VOLUNTEER EMS SQUADS
VB RESCUE COUNCIL

Council of Virginia Beach Volunteer Rescue Squads, Inc.

Virginia Beach, VA

EMS COST RECOVERY RESEARCH & FEASIBILITY STUDY

July 2024

AP TRITON
VISION · INNOVATION · SOLUTIONS

CONTENTS

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Our sincere appreciation is extended to each of you:

Virginia Beach Volunteer Rescue Squads

Blackwater Volunteer Rescue Squad

Chesapeake Beach Volunteer Rescue Squad

Creeds Volunteer Rescue Squad

Davis Corner Volunteer Rescue Squad

Kempsville Volunteer Rescue Squad

Marine Rescue Team

Ocean Park Volunteer Rescue Squad

Plaza Volunteer Rescue Squad

Princess Anne Courthouse Volunteer Rescue Squad

Sandbridge Volunteer Rescue Squad

Virginia Beach Volunteer Rescue Squad

EXECUTIVE SUMMARY

The Council of Virginia Beach Volunteer Rescue Squads, Inc., contracted with AP Triton, LLC (AP Triton) to conduct an Emergency Medical Services (EMS) Cost Recovery Study. The City of Virginia Beach provided half the funding for the study.

The study conducted an overview of the current service delivery system and organization structure that provides pre-hospital medical care to the citizens and visitors of Virginia Beach. A review of the EMS staffing and personnel of the ten volunteer rescue squads, Marine Rescue Team, and the Department of EMS found the system has 165 employees of VBEMS and approximately 500 volunteers, of which 290 volunteers are certified to fill positions on ambulances. The number of active volunteers has decreased since 2019 for various reasons, including COVID and the time needed for training, increased call volume, and not being allowed to leave work.

The Commonwealth of Virginia has granted the City the authority to establish an emergency medical system and to charge for services. The rescue squads are authorized entities of this system and have provided services to Virginia Beach and its visitors at no cost. Donations to rescue squads, grants, and General Fund revenue have been utilized to sustain service delivery.

To address the problem of fewer volunteers, both the Virginia Beach Department of EMS and the Virginia Beach Rescue Squad Foundation have dedicated funding and staff to address this declining number of volunteers. The City provides numerous volunteer benefits such as training, tax and fee relief, and awards and recognition. The City has also increased the number of career EMS providers to staff additional ambulances and provide essential services.

A major study component was determining the system's value or how much revenue could be collected if billing for services is implemented. AP Triton reviewed historical call volume and transport rates for Virginia Beach to determine the estimated revenue. Another component was to estimate the payor mix, which are the principal agencies, institutions, or individuals responsible for reimbursing ambulance transport costs to determine the type and number of patient transports and interactions. The primary payor categories are Medicare, Medicaid, commercial insurance, and private pay. To further estimate revenue, the type of transport (BLS or ALS) was necessary to determine the billable rate charged to public or private insurance companies.

A comparative survey reviewed other regional ambulance fees to determine the billing rates. A median fee was developed based on other amounts charged by these jurisdictions to calculate the system's value based on the payor mix for Virginia Beach.

The valuation estimation of VBEMS transports was based on the following if there is a charge for services:

- 2024 estimated transports of 39,052
- a $13 per mile charge
- a $583 BLS base charge/average ALS charge of $701

The system's value for 2024 is projected using a 4.2% increase in call volume and a 70% transport rate. The valuation and collection rates were based on the source of revenue, the number of transports, gross billing, any adjustments, net collections, and a fee of 5% for a billing company, totaling approximately $14 million.

There are two options available for billing for services. One option is to use an in-house method that requires the hiring and training of additional personnel. The second option is to hire a third-party collection agency, which would charge a fee depending on the services provided by the agency. Although an outside agency collects the fees, there is still a need for some in-house staff to be local contacts for hospitals and other medical facilities. The city and the volunteer rescue squads would need to develop a plan for using and distributing EMS billing proceeds.

The study revealed that the rescue squads are woven into the culture of Virginia Beach, and the use of volunteers still exists. In many primarily volunteer systems, it is common for agencies or organizations to evolve into a fully staffed professional workforce. The declining donations, volunteers, and increased costs of ambulances and equipment have impacted the current system of EMS in Virginia Beach. Another significant change is the new pharmacy program that allows Virginia Beach EMS to be the sole provider of Schedule 2 through 6 drugs used by the system. This will require additional funding and staff to administer the program.

Because transport billing has never occurred, the valuation of the system is based on estimations and projections with existing data. Before determining a budget based on these projections, training, learning, identifying, and billing are necessary to ensure an accurate revenue estimate.

The following options are provided:

- Continue the current system of not billing for services, which solicit donations from the public and support from the City of Virginia Beach. If this option is selected, there will be no change to the system. It will not receive revenue that the citizens pay as part of their insurance premiums.
- Develop a billing system for services rendered by the rescue squads and VBEMS with no co-pays, only bill public and private insurance, and not send any billing statements to the patient.
- Create a billing system with the patient responsible for the co-pays for the rescue squads and VBEMS services for non-residents of Virginia Beach. This option provides compassionate billing to all residents of Virginia Beach but bills all non-residents for services rendered not paid by public or private insurance.
- Create a billing system with the patient responsible for the co-pays for the rescue squads and VBEMS services. This option sends billing statements to residents and non-residents for services not paid for by public or private insurance.

INTRODUCTION

The Council of Virginia Beach Volunteer Rescue Squads, Inc. (Rescue Council) commissioned AP Triton to explore the cost recovery options for emergency medical transports. Utilizing a data-driven and consultative approach, the AP Triton team executed an in-depth study, focusing on financial analysis of an EMS system valuation, compassionate billing, and strategic options for reimbursement.

Currently, emergency medical transport services within the City of Virginia Beach (COVB) jurisdiction are provided free of charge. The Rescue Council and the City of Virginia Beach agreed to share the cost of the service contract with AP Triton. This partnership aims to explore the causal implications of implementing a cost recovery scenario for EMS transport valuation.

Methodology

AP Triton began with a virtual consultation with the project team to understand the organization's goals, challenges, and expectations. AP Triton proceeded to collect all requisite data and performed a meticulous analysis of the organization's financial and operational landscape.

Background and Significance

The City of Virginia Beach is located in the southeastern region of Virginia. Known throughout the eastern United States for its expansive, lush coastline and vacation properties, Virginia Beach features over 30 miles of beach, attracting millions of tourists annually. This tourism-driven economy has fostered a vibrant downtown and created significant economic opportunities for local businesses and job seekers.

A popular vacation destination, Virginia Beach is highly sought after by residents of the regional and northeastern United States and serves as the heart of the local economy. Additionally, the City hosts a joint military Naval Base, employing thousands of active-duty and civilian military personnel, whose families also reside in the area.

Council of Virginia Beach Volunteer Rescue Squads

The Rescue Council is a highly respected and well-supported association within the Virginia Beach community. Established in 1975, the Council has provided life-saving emergency medical treatment and transport to citizens for over 33 years. In 1991, the Rescue Council merged with the Emergency Coronary Care Program to enhance its services further.

In addition to supplying volunteer personnel for emergency response, the Rescue Council coordinates fundraising efforts to financially support participating volunteer rescue squads. Funds raised by these volunteers are used to purchase life-saving supplies, equipment, and ambulances.

Section I:
EMERGENCY MEDICAL SERVICES SYSTEM OVERVIEW

EMS SYSTEM OVERVIEW

Ten rescue squads operate throughout the City, supported by the City's EMS system. The volunteer rescue squads fund their organization through donations, fund drives, grants, and both direct and indirect funding from the City. The rescue squads listed here, plus the Marine Rescue Team, operate under the oversight of the City of Virginia Beach.

- Blackwater Volunteer Rescue Squad
- Chesapeake Beach Volunteer Rescue Squad
- Creeds Volunteer Rescue Squad
- Davis Corner Volunteer Rescue Squad
- Kempsville Volunteer Rescue Squad
- Ocean Park Volunteer Rescue Squad
- Plaza Volunteer Rescue Squad
- Princess Anne Courthouse Volunteer Rescue Squad
- Sandbridge Volunteer Rescue Squad
- Virginia Beach Volunteer Rescue Squad

Each of the ten rescue squads are independent 501(c)(3) nonprofit organizations that purchase the ambulances to support the system. Of the ten rescue squads, only two own their stations. The other eight rescue squads operate from the City of Virginia Beach Fire and EMS facilities. The rescue squads own all 38 ambulances and receive financial support from the City, such as vehicle maintenance and fuel. There is also a Marine Rescue Team.

Before a volunteer member can participate, they must be approved by the Virginia Beach Department of EMS (VBEMS). When the volunteer wishes to fill a shift, the rescue squad and the VBEMS manage the process.

The current EMS system does not bill for services. Funding to operate the system comes from the City's general fund and donations from the rescue squads.

