



WASHINGTON COUNTY
OREGON

EMERGENCY MEDICAL SERVICES GOVERNANCE MODEL REPORT

Prepared by

THE ABARIS GROUP

October 2018



ABARIS GROUP



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I. Introduction

The Abaris Group was selected to support the stakeholders of the Emergency Medical Services (EMS) system in Washington County, Oregon. The objective was to develop a new governance model that delivered an integrated public/private system that meets the Foundation Principles established by the EMS Council. Those principles are:

- Integrated EMS system based on a collaborative public/private partnership
- Transparency and Accountability
- Responsive
- Fiscally Responsible
- Clinical Excellence
- Operational Effectiveness
- Culture of Safety and Mindfulness

This was further developed to identify the ideal EMS system components based on the opinions of the EMS Council members. The top six components are:

- Central Dispatch
- System Level Quality Improvement
- Transparency
- Emergent, Non-emergent, Community Paramedicine Holistic System
- Data Driven
- Centralized Medical Direction

II. EMS Council Interviews

County staff and each member of the EMS Council were interviewed to understand the current status of the EMS system, its strengths and weaknesses, and gain input on the opportunities available. Feedback was summarized and compiled into two categories: concerns and suggested improvements:

A. EMS System Concerns Mentioned by Council Members

- Not patient-centric focused
- Fragmented quality improvement program
- Lack of central data repository (dispatch to discharge)
- Unclear if there are clinical issues currently
- System values response times over clinical care
- Coordination lacking between first response and transport crews
- Only reactive use of fire transport units
- Lack of coordination between medical directors
- Different protocols possible for each provider
- Significant use of lights and siren response, ability to reduce?
- Minimal accountability of current agreement
- Stagnant EMS system due to evergreen transport agreement



B. Suggested System Improvements by Council Members

- Patient-centric focus throughout EMS system
- Coordinated, systemwide quality improvement program
- Establish systemwide performance tracking
- Ensure clinical care is valued over response times
- Centralized location for all EMS data
- More transparency with current ambulance provider
- Greater visibility enforcing current ambulance contract
- Consolidated fire/EMS dispatch center
- Greater Fire/EMS coordination
- Proactive use of fire-based ambulances
- Coordinated and centralized medical direction
- Consider best practice system innovations every 18 months

III. Strategic Process

Subject matter experts from EMS systems that had undergone a governance change were invited to present their process to the EMS Council and interested stakeholders. Those EMS systems included:

- Santa Cruz County, California
- San Mateo County, California
- Contra Costa County, California

The EMS Council members provided feedback on each presentation and rated the applicability locally. Attachment A provides a summary of the feedback.

All three innovative EMS systems shared certain best practice commonalities:

- Single, consolidated dispatch center
- Formalized inclusion and value of first responders
- Single electronic patient care report (ePCR) software platform
- System-level quality improvement – coordinated approach on all issues
- High level of transparency
- Centralized medical direction
- Standardized EMS equipment

IV. Recommended System Components and Improvements

Following the conclusion of the best practice speakers, The Abaris Group identified recommended system components based on EMS Council member interviews and input. Each component was evaluated for the Foundation Principles supported, strengths, weaknesses, and potential change required to the existing governance model.

**A. Centralized Dispatch**

All fire and ambulance units are dispatched through the same dispatcher, at the same time, using the same radio system for EMS calls.

1. Foundation Principles supported

- Integrated EMS system public/private partnership
- Fiscally responsible
- Operational effectiveness
- Transparency and accountability

2. Strengths

- Simultaneous unit dispatch
- Independent verification of response times
- Faster call processing times
- Proactive ARMUP (supplemental fire transport) deployment
- Remove redundancy
- No CAD-CAD link required

3. Weaknesses/Concerns

- System status management by third-party provider

4. Governance model

- No change; private provider contracts with Dispatch

B. First Responder Integration

Establish stronger partnership between first response and transport services through formally integrating first response into the EMS system; most often accomplished through agreed upon first responder response times and may relax the time standard for transport.

1. Foundation Principles supported

- Integrated EMS system public/private partnership
- Fiscally responsible
- Operational effectiveness
- Responsive
- Clinical excellence

2. Strengths

- Set standards for first response
- Relax transport response times
- Financially support first response

3. Weaknesses/Concerns

- Potentially longer on-scene time for first responders

4. Governance model

- Establish 190/IGA contract with County for first response

**C. Data-Driven EMS System**

Patient care and dispatch data is utilized to determine the optimal EMS system either using the same software or a consolidated data repository. This can include adjusting the resources dispatched based on historical data, setting clinical standards that are proven to offer the best patient outcomes, and establishing performance benchmarks that optimize the EMS system.

