondents deliver a detailed logistical staffing plan and line item budget. We compared the logistical staffing plan proposed to the estimates we independently formed and used our own EMS Agency operating experience to make the best evaluation. Again, the goal was to ensure that a proposal that provided fewer personnel than currently, or was insufficiently budgeted, would not receive a passing grade.

Third, we had to understand current ambulance revenues from all sources and prepare a revenue forecast based on the historical incident demand data for the last four years. We obtained not only the three years of County EMS data (2011-2013) supplied by the RFP, but we also obtained County EMS incident data from calendar year 2014 so we could use the most recent data available to the EMS Agency. We used both a historical and a Citygate data forecast to prepare a

revenue projection and assumptions that would be compared to the existing AMR system data and to proposals received.

Thus, three views exist for evaluating data and determining staffing: the system currently provided by AMR, the system "check model" as envisioned by Citygate, and the system envisioned by the respondent (Alliance). As a validation test, at least two of the three views should have reasonable agreement. If not, an explanation is necessary for the Board of Supervisors of why the operating and economic assumptions cannot be tightly relied upon.

SECTION 3—CURRENT STATE OF AMBULANCE ECONOMICS

3.1 THE STATE AND REGIONAL EMS PICTURE

Throughout California, Emergency Medical Services (EMS) systems, and especially ambulance providers, are facing unprecedented economic pressures. During the past ten years, large populations have shifted from higher-paying commercial insurance plans to lower-paying government plans. Many commercial insurance plans are also decreasing payment rates for ambulance transport. In total, more people are insured due to federal health care reform, but the average insurance payment rate has significantly decreased for ambulance care, causing some of Northern California's largest EMS systems and ambulance providers to lose millions of dollars annually, threatening their short- and long-term financial solvency. Three of the most significant factors influencing aggregate ambulance reimbursement are: (1) the increase in number of Medi-Cal insured; (2) the decreased reimbursement rates by commercial insurance companies; and (3) the increased number of high deductible health insurance plans.

3.1.1 Medi-Cal, Medicare, Covered California, and Commercial Insurance

Medi-Cal

Medi-Cal (California's version of Medicaid) reimburses ambulance providers at rates significantly less than the cost of providing ambulance services. Medi-Cal's average payment is approximately $130 to $150, which is approximately 15% to 25% of the *cost* of an ambulance transport.[1, 2] California law prohibits ambulance companies from billing the patient for the difference between the ambulance cost and Medi-Cal reimbursement, causing ambulance companies to write off this difference as a contractual allowance to accept Medi-Cal payments.[3]

Throughout California, most of the newly-covered patients who received insurance through the provisions of the Patient Protection and Affordable Care Act (PPACA or abbreviated as ACA) are new, previously undiscovered eligible enrollees to Medi-Cal, and estimates are that now a full 30% of Californians are covered by Medi-Cal. Across California as high as 80% of those in Medi-Cal are enrolled in Medi-Cal Managed Care, while 20% are enrolled in Medi-Cal Fee for Service.[4] While both programs pay standard Medi-Cal rates and prohibit billing for the difference between the billed and reimbursed amounts, ambulance services owned or operated by public agencies who meet certain requirements can seek cost-based reimbursement for those

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[1] "Medi-Cal Rates as of June 15, 2015." *California Department of Health Care Services, Medi-Cal*. 15 June 2015. Web. Accessed 18 June 2015. <https://files.medi-cal.ca.gov/pubsdoco/rates/rateshome.asp>

[2] "California's Ground Emergency Ambulance Transportation (GEMT) Certfiied Public Expenditure." *California Ambulance Assocation.* 17 July 2013. Web. Accessed 7 June 2015. <www.the-caa.org>

[3] Citygate interviews with numerous ambulance industry representatives.

[4] "Total Monthly Medicaid and CHIP Enrollment." *Henry J. Kaiser Family Foundation.* April 2015. Web. Accessed 16 June 2015. <http://kff.org/health-reform/state-indicator/total-monthly-medicaid-and-chip-enrollment/>

patients who are covered by Medi-Cal Fee for Service through the Ground Emergency Medical Transport (GEMT) Program. The GEMT program will be explained in **Section 6.4**.

Medicare

Medicare sets its allowable ambulance payment rate through the Medicare Ambulance Fee Schedule, allowing charges only for an ambulance transport base rate and mileage charges to a hospital. Medicare will pay 80% of its allowable rate, regardless of the charges by the ambulance company, causing the ambulance company to write off the difference between its billed rate and Medicare's allowable rate. The patient or the patient's supplemental insurance must pay the remaining 20% balance between Medicare's allowable rate and the Medicare payment. Medicare's average transport payment is approximately $540 to $600 and thus is also below the full cost of a transport at both the Basic or Advanced Life Support (BLS or ALS) level of care.[5]

Commercial Insurance Plans

Historically, commercial (private) insurance companies paid 80% or greater of an ambulance company's billed charges, and the population covered by commercial insurance was much larger. Thus, commercial insurance helped transport providers cover losses generated by the lower-paying government insurance providers, such as Medi-Cal and Medicare.[6]

Commercial insurance rates of reimbursement are now also decreasing. Rather than paying the traditional 80% of the rate charged by ambulance companies, many commercial insurance companies now pay either Medicare rates, rates they unilaterally determine as "reasonable and customary," or charges based on a region's average rate structure. Many insurance companies also review ambulance records, routinely determine that a patient's condition did not warrant an ambulance, and disallow the entire charge.[7]

High Deductible Health Plans

Covered California, the state's health care exchange, provides five insurance plan levels, commonly called the "metal plans or metals" using labels such a gold, silver, and bronze. Two of the five, along with many commercial plans, are High Deductible Health Plans (HDHP). Such HDHP plans have a minimum individual deductible of $1,300, but the average deductible for an individual HDHP is $2,098, and 18% of workers have a deductible of at least $3,000. Other plans are offered with $4,000-$5,000 deductibles. Enrollment in employer-sponsored HDHP plans has rapidly and significantly increased from 4% in 2006 to 20% of covered workers in

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[5] "Ambulance Fee Schedule Public Use Files." *Centers for Medicare and Medicaid Studies*. April 2015. Web. Accessed 17 June 2015. <http://kff.org/health-reform/state-indicator/total-monthly-medicaid-and-chip-enrollment/>

[6] Citygate interviews with numerous ambulance industry representatives.

[7] Citygate interviews with numerous ambulance industry representatives and EMS Agency Administrators.

2014.[8] The rate of growth of HDHP plans will continue to dramatically rise. Many people purchase HDHP plans because of their less expensive premiums, but cannot pay the prohibitively high deductible following a medical emergency.[9, 10]

3.2 COVERED CONTRA COSTA

3.2.1 Health Insurance Coverage in Contra Costa County

Since 2005, Contra Costa County has seen an increase in patients covered by Medi-Cal (due to Covered California) and Medicare, and fewer patients covered by commercial insurance, private pay, and other contract pay sources. In 2005, 41.7% of patients receiving ambulance services had Medicare and Medi-Cal, which increased to 59.6% by 2011, and is now 69.2%. Conversely, in 2005, 36.5% of ambulance patients had commercial insurance, which decreased to 18.2% in 2011, and is now 14.4%. The percentage of ambulance patients without insurance or who have other pay sources was 21.0% in 2005, 22.2% in 2011, and now is 16.4%.[11]

Through the ACA (Covered California), more people in Contra Costa County become insured every year. However, most people's status has changed from uninsured to underinsured, because they now are covered through Medi-Cal Expansion rather than a Covered California exchange-based plan. Since January 1, 2014, more than 80,000 persons in Contra Costa County received health insurance coverage through provisions of the ACA. Of these, approximately 65,000 persons (or 81%) have Medi-Cal. As mentioned above, Medi-Cal now insures approximately 30% of all persons in Contra Costa County. In Contra Costa County, 80% of those in Medi-Cal are enrolled in Medi-Cal Managed Care, while the remaining 20% are enrolled in Medi-Cal Fee for Service.[12]

Approximately 15,500 persons in Contra Costa County have an exchange-based health insurance plan provided through Covered California. Of those in Covered California, approximately 88% receive subsidies to reduce the cost.[13] Subsidy levels are an important proxy to predict a person's

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[8] Renter, Elisabeth. "Should You Roll the Dice on a High Deductible Health Plan?" *US News and World Reports*. 10 November 2014. Web. Accessed 7 June 2015. <http://health.usnews.com/health-news/health-insurance/articles/2014/11/10/should-you-roll-the-dice-on-a-high-deductible-health-plan>

[9] "Understanding High Deductible Health Plans." *Fair Health Consumer*. n.d. Web. Accessed 7 June 2015. <http://fairhealthconsumer.org/reimbursementseries.php?id=48&terms=understanding-high-deductible-health-plans>

[10] "2014 Employer Health Benefits Survey." *Henry J. Kaiser Family Foundation (NORC at the University of Chicago, and Health Research & Educational Trust)*. 10 September 2014. Web. Accessed 8 June 2015. <http://kff.org/health-costs/report/2014-employer-health-benefits-survey/>

[11] Citygate analysis of data and documents submitted by Contra Costa County EMS Agency and AMR.

[12] Contra Costa Health Plan Chief Executive Officer Patricia Tanquary, interview by Citygate, 21 April 2015, Martinez.

[13] Contra Costa Health Plan Chief Executive Officer Patricia Tanquary, interview by Citygate, 21 April 2015, Martinez.

ability to pay his or her insurance deductible, and in two of the five Covered California plans deductibles exceed $1,300 annually.[14]

Approximately 15% of persons in Contra Costa County remain uninsured. Uninsured persons constitute a large, disproportionately share of high and repeat users of medical services (not just 9-1-1 ambulance service) within Contra Costa County.[15]

To place Medi-Cal's average payment of approximately $130 to $150 per transport into perspective, the Contra Costa County rates per the 2015 County Ambulance RFP for Contract Year 1 for the base rate, plus the cost to drive 10 miles to the hospital and cost to provide oxygen to the patient, would total $2,775. This Year 1 rate is higher than the current County equivalent rate that would yield a charge of $2,582.

This amount does not include advanced paramedic treatment and drug rates, which are allowed separately by many insurance companies. It is therefore not at all unreasonable that a $3,000-plus ambulance bill can be incurred and still not reach an individual's deductible amount in his or her insurance coverage.

Ambulance companies have known for years that raising billed rates cannot cover the difference between the ambulance cost billed and the reimbursement provided. The marginal return on higher rates continually diminishes as insurance providers refuse to fully pay them. Stated this way, the County cannot simply increase rates to resolve the problem between the amounts billed and received.

3.3 AMR Revenue History in Contra Costa County

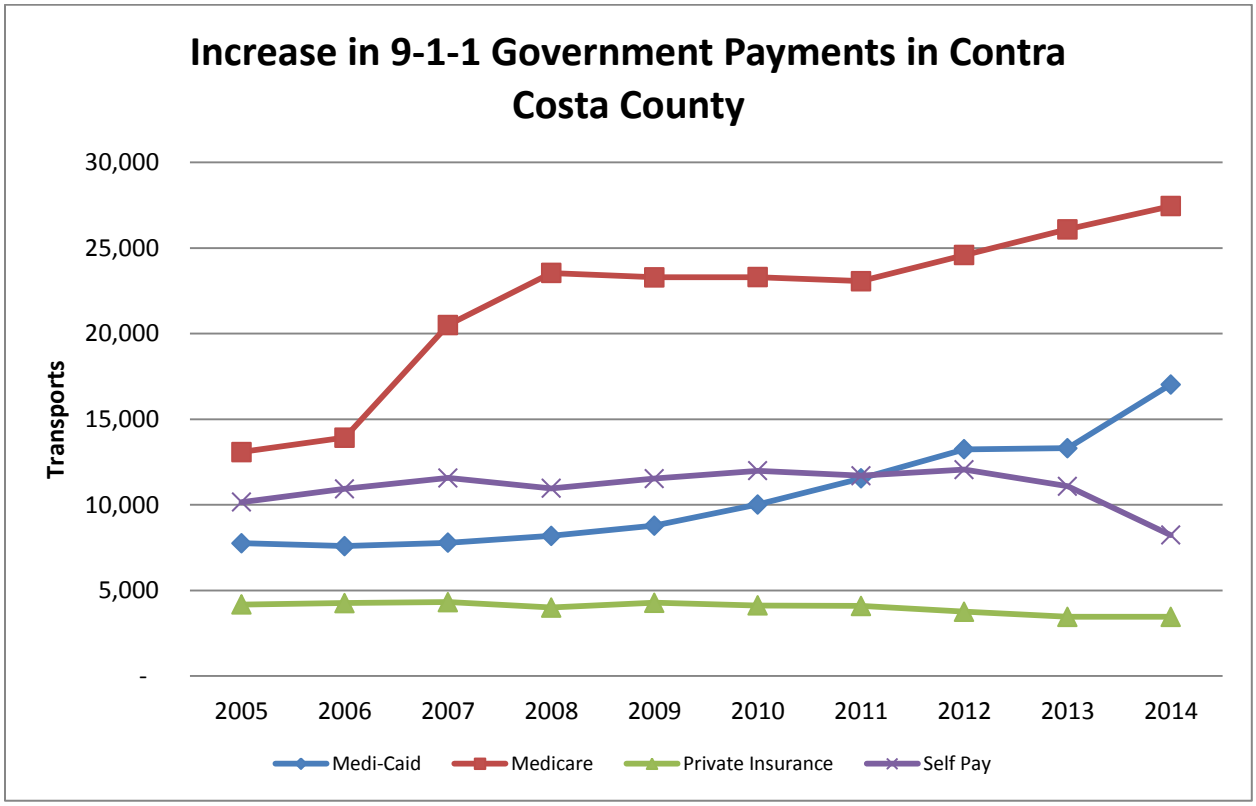
To place the above observations into macro perspective for this RFP proposal analysis, Citygate asked AMR for historical revenue projections for its existing Contra Costa County Exclusive Operating Area (EOA) contract. We received data for all payer types, volumes, and receivables for the years 2005 through 2014. The 2013 and 2014 data is not complete yet as some receivables are aged and the books cannot be closed yet for those years. The mathematical trends are complicated as there are multiple moving parts (e.g., payer mix changes, ambulance rate changes, decline in receivables, and growth in incident volume). Generally, though, as receivables declined and operating costs increased, the average patient charge *increased* even as total revenues also *increased* due to volume growth.