Virginia Beach Department of EMS (VBEMS)

The VBEMS was created in 1984. The department has 165 full-time employees who assist the volunteer rescue squads with support and staffing. EMS staff fill ambulance shifts, zone cars (ALS quick response vehicles), field supervisors, command duty officers, and executive leadership.

The department has six divisions: services, operations, special operations, integrated healthcare services, member services, and volunteer rescue.

The department is now the state-recognized Dedicated Emergency Response Agency for the City. In this role, the City provides system-wide medical direction, protocol development, Virginia Office of EMS agency licensure and compliance, new member onboarding and training, operational policies, continuing education, advanced life support education, career human resources administration, volunteer recruitment, grant program(s) administration, centralized patient care records, and continuous quality improvement programs as needed.

The department also administers capital improvement projects for the City and the rescue squads and supports centralized purchasing programs for fuel, insurance, occupational health services, limited medical supplies, fleet management, and risk management. VBEMS operates lifeguard services for five ocean beaches and the Marine Rescue team.

The VBEMS manages numerous types of vehicles and support vehicles, including utility terrain vehicles, zone cars, utility vehicles, boats and trailers, and heavy cargo trailers. The City of Virginia Beach funds this fleet.

Organizational Structure

Several elements of the EMS system in Virginia Beach include the Rescue Council, VBEMS, ten rescue squads, and the Marine Rescue Team. Other partners include the Virginia Beach Fire Department, the Virginia Beach Rescue Squad Foundation (Foundation), and the non-emergency transport agency.

Rescue Council

The Virginia Beach Volunteer Rescue Council consists of the ten rescue squads, the Marine Rescue Unit, the Chief of the EMS Department, and the Foundation's Executive Director. The Rescue Council develops consensus policies regarding the EMS system and provides advice and recommendations to the VBEMS Chief and the City Manager on how the system operates. The Rescue Council accepts and generates revenue under the Virginia Beach Volunteer Rescue Council's name. The funds belong to the member agencies.

EMS STAFFING AND PERSONNEL

The VBEMS system consists of the VBEMS, ten volunteer rescue squads, and a Marine Rescue Team. The VBEMS has 165 full-time employees. The eleven rescue squads have over 500 volunteers, with 290 certified and authorized as paramedics or Emergency Medical Technicians (EMTs) on the ambulances.

The full-time staff of VBEMS provides the medical direction for the entire VBEMS system, along with system education, risk management, quality assurance and improvement, onboarding of career staff and volunteers, volunteer recruitment, Virginia Office of EMS licensure and compliance for all agencies, protocol development, grant administration, and the maintenance and administration of the centralized patient care reporting system. They oversee the administration of capital projects for the entire EMS system. It provides fuel, fleet maintenance, insurance, and occupational health services for all agencies within the system. VBEMS also provides lifeguard services to the five ocean beach areas and maintains a team to handle marine responses.

Uniformed personnel of the VBEMS may be assigned to various roles, including ambulance shifts, ALS quick response vehicles, field supervisors, EMS command duty officers, or division chiefs. When there are not enough volunteers to staff the ambulances, EMS employees assigned to ambulance shifts are assigned to the ambulances owned by the volunteer rescue squads. Ambulance staffing configurations can include two volunteers, two uniformed paid members, or a combination of one uniformed paid member and one volunteer.

Volunteer scheduling is a collaborative effort between the VBEMS and the volunteer rescue squads. While on duty, volunteers are under the operational control of the VBEMS agency. This arrangement means that volunteers are effectively serving two agencies simultaneously, as the VBEMS and the volunteer rescue squads operate both independently and in coordination.

City EMS leadership reports that it requires fifty volunteers or ten career staff to fully staff one ambulance 24 hours a day, 365 days a year. As of March 2024, VBEMS has 288 volunteers listed as Attendants in Charge (AIC) or eligible to ride on the ambulance. They also report 117 budgeted full-time equivalents specifically allocated for ambulance and field supervisor staffing, though not all positions are currently filled.

According to the minimum staffing policy, optimal ambulance staffing is as follows:

- 0900 to 2100 hours: 18 to 20 ambulances (16 minimum, 14 critical)
- 2100 to 0000 hours: 16 to 18 ambulances (14 minimum, 12 critical)
- 0000 to 0900 hours: 14 to 16 ambulances (12 minimum, 10 critical)

Additionally, staffing must include a Command Duty Officer and at least three Field Supervisors, with at least one being an EMS Captain. The staffing goals also aim to provide at least one paramedic Zone Car for every three basic life support (BLS) ambulances on duty. Callback personnel are not typically used to staff a Zone Car.

To maintain baseline staffing of eighteen ambulances and keep Unit Hour Utilization (UHU) below 50%, the Department of EMS has requested additional staffing to place three more ambulances on the street 24/7. This requires 150 volunteers or 30 career staff members. VBEMS has requested funding for 16 career staff and a recruitment and retention program for both volunteers and career staff in the upcoming fiscal year 2024-2025 budget. However, the proposed city budget released in March 2024 does not support funding for these initiatives, which total $1,546,173.

Recruitment and retention of both volunteers and career staff are crucial for the success of the VBEMS system. VBEMS has reported a decrease of fifty total volunteers since 2020, including a decrease of forty-one volunteer Attendants in Charge since December 2023. This reduction equates to nearly the staffing required for an entire ambulance operating 24 hours a day.

Section II:
EMS SYSTEM VALUATION

PAYOR MIX AND COLLECTION RATES

Payor mix and collection rates are two key components in the transport cost process. These concepts are integral to the "language" providers use when discussing cost reimbursement. Understanding and accurately recording data related to these concepts is vital for VBEMS, as it can directly impact the effectiveness and value of reimbursement efforts.

Payor Mix

Payor mix describes the principal entities responsible for reimbursing ambulance transport costs. The transport reimbursement process operates on a straightforward principle: a service is provided, and the responsible parties are billed for that service. Patients are broadly classified into four principal payor categories, each serving as a cost center for reimbursement:

1. **Medicare**: Predominantly serving individuals aged 65 and above, Medicare forms a substantial part of the healthcare coverage landscape.
2. **Medicaid**: This federal program provides coverage for qualified individuals and families, primarily those earning up to 138% of the federal poverty level.
3. **Commercial Insurance**: Primarily employer-sponsored but also available for individual purchase, commercial insurance plans constitute another significant payor group.
4. **Private Pay**: This category applies to patients without any form of insurance coverage.

These four payor groups are further analyzed by the volume of transport they account for and their percentage of the total yearly transports. This report will also provide estimates for the 2024 calendar year, including total transports and payor mix percentage distribution.

Medicare

Medicare typically constitutes the most significant portion of a system's payor mix because it covers everyone over 65. There is a cap on what can be billed for Medicare patients, currently set at $686.92. Medicare typically pays 80% of this amount, or $494.19. An additional co-pay can usually be collected at about a 30% rate.

For example, if a system's average charge for service is $1,000, Medicare will pay $800, and the patient will have a co-pay of about $200, depending on their coverage. If the system were to charge $2,000, the payment and co-pay for the patient would remain the same due to the billing cap. Therefore, most rate increases by the city would not impact this payor mix, nor is it necessary to require payment of the co-pay.

Medicaid

In Virginia, Medicaid is provided by the Virginia Department of Medical Assistance Services (DMAS) and is crucial for offering coverage to more than one in five Virginians. Medicaid is designed for individuals living below the poverty line or with significant disabilities. Some elderly individuals qualify for both Medicare and Medicaid, known as Medi-Medi beneficiaries.

Like Medicare, there is a cap on what Medicaid will pay, regardless of the charges incurred. This cap is approximately $280.00. Additionally, Virginia Medicaid members have access to behavioral health and other benefits provided under the service.

Commercial Insurance

This payor mix category includes individuals with medical insurance obtained through employment, private purchase, or other means. Private insurance typically does not dispute the fees for ambulance transportation, resulting in an estimated reimbursement rate of 80%. Commercial insurance pays a usual and customary rate based on the charges incurred.

For instance, if Virginia Beach charges $1,000 for an ALS transport, most commercial insurance plans will cover at least 80%, or $800. The remaining 20%, or $200, would be the patient's co-pay and could be waived by the agency if desired.

Private Pay

This payor mix category includes individuals who do not qualify for Medicaid, have not applied for it, and do not have commercial insurance. Because this group encompasses a wide range of income levels, it includes both individuals with minimal income and those with above-average income. Historically, this demographic often consisted of self-employed individuals and employees of smaller companies that did not provide insurance.

As a result, this payor mix includes those who can afford the total ambulance transportation costs as well as those who cannot afford to pay any part of the fee. Also within this group are individuals who can make payments and those who may negotiate settlements for a partial amount.

Because this group comprises such economic diversity, it is typical to see an aggregate reimbursement rate of 5% of the complete collection for this payor mix. However, with the implementation of the Affordable Care Act, this demographic is continuing to transition to the insured category.