1. Foundation Principles supported

- Responsive
- Clinical excellence
- Operational effectiveness
- Culture of safety and mindfulness

2. Strengths

- Deliver clinical care that is based on data
- Better pre-hospital care
- Improved patient outcomes
- Compare system to industry benchmarks

3. Weaknesses/Concerns

- None

4. Governance model

- No change; incorporate clinical standards into existing/new agreements

D. Systemwide Quality Improvement

Every call is reviewed from the patient perspective using a standardized approach, not each provider separately. System-level changes are identified and education offered to improve future patient care.

1. Foundation Principles supported

- Integrated EMS system public/private partnership
- Transparency and accountability
- Clinical excellence
- Culture of safety and mindfulness

2. Strengths

- Systemwide QI trending and identify training needs
- Coordinated run reviews with first responders and transport crews
- One database/ePCR system
- Simplified turnover for first responders to transport crews
- Data-driven decision making

3. Weaknesses/Concerns

- Challenge transitioning to single system

4. Governance model

- No change; adopt new systemwide QI plan



E. Centralized Medical Direction

A uniform approach to medical direction across all providers with a consistent approach and input to review, education, and policy creation.

1. Foundation Principles supported

- Integrated EMS system public/private partnership
- Transparency and accountability
- Clinical excellence
- Culture of safety and mindfulness

2. Strengths

- Coordinated medical protocol planning
- Improved QI and run review

3. Weaknesses/Concerns

- Could extend protocol implementation timelines

4. Governance model

- No change; adopt new medical direction committee

V. Governance Options

Three primary options exist for the Washington County EMS system to consider to achieve the objective of an integrated public/private EMS system.

A. Continue current EMS Council or similar governance; work within current agreement

1. Amend current service agreement

- e.g., centralized dispatch, proactive ARMUP, clinical care standards

2. Strengths

- No change to governance required
- Quickest to implement
- No request for proposal (RFP) required

3. Weaknesses/Concerns

- No requirement for greater integration of EMS providers
- Less opportunity for systemwide QI
- Current transport provider must be willing to negotiate system improvements

B. Create 190/IGA with County Maintaining Transport Contract

1. Fire agencies

- e.g., systemwide QI, fire/EMS coordination, clinical care standards

2. Fire agencies plus the County EMS Agency

- Above plus centralized medical direction, system accountability

3. Advantages

- Coordinated public agency approach
- Stronger consensus building



- Greater transparency
- More opportunity for systemwide quality improvement
- No RFP required

4. Disadvantages

- Private provider cannot participate in governance structure
- 190/IGA does not have direct oversight, contracted with County alone
- Current transport provider must be willing to negotiate system improvements

C. Create 190/IGA that Contracts with Transport Provider

1. Fire agencies + County EMS Agency

Above plus system transparency

2. Requires new RFP

3. Advantages

- Coordinated public agency approach
- Stronger consensus building
- Greater transparency
- More opportunity for systemwide quality improvement
- Provider required to bid to keep ambulance contract

4. Disadvantages

- Requires RFP process, which is time-consuming
- Potential new system requirements could lead to new costs for patients

VI. Governance Financial Models

The Abaris Group was asked to review the strengths and weaknesses of two potential financial models that would provide greater transparency and accountability to the Washington County EMS system.

A. Unit Hour Cost/Public Utility Model (PUM)

Historically, there were 10-20 EMS systems operated by the local government that purchased ambulance unit hours from private ambulance providers and billed for the transport service themselves. The private ambulance companies like this model as it guaranteed fixed revenue and a layer of protection from changes in healthcare reimbursement. It should be noted that the PUM approach does not limit profit, which is built into each ambulance unit hour. As recessions occurred, fewer local governments were willing to remain at risk for changes in reimbursement that could require tax subsidy. Over the last 40 years, most of these contracts have changed to at-risk models where the private ambulance provider accepts all the risk. Today, there are only four to five PUMs remaining in the country with most of the historical PUMs reverting to semi-governmental ambulance manager subcontracting out the operation to a private ambulance firm or running operations themselves, e.g., Richmond (VA), Pinellas County (FL). In The Abaris Group's experience, these transitions have occurred during a request for proposal (RFP) process; we are unaware of any contract negotiation that resulted in moving from PUM to at-risk or vice-versa (e.g., it requires a new Medicare/Medicaid provider application).