To place these movements into perspective, the ambulance industry uses a measure called "Net Revenue per Transport" or NRT. For this measure from 2005 to 2014, the NRT has fallen from $613 to $583.

[14] Covered Contra Costa Plans. Citygate analysis.
[15] Contra Costa Health Plan Chief Executive Officer Patricia Tanquary, interview by Citygate, 21 April 2015, Martinez.

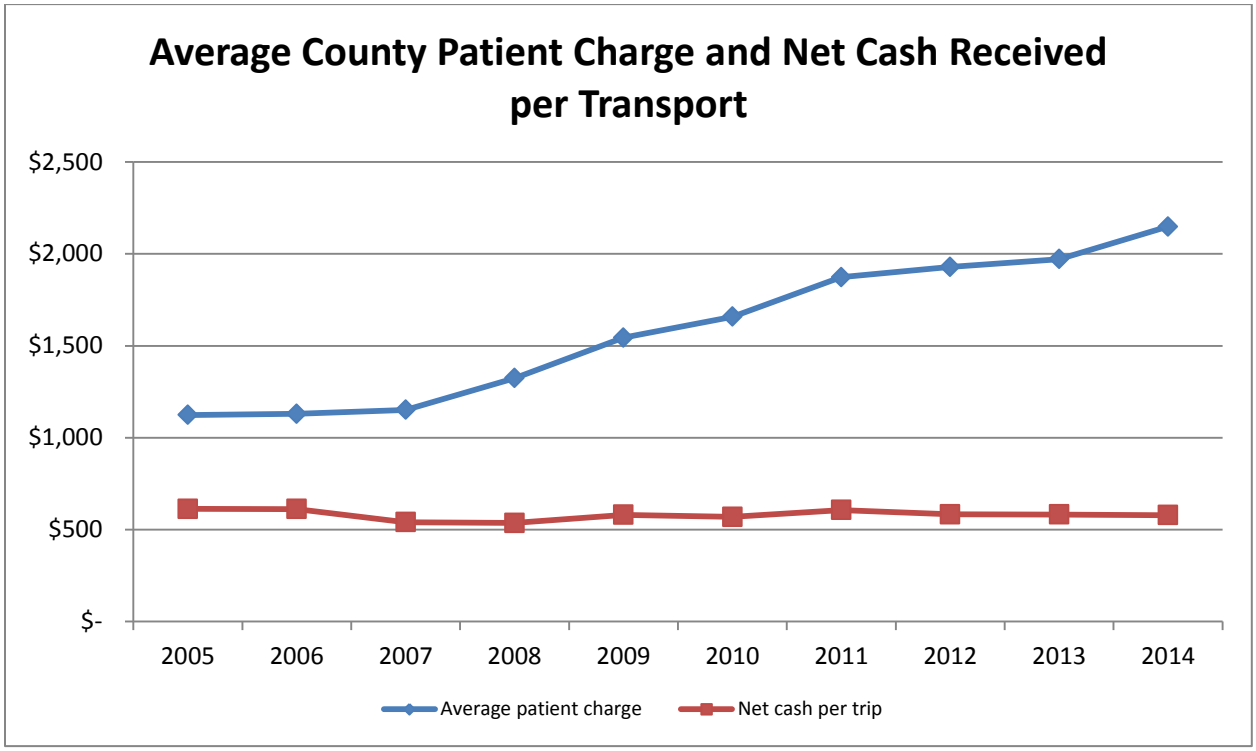
The following charts show the change over time for how payments shifted from the private pay and private insurance to public insurance—Medicare and Medi-Cal. These six charts contain Contra Costa County data, as provided by AMR at the request of Citygate. We received and verified the source data and methods with AMR's Regional Finance Officer.

Figure 1—Increase in 9-1-1 Government Payments in Contra Costa County



To place this shift into an ambulance rates perspective, as total ambulance rates have risen just over double since 2005, the net revenue per trip has stayed relatively flat. This is why the ambulance industry tells clients that as payer mix has changed and reimbursements have been aggressively lowered by private pay sources, an ambulance system "can't raise rates enough" to fix the revenue problem:

Figure 2—Average County Patient Charge and Net Cash Received per Transport



The next two charts show the volume trends ahead based on the last four years of system data:

Figure 3—Historical and Projected Annual Incident Volume

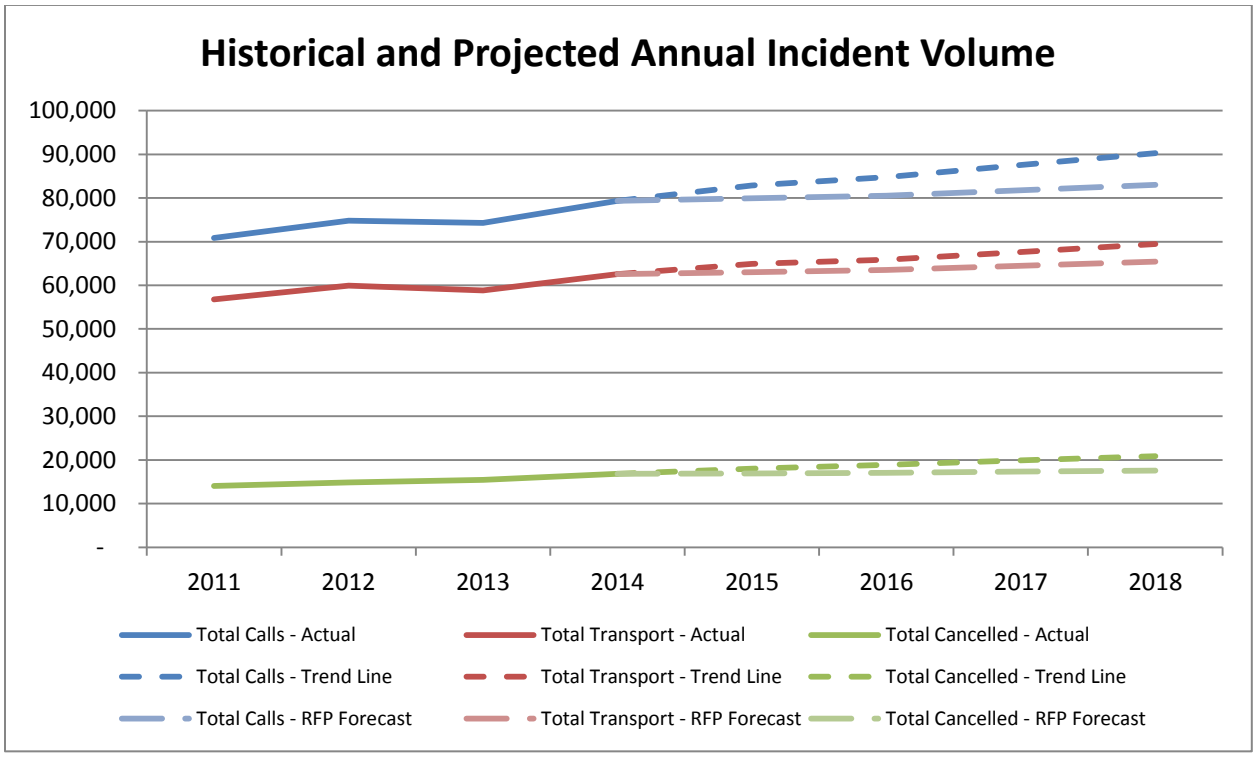
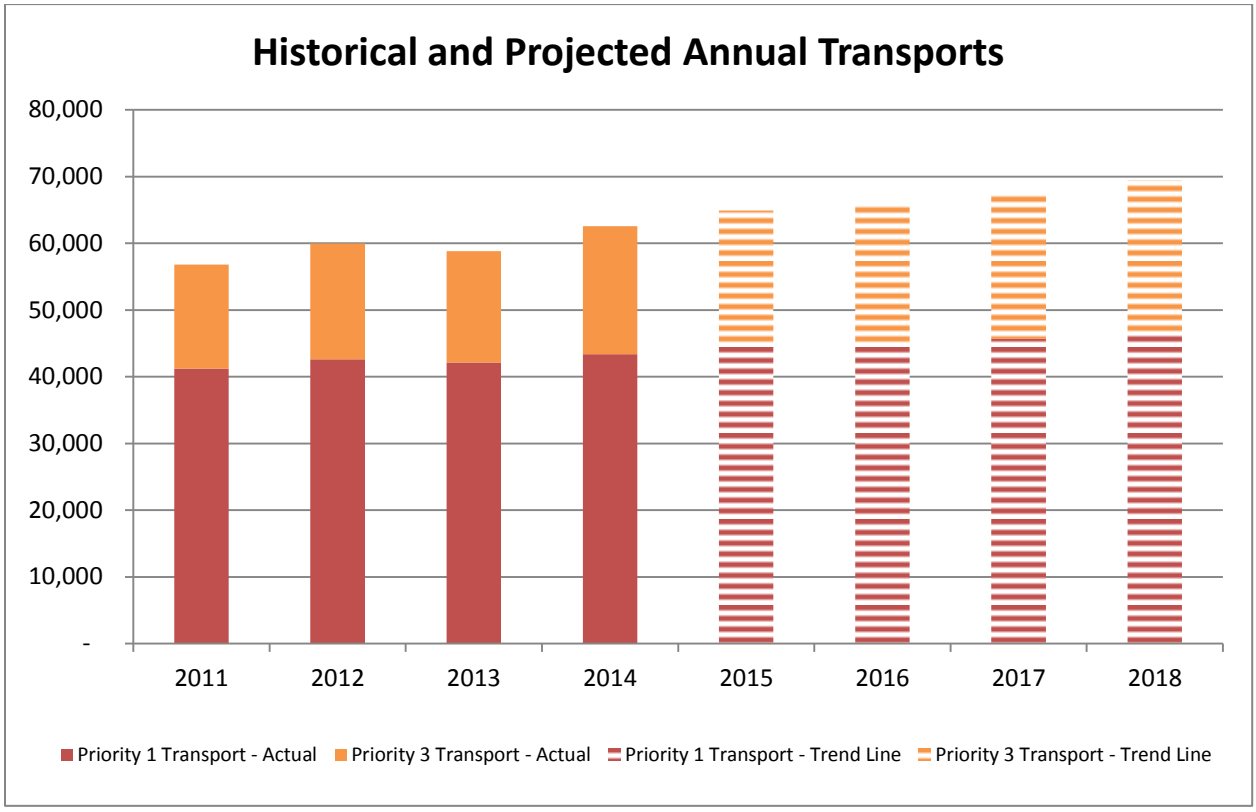


Figure 4—Historical and Projected Annual Transports



As will be discussed in the economics sections of this report (Sections 4 through 6), the Alliance proposal took a conservative revenue approach and used *flat* volume growth even though the above projection shows continuing volume *increases*.

The last two charts show the more variable movement month to month for incident demand and total transports:

Figure 5—Historical and Projected Monthly Incident Volume

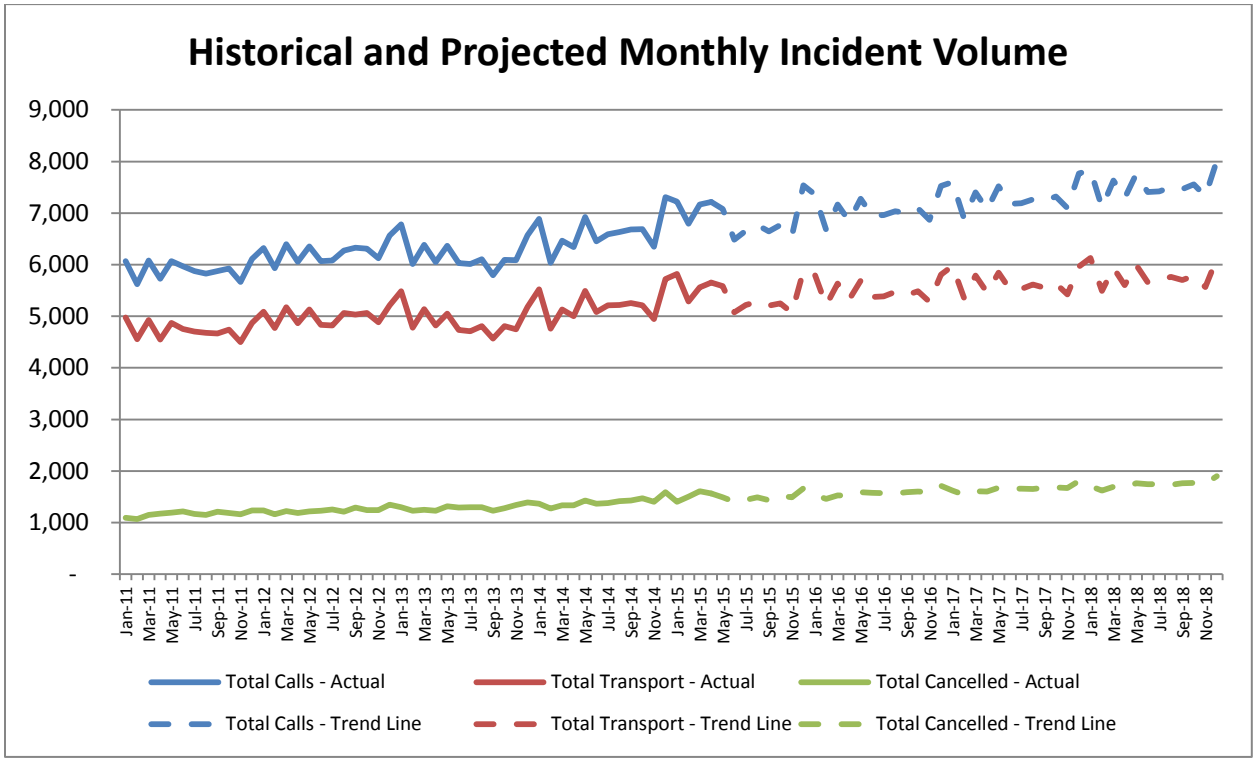
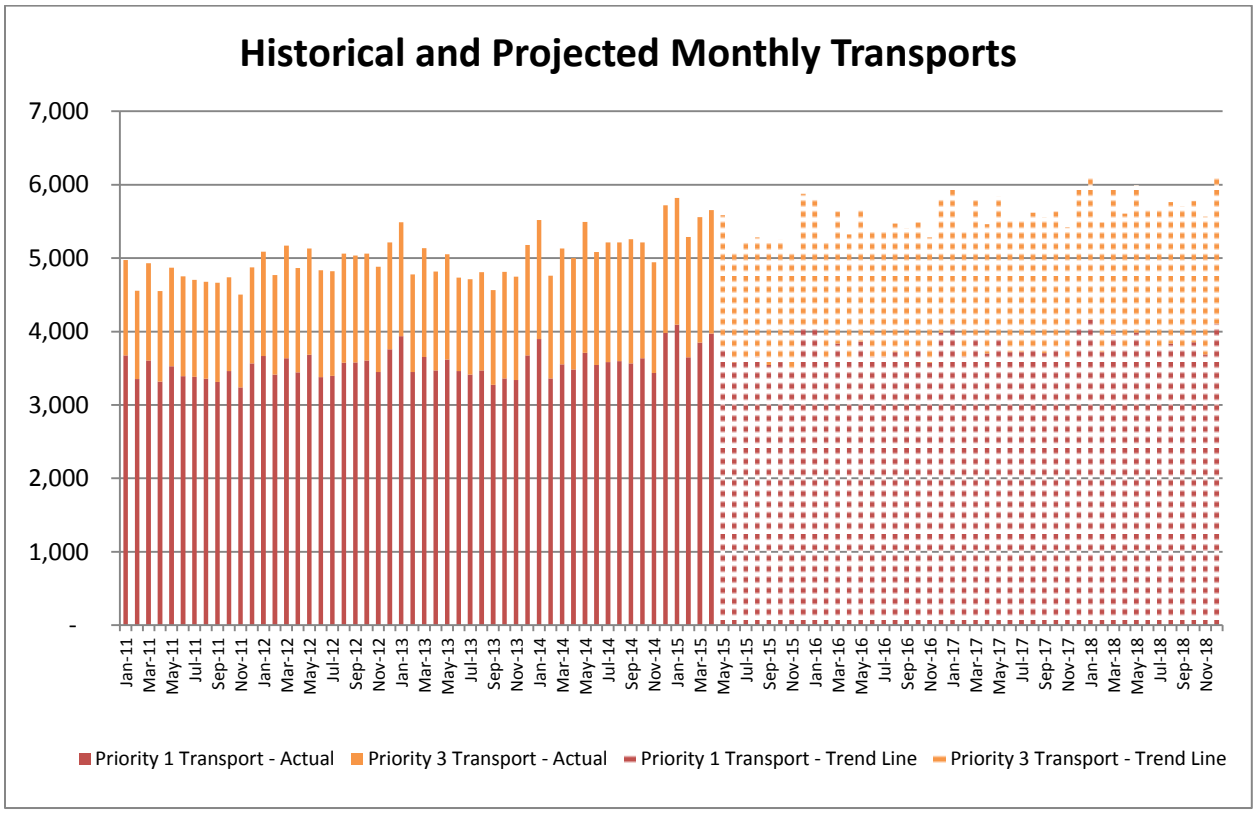


Figure 6—Historical and Projected Monthly Transports



While monthly demand is more fluid, these monthly projections show slightly *less* increased demand when compared to the annual demand trend lines. The Alliance revenue proposal is based on 63,500 transports in Contract Year 1 (2016), which, if the monthly trend line ends up more accurate that the annual projection, that volume may not be reached until late 2016. So again, the Alliance took a balanced, conservative position on its transport demand numbers as will be explained more fully in the sections to follow.

SECTION 4—THE BUSINESS STRUCTURE OF THE ALLIANCE PROPOSAL

4.1 AMR'S SUBCONTRACT WITH CCCFPD

In response to the Contra Costa County Local Emergency Medical Services Agency's (LEMSA) February 27, 2015 Request for Proposal (RFP) for Exclusive Operator for Emergency Ambulance Service, Contra Costa County Fire Protection District (CCCFPD) and American Medical Response, West (AMR), formed an alliance (referred to as the "Alliance") and submitted a single unified proposal to provide emergency ground ambulance services. No other proposal was received. The business structure of the Alliance between the CCCFPD and AMR is a subcontract relationship, in which the CCCFPD subcontracts with AMR to provide emergency ground ambulance services, at CCCFPD's direction, in the RFP's requested Response Areas, except for those portions that are in the jurisdiction of the Moraga-Orinda and San Ramon Valley Fire Protection Districts.

The CCCFPD will be the billing agent of record. It has secured its own National Provider Identification (NPI) number from the Center for Medicare and Medicaid Services and intend to bill for the ambulance services provided by AMR. The revenue received by CCCFPD, through patient billing and reimbursements from health insurers and other emergency ambulance transport revenue sources, would be used to offset the cost of its contract with AMR to provide the transport ambulance system as a complete, "turn key" operation. This billing arrangement *might* also allow CCCFPD to seek Ground Emergency Medical Transport (GEMT) cost-based reimbursement for emergency medical services provided by the CCCFPD (but this allowance is not an absolute guarantee as will be explained in **Section 6.4**).

4.1.1 Deployment Plan A and B Costs to be Paid to AMR by CCCFPD

Separate from the Alliance proposal to the County, is a contract between CCCFPD and AMR that stipulates that the CCCFPD will pay AMR for each ambulance unit/hour of emergency ground ambulance service that AMR provides, as full compensation for all services and costs provided or incurred by AMR in performing its obligations pursuant to the contract. According to the Alliance response to the RFP, for Plan A, during the first year of service (January 1, 2016 through December 31, 2016), CCCFPD will compensate AMR at a rate of $135.19 per deployed Unit Hour. During the second year of service (January 1, 2017 through December 31, 2017), CCCFPD will compensate AMR at a rate of $139.25 per hour. During the third year of service (January 1, 2018 through December 31, 2018), CCCFPD will compensate AMR at a rate of $143.43 per hour. Compensation rates for year 4 and 5 were not identified; however, the CCCFPD/AMR contract contains an escalator clause which increases unit/hour payments beginning April 1, 2017. The amount of the escalator has not been quantified. Unless modified,

the payment limit of the subcontract will be approximately $188,000,000 over the five years of the subcontract.

Note: The costs in the two tables below are the contractual obligations that CCCFPD must pay AMR, its subcontractor, regardless of the actual revenues received. Including costs in addition to those of AMR, the total Alliance costs per year and the resultant Unit Hour costs are higher. A comparison of total Alliance costs to total estimated revenues will be provided in a later section of this report.

Table 4—Plan A Staffing Hours and Costs[1]

Plan A	Year 1	Year 2	Year 3
Average Weekly Staffed Unit Hours	4,788	4,788	4,788
Average Annual Staffed Unit Hours	249,660	249,660	249,660
AMR Burdened Unit Hour Cost	$135.19	$139.25	$143.43
Estimated CCFPD Payment to AMR	$33,752,634	$34,765,213	$35,808,170

[1] All Unit Hours and costs from AMR *only* Plan A costs dated July 6, 2015.

The Alliance also submitted, as required, a second deployment plan called Plan B. The summary of that plan's *AMR staffing and costs* is:

Table 5—Plan B Staffing Hours and Costs

Plan B	Year 1	Year 2	Year 3
Average *Weekly* Staffed Unit Hours	4,620[1]	4,620	4,620
Average *Annual* Staffed Unit Hours	240,900	240,900	240,900
AMR Burdened Unit Hour Cost	135.30[2]	$139.35	$143.54
Estimated CCFPD Payment to AMR	$32,592,803	$33,570,588	$34,577,705

[1] Unit Hours from Alliance updated Plan B proposal received on July 3, 2015.
[2] Unit Hour Cost per AMR Plan B fiscal spreadsheet for AMR *only* Plan B costs dated July 6, 2015.

4.1.2 Terms of the CCCFPD and AMR Contract

The Emergency Ambulance Services subcontract between the CCCFPD and AMR begins on January 1, 2016 and ends December 31, 2020. Through this contract AMR is responsible to provide 24-hour/day, 365-day/year paramedic-staffed emergency ambulance service within Contra Costa County in a manner that meets the standards articulated in the Contra Costa County EMS Agency's RFP and the CCCFPD's proposed contract with AMR. This includes owning and maintaining the ambulance fleet; employing paramedics and EMTs to staff the ambulances; providing quality improvement, training, and community outreach programs; providing field

supervision; and maintaining an electronic clinical care and billing records system. These services are normally expected of an ambulance provider servicing a 9-1-1 Exclusive Operating Area (911EOA) Emergency Ambulance contract in a metropolitan area, such as Contra Costa County. These roles are further detailed in **Section 4.3**—AMR's Role and Responsibilities in the Alliance Proposal.

The contract also includes default provisions, providing CCCFPD the ability to take over AMR's stations, ambulances, and equipment if AMR cannot correct certain material deficiencies within 7 days following notice of default by CCCFPD. AMR is not prohibited from conducting non-emergency work that does not interfere with the contract.

The contract also obligates AMR to provide equipment, programs, and services normally expected of an ambulance provider servicing a 911EOA Emergency Ambulance contract.

4.1.3 Alliance Proposal Risk Impact to the Taxpayer

In the Alliance proposal, the CCCFPD pays AMR, its subcontractor, a predetermined unit/hour fee to provide emergency ground ambulance services. CCCFPD will serve as the billing agent of record, and through a subcontractor separate from AMR, will bill Medicare, Medi-Cal, insurance companies, patients, and other potential revenue sources. In this arrangement, the financial risks associated with operation of the ambulance service, including decreasing reimbursement rates, accounts receivables management, and increased cost of staffing, materials, and supplies, is transferred from AMR to the CCCFPD, putting the CCCFPD and the taxpayers of the CCCFPD, not the balance of the taxpayers of Contra Costa County, at risk of financial loss. This risk, if realized as a liability, becomes a general liability of the CCCFPD and its taxpayers. Citygate believe that this financial risk is small, because the deployment plan and the revenue and expense budgets are realistic. Nonetheless, it is important to make note of this risk, because this subcontracting model is new and untested within California. Understanding, monitoring, and evaluating the implications associated with ongoing taxpayer risk for ambulance systems should be of the utmost importance to the CCCFPD management. This is especially important considering the changing health care payment environment in America.

Citygate believes that all governmental entities that directly provide ambulance service or subcontract for ambulance service are potentially at financial and operational risk. These risks include decreasing rates of reimbursement, unexpected changes in volume, and increasing costs of service, including labor, capital asset acquisition, and costs caused by regulatory changes.

Similarly, government jurisdictions that contract for ambulance services also retain some degree (albeit probably less) of financial and operational risk, because if net revenue decreases to less than the cost to provide the service, the jurisdiction is at risk to maintain the solvency of the ambulance operator by raising rates, providing a subsidy, or selecting a new provider.

Further, should an ambulance provider in financial trouble discharge the contract through bankruptcy, the governmental entity retains the responsibility of maintaining a stable ambulance

transport system, which may entail the financial and operational risks of engaging a new contractor or, directly at taxpayer expense, providing ambulance service, without time for a well-planned transition.

> **Citygate Opinion #1 – Alliance Economic Risk:** It is undisputed that 9-1-1 ambulance system revenues are falling to the point where some, if not all, systems will no longer be able to operate without a public subsidy as many have for over 30 years. The choice before Contra Costa County is whether the Board wants to more fully be involved in managing the contractor via the CCCFPD, and if a revenue collapse is inevitable, be able to detect the problem with enough time to develop and implement thoughtful mitigation measures.
>
> The other option is to operate the existing type of contract model and hope the private provider would provide enough notice before default. Ultimately, taxpayers are the fallback resource to fund 9-1-1 ambulance services. If ultimately the ambulance system needs an allocation of CCCFPD or County general discretionary resources to stabilize ambulance services, that could force the reduction of services in other areas. Monitoring and understanding how this issue evolves is critical if the County is to minimize the impact of a potentially damaging ambulance fiscal shock wave.

The CCCFPD and AMR "Alliance" is designed to provide full EMS system integration for the communities serviced. The Alliance notes that this organizational structure will provide single-source dispatch, integrated oversight for first response and transportation, consistent training for all responders, common and shared language and response culture, and eliminate redundancies in service.

4.2 CCCFPD Roles and Responsibilities in the Alliance Proposal

The CCCFPD's roles and responsibilities, as specified in the Alliance proposal, are coordinating the overall AMR contract and ensuring close coordination with all of the first responders in the ambulance service area. These actions do not replace, but enhance, the oversight functions mandated by state regulations to the County EMS Agency.

The Alliance support for first responder functions is compliant with the terms of the County's RFP and includes costs for issues such as replacing first responder supplies and equipment, plus group supply purchasing savings or discounts. These first responder support costs are in the Alliance operating expense and revenue proposals.

For its coordination with AMR, CCCFPD is not adding significant personnel or costs in order to supply both AMR contract coordination and first responder coordination functions.

4.2.1 One Chief Officer Oversight Position

The Alliance proposal does not significantly change the number of personnel employed by the CCCFPD or AMR. In fact, only one new position is created in the Alliance organization: an EMS Chief, who will be employed by the CCCFPD. The EMS Chief will oversee first responder training, the clinical manager, and clinical education services support. The EMS Chief will also work closely with AMR's Medical Director and the County's EMS Medical Director and the AMR General Manager. The fully-benefitted cost of this new fire department chief officer position is budgeted at $400,000 annually.

4.2.2 Ambulance Billing

In the current Contra Costa County EMS System, AMR directly bills insurance providers and patients for ambulance medical care and transport. In the Alliance proposal, the CCCFPD will perform first responder and ambulance billing through a contract with an external billing agency. AMR will continue to perform the "front end" billing process, which includes ensuring proper documentation, reconciling trip information, and timely submitting billing information to the external billing agency. CCCFPD expects to pay approximately about 5% of collections, if a percentage collection agreement is negotiated to the external billing contractor.