FINANCIAL RESOURCES AND REIMBURSEMENT

EMS Transport Provider Financing

Understanding health care system financing, and more specifically, the EMS transport reimbursement process, is considered by many to be complex. Independent government and private sector concerns play major roles in determining transport reimbursement costs and rates associated with EMS transport reimbursement. By their monetary power, these payor groups often establish financial floors and ceiling limits that EMS transport providers must follow.

The U.S. healthcare system, as we know it, is one of the largest civilian industries in this country. This system, in its entirety, exchanges hundreds of millions of dollars in billable or collectible services from patients and providers daily. Although the industry is complex, the actual financial processes for transacting receipts and expenses within this system are not as complicated as one may think.

Most of our national system's usage consists of doctor offices and medical groups, which service most Americans' simple and routine healthcare needs. Subsequently, America's healthcare billing and collection functions are handled by the same staffers who provide care to the patient. Although the scope of their scale is smaller and often narrower in the billing categories compared to the larger medical groups or hospitals, these smaller healthcare providers use the same 68,000 billing codes to complete the day-to-day billing transactions. This background information is relevant when considering the difference between EMS transport providers and the national healthcare system's financial complexities.

EMS and ambulance billing processes are significantly narrower in scope and depth than the national system. History has demonstrated this task is more manageable for EMS providers. The entities governing transport reimbursement resources impose their payable rates and limits on the demographic group they serve. This "payor mixture," whose services are described previously, includes four primary categories that account for most of the transport reimbursement language and payables to the providers. Additional categories, such as workers' compensation, auto insurance, travel insurance, the Affordable Care Act (ACA), Tricare, co-pays, and deductibles, also contribute to transport revenues, but the four mentioned above are the primary leaders.

Unlike the general health care system that must categorize the billable service into one of 68,000 (International Classification of Disease) ICD-10 codes, ambulance billing, under direction from the Centers for Medicare and Medicaid Services (CMS), uses a "bundled" billing process. A service bill should contain only the general services provided and not an itemized service bill.

Decades of experience in EMS-based transports have revealed no secrets in ambulance billing. Although the billing process is managed by many public-based organizations nationwide, this should not be taken lightly. When an agency chooses not to provide billing in-house, the most logical choice is to use an outside billing company specializing in billing EMS and ambulance services. Numerous companies offer this service for not just public providers but also private ambulance providers. Regardless of whether a transport provider is a public or privately based agency, the reimbursement process and monetary amounts are the same.

Determining the Value of an EMS System

Numerous factors impact the value of an EMS transport system. The monetary value of the system refers to how much money, in terms of cost recovery, can be recognized from the given number of patient transports an agency provides.

A fixed amount of cost recovery is available to all providers regardless of their public or private status, often called the cap. There is some disparity in the revenue collected amongst various providers because of two main areas: billing and collections.

Documentation

The documentation provided by a paramedic on the patient care report (PCR) plays a significant role in the collection rate or payor reimbursement achieved by the provider. One area often overlooked is the proper training of field units in the documentation process that accurately reflects the actual assessment and treatment provided on scene. These actions will capture the correct reimbursement rate.

Reimbursement, primarily through Medicare and Medicaid, is based upon the patient's needs and is not reimbursed simply because the patient called for transport. Many calls that should be billed and paid at an Advanced Life Support (ALS) rate are often returned at the Basic Life Support (BLS) rate. Some that should have been collected at the ALS or BLS rates are not found to meet any reimbursement criteria and are left unpaid due to inaccurate or incomplete documentation. Accurate documentation can increase revenue in an area where the service is already being provided.

Transport Rate

The transport rate, defined as the ratio of patients transported to total responses, indicates potential revenue capacity. Agencies with higher transport rates are typically more successful in securing reimbursements due to their increased volume of eligible and allowable billing activities.

The number of responses in Virginia Beach was reviewed using the previous four years' annual EMS responses and transports as data sets. Those four years showed a ratio of approximately 70% of EMS responses resulting in patient transport to the hospital. The historical data also shows a current trend of a 4.2 % annual increase in total EMS responses. Those two percentages will be used further in the analysis when reimbursement and transport projections are presented.

Figure 1: Virginia Beach Historical Call Volume & Transport Rate

Year	Total EMS Calls	Transports
2020	47,555	34,429
2021	49,294	34,374
2022	54,943	37,006
2023	53,570	37,677
Average Transport Rate		**70%**
Average EMS Response % Increase by 4.2%		

On a closely related note, there is a subsection of patients whose medical conditions do not warrant immediate transport. More accurately stated, the provider will not receive reimbursement for the cost of an ambulance response if a patient is not transported. Alternative reimbursement avenues may exist when on-scene treatment is provided, but transport is unnecessary. The on-scene treatment option, or "Treat No Transport" option, exists to capture some reimbursement through Medicaid or commercial insurance. For this report, this data was not requested and would be challenging to estimate given the limited availability of specific established criteria; however, a cursory description of this option will be forthcoming.

Virginia Beach Payor Mix

Using the 4.2% annual increase in call volume, AP Triton estimates the total number of EMS responses for 2024 to be 55,823. The total number of transports of 70% was then extracted from that base, presenting an estimated total transport of 39,052 for 2024.

Figure 2: Virginia Beach 2024 Estimated Transports per Payor Mix

Payor Mix	Distribution Percentage	Transports
Medicare	50%	19,526
Medicaid	21%	8,201
Commercial Insurance	12%	4,686
Private Insurance	17%	6,639
Total Transports		**39,052**

The allocation of transport distribution among the four payors was meticulously estimated, taking into account local demographics, similar economic foundations, and regional characteristics. After thorough evaluation, the City of Chesapeake, VA, was identified as the closest match to Virginia Beach. Despite having a slightly smaller population, Chesapeake's other discernible attributes closely resemble those of Virginia Beach.

Accurately predicting the payor mix can only be achieved after a full year of billing has transpired. Additionally, considerable time and attention should be devoted to accurately inputting PCR data and ICD codes to ensure that the appropriate level of care is recognized and reimbursed at the correct rate. A review of ALS and BLS transport types for the year 2023 revealed the following findings:

Figure 3: Virginia Beach ALS and BLS Ratio

Level of Care	Transports	% of Total
BLS	25,687	67%
ALS	12,395	33%
Total Transports	**38,082**	**100%**

The proportion ratio of BLS to ALS is crucial in determining the billable rate for agencies. In 2023, BLS transports accounted for 67% of cases, while ALS transports comprised the remaining 33%. This ratio will be used due to a refined sorting of 2023 incident data. This refined process differs from the original four-year historical analysis because ALS treatment criteria were reviewed in cases where BLS responders provided care to high-acuity patients or ALS patients without a medic on scene. Previously, the criteria for classifying ALS versus BLS patients during transport varied, leading to potential inaccuracies when only BLS providers were on scene.

For those reasons, the AP Triton team requested an enhanced data review regarding patient treatment, given the limited level of care on the scene. This enhanced review was asked for one year only due to the logistical burden on VBEMS. The one-year enhanced review found a 5% variation in ALS and BLS proportions.

The 39,052 estimated transports for 2024 (Figure 2) will be the base valuation number for future valuation and projection estimates. This will ultimately reflect in the total estimated system reimbursement for 2024 and beyond.

Section III:
EMS COST RECOVERY EVALUATION

EMS COST RECOVERY EVALUATION

Authority and Framework

The Virginia Office of Emergency Medical Services (OEMS), part of the Virginia Department of Health, regulates emergency medical services in the Commonwealth of Virginia. Under Virginia Code § 32.1-111.14, titled "Powers of Governing Bodies of Counties, Cities, and Towns," the City of Virginia Beach is granted the authority to establish its own emergency medical services (EMS) system. This authorization enables the City of Virginia Beach EMS (VBEMS) to operate its own EMS vehicles or grant franchises to other agencies to provide EMS. Additionally, Section B of this code allows the City of VBEMS to charge a reasonable fee for the use of its EMS vehicles. The specifics of charging for EMS are further detailed in Virginia Code § 38.2-3407.9.

Virginia Code § 38.2-3407.9, titled "Reimbursement for Emergency Medical Services Vehicle Transportation Services," allows providers of emergency medical services to receive direct payment from insurance companies that cover these services when an assignment of benefits claim is submitted. Additionally, this code prohibits insurers from contracting with or requiring insured individuals to use ambulance services that are not part of the emergency 911 system provided by the state, county, or city. Furthermore, the code specifies that insured individuals are not required to obtain preauthorization before using emergency 911 system vehicles in case of an emergency.