In recent years, some states (including Oregon) have adopted legislation that offers supplemental Medicaid funding for ambulance transports to offset the traditional Medicaid payment that is significantly below cost. This program is known as ground emergency medical transportation (GEMT). However, this revenue opportunity is only available for public agencies who own or operate an ambulance service. Contra Costa County (CA) presented to the Washington County stakeholders how its county fire agency is the “operating” provider and purchases ambulance unit hours through a subcontract with a private ambulance provider. This has enabled the EMS system to receive supplemental Medicaid funding in the amount of \$700,000 last fiscal year. It should be noted that GEMT funding is only available for traditional Medicaid patients. Any region that has accepted Medicaid patients into a community care organization (CCO) are not eligible for GEMT. This is the case in Washington County where Health Share of Oregon is the Medicaid provider. A discussion with Health Share is necessary to determine if additional funding is possible. If so, this is referred to as inter-governmental funding (IGT). There are concerns that GEMT and IGT funding are not reliable long-term and may not outweigh the financial risk for a public agency to accept the risk of healthcare reform. There are also a number of Medicare pilot projects in the country with early impressive results which are designed to reduce ambulance use with the pilot projects offering varying alternative funding for these alternative services.

B. Return on Revenue Model

A different approach is to limit the profit made through the ambulance contract. The ambulance provider agrees to a maximum, or “profit cap,” on the difference between revenue and expenses. The local government agency is doing its job as the ambulance contract regulator and assuring its residents that a private company is not taking advantage of them. When establishing a profit cap, it is important to define what can be included in expenses, most notably overhead – those expenses not directly related to supporting ambulances and their crews.

Sample language of a profit cap is available in Attachment C. It was also mentioned during this project that the current waste management agreement with Washington County may have a similar requirement and return on revenue language. The profit cap could be negotiated as part of an amendment for current services. A revenue limitation may meet the “transparency and accountability” Foundation Principle.

C. Annual Rate Review

Regardless of the contracting approach, it is expected that costs will increase annually. Therefore, any agreement should accommodate an increase in ambulance base rate and other charges to offset the new expenses. The burden for new revenue is placed primarily on private payers as the reimbursement rates for Medicaid are fixed and Medicare rates typically do not increase at the same rate as expenses. Therefore, a higher increase in usual and customary rates is necessary to achieve a net improvement across all payers. Attachment C provides one example of how a base rate can be adjusted annually. Most increases are based on the local cost of living adjustment (COLA), sometimes the medical and/or transport COLA are utilized as it better represents the ambulance industry (e.g., 20 percent transportation COLA, 15 percent



medical COLA, and 65 percent straight COLA). This may be sufficient or a multiplier may be necessary to balance the lack of new revenue from Medicare, Medicaid, and charity/unfunded transports. Other EMS systems incorporate changes in collections into the rate review; however, this should be supervised closely to ensure a change in billing practices, not payer mix, has not caused the decrease in revenue.

In The Abaris Group's experience, all ambulance contracts should allow for rate increases when expenses increase or revenues decrease substantially beyond the control of the provider. Significant changes in fuel costs or healthcare reform are examples that are often granted. This may be audited and approved internally, but it is more common for a third party, such as The Abaris Group, to review rate request and rationale to ensure objectivity.

VII. EMS System Performance

A. Current Performance

The Members of the EMS Council shared their opinions on current EMS system performance metrics and quality improvement; prior EMS Council minutes were reviewed as part of this project. The ambulance provider is meeting the response times as required by contract. There is little else being tracked or benchmarks established for performance metrics. Quality improvement is segmented with each ambulance and first response provider managing it independently. There are multiple patient care reporting systems between all of the EMS providers. Further, some providers are not sharing their patient care data with Washington County. These siloed processes severely limit the ability to create a single, systemwide continuous quality improvement approach.

B. Future Performance

As a system, the EMS stakeholders need to determine the performance and quality metrics that are appropriate for the Washington County EMS system. A list of regional, national, and international benchmarks and standards are included as Attachment D. These metrics can provide a starting point for stakeholders. While developing a local list of standards to achieve, it is important to keep three things in mind:

- 1) Meaningful – The standard must provide value to the patient, e.g., data-driven improvement in patient outcome, more appropriate care/disposition, less expensive
- 2) Measurable – Any standard must be able to be objectively tracked in order to know if it is being improved; single patient care database is critical, preferably through a single patient care reporting software
- 3) Manageable – The provider being held to the standard must be able to manage it; this empowers the provider to train/educate the field crews for success. There may be systemwide standards, such as bystander CPR, that stakeholders want to watch, which should be tracked separately from provider standards

These future performance and quality metrics meet all of the Foundation Principles. They require integration of providers to achieve clinical excellence and operational effectiveness. The metrics will reveal opportunities for improving the culture of safety



and mindfulness. Tracking standards over time provides transparency and accountability to each other and the community. Implementing training and education based on quality metrics is responsive to patient needs. Having a consolidated, systemwide approach to EMS performance is also fiscally responsible.