Ambulance billing systems contain a hard cost. In the current contract with the County, AMR performs the billing, the cost of which is included in its bills to patients under the County-approved ambulance rate structure. Under the Alliance approach, its plan to try to acquire supplemental Medi-Cal revenues known as GEMT (explained in **Section 6.4** of this report) possibly requires, under state regulations, that the billing to be performed by the CCCFPD, *not* its ambulance subcontractor. Given this is not yet settled, the Alliance proposal calls for a separate billing contractor under CCCFPD control. The cost of this is included in the Alliance cost structure at an estimated amount of $2,078,548. Billing contracts can be priced at fixed rates or a percent of the amount billed. Because the Alliance does not know if it will be required to separate billing from AMR, at this time its proposal uses a cost that is closely estimated, but not agreed to contractually.

If the Alliance proposal is approved by the Board of Supervisors and implementation begins, Citygate hopes that the Alliance can make the case to the state that the more effective billing approach would be to let the current and capable AMR billing process remain in one integrated patient data system from point of dispatch to final patient destination.

In either case, the final Alliance costs cannot be determined until the billing question and costs are firmly fixed.

Billing for Inter-Facility Transports (IFT)

Another part of the EMS system RFP for 9-1-1 ambulance services allows the 9-1-1 ambulance operator to provide, at the request of hospitals, clinics, and others, a paramedic unit to transfer

patients between sites. As required, the Alliance priced this option in Appendix 19 of its response and identified a rate structure set at 50% of the Usual and Customary Rates (UCR) charged for 9-1-1 calls. The Alliance expects that requests for these services will be extremely low.

The billing for IFTs will be performed by the CCCFPD along with all other billing. Therefore, the IFT revenues are part of the overall Alliance revenue submittal and any revenues in excess of costs will remain with the CCCFPD for use within the Alliance structure.

4.2.3 Merged Dispatch

In the current Contra Costa County EMS System, the CCCFPD and AMR operate separate, geographically-distinct dispatch centers. In the Alliance proposal, AMR will relocate its medical dispatch personnel to the Contra Costa County Regional Fire Communications Center, allowing CCCFPD and AMR to operate one consolidated dispatch center that will provide fire and ambulance dispatching services. The Alliance's communication center provides the infrastructure, technologies, and redundancies normally associated with an emergency services dispatch center serving an urban or suburban area. This communication center will process medical requests for assistance using the Medical Priority Dispatch System including Medical Dispatch Quality Assurance, both of which are considered the state-of-the-art in EMS dispatch. Consolidated communication centers are associated with shorter call transfer and processing times, improved inter-organizational situational awareness, and improved coordination of fire and ambulance resources to complex incidents.

4.2.4 Separate Training/CQI for Fire Paramedics – "As Is"

The CCCFPD will not be merging or changing how it currently trains and conducts Continuous Quality Improvement (CQI) for the paramedics on its fire engines, so there are no new costs for these programs in the Alliance proposal.

4.3 AMR'S ROLES AND RESPONSIBILITIES IN THE ALLIANCE PROPOSAL

4.3.1 An Almost Identical AMR Effort to the Current Model

AMR's roles and responsibilities, as specified in the Alliance proposal, are nearly identical to its roles and responsibilities in the current Contra Costa County EMS System. AMR will have the sole responsibility for owning, maintaining, and upgrading the ambulance fleet. AMR is responsible to respond to all calls dispatched from the County-designated Public Safety Answering Points (PSAPs) with Advanced Life Support (ALS (paramedic-staffed)) ambulances. AMR is responsible to provide ALS service (paramedic-staffed ambulances), with the exception that Basic Life Support (BLS (EMT-staffed)) ambulances may be used for response to multi-unit responses and when BLS response is appropriate according to the Contra Costa County EMS Agency's policies and procedures. AMR must also provide equipment, programs, and services

normally expected of an ambulance provider servicing a 911EOA Emergency Ambulance contract.

The equipment, programs, and services that AMR must provide include:

- Performing comprehensive data analysis and quality improvement activities, using a dedicated quality improvement staff conducting practices according to the County's EMS Agency policies
- Assuring all personnel are properly vetted, licensed or certified, credentialed, and trained
- Providing field supervision using trained supervisors
- Providing continuing education for CCCFPD and AMR personnel
- Operating a dispatch center within the CCCFPD dispatch center, maintaining dispatch-related equipment, and dispatching ambulances to requests for emergency ambulance services
- Using and maintaining an electronic PCR system
- Providing records to CCCFPD to verify clinical and operational performance standards
- Employing a full-time Community Outreach Coordinator to work towards improving community health status and providing community education
- Maintaining disaster and multi-casualty incident capability, including the ability to recall personnel, staff a disaster response vehicle, and participate in disaster training and exercises.

In addition to the change in ambulance billing service described above, another significant change from the current Contra Costa County EMS System in the Alliance model is AMR's reporting structure to the County. In the current Contra Costa County ambulance contract, AMR is an independent organization. The Contra Costa County EMS Agency has an EOA contract directly with AMR, which is responsible to the EMS Agency for meeting the standards contained in that contract.

In the Alliance model, the EMS Agency will not have a direct contractual relationship with AMR. The EMS Agency will have a direct EOA contractual relationship with CCCFPD, which in turn has a subcontract agreement with AMR.[16]

This reporting relationship is reflected in the Alliance's organizational chart. In the Alliance, all CCCFPD and AMR positions and functions report into CCCFPD's command structure. The

[16] The LEMSA and AMR must have a paramedic service provider agreement, pursuant to 22 CCR 100168 (b) (4).

manager of the consolidated communications center reports to CCCFPD's Assistant Support Chief, the CCCFPD's new billing contractor reports to CCCFPD's Administrative Chief, and AMR's positions report through the supervisors and general managers to CCCFPD Emergency Operations Assistant Chief. All Assistant Chief positions report to CCCFPD's Fire Chief. Additionally, in the field setting, AMR's personnel are contractually placed under the authority of the fire officer in charge.

Another significant change from the current Contra Costa County EMS System in the Alliance model is the consolidation of AMR dispatching into the CCCFPD communication center. AMR does experience cost savings from the dispatch merger, but these savings are already reflected in its lowered cost per Unit Hour charge to the CCCFPD.

SECTION 5—OPERATIONS REVIEW AS THE COST DRIVER

5.1 DEPLOYMENT LEVELS AND RESULTANT STAFFING

Determining the number of ambulances needed at any given hour across the diverse topography and populations of a large county is complicated. Current ambulance systems typically deploy a mix of 24-hour and partial-day units with overlapping schedules. The highest quantity and location of units is clustered in the hours of the day and in the communities having the greatest demand for service. In a deployment plan, a baseline number of units is placed across the geography to provide equitable response time to an emergency, assuming the closest assigned area unit is available.

The County RFP requested two deployment plans labeled A and B. Plan A is what the current system operates; the ambulance contract area is divided into four Emergency Response Zones (ERZs) for calculation of ambulance response times and penalties.

Under Plan B, the ambulance contract area is divided into three ERZs for calculation of ambulance response times and penalties. In aggregating performance zones from four to three, Plan B significantly expands areas designated as "urban" instead of "rural." While Plan B increases the response time requirement in existing *urban* zones from 10:00 or 11:45 minutes/seconds to 12:45 minutes/seconds for the highest priority emergencies, the shift of the rural areas to urban lowers response time requirements from 16:45 minutes/seconds to 12:45 minutes/seconds. Thus, Plan B changes response time requirements in multiple areas.

Both plans are fully described in the County Ambulance RFP in Appendix 3 and will not be fully repeated here.

The calculation used to summarize a deployment plan is measured in "Unit Hours," defined as the total number of two-person ambulance units on duty in each hour block (24 hours per day for a week or monthly cycle). In the case of Contra Costa County, the County is divided into response time measurement zones as the major population clusters are separated by large open space or rural areas.

Once the plan is set into motion, the ambulance contractor and County EMS Agency measure response times delivered by the deployment plan against a pre-determined policy goal. If the deployment plan under-delivers response time performance to an area, the deployment plan must be adjusted. If the response time performance exceeds the goal, then the deployment plan can be adjusted to save cost.

In the current system, AMR's 2014 Unit Hour deployment plan delivered, on average, 17,140 Unit Hours per month. As a simple average, this is approximately 23 units per hour Countywide. After 2:00 am the quantity is lower; it is highest in the afternoon and early evening hours.

The previous 2004 AMR contract required a minimum of **17,437** Unit Hours per month. In September 2009, the Board of Supervisors allowed the Unit Hours to be slightly lowered to control excessive system costs. Averaged per month for calendar year 2014, AMR's Unit Hour plan delivered **17,140** Unit Hours. Starting in the fall of 2014, with the closure of Doctors Medical Center, the Unit Hours were increased because transports that could not be diverted to less acute clinic care needed to go to hospitals further away, increasing unit out of service times during incidents.

By January 2015, AMR's monthly Unit Hour plan had risen to **18,172**. In reviewing the 2014 incident demand data, and AMR's Unit Hour plan by hour per week for March 2015, Citygate finds that this early 2015 level of Unit Hours is the minimum necessary to meet system response time goals in each of the three zones.

5.1.1 Alliance Plan A Deployment

The Alliance deployment proposal under Plan A is for **20,748** Unit Hours per month. In its proposal the Alliance states:

> *"Core (lowest) deployment will be **18** ambulances, with a peak of **39** ambulances during the highest demand. As this is a performance-based contract and call demand is dynamic, we are committed to increasing units to match volume and contractual requirements. Analyzing the County call volume and hot spots, we will strategically deploy 12-hour units, with the ability of backfill, if needed."*

Citygate reviewed the proposed Unit Hour plan for one week against what AMR delivered in March/April of 2015 and found the Alliance slightly increased hours at key parts of the day and days of the week in the sample weekly ambulance schedule provided by the Alliance.

Citygate Opinion #2 – Plan A Deployment Hours: Citygate's extensive review of the incident demand data by zone, hour of the day, and day of the week found the proposed Alliance deployment plan capable of meeting the current needs of the requested Plan A.

5.1.2 Alliance Plan B Deployment

The Alliance deployment proposal under Plan B is for **20,020** Unit Hours per month. In its proposal the Alliance states:

> *"Core (lowest) deployment will be **18** ambulances, with a peak of **37** ambulances during the highest demand. As this is a performance-based contract and call demand is dynamic, we are committed to increasing units to match volume and contractual requirements. Analyzing the County call volume and hot spots, we will strategically deploy 12-hour units, with the ability of backfill, if needed."*

Citygate reviewed the proposed Unit Hour plan for one week against what AMR delivered on July 3, 2015 and found the Alliance slightly *decreased* Unit Hours at key parts of the day, and at key days of the week in the sample weekly ambulance schedule provided by the Alliance.

> **Citygate Opinion #3 – Plan B Deployment Plan Hours:** Citygate's extensive review of the incident demand data by zone, hour of the day, and day of the week found the proposed Alliance Plan B insufficiently documented regarding where the reductions and resultant reduced response times occur. *As such, it is not possible to state whether the plan will meet the response time objectives for the cost proposed.*

5.2 Plan A Likely Response Time Compliance

Contra Costa County's current contract with AMR requires a 10-minute response 95% of the time for calls determined to need a "lights and sirens" response in the City of Richmond, while in the remainder of West County emergency response times are 11:45 minutes, 90% of the time (similar to the remainder of the County). The variation in response requirements between these communities was based on the goal of providing a paramedic within 10 minutes on scene, established by the County as part of the 2004 ambulance service agreement for areas not served by fire paramedic first response.

The 2015 Ambulance System RFP required, in Plan A, response time performance across four geographic zones. The zones are the City of Richmond, the balance of the West County, the Central County, and the East County. The response time measures are:

> *High Priority Emergencies – to 90% of the incidents from a low in Richmond of 10 minutes to 11:45 minutes/seconds across the mid-County and to rural East County areas at 16:45 minutes/seconds.*

In documents to the County EMS Agency, and in the Alliance proposal, response times by AMR from March 1, 2014 through February 28, 2015 in the current five performance zones exceeded 90% in all zones ranging from a low of 91% to a high of 97%, with West County and more specifically Richmond, typically averaging 94-95%.

> **Citygate Opinion #4 – Plan A Response Time:** Given the historical response time compliance reported by AMR under the current contract, as well as the increased Unit Hours in the Alliance Deployment Plan, Citygate is of the opinion that the Alliance can maintain the desired response time goals of the requested Deployment Plan A.

5.3 PLAN B LIKELY RESPONSE TIME COMPLIANCE

The County's RFP requested an alternative Response Plan B that reduced the response time zones to three and *increased* response time for 90% of the incidents ranging from a low of 12:45 minutes/seconds in urban/suburban areas to 20:00 minutes/seconds in rural areas. The goal was intended to allow a few less ambulances in the system for cost control given the lower severity incidents that dominate workload across the system.

The three response time zones were West, Central, and East County, with response time measures focused on population density areas. This plan removed the City of Richmond from being its own performance area.

Based on a one-week, Countywide ambulance deployment schedule, and the fact that Plan B merges Richmond into the western compliance zone, it is impossible to validate if the reductions in Plan B are excessive, or if they will even meet the County's lessor response time goals. There is no way to know if one zone is more affected by reductions than another zone.

While the Alliance offered a different Unit Hour deployment exhibit for Option/Plan B, it did not prefer its implementation. In its RFP response, the Alliance stated:

> *Our submission under Plan "A" provides shorter response times than provided for under option B and we believe that is what the public wants and demands. Our submission addresses the concerns that the LEMSA has for system sustainability, while simultaneously providing what the public wants in their ambulance delivery model, which is an efficient, cost-effective emergency response. Our plan is designed to meet the public's desire and does not require any subsidy from the County.*
>
> *We have also provided a Plan "B" that includes longer response times for responding ambulances, thus decrease the cost of providing the service through reduction of unit hours. We would like to highlight that this plan comes at a significant cost to not only the patient that is required to wait longer for the arrival of the ambulance but also the County's first responders from all agencies as they will be required to remain on scene until the ambulance arrives. This includes all first responder such as fire, police, sheriff and highway patrol. Diminished resources due to increased response times for transport providers is not in the best interest of any of the County's stakeholders. Our submission of Plan "A" provides for all the needs identified in the modernization report at no cost to the County.*

In response to further Plan B questions from Citygate Associates, the Alliance stated:

> *The unit hours proposed under Plan A are higher than our 2014 deployment. The difference in deployment is driven by several factors. First, the closure of Doctors*

Medical Center earlier this year has resulted in a significant disruption to the previous deployment model requiring the addition of unit hours to maintain West County coverage. Next, while the current RFP does ease some response time requirements, it also provides additional complexity and cost by initiating outlier penalties and rolling daily compliance requirements. Lastly, both the District and AMR felt it was necessary to build a deployment plan that would ensure success, especially given the unknown effects of further first responder reductions in East Contra Costa County. As such, we built a robust deployment plan that may allow for future reductions once the system is stable.