Compassionate Billing

Compassionate billing refers to the practice of eliminating or not charging for ambulance services when the user cannot pay or when the delivery system chooses not to charge. In Virginia Beach, emergency medical services are provided free of charge to both residents and visitors. This practice is uncommon among transport-capable agencies of similar size, especially given the high volume of annual transports. The free transport model is particularly rare considering the earned benefits from Medicare and commercial insurance that patients forgo. Patients who have earned these benefits throughout their working lives are instead covered by the labor of volunteer responders, allowing providers to avoid the financial obligations they would otherwise have.

Some EMS systems charge non-residents for services. If the current policy of not charging for services is revised, there are options for implementing a compassionate billing system. Other agencies in Virginia have established compassionate billing policies or systems to reduce co-pays based on income.

For example, Hanover County has a system that waives or reduces the co-pay after insurance providers pay their portion. The county also offers payment plans and provides a Friendship Hardship Certificate form for those unable to pay the co-pay. The following figure illustrates potential copay reductions based on income.

Figure 4: Hanover County Financial Hardship Provisions

Income	% of Reduction
$0–$20,000	100%
$20,001–$30,000	75%
$30,001–$40,000	50%
$40,001–$50,000	25%

Several agencies within the Tidewater EMS Council charge for services, including major ones such as the City of Chesapeake, the City of Norfolk, and Portsmouth Fire Rescue & Emergency Services. The Chesapeake Fire Department, which has been charging for services for many years, practices compassionate billing. Notably, in cases involving a child and a traumatic injury, the co-pay is waived. Additionally, patients of the city's free clinic are not charged for services.

The City of Franklin, Virginia, charges for services and offers a subscription plan to help residents with out-of-pocket expenses not covered by insurance. The annual cost of the subscription is $60. The city employs a third-party billing company as its collection agent. For individuals unable to afford the co-pay, there is a process in place to reduce or waive expenses beyond what is billed to their public or private insurance. This subscription plan is specifically designed to cover any payments above the amount provided by insurance, whether public or private, for a calendar year.

The City of Fairfax has been charging for services for many years. Initially, there were concerns about potential pushback from the community, but these did not materialize. The city assures residents on its website that no one will be denied service based on their ability to pay or their health insurance status. Most city residents have health insurance, and ambulance transport is typically a covered service. In fact, patients already pay for this coverage through their health insurance premiums. Insurance companies acknowledge that ambulance transportation is a normal cost associated with patient care during medical emergencies. The charges help the fire department fund the purchase of ambulances and other emergency equipment. An example of their Hardship Waiver is provided in Appendix A.

Billing Practices and Cycle

The U.S. healthcare system is designed to support qualifying transport agencies by reimbursing them for treatment services. This reimbursement is facilitated through four payor agency models. The funding for these payor agencies typically comes from mandatory employee payroll deductions, which may be directed to federal Medicare deposits or included in employee compensation packages. These mandatory deductions are considered earned benefits for the employees.

In most cases, the payor covers a portion of the costs billed by the providing agency, with the remaining unreimbursed transport costs typically billed to the patient. This billing practice is universally adopted by agencies that charge for transport services. However, the City of Virginia Beach is an exception to this practice.

The City of Virginia Beach does not charge for ambulance services. These services are provided at no cost to both patients and payor agencies. Currently, the costs for transport are covered by Virginia Beach tax dollars and local donations to volunteer rescue squads. This model of service and financial support is unique and atypical.

A hypothetical question arises: If the city's EMS system were to bill for transport services, could patients be exempt from charges not covered by a reimbursement agency? The answer is yes, through the practice of Compassionate Billing.

EMS Billing Rates and Comparative Survey

The Virginia Beach project presented an interesting challenge due to the lack of pertinent historical billing data. While this is no substitute for a 12-month cycle of actual data, discussions on relevant comparisons were central to the AP Triton team's research strategy.

During the initial "work in progress" phase, the concept of a comparative survey was thoroughly discussed. Identifying relevant datasets for analysis was essential to the survey. A substantial amount of raw, unfiltered data is available for researchers and analysts to examine. The AP Triton team considered databases such as the U.S. Census Tract's extensive repository of demographic data, including city sizes, population compositions, ages, incomes, wage earners, and densities, all accessible from any electronic device. However, the most compelling and relevant data was found within a specific area code of Virginia Beach.

While the Census Tract information is abundant and beneficial for many research purposes, relying solely on it poses a significant concern due to its limited insight into regional cultural and political contexts. Depending exclusively on population types and numbers lacks the qualitative understanding necessary for a transformative strategy. Focusing too much on binary results without considering the cultural implications of adaptations could lead to dysfunctional outcomes. Therefore, the AP Triton team deemed a regional perspective crucial throughout this project.

Comparison Process

A hypothetical transport billing rate for the City of Virginia Beach was carefully considered throughout this process. Close attention was paid to the local jurisdiction's current rates, public perceptions, political impacts, economic consequences, and the perceptions of volunteer rescuers and fundraising efforts. These factors significantly influenced the direction and resolution of determining an appropriate ambulance charge.

The AP Triton Team solicited input from eight neighboring public provider ambulance transport agencies in the Virginia Beach region through a simple "pricing" survey. The jurisdictions were asked to provide their most recent billing rates for Basic Life Support (BLS), Advanced Life Support Level 1 (ALS 1), and Advanced Life Support Level 2 (ALS 2) transports. They were also invited to share details on collections and any other relevant information. Their responses enabled the project team to create a regional fee matrix. The following figure compares the regional ambulance fees.

Figure 5: Regional Ambulance Fees

Jurisdiction	BLS	ALS 1	ALS 2	Mileage
Franklin	$700	$850	$975	$17
Suffolk	$425	$675	$825	$10
Newport News	$500	$600	$750	$11
Chesapeake	$495	$595	$750	$11
Hampton	$500	$600	$750	$11
Norfolk	$505	$610	$850	$11
IOW Current	$450	$650	$800	$11
Portsmouth	$465	$551	$798	$9

The participating agencies shown in the comparison above provided the key to understanding what other local and regional jurisdictions charge for ambulance transport. Those agencies who participated in the survey provided both ALS and BLS transport fee charges. A summary analysis is shown in the following figure.

The participating agencies in the comparison provided crucial insights into the ambulance transport charges of local and regional jurisdictions. These agencies supplied data on both Advanced Life Support (ALS) and Basic Life Support (BLS) transport fees. A summary analysis of this information is presented in the following figure.

Figure 6: Local Regional Transport Fee Analysis

Fee factor	BLS	ALS 1	ALS 2	Mileage
Highest	$700	$850	$975	$17
Mean	$505	$641	$812	$11
Median	**$583**	**$701**	**$887**	**$13**
Lowest	$425	$551	$750	$9

The billing rate range reveals tightly grouped pricing compared to regional fee structures. The variance for both BLS and ALS fees is within 21% above and 28% below the median fee per transport. In simpler terms, local jurisdictions that bill for ambulance transport have opted to keep their fees closely aligned with those of neighboring areas.

The perception of "distance" arises from the fact that no charge from any local transport jurisdiction exceeded $975 for any level of transport care. If the median ambulance fee were much lower and the variance ranged from 100% to 200% higher than the median, local pricing comparisons might be deemed irrelevant. However, in reality, pricing levels do matter, and public perception likely plays a key role in maintaining the $975 ceiling.

Payor Mix and Collection Rate Projections

The proposed payor mix for VBEMS transports anticipates a projected total of 39,052 transports for the year 2024. This projection includes a 4.2% increase from the 2023 total EMS responses (see Figure 2). The breakdown of ALS and BLS transports by payor is detailed below.

Figure 7: Payor Mix and Transport Types

Payor Mix Category	Payor %	ALS Transports	BLS Transports	Total Transports
Medicare	50%	6,443	13,082	19,526
Medicaid	21%	2,706	5,494	8,201
Commercial Insurance	12%	1,546	3,140	4,686
Private Pay	17%	2,191	4,448	6,639
Total	**100%**	**12,886**	**26,164**	**39,052**

The figure above was modeled after a regional jurisdiction comparable to the Virginia Beach community. The payor transport percentages closely align with those of the City of Chesapeake. Although Chesapeake is not identical to Virginia Beach, the AP Triton team determined that it was similar enough to serve as a valuable reference point for the valuation analysis.

The ALS 1 and ALS 2 transports are bundled together since ALS 2 responses comprise roughly 1% of total transports. For the purposes of this report, the ALS billing rate will be considered as a single charge. The valuation matrix table will thus display ALS billing at a unified rate. However, if VBEMS decides to implement a payor billing policy in the future, it would be advisable to establish a separate billing rate for ALS 2.

The valuation estimation of VBEMS transports was based on the following factors:

- An estimated 39,052 transports for 2024.
- A $13 per mile charge.
- A base charge of $583 for BLS and an average charge of $701 for ALS.