VIII. Recommended Policy Decisions and Changes

A. Centralized Dispatch

Using one dispatch center for both fire first response and transport resources has significant benefits as discussed previously. There may be some cost savings due to the current duplication of dispatch centers; however, the greatest advantage is optimal coordination of all EMS resources. There should be no change to the fixed costs for Washington County Consolidated Communications Agency (WCCCA) to dispatch an additional unit (i.e., an ambulance) to 9-1-1 medical calls. There will be some start up (and possibly on-going) costs to switch the mobile data terminals/computers (MDT/MDCs) to the WCCCA dispatch system. The ambulances already have compatible radios. Metro West should be expected to pay costs similar to any other member of WCCCA. Metro West will realize savings in reducing the number of employees within its dispatch center. This would be the minimum savings. Metro West could also calculate its current, fully loaded dispatch cost per call. This number multiplied by the number of Washington County 9-1-1 calls is the maximum savings. It would not be appropriate to assume Metro West could cut all of its fully loaded expenses – somewhere between the minimum and maximum savings is the actual savings that could be quantified and reinvested into the EMS system through paying WCCCA, adding unit hours, training, and equipment or reducing ambulance rates.

B. GEMT/IGT Funding within Governance Financial Models

In order to be eligible for supplemental Medicaid funding, the provider must be “owned or operated by a local government, a state agency or a federally recognized Indian tribe” per HB4030 (approved 2/11/2016). This is commonly referred to as a “public provider” including fire and other government departments. This public provider must be the provider of record with Medicaid. Currently, Metro West has the contract for 9-1-1 ambulance with Washington County and has the Medicaid provider number. The Abaris Group is not aware of any 9-1-1 ambulance provider that has gained access to GEMT funding without issuing an RFP to enable a public provider to become the Medicaid provider of record.

Because Washington County Medicaid lives are covered by the Health Share CCO, GEMT would only be available for those transports not covered by the CCO. Health Share has the option to fund a similar additional payment; this is commonly referred to as inter-governmental funding (IGT). However, the legislation makes this voluntary. Additional discussion with Health Share is warranted before proceeding further. If they are not interested in participating, then there is minimal value to changing the governance model to access new revenue. However, if Health Share is interested, it may not be necessary to change the current Metro West agreement or issue an RFP.



Another option is asking Health Share to increase the current ambulance transport payment higher than the Medicaid allowable. While, CCOs have the right to pay only the Medicaid amount, they could choose to pay more for any service. Health Share could pay Metro West a comparable rate to the GEMT program without triggering a change in the provider of record. This would not allow Metro West to capture out-of-county GEMT funding, but that is likely to be a very small percentage of transports.

C. Shared Financial Responsibility for Quality Improvement

The current EMS quality improvement program is disjointed as each provider has its own program and approach as described previously. This is inherently more expensive than a coordinated, systemwide continuous quality improvement program. Many EMS systems find the first step is a single electronic patient care report database that assigns a single unique identifier from dispatch to discharge. This significantly improves and simplifies the process. Since each provider is currently paying for individual report software, there is no new cost to use a single system – and potentially savings for negotiating with one software vendor.

This patient care data must then be analyzed and benchmarks identified. This should also be consolidated across the EMS system. The subject matter expert from Santa Cruz County described how the fire departments created the EMS Integration Authority (EMSIA), which handles all first responder quality improvement and coordinates with the transport provider. The EMSIA contracts with one of its fire agency members for a full-time quality improvement manager. The San Mateo County ALS Joint Powers Authority speaker shared a similar approach with three Fire Battalion Chiefs supporting quality improvement county-wide. Centralizing all of the quality improvement activities within one or more full-time staff will not only provide better a quality process, but also save money potentially.

IX. Timeline and Process

The EMS Council has done an excellent job at developing a Mission, a Vision, and creating Foundation Principles to drive the EMS system into the future. The next phases will involve the implementation of the EMS system components and other improvements to reach those goals. Typically, this is handled by the stakeholders directly involved and reported out as needed. This will require specific stakeholders to meet more often, but should not require the EMS Council to convene as frequently – possibly quarterly to hear updates on the different processes. Listed below are the different EMS system components for possible implementation to achieve a truly integrated, public/private partnership within the EMS system. Recommended steps and potential timeline are included for reference and will need to be refined as additional information is collected.