Given these numerous system dynamics outlined above, the Alliance felt it would be imprudent to propose unit hour reductions under Plan B. Unit hour reductions would result in longer on-scene times for our local fire departments at a time when their resource capabilities are already stretched thin. In addition, such unit hour reductions would provide for less flexibility to address the recent system changes and those new requirements outlined in the RFP.

Citygate also observes that the deployment hours for Plan B are estimated from a software model used by AMR and, due to the changes in response zones, the deployment hour estimations are new. No software model estimates are perfect, and different mathematical approaches yield different results.

Even with historical incident data to model from, the 9-1-1 system demand is a *chaotic mathematical model;* it is not simply linear. There are many simultaneous and sometimes unexpected factors that generate 9-1-1 demand. The emergency system is not like a supermarket where a large volume of data supports how many checkout registers to have open on busy afternoons. In that scenario, the volume of use over time is very predictable. In a 9-1-1 system, an event such as a wildland fire, multi-patient auto accident, a heat wave, or hazardous materials leak can throw unexpected hourly demands on the system. It is preferable to have some reserve capacity in a system for such moments. Proposed Plan A has proven historically positive response times, and the Alliance has offered that plan in a cost-to-revenue structure that is positively balanced.

Citygate Opinion #5 – Plan B Response Time: The response time compliance for Plan B cannot be benchmarked to current system compliance given the change from four to three zones and a relaxation of response time measures. Citygate would *strongly encourage the County* **not** to implement Plan B all at once, if at all. If chosen for implementation, the Alliance should be allowed to test some reductions in some areas and then, based on closely-observed metrics, make adjustments. This measured, incremental approach is consistent with the values of Continuous Quality Improvement (CQI).

5.4 Staffing for Administrative, Training, Dispatch, and Community Education Support

The ambulance deployment plan drives the total number of paramedics and EMTs needed. Each of these types of employees needs state- and County-mandated training and quality assurance clinical oversight. Additionally, any ambulance operation needs support staff to provide administration, fiscal, supply, and ambulance fleet repair. An all-encompassing term for these positions and resultant costs would be administration and logistical support. The Alliance staffing proposal for Plan A requires 114 paramedics and 114 EMTs, totaling 228 personnel. Deployment Plan B only requires 8 fewer field personnel, so the following logistical support analysis only uses proposed Plan A, and there is a negligible decrease to oversight position costs under Plan B.

To provide the needed support for these field positions, AMR's portion of the Alliance will provide 47 full- and part-time positions across these categories:

Table 6—Administrative and Logistical Support

Position Title	Number of Positions
General Manager	1
Clinical Manager	1
Operations Manager	1
Data Analyst	1
Community Outreach	1
Clinical Education Specialist	1
Clinical Education Coordinator	1
Deputy Operations Manager	1
Logistics Supervisor	1
Administrative Supervisor	1
Administrative Assistant	1
Scheduling	2
EMS Operations Supervisor	9
Vehicle Service Technicians	7
Lead Mechanic	1
Vehicle Mechanic	3
Pre-billing Staff	3
Dispatchers	10
Assistant Medical Director	1
Total AMR Positions	**47**

In the Alliance proposal for administration, there is only one (CCCFPD) position added and expensed from ambulance revenues: an EMS Chief Officer to oversee the Alliance operations on behalf of CCCFPD. This position would presumably be the key liaison between AMR, fire operations staff, and the County's EMS Agency.

5.4.1 Community Education

The Ambulance RFP required the contractor to allocate $100,000 under Plan A, and $300,000 under Plan B, annually for community education and improvement activities. The Alliance proposal allocated $300,000 under Plan A, exceeding the RFP requirement, and $300,000 under Plan B, as required by the RFP.

This amount is shown in the proposed Alliance budget in two locations: (1) personnel costs, because people provide community training; and (2) a separate line item of $50,000 for outreach supplies and publications. Personnel include a dedicated Community Education Coordinator that will be dedicated to providing support to the Community Education programs. In addition, members of the management team, Paramedics, and EMTs will be used to staff high volume community outreach programs, and those wages also are included in the Alliance budget.

5.4.2 Quality Control and Overall Logistical Positions Needs and Appropriateness

Quality emergency medical care and transport services are dependent upon an effective Continuous Quality Improvement (CQI) program that is tied to a living training plan and calendar. The CQI program focuses on both the individual care provider (EMT or paramedic) as well as on the system as a whole. It is both internal to the Department and external to the EMS community at large. Trend analysis through consistent data review, as well as individual run review (patient care report audits), are used to identify training needs. The four positions identified on the Alliance's organization chart (Community Outreach, Continuing Education Specialist, Continuing Education Coordinator, and Data Analyst) will provide the fundamentals for an effective CQI and training program.

> **Citygate Opinion #6 – Alliance Logistical Staffing Expense:** Given the staffing provided by AMR, and a verbal confirmation that AMR support services staffing will remain the same as in the current contract, the CQI, training, and community education staff appears appropriate for the size of the projected *AMR* operation. CCCFPD will continue to separately manage the training and CQI for its firefighter/paramedics, as it does currently.

SECTION 6—ALLIANCE ECONOMIC PROPOSAL

6.1 TRANSPORT VOLUME OVER TIME

An ambulance system's revenues are fundamentally driven by total transports. Citygate's review of County EMS-provided raw data found that, in the calendar year of 2014, there were a total of 79,358 AMR initial responses in all zones in the County. This was an increase of about 5,000 response incidents over 2013.

These incidents resulted in a total of 63,488 transports to the region's hospitals. Over four years the number of *transports* has grown steadily:

Table 7—Number of Transports in Contra Costa County

Year	Transports
2011	57,590
2012	60,751
2013	60,804
2014	63,488

In Contract Year 1 (2016), the Alliance proposal has estimated total *transports* to be 63,500, or a growth rate of essentially zero. Citygate sees this flat-line projection as conservative and reasonable given the slight increase in overall incident demand from 2012 to 2014. Even given the closure of Doctors Medical Center, the Alliance believes that transport demand under the health care reform impacts will be flat for several years. In response to questions from Citygate about the demand for service assumptions, the Alliance stated:

> *In reviewing transport history, 2014 had considerably higher transport growth (4.4%) than the previous year growth (1.8%). The historic growth rates included years with both positive as well as negative transport growth rates. We identified 2014 as a higher than average year as the Affordable Care Act (ACA) was implemented and more patients had access to insurance and therefore utilized ambulance service. Based upon this information, we took a conservative approach to forecasting transport growth to ensure system stability and kept 2015 and 2016 projections flat.*

Citygate Opinion #7 – Number of Transports Volume: Given the conservative projection of total transports for at least Contract Year 1 (2016), we find that the Alliance proposal had not inflated transport projections upon which to base revenues. If anything, the projections could end up being slightly low, thus providing a possible economic cushion by 2017.

6.2 BILLING BY PAYER TYPE

Table 2 on page 9 of the RFP provided the current breakdown of payer types for AMR in Contra Costa County:

Table 8—Payer Types from AMR in Contra Costa County

Payer Type	RFP Percent of Payer Type	2014 Actual	Alliance Proposal
Medicare and Medicare HMO	42.9%	43.2%	42.9%
Medi-Cal and Medi-Cal HMO	26.3%	26.8%	26.3%
Insurance	14.4%	14.5%	14.4%
Private Pay & Other	16.4%	15.5%	16.4%
Total	**100.0%**	**100.0%**	**100.0%**

In its revenue projections for the bid response, the Alliance assumed that the payer mix would remain the same for all three years of the projection period (2016-2018). In response to a question regarding why it assumed a constant payer-type mix, the Alliance stated:

> *It is AMR's practice in developing cost projections to keep payer mix steady, unless there are known factors that would result in a material change. At this point, the 2015 payer mix appears stable. The majority of the changes associated with the ACA occurred in 2014. With the future of the ACA uncertain at this time, we assumed the status quo was the most prudent approach to take.*

Consequently, while the payer mix has clearly changed over time, Contra Costa County already has a much higher proportion of Medicare and Medi-Cal customers, a much lower proportion of Commercial Insurance than AMR's contracts in other regions, and supports AMR's response that much of the changes associated with ACA have already been reflected in the 2014 payer mix.

As discussed in **Section 3**, the trend in recent years has been a shift from higher-paying commercial insurance plans to lower-paying governmental plans. From the most recent 10-K for Envision Healthcare Holdings, Inc., the parent holding company for AMR, the payer breakdown for AMR in total (including all regions, not just Contra Costa County) was as follows:

Table 9—AMR National Payer Experience

Payer	2012	2013	2014
Medicare	28.6%	32.1%	30.4%
Medicaid (Medi-Cal)	6.3%	7.4%	8.8%
Insurance	41.4%	39.2%	36.8%
Self-pay & Other	23.7%	21.3%	24.0%
Total	**100.0%**	**100.0%**	**100.0%**

6.3 ALLIANCE REVENUE ESTIMATE MODEL

Regarding the revenue projection for Total (Gross) Charges, the Alliance appropriately used the stipulated ambulance rates for rate Contract Year 1, as required in Appendix 10 of the RFP, as well as the annual 3% rate increase specified on page 55 of the County's Ambulance RFP.

Table 10—County RFP Ambulance Rates

Charge Type	Charge Amount
Emergency Base Rate	$2,100.00
Mileage Rate (per loaded mile)	$50.00
Oxygen	$175.00
Treat and Refused Transport	$450.00

The Alliance assumed 6 miles per transport, and oxygen usage on 60% of transports, resulting in an Average Patient Charge (APC) of approximately $2,505. The Alliance took a conservative position related to "Treat and Refused Transport" charges. Given the unfavorable political considerations, and historically low net collection experience for Treat and Refused Transport fees, at this time AMR does not intend to pursue such fees even though the RFP and proposed contract would permit them to do so.

In terms of expected net collections by payer type, the Alliance again took a conservative approach to its revenue projections compared to AMR's experience in 2014:

Table 11—AMR Contra Costa County Net Cash Collections by Type

Payer	2014 Actual	2016 Projected	2017 Projected	2018 Projected
Medicare	22.7%	18.8%	18.6%	18.4%
Medi-Cal	6.5%	5.5%	5.4%	5.2%
Insurance	92.0%	91.2%	91.2%	91.2%
Self-pay & Other	13.1%	12.1%	11.9%	11.7%
Average	**27.1%**	**24.6%**	**24.5%**	**24.3%**

This lower projected collection percentage is prudent given the recent trend in high deductible health plans, as well as the stipulated rate increases specified in the RFP, which will increase Total (Gross) Charges, but will not necessarily increase the amount collected, especially for Medicare and Medi-Cal customers.

Citygate Opinion #8 – Net Collections: The Alliance's approach in projecting Average Patient Charges (APC) and expected net collections by payer type is both conservative and prudent. The question of payer mix is one of the most difficult aspects of this projection given the uncertainties surrounding health care reform. AMR believes that much of the change resulting from the ACA has already been reflected in the 2014 payer mix data and that projecting the status quo is the most prudent course of action at this time. While this approach is reasonable, we believe that continued deterioration of net collections due to changes in payer mix and increases in the number of high deductible health plans remains one of the largest risks going forward, and one that will need to be evaluated in light of other risks and opportunities in the Alliance projections (see **Section 6.5**).

6.4 GEMT Absence, Near-Term Forecast, and the Wide Variance of Possible Revenues

6.4.1 Description of GEMT Program

The Ground Emergency Medical Transportation (GEMT) supplemental reimbursement program is a supplemental program designed to compensate governmental providers of GEMT services for up to 50% of the uncompensated cost of providing GEMT services to Medi-Cal *Fee for Service* beneficiaries. The GEMT program uses Certified Public Expenditures (CPE) for payment of the federal share of the supplemental reimbursement. The GEMT statute was enacted as California Welfare and Institution Code, Section 14105.94 on October 2, 2011, and approved in a State Plan Amendment by the Centers for Medicare and Medicaid Services (CMS) on September 4, 2013. The program is retroactive to January 30, 2010.

To qualify for GEMT program reimbursement, an EMS provider must meet the following criteria: (1) provide GEMT services to Medi-Cal beneficiaries; (2) be enrolled as a Medi-Cal provider for the period being claimed; and (3) be owned or operated by the state, a city, a county, a city and county, a fire protection district, a health care district, a community services district, a special district, or a federal Indian tribe. Eligible providers must also enter into a Provider Participation contract with the California Department of Health Care Services (DHCS) and agree to reimburse DHCS and the fiscal intermediary for their administrative expenses.

To receive supplemental reimbursement pursuant to the GEMT program, service providers submit an annual cost report to DHCS. The payment is based on claiming federal financial participation in CPEs that have been incurred by the public GEMT provider during the preceding fiscal year. Expenses that may be submitted in the cost report include direct and indirect costs, such as capital assets, including depreciation of buildings and equipment; salaries and benefits for line and management staff; and administrative and general expenses, such as operations and maintenance, insurance, and materials and supplies.

In the GEMT program, the participating provider is subject to retrospective audit after reimbursement is provided, creating a potential liability for the participating agency. Representatives of some fire departments that have received audits of their GEMT programs described the audit as being very thorough and detailed, more "like preparing to go to court." This potential liability can be minimized by maintaining complete and original records justifying all claims made pursuant to the GEMT program.