The valuation of VBEMS is projected for the year 2024. This project, initiated and completed this year, appropriately models estimations based on the most recent data. It was considered fair to use the same year's numbers for comparisons. The comparison survey data was based on 2024 rates, justifying a payor mix and valuation estimate for the current year. The 39,052 transports figure is derived from the 2023 total EMS responses, with a 4.2% increase at a 70% transport rate. Future revenue projections will be evaluated using a 4% incident increase to maintain a realistically conservative projection model.

Median Transport Rate—Proposal

The AP Triton team collaborated extensively on ambulance fee pricing, evaluating various pricing levels to assess the potential "cause and effect" reactions from vested stakeholders, especially formal and informal influencers. Throughout the evaluation process, the primary considerations were the balance between "dollars gained" and the "public support risk."

Following our team's deliberations, it became clear that proposing a high-priced ambulance fee, even within comparable ranges, would likely encounter considerable resistance. We estimated that the "sticker shock" of such a strategic move would not be favorably received by anyone with a vested interest in the VBEMS system. The potential negative consequences far outweighed the anticipated financial gains.

The AP Triton team's investigation and interviews with a vast network of local Virginia Beach stakeholders revealed a common theme: the community strongly opposed charging taxpayers for ambulance transport. Stakeholders anticipated that knowing their fees would be the highest in the region would lead to skepticism and mistrust in the process. Therefore, a high fee proposal was not pursued further in the discussions.

A "lowest" fee proposal was also considered, but it carried potential negative perceptions as well. Issues arose such as justifying the opportunity cost of not proposing a higher fee, the perceived value of the service being equated to the low fee charged, whether the city's size should influence cost reimbursement, and if excessive caution was being given to political sensitivities at the expense of the Virginia Beach community's needs. These concerns, though hypothetical, were carefully contemplated to ensure that all possible outcomes of implementing a very high or very low ambulance fee were evaluated as accurately as possible.

Introducing the highest or lowest transport fees risks causing significant disequilibrium to the prevailing cultural environment. If uncertainty about the current organizational processes arises, the potential for defections could increase. Consequently, the AP Triton team determined that setting the ambulance transport rate within the "median" range of comparable jurisdictions would likely be the safest and most balanced proposal.

The median price, shown in Figure 8, will serve as the foundation for current and future reimbursement projections. This fee structure is designed to balance the need for fair compensation with community acceptance.

Figure 8: Median Ambulance Fee Proposal

Fee Factor	BLS	ALS 1	ALS 2	Mileage
Median	$583	$701	$887	$13

The proposed ambulance fees fall within the median range for the Tidewater region, as shown in Figure 6. Each reimbursement category represents a median base fee estimation to be charged to the reimbursement agency for services provided. These fees are then entered into a calculation worksheet to summarize the total value of the VBEMS system.

Figure 9: VBEMS Valuation and Collection Rates

Source	Transports	Gross Billing	Adjustments	Net Collections	%
Medicare	19,526	$13,412,847	$3,763,142	$9,649,705	72%
Medicaid	8,201	$5,633,396	$3,337,197	$2,296,199	41%
Commercial Insurance	4,686	$3,219,083	$643,817	$2,575,267	80%
Private Pay	6,639	$4,560,368	$4,332,350	$228,018	5%
Total	**39,052**	**$26,825,694**	**$12,076,506**	**$14,749,189**	
3rd Party Billing 5% net				(737,459)	
Total System Valuation				**$14,011,730**	

The average rates used for this valuation include an estimated flat mileage fee of $65 per transport, acknowledging mileage as a significant variable cost in the reimbursement estimation. This base fee estimate sets the average ALS base fee at $766 and the BLS base fee at $648 per transport charged to the payors.

Gross billing in each category encompasses the following elements:

- The payor source
- The number of transports in each payor category
- The percentage of ALS and BLS transports per payor
- The differentiated charges associated with the service levels provided to patients

The same reimbursement rates and percentages of ALS and BLS transports apply equally to all four payor sources. For instance, Medicare and commercial insurance providers will receive identical bills for services, regardless of their payor category. Tricare is a major provided in the Tidewater area because of the number of military retirees. Tricare is considered an insurance company and is included in the commercial insurance category for this analysis. Private payors are patients without insurance.

Adjustments represent reductions to the gross billing rates due to factors such as reimbursement plan co-payments, deductibles, payor payment ceilings, and payment floors. These factors vary depending on the specific payor plan and its established limits. These adjustments also highlight potential opportunities to recapture additional, uncovered reimbursements.

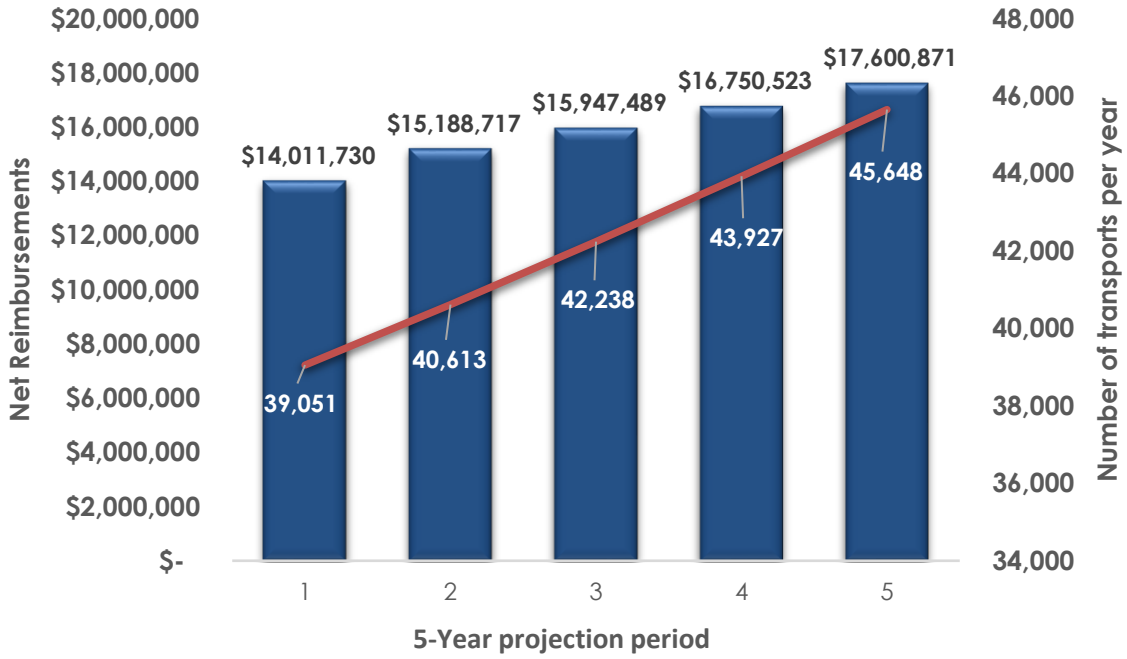
Current compassionate billing practices do not charge for any services. The private pay revenue in the previous figure includes individuals without insurance. If Virginia Beach decides to charge non-residents, an advisory opinion from the United States Department of Health and Human Services, Office of Inspector General (01-11)[1], permits this. The rationale is that non-residents do not pay local taxes that support the EMS system.

The Net Collections column in Figure 9 represents the estimated reimbursement receipts from outside agencies or willing private payors. This amount reflects the financial reimbursement expected from payors, minus a 5% third-party billing fee. In this valuation model, Net Collections does not include any unpaid reimbursement obligations from patients. A collection policy addressing patient billing is not currently under consideration.

Revenue Projections

The $14 million estimation serves as the starting point for a five-year cost recovery projection analysis. The variable factors influencing future projections include the number of EMS incidents and increases in reimbursement rates. The future reimbursement projection model incorporates a 4% annual increase in call volume and a 5% increase in system valuation rates. These variable rate increases will be applied starting in year two. See the following figure for details.

Figure 10: VBEMS 5-Year Transport Volume and Reimbursement Projection



The five-year projection estimates that the City of Virginia Beach (COVB) will provide approximately 45,684 transports by the end of the period, potentially generating over $18 million in reimbursements. This revenue estimation is considered realistic if all the variable factors outlined in this report are accurate. However, an important question arises: What if the cost recovery estimation is inaccurate? What variables or factors could impact the actual reimbursement outcome, either negatively or positively? This is a legitimate concern that warrants consideration.

Multiple variables and factors could impact the outcome of this model. These include changes in reimbursement rates from payors, unanticipated shifts in annual incidents, and variations in the proportion of ALS and BLS transports. Additionally, changes in the distribution of transports per payor introduce uncertainty. An influx of commercial insurance transports, which have an 80% collection rate with no ceiling limits, could significantly increase actual reimbursement amounts, resulting in a more positive financial scenario.

Several factors could alter the estimated system value, including the adoption of new billing and collection policies, amendments to compassionate billing practices, improvements in ePCR documentation, and local political shifts in economic objectives. Each of these issues could significantly impact the determination of final revenue.