A. Centralized Dispatch

Implementation – Metro West and WCCCA would be the primary stakeholders. WCCCA needs to determine the MDT/MDC hardware integration needs and if there would be any costs to Metro West for supporting this hardware as well as dispatch calls. Metro West should determine the cost savings, both marginal and fully loaded, for not having to dispatch its 9-1-1 within Washington County. Once Metro West and WCCCA

determine the impact, the County may want to adjust the ambulance base rates or otherwise instruct Metro West how to invest the savings from consolidated dispatch services.

Governance – Metro West contracts with WCCCA for dispatch services. County amends ambulance contract to use County-approved dispatch center.

Timeline – 9-12 months

B. First Responder Integration

Implementation – The fire agencies are the primary stakeholders. Either individually or through a 190/IGA, the first responders would establish an acceptable response time standard within the EMS system. Once identified, the County would negotiate with MetroWest to establish slower response times based on first responders' commitment to the system. The value of the amended response times to MetroWest is identified and put back into the EMS system through lower patient charges, adding EMS equipment, supporting first responders, funding system-level quality improvement, etc.

Governance – Individual fire agencies or unified fire through a 190/IGA contracts with the County or MetroWest to deliver a specific level of EMS response.

Timeline – 6-12 months, depending if 190/IGA is preferred governance model

C. Data-Driven EMS System

Implementation – A single database for all patient care records needs to be established. Fire agencies and Metro West are the primary stakeholders. Dispatch would need to interface with the data system as well. The simplest model is a single patient care reporting software, but some systems have found it possible to export data into a consolidated database. While feasible, the long-term management costs of multiple systems feeding into one can outweigh any short-term benefits. The County would need access permission to run state reports, conduct investigations, etc.

Governance – No inter-agency contracts would be necessary. However, each agency would need an agreement with the software vendor. The County may also need some type of agreement to access the data, meet HIPAA compliance, etc.

Timeline – 12 months

D. Systemwide Quality Improvement

Implementation – Creating a single patient care database will significantly simplify the implementation of systemwide quality improvement. The first responders, Metro West, EMS medical directors, hospital EMS liaisons, and the County will need to work together to determine the clinical and performance benchmarks that are meaningful to the patient, measurable by the data system, and manageable by the providers. The fire



agencies may choose to form an intergovernmental agreement (190/IGA) and develop a single, uniform quality improvement process from all agencies to support this EMS component.

Governance – Fire agencies develop 190/IGA or data use agreements with the County and the County requires Metro West to participate.

Timeline – 6-9 months (after consolidated database established)

E. Centralized Medical Direction

Implementation – Coordinate with the individual provider medical directors and EMS medical director. Establish centralized medical direction through this stakeholder group that offers a unified approach to continuous quality improvement, education, research, etc.

Governance – Most likely no change in governance model. Could be a component of a fire or fire/County 190/IGA, if desired.

Timeline – 6-12 months, depending if 190/IGA is preferred governance model

F. Return on Revenue Model and Annual Rate Review

Implementation – The County and Metro West are the primary stakeholders. They may agree to a profit cap and any new requirements as they relate to ambulance rates. This will require Metro West to track the Washington County ambulance contract as a separate entity within its company, which is fairly typical in other competitively bid EMS systems. It is important to note that any excess funds cannot be shared with the County due to anti-trust concerns; instead, any surplus should be reinvested into the EMS system directly by the contracted provider under the direction of the EMS stakeholders (such as through the emergency medical care committee). This is reflected in the sample contract language provided in Attachment C.

Governance – The County would prepare an amendment reflecting the agreed upon changes to the current agreement.

Timeline – 3-6 months

G. GEMT/IGT Funding

Implementation – GEMT funding is not available for most Medicaid transports due to a contract with Health Share. Funding through IGT or a rate hike may be possible with Health Share. The County should take the lead and talk with Health Share about the possible opportunities to adjust ambulance transport payments closer to the actual cost of providing service. If Health Share is willing, Metro West may need to provide expense details to determine transport cost using the accepted GEMT/IGT formulas. As a consideration of supplemental funding, Metro West may want to offer Health Share the



ability for Metro West paramedics to contact Health Share advice nurses (if available) and offer options other than transport to emergency departments, such as clinics, urgent care centers, or even a next-day primary care appointment instead of transport. Metro West would still be paid for its assessment and treatment, but Health Share would avoid the emergency department visits – that are much more expensive than the ambulance bills.