6.4.2 CCCFPD's Intent to Seek GEMT Reimbursement

The CCCFPD has stated that it intends to submit for GEMT reimbursement in the future, but has not included GEMT revenue in its budget. Citygate agrees with this decision, because there are numerous variables that make it difficult to quantify current and future benefits of the GEMT reimbursement for the Alliance. These variables include: (1) whether the GEMT program will expand to cover Medi-Cal *Managed Car*e (HMO) beneficiaries; (2) characteristics of CCCFPD's contracted billing services agreement; and (3) DHCS's determination of CCCFPD's allowable expenses.

6.4.3 The GEMT Program, Medi-Cal Fee for Service, and Medi-Cal Managed Care

The GEMT supplemental reimbursement program, as currently defined in statute, provides supplemental reimbursement for the federal share of providing GEMT services to Medi-Cal *Fee for Service* beneficiaries. The GEMT program does not provide supplemental reimbursement for GEMT services provided to Medi-Cal *Managed Care* beneficiaries. During the past two years, there have been two attempts at legislation to expand GEMT supplemental reimbursement to include Medi-Cal *Managed Care* beneficiaries, but those attempts have not been successful. It is likely these attempts will continue in the next legislative year.

In Contra Costa County, approximately 26% of ambulance transports are Medi-Cal beneficiaries. Also in Contra Costa County, only 20% of Medi-Cal beneficiaries are in *Fee for Service* programs. The majority of Medi-Cal beneficiaries (80%) are in Medi-Cal *Managed Care* Plans. Thus, the CCCFPD would be eligible to claim cost-based GEMT supplemental reimbursement on only approximately 5.2% of all ambulance transports.

6.4.4 Characteristics of Contracted Billing Service Agreement

Because CCCFPD has not entered into an agreement with a contracted billing service, it is not possible to determine whether DHCS would determine whether this expense would qualify for GEMT reimbursement. DHCS, in Policy and Procedure Letter 14-001, issued on December 18, 2014, clarified allowable reimbursement of GEMT contracted billing and accounting service costs. DHCS stated that expenditures for contracted billing services would be allowable for supplemental GEMT reimbursement only if those billing services are paid fees, based on a flat rate per transport or for the time of work rather than paid fees based on the amount collected, amount billed, or historical costs.

6.4.5 DHCS's Determination of the CCCFPD's Allowable GEMT Expenses

The GEMT statute requires, to be eligible for GEMT supplemental reimbursement, that the public provider "own and operate" the GEMT service. The GEMT statute also restricts reimbursable costs to those costs incurred by the public provider. On September 30, 2013, DHCS issued Policy and Procedure Letter 13-001, which clarified the meaning of "owns and operates" by explaining the intent of "costs incurred by the public provider" in the GEMT statute. DHCS stated:

> *Eligible Contracting Arrangements - satisfying "owns or operates"*
>
> *Eligible public providers that contract for the provision of GEMT services to a private provider, and the public provider directly bills the Department of Health Care Services (DHCS) for GEMT services, satisfies the "owns or operates" requirement in Welfare and Institutions Code section 14105.94, subdivision (b), paragraph (3), and the public provider is eligible to participate in the GEMT program. However, the public provider may claim supplement reimbursement only for the costs the public provider incurs, not the contracted provider's costs. Therefore, costs eligible for reimbursement under this program would be the public provider's contract costs attributed only to providing GEMT services to Medi-Cal beneficiaries, billing costs, and the public provider's overhead costs allocated to the Medi-Cal GEMT services program, as allowed by State Plan Amendment (SPA) 09-024. The public provider may not claim supplemental reimbursement for any other cost incurred by the contracted private provider.*
>
> *Eligible public providers that contract for the provision of GEMT services to a private provider, and the public provider also contracts out its billing activities to*

a billing agent that bills DHCS on the public provider's behalf, satisfies the "owns or operates" requirement in Welfare and Institutions Code section 14105.94, subdivision (b), paragraph (3), and the public provider is eligible to participate in the GEMT program. However, the public provider may claim supplemental reimbursement only for its contract costs. Therefore, costs eligible for reimbursement under this program would be the public provider's contract costs attributed only to providing GEMT services to Medi-Cal beneficiaries, and the public provider's overhead costs (including the public provider's billing agent costs) allocated to the Medi-Cal GEMT services program, as allowed by SPA 09-024. The public provider may not claim supplemental reimbursement for any other cost incurred by the contracted private provider and the billing agent.

Non-Eligible Contracting Arrangements

If a public provider contracts for the provision of GEMT services and its billing activities to a private provider, and such private provider or its billing agent directly bills DHCS, then the public provider is not eligible to participate in the GEMT program because it does not satisfy the "owns or operates" requirement in Welfare and Institutions Code section 14105.94, subdivision (b), paragraph (3). Under this scenario, it is the private provider who "owns or operates" as the provider of GEMT services rather than the public provider. A public provider that contracts for the provision of GEMT services and its billing activities, and allows the contracted private provider or the private provider's billing agent to use the public provider's National Provider Identification number for billing to DHCS, does not satisfy the "owns or operates" requirement in Welfare and Institutions Code section 14105.94, subdivision (b), paragraph (3), and the public provider is not eligible to participate in the GEMT program.

If CCCFPD applies to DHCS for GEMT reimbursement, DHCS will evaluate the business, legal, and organizational structure between CCCFPD and AMR. DHCS will also assess CCCFPD's relationship with its separate contracted billing agency. DHCS will then determine which of CCCFPD's costs, incurred directly or through contract, are eligible for reimbursement pursuant to the GEMT program guidelines.

Citygate Opinion #9 – Fee for Service GEMT Availability: Citygate will not attempt to predict which of CCCFPD's costs DHCS will or will not allow for GEMT reimbursement, as the scope of the Fire Department / Ambulance Company / Billing Contractor hybrid has not been tried yet in California, to our knowledge, since the inception of the GEMT program. Therefore, given that the CCCFPD has just obtained DHCS's national provider number and must still apply to DHCS, the Alliance approach to not assume any GEMT reimbursement in its fiscal pro-forma was the correct, conservative approach.

6.4.6 Potential Expansion of the GEMT Program to Medi-Cal Managed Care

It is difficult to accurately predict the future of GEMT program reimbursement. GEMT advocates will likely continue to attempt to expand the GEMT program to include supplemental reimbursement for GEMT services provided to Medi-Cal *Managed Care* beneficiaries. Because approximately 80% to 85% of Medi-Cal beneficiaries statewide are in Medi-Cal *Managed Care* plans, expansion of GEMT services to these beneficiaries would significantly increase the cost-based reimbursement for eligible GEMT providers.

Should the GEMT program reimbursement be approved in law for Medi-Cal *Managed Care* beneficiaries, the cost-based reimbursement would be facilitated through Intergovernmental Transfers (IGTs) rather than certified public expenditures. IGTs are a mechanism used to secure federal funds for use by local or state government. IGTs do not require the use of a cost report. In the federal Medicaid program, the quantities of funds that can be transferred through IGTs are capped at the state and local level. The difference between the local cap and the amount already received through other IGTs is called "headroom." Each county must assess whether it has adequate headroom within its local Medicaid IGT-based cap. If it does not have adequate headroom under the local cap, GEMT IGT claims will result in IGT revenue being reallocated from other existing in-county IGT programs, or denied due to the importance of other programs or the headroom cap. There is an approved pilot program in one other county that has open headroom, but it is unknown if IGT permission for EMS will be allowed statewide.

> **Citygate Opinion #10 – HMO GEMT:** There is no near-term assurance in Contra Costa County that the IGT program for Medi-Cal *Managed Care* beneficiaries will become available. As such, the Alliance decision to not depend on GEMT funds for Medi-Cal *Managed Care* is correct.

6.5 Plan A and B Revenue and Cost Projection Analysis

As the incumbent operator for Emergency Ambulance Service in Contra Costa County, AMR has unique insight into the factors that drive revenues and costs, and the recent trends in those factors. AMR has managed to continue to meet service obligations while maintaining profitability through very adverse trends in payer mix and net collection rates in recent years. The County Ambulance RFP stipulated ambulance rate for Contract Year 1 provides for a net increase of approximately 7.4% over existing rates in Contra Costa County. That increase enabled the Alliance to conservatively estimate a reduction in net collections and maintain profitability.

Clearly, one of the largest risks facing the Alliance and Contra Costa County is the uncertainty surrounding health care reform and the potential continuing shift of payer mix and deteriorating net collections below the already conservative Alliance revenue projection. While the Alliance

projected declines in net collections from 27.1% to 24.6%, such declines could actually exceed that forecast if recent trends of rising deductibles and rejected claims continue.

In considering the overall strength and weakness of the revenue projection, there are several potential opportunities that could offset the risks associated with payer mix and net collections.

As described in **Section 6.1** previously, the Alliance took a conservative approach to projecting transport volume over time. If transport volumes exceed the levels in the Alliance projection, there should be a positive impact to profit margins. This is because revenues should generally grow in proportion to transport volume increases, while costs will not likely grow as quickly due to certain fixed costs, and the improved economies of scale.

Similarly, the Alliance took the conservative approach of not projecting **any** incremental revenues associated with two potential new sources of revenue. The RFP would permit the contractor to charge for "Treat and Refused Transport" services, which the Alliance says it does not plan to do, at least initially. In addition, as described in **Section 6.4** previously, the potential for supplemental reimbursement under the GEMT program could be a source of incremental revenue. While both "Treat and Refused Transport" and GEMT revenues could have some incremental billing costs associated with them, their net collections would still contribute to the bottom line.

Cost projections are driven by the deployment plan, and a detailed analysis of the deployment plan, staffing levels, and operations is contained in **Section 5** of this report. The resulting cost per Unit Hour provided by the Alliance for the first three years of the contract is as follows, including a projection of 3% increases each year to cover increases in the collective bargaining agreement, merit increases, and inflation:

Table 12—Plan A and B Cost per Unit Hour

Plan	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
Plan A			
Cost per Unit Hour	$148.89	$153.36	$157.96
Plan B			
Cost per Unit Hour	$152.52	$157.09	$161.80

Combining the revenue and cost projections by year with the projected transport volumes yields the following results:

Table 13—Deployment Plan A

Description	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
Transport Volume	63,500	64,450	65,418
Net Revenue / Transport	$617.08	$631.62	$646.51
Expenses / Transport	$586.00	$594.69	$603.46
Gross Profit / Transport	$31.08	$36.94	$43.05
Gross Profit Percentage	**5.0%**	**5.8%**	**6.7%**

The potential for supplemental reimbursement under the GEMT program is the largest opportunity, and growth in transport volumes above currently-projected levels could also provide a cushion. The strategies in **Section 7** regarding risk control will further help the County manage risk over the life of the contract.

Table 14—Deployment Plan B

Description	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
Transport Volume	63,500	64,450	65,418
Net Revenue / Transport	$617.08	$631.62	$646.51
Expenses / Transport	$578.60	$587.18	$595.84
Gross Profit / Transport	$38.48	$44.45	$50.67
Gross Profit Percentage	**6.2%**	**7.0%**	**7.8%**

The only major cost difference between the two plans is that in Plan B there are eight less field employees and a small reduction in logistical expenses, such as insurance. There are no meaningful administrative and logistical personnel expense deductions.

Plan B contains a new and significant required annual payment of $750,000 to the County EMS Agency for system administration uses. This charge is, in theory, to be funded from operational savings due to longer response times. The cost shifts between Plans A and B can be summarized as:

Table 15—Cost Differences Between Plans A and B

Plan Difference	Amount
Plan B Cost Reductions	~ ($1,220,000)
Plan B EMS Agency Fee	~ $750,000
Plan B Net Reductions	~ ($470,000)

Given the comparison of Plan A and Plan B provided by the Alliance, and the fact that the cost *savings* for Plan B are only $470,000 due to the charge for County EMS administration, it is obvious that Plan A provides better response times and compliance at a lower Unit Hour cost. In both Alliance Plan A and Plan B proposals, the **total** system costs per Unit Hour are:

Table 16—Total System Costs per Unit Hour for Plans A and B

Plan	Unit Hour Cost
Plan A	$148.89
Plan B	$152.52

Thus, the reduced coverage in Plan B actually costs *more* per Unit Hour than Plan A due to the EMS Agency fee mandated in Plan B.

Plan A also maintains a response time compliance zone in Richmond, which Citygate believes is positive due to the unique workload demands in that city. It does not make sense to Citygate to include a very busy area such as Richmond with adjoining areas that are far less busy. The result could well be that the high call volume areas either suffer slow response times as units are outside the city, or the low call volume areas suffer as their units are inside the city. It would be preferable to require the contractor to balance Richmond for compliance separate from the rest of the West County.

6.5.1 Total Expense to Revenue Performance for Plan A and B

It must be remembered that the Alliance projected declines in *net* collections from 27.1% to 24.6%. Net collection declines could actually exceed that forecast if recent trends of rising deductibles and rejected payment claims continue. What also makes the projected 24.6% net revenue disturbing is that, in the decades preceding the last recession and federal health care reform, a "low" ambulance collection rate was 66%. Some communities collected more; however, no communities collected more than 90%. Because private providers may not be able to run a regional ambulance system for a profit of only 3-5%, the EMS industry is openly discussing the question, "At what net collection rate will a public subsidy be required?"

In summary, for total revenue to expense, the two plans project:

Table 17—Plan A and B Economics

	PLAN A			PLAN B		
Description	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**	**Year 1 (2016)**	**Year 2 (2017)**	**Year 3 (2018)**
Revenue	$39,184,619	$40,707,971	$42,293,630	$39,184,619	$40,707,971	$42,293,630
Expenses	$37,211,143	$38,327,477	$39,477,301	$36,741,220	$37,843,457	$38,978,760
Gain	**$1,973,476**	**$2,380,494**	**$2,816,329**	$2,443,399	$2,864,514	$3,314,870

Based on the above analysis, and our experience, Citygate offers the following:

Citygate Opinion #11 – Plan A Economics: The economic proposal for Plan A submitted by the Alliance is based on reasonable and generally conservative assumptions. Projected costs are less than conservatively estimated revenues. While there is no way to completely address the risks that are faced in the industry regarding the impact of health care reform, and trends of declining collections from insurance carriers, Plan A has a revenue safety cushion without the receipt of any GEMT supplemental revenues.