If a reimbursement strategy is adopted, the most effective method to calculate cost recovery would be to use 12 months of actual billing data. Utilizing a third-party billing company is recommended for this model, as these companies specialize in the billing process and can accurately predict and collect transport reimbursement transactions. Their expertise ensures transparency, accountability, and accuracy in the collections process, thereby legitimizing an expected highly scrutinized procedure.

Debt Management

The management of ambulance reimbursement debt typically involves collecting unrecovered reimbursements from patients, starting with a collection policy that defines the aggressiveness of the collection efforts. This process often includes an aging system that monitors unpaid balances over 30, 60, 90, and 120 days. However, this approach is not expected to be relevant to any future EMS billing plan for the VBEMS system, as patient billing is not currently being considered according to system leadership.

EMS Billing Distribution

The VBEMS system consists of VBEMS and ten volunteer rescue squads. While VBEMS relies entirely on tax-based revenue, the ten rescue squads depend on tax-based funding from the City of Virginia Beach for specific functions, as well as donations received by the individual squads. Currently, the VBEMS system does not bill for EMS-related services.

Virginia Beach City Ordinance Chapter 2 Section 2-4 designates each volunteer rescue squad and their members as part of the Virginia Beach Public Safety Program. This ordinance, along with the collaborative relationship between VBEMS and the ten rescue squads, forms the VBEMS system. As a unified system, these agencies would be able to administer EMS billing as a single entity under the authority of the City of Virginia Beach. If EMS billing is considered as an option for the VBEMS system, a method for distributing the funds would need to be established. This distribution method would require agreement between the Virginia Beach City Council and the Council of Virginia Beach Volunteer Rescue Squads, based on the current structure of the VBEMS system.

There are several methods for EMS billing distribution. One approach is to base the distribution on money collected per call, allocating funds to the agency that provided transportation for each call. This could be achieved by distributing funds to the agencies where the Attendants-In-Charge (AICs) are affiliated and whose ambulances were used. However, this method would be very time-consuming, as each call would need to be reviewed to determine which agency provided transport and the amount collected for each call. Additionally, this method would require waiting for the completion of payment for each transport, further delaying the distribution of funds.

Another method of billing distribution is to allow each agency to submit an annual budget, followed by a stakeholder group determining the allocation of funds or percentage of funds to each agency. This approach would require forming a committee to review budgets and make allocation decisions based on each agency's actual needs, rather than distributing funds equally. To implement this method, a set of standards would need to be established for the entire system, ensuring that each agency works towards meeting those standards. This would promote fairness and address the specific needs of each agency within the VBEMS system.

Another option of billing distribution involves creating a single agency purchasing group. All agencies would collaborate to establish a set of standards and a standardized equipment list. Purchases could then be made collectively, allowing for the standardization of equipment across all units. This approach would also enable the group to purchase maintenance contracts for monitors, stretchers, and other biomedical devices, ensuring uniformity and potentially reducing costs through bulk purchasing.

An alternative method of billing distribution is a hybrid approach, necessitating a memorandum of agreement between the Virginia Beach City Council and the Rescue Council. This agreement would bring together the governing body of Virginia Beach and the Rescue Council, representing the collective group of rescue squads, to determine the percentage of revenue allocated to specific programs.

Under this method, a predetermined percentage of funds would be allocated to various programs upfront, but the actual dollar amounts would depend on the total revenue collected. While the percentages would remain consistent, the dollar amounts would fluctuate based on the revenue generated. This approach provides flexibility and responsiveness to actual financial inflows.

Examples of programs that could be funded include:

- City Staffing and Overhead Costs: Allocating funds to cover administrative and operational expenses incurred by the city.
- Rescue Council Initiatives: Providing financial support for capital improvement projects, enhancing recruitment and retention efforts, and covering operating budgets for the rescue squads.

This method ensures that both the City and the rescue squads have their specific financial needs addressed in a balanced manner. It is imperative that the Virginia Beach City Council and the Rescue Council jointly decide on the final allocation percentages and any additional options within the memorandum of agreement. This collaborative approach guarantees that the distribution method aligns with the strategic goals and operational requirements of both parties, ensuring the effective use of EMS billing revenues.

Disbursement of Funds

The options for disbursement of funds are dependent on what is agreed to, or decided on, upon the development of a billing program. During a meeting with the Virginia Beach City Manager, a restricted special revenue fund was discussed by the City to collect reimbursement payments. A special revenue fund could restrict the funds for specific uses and not go into the City's general fund. A memorandum of understanding between the Rescue Council and the City of Virginia Beach could establish the restrictions, and the parameters for administration of these funds.

Billing Infrastructure

VBEMS does not bill for EMS services; therefore, they do not have a billing infrastructure in place.

Agencies that bill for EMS services have two billing options: handling billing in-house or contracting with an EMS billing vendor. Each method has its own set of advantages and disadvantages that must be carefully evaluated before making a decision.

EMS agencies that choose to handle their billing in-house must bear the expense of hiring and training staff to manage the billing process. The agency needs to determine the number of staff required to ensure EMS billing is performed promptly and accurately. Staff must undergo extensive initial and ongoing training to understand the billing process, relevant codes for insurance claims, and the necessary time frames for timely submission.

Additionally, staff must be trained in medical terminology and procedures to bill transports at the appropriate level of care accurately. By opting for in-house billing, agencies also assume the liability for incorrect claims and the potential risk of fraud accusations. This added responsibility necessitates stringent oversight and adherence to compliance standards to mitigate these risks.

EMS agencies that contract their billing to an outside agency can reduce their liability related to incorrect claims and fraud accusations, as these responsibilities primarily fall on the external agency. This reduction in liability, along with decreased costs from not having to maintain a full billing staff, must be balanced against the fees charged by the outside agency for their services.

Vendors have different fee structures depending on the extent and type of services provided. Some vendors may charge a percentage of the amount collected for EMS services, while others might charge a set fee per claim filed. Even with an external billing vendor, agencies will still need some in-house staff to serve as the primary contact between the billing vendor and the agency, ensuring smooth communication and coordination.

Given the current transport volume and an estimated annual increase of four percent, it is anticipated that VBEMS would need to hire at least two to three in-house personnel to collaborate with a third-party billing company. These staff members would serve as local contacts, fostering working relationships with area hospitals and other medical facilities to facilitate the sharing of billing information, as permitted.

Additionally, this in-house staff would assist field personnel by clarifying any questions from the billing company, ensuring that charts are properly coded for insurance billing. Their role would be crucial in maintaining accuracy and efficiency in the billing process while providing a direct line of communication between the billing company and VBEMS.

VBEMS may already have adequate staff to fill such roles through their Quality Assurance staff or city finance staff. However, one of the most significant issues often seen in billing is proper documentation. VBEMS may receive questions from the billing company regarding missing documentation, requiring local follow-up. Reports might lack correct demographic information, necessitating follow-up with local hospitals or ambulance crews to rectify errors.

Additionally, if the decision is made not to implement compassionate billing for either residents or non-residents, VBEMS will likely receive calls from individuals questioning their bills. Despite the billing company's contact information being listed on the bills, people often prefer to verify information directly with the agency.

Quality assurance is essential not only for patient care but also for billing information. These two areas sometimes overlap, especially when determining the appropriate billing level. Ensuring that both aspects are thoroughly monitored and verified helps maintain accuracy and efficiency in the overall billing process.

A relevant example can be found in Brunswick County, North Carolina. Brunswick County EMS, which handles over 26,000 calls annually and transported 14,692 patients in 2023, employs a dedicated billing and medical records specialist. This specialist serves as the primary point of contact with the billing company, local hospitals, the medical examiner, local doctor's offices, funeral homes, and the public requesting information about their bills. This position requires extensive phone time—approximately six out of an eight-hour workday—answering questions about documentation, gathering additional information, and updating demographic details that could not be obtained during the initial call. This setup highlights the importance of having a dedicated staff member to manage the complexities and communication demands associated with EMS billing.

For instance, if a 12-lead EKG were documented in the chart but lacked an interpretation, the dedicated staff member would contact local field staff to correct this. Additionally, this local staff would serve as the primary contact for any billing-related questions from the community. Local patients often prefer to speak with local contacts, and this staff member would act as a liaison, assisting patients in their communications with the third-party billing agency. This ensures accurate documentation and enhances patient satisfaction by providing a familiar and accessible point of contact.

It should be noted that the scope of this project assumes the likely utilization of a third-party billing agency. This assumption was confirmed by the EMS Chief during discussions held throughout the project.

Volunteerism Impacts

The number of volunteers supporting organizations has decreased over the last several decades due to various factors, including a changing civic landscape, increasing time demands, the need for basic and advanced training, higher call volumes, reduced interest in volunteering, family obligations, employers not allowing volunteers to leave work, and inadequate management of change.[2] Although these reasons primarily reference firefighters, EMS and rescue squad organizations face similar challenges.