Governance – A rate hike with Metro West would require no change in contract. However, if Health Share requires a process through IGT, this would require a new RFP based on The Abaris Group’s experience in other EMS systems.

Timeline – 3 months (rate hike), 18-24 months (IGT/new RFP)

X. EMS System Compliance and Oversight

Regardless of the governance model ultimately selected, there needs to be a small group of stakeholders responsible for the compliance and oversight of the EMS system. For long-term contract compliance and system integration, The Abaris Group recommends an System Oversight Committee, similar to what San Mateo County (CA) has established. Their Council has 6 members = 2 County + 2 fire + 2 transport provider. The membership is kept small to be effective and is responsible to deliver an objective process for system management and oversight. Possible responsibilities include:

- Act as the funnel point for data requests and distribution of responses
- Drive strategic planning and system priorities
- Ensure system evolution is executed in fiscally sound manner by providing, among other things, oversight of any revenue in excess of profit cap
- Ensure transparency in the system
- Establish and monitor clinical and performance benchmarks for each component of the system; dispatch, first response, ambulance and for each functional area of the quality performance plan (may delegate to Quality Leadership)
- Operate based on researched, data-driven information
- Oversee transport provider compliance with county contract
- Resolve stakeholder disputes
- Review and approve appropriate procedures and protocols with the goal of assisting the parties in maintaining sustainable and high-quality EMS



XI. Attachments

A. Subject Matter Expert Presentation Feedback

Scoring (1-5, low-high)