Citygate Opinion #12 – Plan B Economics: Given that Plan B provides a system with longer response times for a few less Unit Hours and small revenue cushion for the uncertainties in ambulance revenue trends, Citygate does not see a reason to implement a significant system change to, for the most part, simply generate new revenues to the County's EMS Agency. Citygate would rather see the Alliance build a larger revenue-to-cost projection to build its reserves first.

6.6 Estimate of AMR Profit and Reasonableness

During our meeting with representatives from the Alliance, Citygate confirmed that the provision for profit for AMR under the contract with CCCFPD is contained in the Expense Budgets in Appendix 16 of the bid response under the line item titled "AMR Contract Administration Fees." Citygate compared the Administration Fee to total AMR expenses before the Fee and then total expenses, including CCCFPD expenses, which are presented in the table below:

Table 18—Deployment Plan A Expenses

Description	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
AMR Contract Admin Fee	$3,375,263	$3,476,521	$3,580,517
Total *AMR* Expenses Fee	$33,752,634	$34,765,213	$35,808,170
Fee as a % of AMR Expenses	10.0%	10.0%	10.0%
Total *Alliance* Expenses Fee	$37,211,143	$38,327,477	$39,477,301
Fee as a % of Total Expense	9.1%	9.1%	9.1%

Based on discussions with representatives from AMR, this profit percentage effectively represents Earnings Before Interest and Taxes (EBIT), and actually also covers a small amount of Depreciation and Amortization for certain AMR non-field assets which were not included in the expense budgets.

Table 19—Deployment Plan B Expenses

Description	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
AMR Contract Admin Fee	$3,259,280	$3,357,059	$3,457,771
Total *AMR* Expenses Fee	$32,592,803	$33,570,588	$34,577,705
Fee as a % of AMR Expenses	10.0%	10.0%	10.0%
Total *Alliance* Expenses Fee	$36,741,220	$37,843,457	$38,978,760
Fee as a % of Total Expense	8.9%	8.9%	8.9%

Citygate Opinion #13 – AMR Profit: The AMR profit component is segregated as a separate line item in the Alliance Expense Budget, providing a level of transparency. Also, AMR allocated a reasonable 10.0% of total expenses to cover non-field Depreciation and Amortization, Interest, Taxes, and leave a reasonable level of Net Profit for AMR.

6.7 AMR Fiscal Health/Corporate Review

AMR is the nation's largest medical transportation company. AMR is a wholly owned subsidiary of Envision Healthcare Holdings, Inc. (ticker symbol EVHC). In addition to AMR, EVHC also owns a subsidiary called EmCare. EmCare is a leading provider of integrated facility-based physician services, including emergency, anesthesiology, hospitalist/inpatient care, radiology, tele-radiology, and surgery. EmCare also offers physician-led care management solutions outside the hospital.

The following are some facts about AMR obtained from its company website:

- Number of employees: 18,000+
- Number of vehicles: 4,200
- Number of states served: 40, plus the District of Columbia
- Number of communities served: 2,100
- Number of patient transports in 2014: 3 million +

Citygate reviewed the 10-K reports for EVHC as submitted with the Alliance proposal and as filed with the U.S. Securities and Exchange Commission for the years ended December 31, 2012, 2013, and 2014. Selected liquidity and profitability ratios for EVHC are shown on the following table:

Table 20—Envision Healthcare Holdings, Inc. (EVHC) Fiscal Health Measures

Item	2012	2013	2014
Days Sales Outstanding	69.1	78.4	78.9
Net revenue	$3,300,121	$3,728,312	$4,397,644
Trade accounts receivable, net	$625,144	$801,146	$950,115
Current Ratio	1.57	2.40	2.36
Current assets	$753,259	$1,082,283	$1,363,239
Current liabilities	$478,694	$451,329	$576,868
Quick Ratio	1.48	2.29	2.26
Cash and cash equivalents	$57,832	$204,712	$318,895
Securities (insurance collateral)	$24,481	$29,619	$32,828
Trade accounts receivable, net	$625,144	$801,146	$950,115
Current liabilities	$478,694	$451,329	$576,868
Debt Ratio	0.87	0.63	0.62
Total liabilities	$3,492,146	$2,690,264	$2,934,712
Total assets	$4,036,833	$4,300,017	$4,703,753
Long-Term Debt-to-Equity Ratio	4.86	1.18	1.15
Long-term debt	$2,647,098	$1,895,381	$2,025,877
Total equity	$544,687	$1,609,753	$1,769,041
Interest Coverage Ratio	1.41	1.48	3.52
Income from operations	$256,742	$276,755	$388,486
Interest expense	$182,607	$186,701	$110,505

Item	2012	2013	2014
Operating Margin	7.8%	7.4%	8.8%
Income from operations	$256,742	$276,755	$388,486
Net revenue	$3,300,121	$3,728,312	$4,397,644
Net Profit Margin	1.2%	0.3%	2.7%
Net income	$41,185	$11,495	$119,866
Net revenue	$3,300,121	$3,728,312	$4,397,644
Return on Equity	5.6%	1.1%	7.1%
Net income	$41,185	$11,495	$119,866
Average equity	$729,089	$1,077,220	$1,689,397
Return on Assets	1.0%	0.3%	2.7%
Net income	$41,185	$11,495	$119,866
Average assets	$4,036,833	$4,168,425	$4,501,885

Citygate Opinion #14 – AMR Fiscal Strength: Citygate notes that AMR national liquidity ratios stayed very consistent between 2013 and 2014, and the profitability ratios improved from 2013 to 2014. Given the diversity of ambulance costs and declining payer type payments across the country, for AMR to have stable liquidity and profit ratios showing slight improvement, it suggests AMR is weathering the ambulance industry revenue decline as well as, if not better than, the other large national providers.

6.8 CCCFPD Fiscal Health / Corporate Review

6.8.1 CCCFPD Financial Capacity

Citygate conducted a preliminary review of CCCFPD's last three financial statements. The CCCFPD provides fire and emergency medical service activities to nine cities and certain unincorporated areas in the County. The CCCFPD is principally financed by property taxes and services, such as fire prevention plan review and inspections.

Citygate's initial review showed that the finances of the CCCFPD have been improving over the past three years, with steady increases in the unassigned fund balance as well as cash. From FY 2012/13 to FY 2013/14, the cash balance increased by approximately $4.0 million. This is due to both an increase in property tax revenue and decrease in expenses.

The following tables 21 and 22 provide a snapshot of the CCCFPD balance sheet over the past three years as reported in the County's Comprehensive Annual Financial Reports (CAFR) for Fiscal Years 11-12, 12-13, and 13-14:

Table 21—CCCFPD "Balance Sheet" by Fiscal Year

Item	FY 2011-12	FY 2012-13	FY 2013-14
Assets			
Cash and investments	$23,851,000	$27,519,000	$31,508,000
Accounts receivable and accrued revenue (net)	$940,000	$689,000	$1,135,000
Inventories	$551,000	$760,000	$666,000
Due from other funds	$59,000	$51,000	$48,000
Notes receivable			
Prepaid items, deposits land held for resale	$1,355,000	$1,127,000	$1,614,000
Restricted cash and investments			
Total Assets	**$26,756,000**	**$30,146,000**	**$34,971,000**
Liabilities, Deferred Inflows of Resources, and Fund Balances			
Liabilities:			
Accounts payable and accrued liabilities	$4,593,000	$4,335,000	$4,294,000
Due to other funds	$157,000	$106,000	$118,000
Welfare program advances			
Unearned/deferred revenue	$41,000	$51,000	
Total Liabilities	**$4,791,000**	**$4,492,000**	**$4,412,000**
Deferred Inflows of Resources:			
Unavailable Revenue			**$59**
Fund Balances:			
Nonspendable	$1,906,000	$1,887,000	$1,614,000
Restricted	$12,393,000	$10,092,000	$10,623,000
Committed			
Assigned	$7,666,000	$13,675,000	$18,263,000
Unassigned			
Total fund balances	$21,965,000	$25,654,000	$30,500,000
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	**$26,756,000**	**$30,146,000**	**$34,971,000**

Over the past three years, tax revenue has grown by approximately $8.0 million, or a 10% increase. This reflects a significant growth in income and is an indication of the recovery of the

property tax revenue post-recession. It does not show how much of the tax base recovery is related to increased assessed value and how much is related to new property tax base. This can be an important distinction because new property tax base may mean housing growth that will translate into service level requirements over time.

Table 22—CCCFPD Statement of Revenues, Expenditures, and Change in Fund Balance

Item	FY 2011-12	FY 2012-13	FY 2013-14
Revenue			
Taxes	$77,270,000	$80,202,000	$85,274,000
Licenses, permits and franchise fees			
Fines, forfeitures			
Use of money and property	$31,000	$16,000	$2,000
Intergovernmental	$7,122,000	$8,226,000	$3,342,000
Charges for services	$5,372,000	$6,380,000	$6,119,000
Other revenue	$226,000	$1,541,000	$123,000
Total Revenue	**$90,021,000**	**$96,365,000**	**$94,860,000**
Expenditures			
Current			
Public safety	$93,978,000	$92,700,000	$90,033,000
Total Expenditures	**$93,978,000**	**$92,700,000**	**$90,033,000**
Excess of revenues over expenditures	($3,957,000)	$3,665,000	$4,827,000
Other Financing Sources			
Transfers in	$164,000	$24,000	$19,000
Transfers out			
Capital lease financing			
Total Other Financing Sources	**$164,000**	**$24,000**	**$19,000**
Net Changes in Fund Balance	**($3,793,000)**	**$3,689,000**	**$4,846,000**
Fund Balance at Beginning of Year	**$25,758,000**	**$21,965,000**	**$25,654,000**
Fund Balance at End of Year	**$21,965,000**	**$25,654,000**	**$30,500,000**

Although the CCCFPD appears to be making significant strides on both the revenue and expenditure fronts, there are also areas with will present significant long-term financial challenges. These include retirement contribution rates and other post-employment benefits (OPEB) primarily due to retirement health care cost underfunding and increasing health care costs.

Citygate Opinion #15 – Fire District Economic Health: Given CCCFPD's current reserves, and inclusion in the overall County tax distribution system, the CCCFPD has the funds to begin monthly payments to AMR for several months and fund other start-up costs until new ambulance billing revenue catches up to expenditures. At that point, the CCCFPD must first repay its cash advances and then build the recommended ambulance enterprise reserves before it can true up revenue to ambulance rates.

SECTION 7—FISCAL RISK CONTROL STRATEGIES

7.1 RISK CONTROL STRATEGY #1: ESTABLISH ALLIANCE CONTRACTS AS AN ENTERPRISE OPERATION

The Contra Costa County Fire Protection District (CCCFPD) is accounted for as a special revenue fund. Property taxes are the primary income source for CCCFPD's fire and emergency medical service activities. CCCFPD serves nine cities and certain unincorporated areas in the County. CCCFPD's financial activities are reported as a major fund in the County's comprehensive annual financial statement.

It is important to consider how CCCFPD will account for and manage the financial arrangement with AMR. It is beneficial to distinguish that CCCFPD's property taxes are the core revenue source for the fire and emergency medical services. Ideally, ambulance service expenses would be fully funded by transport fees. When governments engage in business-type activities where their intent is to either fully or partially recover the cost of the service, an enterprise accounting and management structure is a suitable approach.

General governmental funds often provide a focus that is proper for the flow of resources, while an enterprise fund provides a structure closely resembling a business orientation in which cost recovery is the focus. Ambulance services are financed and operated in a manner similar to a private business in which the intent of the governing body is to recover the cost (including depreciation) of goods and services to beneficiaries on a continuing basis, primarily through user fees.

Using the enterprise approach provides financial and management information that can be valuable from a public policy perspective:

- Measuring and monitoring business activity performance
- Analyzing the impact of financial and operational decisions
- Determining the full cost of providing the service
- Identifying any cost subsidy from the CCCFPD operating fund for providing the service
- Documenting short- and long-term financial inter-fund advances.

In practice, these types of governmental business funds are routinely used to account for activities where costs are fully recovered through user fees and charges (such as water, trash collection, and wastewater operations). They are also used for activities in which the primary source of financing comes from subsidies rather than user charges (such as transit operations).

Enterprise funds are reported using a flow of economic resource measurements as well as a full accrual basis accounting system. These are the same financial measurements used in commercial enterprises. Revenues are recognized when they are earned and expenditures are recognized as soon as the liability is incurred. This approach provides a proper platform for cost recovery purposes. In most cases the use of enterprise funds is permitted rather than required; however; Citygate believes, in this case, its usage would represent a best practice from a perspective of full cost recovery and transparent public policy accountability.

7.2 Risk Control Strategy #2: Establish a Significant Reserve Fund of 6 Months of Revenues Plus a Capital Equipment Replacement Reserve

Reserve policies are a critical element in any business plan. The most critical questions are always, "What level of reserve is adequate to meet the needs of a particular type of reserve? When are reserves either too high or too low?" Insufficient reserve levels could jeopardize CCCFPD's long-term financial sustainability, and unwarranted levels of reserves could impact the cost-effectiveness of services and ultimately undermine constituent confidence.

There are a variety of reasons to establish reserves, including:

- To handle cash flow challenges
- To provide insulation from economic impacts
- To maintain equipment and infrastructure (deferred maintenance)
- To meet bond/debt-related requirement
- To fund liabilities
- To bolster emergency preparedness
- To provide fee/rate stabilization for business activities
- To fund investments/opportunities in the future.

Evaluating reserve policies is a continual process, and reserve policies should be evaluated annually as part of the budget plan. These policies are closely tied with the economy and service delivery environment. Reserve policies cannot be adequately developed without a complete understanding of the CCCFPD's core service requirements and significant cost and revenue drivers. It is particularly important that the reserve policies be continually evaluated and refined as additional operations, performance, revenue, and cost information are developed.

CCCFPD's cash flow needs are similar to many special districts that derive their primary funding from property tax revenue. This source of funding is the typical means for supporting special district public safety-related activities, including fire protection services. CCCFPD receives the first property tax payment in late December. The lag time between the start of the fiscal year

(July 1st) and the first property tax payments received leaves a six-month dry financing period. Most of CCCFPD's employee-related expenses are consistently spread over the fiscal year. For CCCFPD to be a self-sustaining financial entity, it needs enough available cash to make it through the end of the fiscal year to the first property tax payment, assuming that it does not want to utilize restricted fund balances.