One significant contributing factor to the decline in volunteers has been the impact of the COVID-19 pandemic, particularly on rescue squads in Virginia Beach. The pandemic affected EMS more severely than other emergency service organizations due to the direct patient contact required in their work. This heightened risk and the associated stresses have further strained the volunteer workforce in EMS.

To reverse the trend of declining volunteer numbers, national groups have created programs aimed at increasing volunteer participation. The Virginia Office of EMS has developed an EMS Workforce Retention Tool Kit to address these challenges. Staff from the Department of EMS have contributed their experience and expertise to the development of these tool kits, ensuring they are practical and effective in supporting volunteer organizations.

Figure 11: Active Volunteers by Year

Year	Active Volunteers
2019	420
2020	390
2021	397
2022	340
2023	293
2024	263

When someone wishes to join the volunteer rescue squad system in Virginia Beach, they apply through VBEMS. The onboarding process for new volunteers takes place at the administrative offices. Once approved, volunteers can enroll in an EMT class offered throughout the year and taught by VBEMS. During this period, new volunteers must select which rescue squads they want to join and are subsequently added to their roster.

After completing the EMT class and becoming certified, volunteers are eligible to ride on any ambulance within the system that has an open position or where VBEMS assigns them. However, this can create issues when volunteers are unable to ride with their assigned squad, leading to potential scheduling and operational challenges.

One significant advantage of having a volunteer system is that it provides individuals with an opportunity to begin a career path in emergency medicine. Many volunteers start by joining a rescue squad and then continue their education in various medical fields, with some eventually becoming medical doctors. This system not only supports the community but also fosters the professional growth of its volunteers.

Recruitment and Retention

To attract new volunteers, a comprehensive recruitment program should be developed to inform the public about the opportunities available within their community. Without such a program, it will be challenging to recruit the necessary personnel to support the organization effectively.

Established in 1962, the Foundation is a 501(c)(3) nonprofit organization dedicated to supporting the rescue squads in Virginia Beach. As a partner of the EMS system, the Foundation plays a crucial role in recruiting and retaining volunteers. Over the past 15 years, the Foundation has contributed more than $250,000 annually toward recruitment efforts. Additionally, they have engaged a marketing firm and invested $1 million in advertising to bolster these efforts. To further enhance their recruitment program, the Foundation has hired a full-time employee specifically focused on recruiting and retaining volunteers.

EMS partners offer several recruitment and retention programs in Virginia Beach. The Virginia Association of Volunteer Rescue Squads (VAVRS) supports these efforts by providing valuable membership benefits, including a death benefit plan, scholarships, free training, and association discounts. These benefits help attract and retain volunteers, ensuring the strength and sustainability of the rescue squads.

The City provides numerous benefits for volunteers, including:

- American Heart Association Certification Programs:
  - CPR Certification
  - Advanced Cardiovascular Life Support (ACLS) recertification for ALS providers
  - Pediatric Advanced Life Support (PALS) recertification for ALS providers

- National Registry and Virginia EMS Provider Certification Programs:
  - EMT Certification
  - Advanced EMT Certification
  - Scholarships for Paramedic Certification
- Continuing Education:
  - In-person and online continuing education for certified providers
  - Assistance with National Registry and Virginia certification and recertification
- National Association of EMTs Certification Programs:
  - Prehospital Trauma Life Support (PHTLS) Certification
  - Principles of Ethics for Prehospital Personnel Certification
  - Tactical Emergency Casualty Care Certification
  - Geriatric Education for EMS Certification
- Additional Training and Support:
  - Emergency Vehicle Operations Course (EVOC) Certification
  - Mental Health Awareness Training
  - Crisis Intervention Team Certification Program and Team
  - Employee Assistance Program
  - VBEMS Therapy Dog Program
- Tax and Fee Relief:
  - Local vehicle registration relief for one vehicle annually
  - Personal property tax relief for one vehicle annually (operational member only)
- Awards and Recognition:
  - Presidential Achievement Awards – Gold and Lifetime
  - Membership Length of Service Awards for each 5 years of service
  - OVR Milestone Awards for 20+ years of service
  - Graduation and Recognition Ceremonies
  - Annual Awards Ceremony
  - Rescue Squad License Plate Eligibility
- Discounted City Services for Non-resident Volunteers:
  - Resident rates for City of Virginia Beach Recreation Centers
  - City of Virginia Beach Library non-resident fee waived

- Additional Benefits:
  - Membership in the Beach Municipal Federal Credit Union
  - Discounts on cellular services for public safety personnel through major providers
  - Vet Tix discount and free tickets

Fundraising Impacts

Each organization collects donations to generate the necessary revenue for operating and supporting the rescue squads. Volunteer organizations employ various fundraising activities to achieve their revenue goals, including door-to-door campaigns, food sales, raffles, direct mail solicitations, and public service announcements. These diverse approaches help ensure adequate funding to maintain and enhance the services provided by the rescue squads.

When organizations start charging for services that have traditionally been offered at no cost, there is a legitimate concern about the potential impact on future fundraising efforts. The following factors should be considered.

For previous donors, the introduction of charges for services may raise questions about the organization's new approach. It is essential to explain that the increasing costs of ambulances and equipment due to inflation have significantly impacted the rescue squads' ability to operate effectively. Donors might also inquire whether there has been a change in the organization's mission and if the services remain accessible to everyone in need.

If donors understand the necessity of charging for services, they may continue their support. The rescue squads, the Rescue Council, and the Foundation can develop targeted campaigns to solicit donations, focusing on specific programs such as recruitment and retention, equipment upgrades, or scholarships for volunteers. By clearly communicating the goals and impact of these programs, the organizations can inspire ongoing donor engagement and support.

Charging for services may also attract a different type of donor who values a more financially stable model for the rescue squads. It is important to communicate that donations will still play a crucial role in helping those who are unable to pay for services. By highlighting the ongoing need for charitable contributions to support equitable access to care, the organization can appeal to donors who are committed to both financial sustainability and community support.

The rescue squads and the Foundation participate in various fundraisers annually to generate revenue. The Virginia Beach Rescue Council holds two primary fundraisers each year—one in the fall and another during EMS Week in the spring. However, not all rescue squads participate in these events. In addition, the rescue squads send letters to the patients they transport, and each squad may employ a marketing company for their fundraising efforts.

A coordinated fundraising program among the different organizations would present a united front when soliciting donations, enhancing the overall effectiveness and reach of their efforts. This collaborative approach ensures consistent messaging and maximizes the impact of fundraising activities across the community.

The final impact on fundraising remains uncertain, but it is essential to continue utilizing the current process to collect donations. The ultimate goal is to educate the community that while public and private insurance are billed for services, these funds do not cover the entire cost of providing emergency medical care in Virginia Beach. Emphasizing the specific uses of donations should be a primary focus for the rescue squads and the Foundation.

The following communication plan can guide the rescue squads and Foundation if it is decided to charge for services.

Communications Plan

If there is a consensus to implement a change, the VBEMS system should provide clear and transparent communication about the reasons for charging for services. The following elements should be included in a communication plan.

Develop Objectives and Goals

The system should clearly outline the reasons for charging for services, such as financial sustainability and service improvements. The communication plan should include specific and measurable goals, such as improved response times and reduced call concurrency.

Identify the Stakeholders

Both internal and external stakeholders need to be identified and engaged. Internal stakeholders should include volunteers, the Rescue Council, the Foundation, VBEMS staff, city administrative personnel, and elected officials. External stakeholders should encompass the people served by the system, donors, partner agencies, and the citizens of Virginia Beach.

Develop Key Messaging

The messaging should be transparent and clearly explain why the change is necessary, how it supports the VBEMS system's mission and vision for the future, and the specific benefits it will bring, such as providing equitable access to everyone, regardless of their insurance status.

How to Communicate

Multiple methods exist to communicate potential changes, including direct email, letters, and meetings with key stakeholders. Digital platforms include websites, social media, and email newsletters. In contrast, traditional media is still available by using press releases, flyers, and community partners to provide information. The Rescue Council should hold town hall meetings, question and answer sessions, and webinars.

Develop a Timeline and Implementation Plan

Material should be developed that provides information about the changes. The volunteers and VBEMS staff will need to be trained and prepared for questions and concerns from the public and how they should be answered. An announcement phase should provide information about the changes that should be coordinated through all the communication channels. Ongoing communication will be necessary to provide regular updates, and a system should be developed to receive feedback from the community.

Develop Content

A website(s) should be dedicated to explaining the changes and providing frequently asked questions (FAQs) and contact information for additional questions. If email lists are available, they can be used to send information about the changes, which will benefit the community, the rescue squads, and the EMS system. Social media should be regularly updated with key messaging and links to additional information.

Staff Training and Preparation of Spokespersons

While previously mentioned, it is crucial to emphasize that volunteers and VBEMS staff will need comprehensive training to understand the reasons for the changes, the key messaging, and the protocols for addressing questions or directing them to the appropriate personnel. Additionally, the Rescue Council will need to identify and train spokespersons on media engagement and handling media inquiries and public statements effectively.