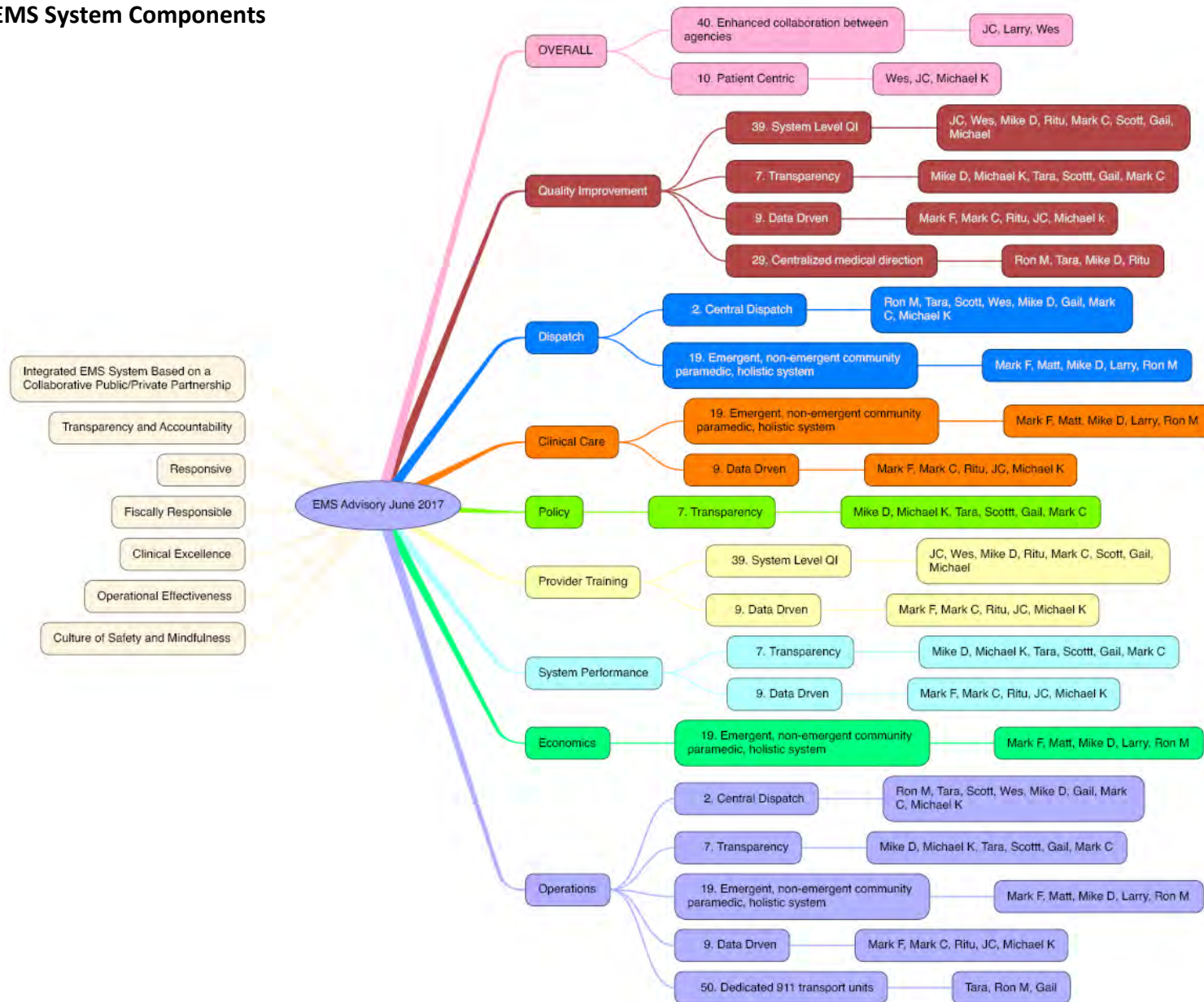
Heat Map by County Presentation

Best Practice Summary	Santa Cruz		San Mateo		Contra Costa	
	Applicability	Value	Applicability	Value	Applicability	Value
Integrated EMS system	3.0	3.1	2.9	3.0	4.1	4.4
Transparency & Accountability	3.1	2.9	2.5	2.5	4.4	4.6
Responsive	3.3	3.0	2.8	2.5	4.4	4.0
Fiscally Responsible	2.0	2.0	1.6	1.9	3.6	3.6
Clinical Excellence	3.1	3.1	2.6	2.5	3.5	3.6
Operational Effectiveness	2.8	2.5	2.0	2.4	4.4	4.4
Culture of Safety and Mindfulness	3.1	2.7	2.9	3.0	3.9	4.1
Average	2.9	2.8	2.5	2.5	4.0	4.1

Heat Map Overall

Best Practice Summary	Santa Cruz		San Mateo		Contra Costa	
	Applicability	Value	Applicability	Value	Applicability	Value
Integrated EMS system	3.0	3.1	2.9	3.0	4.1	4.4
Transparency & Accountability	3.1	2.9	2.5	2.5	4.4	4.6
Responsive	3.3	3.0	2.8	2.5	4.4	4.0
Fiscally Responsible	2.0	2.0	1.6	1.9	3.6	3.6
Clinical Excellence	3.1	3.1	2.6	2.5	3.5	3.6
Operational Effectiveness	2.8	2.5	2.0	2.4	4.4	4.4
Culture of Safety and Mindfulness	3.1	2.7	2.9	3.0	3.9	4.1
Average	2.9	2.8	2.5	2.5	4.0	4.1

B. EMS System Components





C. Sample Return on Revenue Contract Language

10.2 Billing and Collections

Rates – Approved rates beginning on the Contract start date are located in Exhibit XX.

Rate Adjustment – Contractor may request a rate increase during the Annual Budget process. County shall grant annual increases to the base rate, mileage, and oxygen equal to the Medical CPI averaged over the most recent three years, multiplied by 1.75, with a minimum increase of 5% and a maximum of 9%. Any request must be received at least 90 days prior to effective date of implementation of the increase.

Mid-cycle rate adjustments to the ambulance rates will be allowed for decreases in revenue due to the Centers for Medicare and Medicaid Services (CMS), payor mix changes, collection change outside the control of the Contractor, etc. The Contract Administrator may approve mid-cycle rate adjustments of up to three percent (3.0%). Any increase above three percent/CPI must be approved by the Board of Supervisors.

Contractor's annual profit shall be capped at seven percent (7.0%) of net revenue in any fiscal year covered by this Contract ("Profit Cap"). If, at the end of any fiscal year, the Profit Cap is exceeded, Contractor shall reduce EMS System costs by delaying the next annual rate increase by an amount equal to the excess profit. Such reduction shall be made during the fiscal year immediately following the year in which the Profit Cap was exceeded. Examples of other ways to abate the excess profit may include, but are not limited to, increases in training and purchasing of equipment, as approved in writing by the County Emergency Medical Care Commission.

Compassionate Care Screening – in keeping with a commitment to meet the needs of the community, Contractor shall extend discounts in the form of a compassionate care allowance to those patients who have demonstrated an inability to pay for emergency medical transportation services. Contractor shall maintain a procedure, approved by the Contract Administrator, which provides administrative guidelines and a sliding scale of eligibility for screening such patients. Screening for eligibility shall be determined through a formula that considers annual gross income, out-of-pocket medical expenses and size of patient's immediate family. The current eligibility criteria are shown in Exhibit XX.

10.3 Profit

Annual Profit – Contractor shall abide by the Profit Cap described in Section 10.2(B).