To monitor cash flow, an understanding of the month-to-month timing of revenue receipts and expenditure patterns is required. Fortunately, during the "dry period financing," between the receipt of property taxes, the County can simply charge the CCCFPD its pooled cash investment rate for short-term borrowing in order to meet typical cash flow needs.

The projected January 2016 start date in the Alliance proposal will provide a fiscal advantage because the CCCFPD will have received its first property tax payment. This will provide an additional cash flow cushion. A successful billing and collection process will be a critical factor in the cash flow requirements. Cash flow must be able to fund the difference between the monthly CCCFPD payments to AMR and received and accumulated transport revenue.

Given these anticipated cash flow challenges due to the periodic nature of revenue, the unknown financial risks associated with ambulance billing, and the changing and uncertain economics of the health care landscape, the Alliance should build a 6-month reserve for cash flow purposes. While monitoring cash flow will be a critical element of managing the AMR contract, it appears that the transport revenue collection model provides a reasonable starting point to understand the fiscal relationship between revenue collections and AMR contract payment.

Another critical component is equipment and infrastructure replacement funds. This component of the business plan should also have adequate reserve levels to meet the future needs of CCCFPD and should be supported by a multi-year capital replacement programs that details these future needs. From a long-term financial sustainability perspective, this represents a best practice.

Several other liabilities are important considerations for CCCFPD fire protection cost to revenue balance; those include equipment and infrastructure replacement, liabilities for pension related costs, sick leave, vacation, and other post-employment benefits (OPEB). To CCCFPD's credit, it has made progress on OPEB and pension liabilities and has improved its funding payments to these obligations annually.

CCCFPD's primary operating fund, and the Alliance enterprise fund, need established reserve policies. Initially, CCCFPD may be required to subsidize the Alliance enterprise fund, but this subsidy can be reimbursed at a later time. These subsidies need to be booked on each fund's balance sheet.

7.3 Risk Control Strategy #3: Eventually Calibrate Transport Fees to True Costs through Audits of Expenses and Adherence to Stipulated Contract Provisions

With the enterprise fund established, the Alliance can better understand its costs. It should take the time to carefully determine its direct and indirect costs, including equipment and infrastructure. Because this can be even more complicated if costs are part of a General Fund operation, it may be beneficial to hire a firm to conduct a Cost of Service Fee Study.

7.4 Risk Control Strategy #4: When Revenues Exceed Needed Reserves, Consider Lowering Transport Fees, Not Cross-Subsidizing Non-Alliance CCCFPD or County EMS Agency Operations

The CCCFPD operation is primarily financed by property tax revenue and fees from fire prevention plan review and fire inspections. CCCFPD is a special revenue fund and is accounted for in the Contra Costa County comprehensive annual financial statements as a major fund. An enterprise fund established to account for transport services would be a separate and distinct accounting entity with a separate balance sheet, revenue budget, and expense budget. There may be certain CCCFPD employee costs that are allocated to the Alliance enterprise fund for direct and indirect services. These charges need to be carefully documented and justified because they may be eligible to become part of the transport fees base. Costs that are part of the basic/core fire protection operations should not be part of the ambulance fee structure. This cross-subsidization would violate the basis for establishing proper fees and charges in an enterprise fund. Any such inter-fund activity needs to be thoughtfully accounted for and budgeted.

Citygate believes it would be imprudent to, under the decreased deployment capacity in Plan B, pay $750,000 up front to support County EMS Agency functions instead of saving for a reserve fund and then, if fiscally secure, lowering rates to individuals and insurance companies. The older systems that removed revenues for County EMS, dispatch, and first responder fire department functions are now under the worst economic stress. Additionally, the insurance company payers simply will not support $2,500+ ambulance bills. The revenues in the system should first offset a medically necessary transport system, not other community health services or EMS agency oversight services.

If a subsidy is needed for a county EMS oversight operation, a public policy debate is needed to determine the funding source (several are available for a county to use). Additional non-transport costs should not be placed on the ambulance provider, and a new public subsidy should not be considered the fault of the ambulance company. With good fiscal practices for the ambulance contract, if for *direct costs* the ambulance provider cannot stay solvent, then a county can make a straightforward case to the public for a *transport* subsidy.

7.5 Risk Control Strategy #5: Establish a County Board of Supervisors and CCCFPD "Compassionate" Set of Billing Policies for CCCFPD-Managed First Responder and Ambulance Revenue Collection to Include a Write-Down and Write-Off Policy

Through the AMR Compassionate billing program, a patient requesting a Compassionate billing discount applies to AMR, which then verifies the applicant's income level and insurance coverage. If the applicant meets AMR's criteria for a Compassionate billing discount, the applicant is informed as to the amount of the discount. In Contra Costa County and other services areas, AMR's Compassionate billing policies have been well regarded by members of the Board of Supervisors, EMS agencies, and the public.

The County EMS Agency currently informs the public about the effective AMR Compassionate billing policy. However, since that program is AMR's, not County Board of Supervisors policy, if the Alliance proposal is implemented, CCCFPD, as the billing entity, should adopt its own policy to legally guide its billing contractor.

Citygate recommends the County policy to be identical or similar to the one AMR currently uses.

SECTION 8—OPINIONS SUMMARY AND IMPLEMENTATION RECOMMENDATIONS

8.1 CITYGATE'S OPINIONS

Listed here for ease of summary reading are Citygate's Opinions:

Citygate Opinion #1 – Alliance Economic Risk: It is undisputed that 9-1-1 ambulance system revenues are falling to the point where some, if not all, systems will no longer be able to operate without a public subsidy as many have for over 30 years. The choice before Contra Costa County is whether the Board wants to more fully be involved in managing the contractor via the CCCFPD, and if a revenue collapse is inevitable, be able to detect the problem with enough time to develop and implement thoughtful mitigation measures.

The other option is to operate the existing type of contract model and hope the private provider would provide enough notice before default. Ultimately, taxpayers are the fallback resource to fund 9-1-1 ambulance services. If ultimately the ambulance system needs an allocation of CCCFPD or County general discretionary resources to stabilize ambulance services, that could force the reduction of services in other areas. Monitoring and understanding how this issue evolves is critical if the County is to minimize the impact of a potentially damaging ambulance fiscal shock wave.

Citygate Opinion #2 – Plan A Deployment Hours: Citygate's extensive review of the incident demand data by zone, hour of the day, and day of the week found the proposed Alliance deployment plan capable of meeting the current needs of the requested Plan A.

Citygate Opinion #3 – Plan B Deployment Plan Hours: Citygate's extensive review of the incident demand data by zone, hour of the day, and day of the week found the proposed Alliance Plan B insufficiently documented regarding where the reductions and resultant reduced response times occur. *As such, it is not possible to state whether the plan will meet the response time objectives for the cost proposed.*

Citygate Opinion #4 – Plan A Response Time: Given the historical response time compliance reported by AMR under the current contract, as well as the increased Unit Hours in the Alliance Deployment Plan, Citygate is of the opinion that the Alliance can maintain the desired response time goals of the requested Deployment Plan A.

Citygate Opinion #5 – Plan B Response Time: The response time compliance for Plan B cannot be benchmarked to current system compliance given the change from four to three zones and a relaxation of response time measures. Citygate would *strongly encourage the County* **not** to implement Plan B all at once, if at all. If chosen for implementation, the Alliance should be allowed to test some reductions in some areas and then, based on closely-observed metrics, make

adjustments. This measured, incremental approach is consistent with the values of Continuous Quality Improvement (CQI).

Citygate Opinion #6 – Alliance Logistical Staffing Expense: Given the staffing provided by AMR, and a verbal confirmation that AMR support services staffing will remain the same as in the current contract, the CQI, training, and community education staff appears appropriate for the size of the projected *AMR* operation. CCCFPD will continue to separately manage the training and CQI for its firefighter/paramedics, as it does currently.

Citygate Opinion #7 – Number of Transports Volume: Given the conservative projection of total transports for at least Contract Year 1 (2016), we find that the Alliance proposal had not inflated transport projections upon which to base revenues. If anything, the projections could end up being slightly low, thus providing a possible economic cushion by 2017.

Citygate Opinion #8 – Net Collections: The Alliance's approach in projecting Average Patient Charges (APC) and expected net collections by payer type is both conservative and prudent. The question of payer mix is one of the most difficult aspects of this projection given the uncertainties surrounding health care reform. AMR believes that much of the change resulting from the ACA has already been reflected in the 2014 payer mix data and that projecting the status quo is the most prudent course of action at this time. While this approach is reasonable, we believe that continued deterioration of net collections due to changes in payer mix and increases in the number of high deductible health plans remains one of the largest risks going forward, and one that will need to be evaluated in light of other risks and opportunities in the Alliance projections.

Citygate Opinion #9 – Fee for Service GEMT Availability: Citygate will not attempt to predict which of CCCFPD's costs DHCS will or will not allow for GEMT reimbursement, as the scope of the Fire Department / Ambulance Company / Billing Contractor hybrid has not been tried yet in California, to our knowledge, since the inception of the GEMT program. Therefore, given that the CCCFPD has just obtained DHCS's national provider number and must still apply to DHCS, the Alliance approach to not assume any GEMT reimbursement in its fiscal pro-forma was the correct, conservative approach.

Citygate Opinion #10 – HMO GEMT: There is no near-term assurance in Contra Costa County that the IGT program for Medi-Cal *Managed Care* beneficiaries will become available. As such, the Alliance decision to not depend on GEMT funds for Medi-Cal *Managed Care* is correct.

Citygate Opinion #11 – Plan A Economics: The economic proposal for Plan A submitted by the Alliance is based on reasonable and generally conservative assumptions. Projected costs are less than conservatively estimated revenues. While there is no way to completely address the risks that are faced in the industry regarding the impact of health care reform, and trends of declining collections from insurance carriers, Plan A has a revenue safety cushion without the receipt of any GEMT supplemental revenues.

Citygate Opinion #12 – Plan B Economics: Given that Plan B provides a system with longer response times for a few less Unit Hours and small revenue cushion for the uncertainties in ambulance revenue trends, Citygate does not see a reason to implement a significant system change to, for the most part, simply generate new revenues to the County's EMS Agency. Citygate would rather see the Alliance build a larger revenue-to-cost projection to build its reserves first.

Citygate Opinion #13 – AMR Profit: The AMR profit component is segregated as a separate line item in the Alliance Expense Budget, providing a level of transparency. Also, AMR allocated a reasonable 10.0% of total expenses to cover non-field Depreciation and Amortization, Interest, Taxes, and leave a reasonable level of Net Profit for AMR.

Citygate Opinion #14 – AMR Fiscal Strength: Citygate notes that AMR national liquidity ratios stayed very consistent between 2013 and 2014, and the profitability ratios improved from 2013 to 2014. Given the diversity of ambulance costs and declining payer type payments across the country, for AMR to have stable liquidity and profit ratios showing slight improvement, it suggests AMR is weathering the ambulance industry revenue decline as well as, if not better than, the other large national providers.

Citygate Opinion #15 – Fire District Economic Health: Given CCCFPD's current reserves, and inclusion in the overall County tax distribution system, the CCCFPD has the funds to begin monthly payments to AMR for several months and fund other start-up costs until new ambulance billing revenue catches up to expenditures. At that point, the CCCFPD must first repay its cash advances and then build the recommended ambulance enterprise reserves before it can true up revenue to ambulance rates.

8.2 IMPLEMENTATION RECOMMENDATIONS

Based on our Opinions and Fiscal Risk Control Strategies, Citygate recommends the CCCFPD, AMR, and the County EMS Agency pursue final implementation contracts, and offers the following best practice-based recommendations to guide this process:

1. Fully identify the fiscal relationship between the parties, their separate fiscal exposure for each other's decisions (such as staffing levels), and start-up capital costs.

2. Board policy should require that ambulance loss risk only be transferred to the taxpayer for unforeseen, catastrophic losses, as would be the case in the current system if the ambulance contractor were to fail.

3. Fine the contractor only for material breach, not small, per-minute fines.

4. Rather than fine for small response time misses, require that the deployment plan account for equitable response time coverage for similar land use and population

densities. Then if the Alliance delivers the required response time performance, only gross neglect to deploy or respond should trigger a fine and/or lead to default.

5. Define in the contract between the County EMS Agency and the CCCFPD a clear delineation of roles, responsibilities, and authorities as it pertains to operational authority and regulatory oversight.

6. Require the CCCFPD to report to the Board of Supervisors quarterly on response times, payer mix, and a rolling revenue-to-date report and near-term revenue-to-expense forecast.

7. Annually require an independent audit of the revenues to expenses and the viability going forward of the contract terms. Once ambulance reimbursements settle under health care reform, the formal audits could possibly move to two-year cycles.

APPENDIX A—LIST OF ACRONYMS

The following list of acronyms occurs throughout the report:

911EOA	9-1-1 Exclusive Operating Area *Sometimes referred to as Exclusive Operating Area or EOA*
ACA	Affordable Care Act *Sometimes referred to as PPACA, and sometimes called Covered California*
ALS	Advanced Life Support
AMR	American Medical Response, West
APC	Average Patient Charges
BLS	Basic Life Support
CCCFPD	Contra Costa County Fire Protection District
CMS	Centers for Medicare and Medicaid Services
CPE	Certified Public Expenditures
CQI	Continuous Quality Improvement
EBIT	Earnings Before Interest and Taxes
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
EOA	Exclusive Operating Area
ERZ	Emergency Response Zone
EVHC	Envision Healthcare Holdings, Inc
GEMT	Ground Emergency Medical Transport
HDHP	High Deductible Health Plan
HMO	Health Maintenance Organization
IFT	Inter-Facility Transfers
IGT	Intergovernmental Transfers
LEMSA	Local Emergency Medical Services Agency
NPI	National Provider Identification
NRT	Net Revenue per Transport
OPEB	Other Post-Employment Benefits
PPACA	Patient Protection and Affordable Care Act *Sometimes referred to as ACA, and sometimes called Covered California*
PSAP	Public Safety Answering Points
QA	Quality Assurance
RFP	Request for Proposal
SPA	State Plan Amendment
UCR	Usual and Customary Rates