Stakeholder Engagement

Surveys should be conducted to engage stakeholders, suggestion boxes should be placed at the stations and the VBEMS administrative building, and methods should be developed to collect input directly from the stakeholders. Focus groups with key stakeholders can provide feedback and answer questions about the changes. Community meetings can be held at the rescue squad stations or other locations in Virginia Beach. This will engage the stakeholders directly with the Rescue Council and VBEMS.

Monitor and Evaluate

The communication efforts must be tracked to determine if they are effective. This can include website traffic, social media engagement, feedback from the community, donor contributions, and changes that occur in service requests. If adjustments to the communication strategy are necessary based on feedback or metrics, they can be modified to address gaps or issues.

Long-term Communication

If any changes are implemented, frequent updates should be provided to the rescue squads, volunteers, the public, and elected officials. Any success stories and improved outcomes from the changes will reinforce the benefits and maintain support.

Section IV:
COST RECOVERY FEASIBILITY OPTIONS

FINDINGS AND OBSERVATIONS

The VBEMS System successfully maintains a blend of volunteer and career staff to provide transport services. The Volunteer Rescue Squads are an integral part of the Virginia Beach community, deeply embedded in its cultural fabric. This unique feature stands as a testament to their significant accomplishments and historical evolution. The community's support and the dedication of these volunteers are key elements that have contributed to the sustained success and resilience of the VBEMS System.

Despite the unique COVB EMS system model, it is more common for sizable communities like Virginia Beach to transition from volunteer public safety organizations to fully staffed professional workforces. Historically, volunteer responders have struggled to keep pace with the demands of large and complex communities. The increasing need for emergency responses is just one of many challenges that volunteer responders face.

Other persistent issues include the need for extensive training and education, limited personal time availability, the prevalence of dual-income households, the technical and medical demands of the job, and constant changes in the field. EMS organizations must adapt to these challenges without exception.

The Rescue Council and VBEMS, with strong community support, have successfully navigated these cultural threats and continue to move forward. Their resilience and ability to adapt have allowed them to maintain a vital balance of volunteer and career staffing, ensuring high-quality emergency services for the community.

Unfortunately, the organizational successes of the past and present loom as challenges for the future. Those foreseeable issues are:

- There appears to be declining donation fundraising dollars based on a one-year comparison. VBRC's fundraising efforts financially support the VBEMS system. Community fundraising supports ambulance debt service payments and the purchase of soft goods in EMS supplies. In a two-year observation period of volunteer fundraising, all but two of the volunteer groups had declining fundraising revenues. (Two volunteer groups did not provide financial data.) This scenario is sub-optimal and could undermine the noble efforts of the volunteer association's internal relations.

- A similar two-year review of the expenditures paid by the Rescue Council revealed that all volunteer groups endured significant cost increases in 2023. The overall average cost increase to expenditures paid by the volunteer rescue group was 33% compared to a 3% fundraising annual increase.

Figure 12: Rescue Council Financial Review

2023		% Increase
Fundraising Revenues	$3,493,642	3%
Expenditures paid by VBRC	$3,085,423	33%
Excess/(Deficit)	$408,219	
Margin of Excess Funds	12%	

If escalating expenditures and modest fundraising efforts persist, the likelihood of facing a breakeven or deficit scenario will soon become a reality. This financial gap will ultimately fall on VBEMS to address, ensuring that debts are paid. Consequently, COVB will bear the burden of unpaid debts, complicating their budgetary planning process. This situation underscores the need for a sustainable financial strategy to support the VBEMS system and prevent potential fiscal strain on the City's resources.

VBEMS Pharmacy Program

In November 2024, VBEMS will implement a new pharmacy program, taking sole custody of all costs and administration for their Schedule 2 through 6 drug inventory. This change means that the existing drug exchange program between the hospital and VBEMS will end after October 2024. The shift is necessary to sustain ALS treatment, which will now be fully managed by VBEMS.

The initial costs for additional personnel, new equipment, and one year of supplies are estimated at approximately $1 million. Ongoing annual expenses are expected to exceed $450,000. Additionally, VBEMS has been informed by healthcare systems that they will no longer provide a 1:1 replacement for some commonly used medical supplies. This further underscores the financial challenges VBEMS will face in maintaining a robust and responsive emergency medical service.

These new obligations are essential for patient treatment, yet there is no new funding source to support them. This additional financial burden significantly increases the pressure on the already growing costs of EMS transport services. Consequently, it is imperative to identify sustainable funding strategies to accommodate these critical needs and ensure the continued effectiveness of VBEMS.

EMS Data Entry and ePCR Input

One of the biggest challenges encountered during the research process was obtaining sufficient and relevant data for accurately estimating the VBEMS system valuation. Reliable data are the essential building blocks needed to construct a robust valuation formula. However, due to no fault of VBEMS, some uncertainty surrounded the data used for estimation and projections, as VBEMS has never performed transport billing before.

This lack of prior billing experience results in a significant knowledge gap—"I don't know what I don't know"—regarding specifics in the reimbursable environment. Simply put, VBEMS has not yet gone through the necessary cycle of training, learning, identifying, and billing for what is reimbursable. Consequently, process components of documentation for billing purposes are still to be developed and refined. This learning curve will likely only be addressed after VBEMS completes a full cycle of billing engagement.

STRATEGIES AND OPTIONS

The study aimed to conduct an Emergency Medical Services (EMS) recovery and billing feasibility analysis for Council of Virginia Beach Volunteer Rescue Squads, Inc. (Rescue Council). AP Triton has developed the following options for consideration by the Rescue Council and the City.

- Continue the current system of not billing for services and solicit donations and support from the City of Virginia Beach. If this option is selected, the system will continue to be funded primarily by the City of Virginia Beach through its General Fund. It will not receive revenue that the citizens pay as part of their insurance premiums.
- Develop a billing system for services rendered by the rescue squads and VBEMS with no co-pays. This option will utilize its current compassionate billing policy, only bill public and private insurance, and not send any billing statements to the patient.
- Create a billing system with the patient responsible for the co-pays for the rescue squads and VBEMS services for non-residents of Virginia Beach. This option provides compassionate billing to all residents of Virginia Beach but bills all non-residents for services rendered not paid by public or private insurance.
- Create a billing system with the patient responsible for the co-pays for the rescue squads and VBEMS services. This option sends billing statements to residents and non-residents for services not paid for by public or private insurance.

Section V:
APPENDICES

APPENDIX A: HARDSHIP WAIVER—CITY OF FAIRFAX

Request for Ambulance Transport Fee Hardship Waiver

A NEW HARDSHIP APPLICATION MUST BE SUBMITTED FOR EACH EMS TRANSPORT

Patient Name: _____ SSN: _____

Patient Address: _____

City, State and Zip: _____

Patient Phone: _____ Patient Email: _____

Patient Date of Birth: _____ EMS Transport Date: _____

Monthly Household Gross Income: _____ Number of dependents living in household: _____

Responsible Party Name (if different from patient): _____

Relationship to patient: _____

Address (if different from patient): _____ City, State and Zip: _____

Phone: _____ Email: _____

List of attached supporting documentation (examples: *financial aid approval from hospital, social security statement, unemployment commission letter, homeless shelter letter, two current pay stubs or the first page of last year's tax return*):

_____

_____

_____

I do hereby request that I, as either the applicant, or the party who is financially responsible for the applicant, be considered for a waiving of the payment responsibilities as they relate to this EMS ambulance transport service fee. ***By signing this form I certify that I have no insurance that can be billed for this charge or the remaining balance after primary insurance payment and agree that if I am reimbursed for these charges then this waiver is void and I must forward payment for these services.*** I declare that all of the information contained in this document and the attachments are true and accurate. Further I understand that I may be held liable for any false statements pertaining to this waiver request. I hereby agree to notify the City of Fairfax of any change in the financial status of the applicant or the responsible party that may affect the ability to pay the EMS ambulance transport fee.

_____ _____

Signature Date

_____

Print Name

For questions regarding the hardship waiver process call 703-385-7940 or e-mail emsbilling@fairfaxva.gov

Mail this application and all supporting documents to:

City of Fairfax EMS Billing
4081 University Drive
Fairfax, VA 22030

Administrative Use

Incident #: _____ Date Received: _____

Account #: _____ Date Vendor Notified: _____

Request: (circle) Approved Denied Patient Responsibility: _____

Date Patient Notified: _____

APPENDIX B: TABLE OF FIGURES

APPENDIX C: REFERENCES

[1] United States Department of Health and Human Services website, https://oig.hhs.gov/documents/advisory-opinions/430/AO-01-11.pdf.

[2] National Volunteer Fire Council, Volunteer Fire Service Fact Sheet.