General Administration and Indirect Expenses Cap – Allowable General Administration and Indirect Expenses will be the actual cost or up to a maximum of 13% of direct expenses as defined in Exhibit XX.



D. EMS Standards, Core Measures, and Benchmarks

EMS Standards, Core Measures, & Benchmarks								
Organization	SCEMS	MedStar	EMSA	NEMSIS	Compass	NHS-UK	AHA	CMS
Cardiac Arrest								
Response interval < 5 minutes for CPR/AED		●						
Bystander CPR rate	●	●		●			●	
Bystander AED rate	●	●		●			●	
Appropriate airway management		●						
End-tidal CO2 monitored				●			●	
Pit crew/focused CPR	●							
Transport to "Resuscitation Center"		●						
ROSC percentage	●	●	●	●		●		
Survival to discharge (e.g., overall, Utstein)	●	●	●	●		●		
Hypoglycemia								
Glucose recorded before treatment					●	●		
Hypoglycemia corrected through treatment					●			
Glucose recorded after treatment						●		
Correct disposition (e.g., transport, referral, home)						●		
Pain Management								
Offered pain meds prior to movement		●	●					●
Pain score decreased		●			●			●
Respiratory Distress (e.g., asthma, intubation)								
Mental Status		●						
Resp. rate, SpO2, PEFR recorded before treatment		●		●		●		
Oxygen administered (if appropriate)		●				●		
Bronchodilators for pediatrics with wheezing			●		●			
Beta2 agonist administration for adults		●	●			●		
Endotracheal intubation success rate		●	●	●				
End-tidal CO2 performed on any successful ET intubation		●		●				
Improvement after treatment								
Seizure								
Glucose recorded					●			
Received intervention as appropriate					●			
Seizure, Febrile								
Glucose recorded						●		
SpO2 recorded						●		
Anticonvulsant administration						●		
Temperature management						●		
Sepsis								
Protocol completed (HR, BP, resp, temp documented with fluid initiation, O2, hospital alert)		●						
STEMI								
Recognition		●					●	
ASA administration	●	●	●	●		●	●	●
NTG administration		●				●	●	
Appropriate analgesia given		●				●	●	
Two pain scores recorded		●				●	●	
SpO2 recorded				●		●	●	
EKG acquired	●			●		●	●	
EKG acquired within X minutes (e.g., 5-10)		●					●	●
12L acquired		●	●	●			●	
12L transmitted		●					●	
Scene time (e.g., < 10 minutes)	●	●	●				●	
Transport to STEMI center rate (with notification)	●	●	●	●		●	●	●
911-to-balloon time	●							



EMS Standards, Core Measures, & Benchmarks								
Organization	SCEMS	MedStar	EMSA	NEMSIS	Compass	NHS-UK	AHA	CMS
Stroke								
Time last seen normal	●	●		●		●	●	
Use of a prehospital stroke scale (e.g., NHS, FAST, MEND, CPSS, LAPSS, MASS)	●	●		●	●	●	●	
Blood glucose documented	●	●	●	●		●	●	
Blood pressure documented		●		●		●	●	
Appropriate O2/airway management		●						
Scene time (e.g., < 10 minutes)	●	●	●	●				
Transport to a stroke-capable facility (and alerted)	●	●	●	●		●	●	
911-to-needle time	●							
Trauma								
Over-triage rate							●	
Under-triage rate							●	
PAM scale recorded	●							
Scene time (e.g., < 10 minutes)	●	●	●					
Trauma center destination	●	●	●		●			
NON-CLINICAL STANDARDS, CORE MEASURES, BENCHMARKS								
Efficiency Domain								
Cost per patient contact								
Cost per transport		●						
Cost per unit hour		●						
Employee turnover rate								
Patient Safety								
Drops per 1,000 patient contacts								
AMA to new call within X hours (e.g., 24-72)		●				●		
AMA to hospital within 24 hours								
Mission failures per X responses/miles		●						
Ambulance crashes per X responses/miles								
Chart Review (random, manager, MD)								
Protocol compliance rate (note: this can be overall or individual)								
Total Standards	19	39	15	19	8	25	22	5

Legend:

SCEMS = Santa Cruz EMS System

MedStar = MedStar Mobile Integrated Healthcare (Fort Worth, TX)

EMSA = California EMS Authority (2015)

NEMSIS = National EMS Information Systems (version 3.0)

Compass = EMS Compass produced by National Association of EMS Officials (NASEMSO)

NHS-UK = National Health Service-United Kingdom (version 1.31, 2016)

AHA = American Heart Association

CMS = Centers for Medicare and Medicaid Services (ED standards applicable to EMS)



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