Performance Audit
MAST Financial Viability

July 2003

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City Auditor's Office

City of Kansas City, Missouri

16-2003

July 2, 2003

Honorable Mayor and Members of the City Council:

City Council Resolution 030090 directs the City Auditor to evaluate the Metropolitan Ambulance Services Trust's (MAST) financial viability and audit its contracts with other cities to determine their impact on MAST's financial status. MAST has asked for an increased subsidy from the city to cover financial losses. The city budgeted $5.4 million for MAST in fiscal year 2004, about a 145 percent increase from fiscal year 2000. This audit focuses on MAST's financial condition, why it has deteriorated, and the consequences.

MAST is not financially viable without additional funding. MAST's financial position was weak throughout the period we reviewed and had deteriorated considerably by fiscal year 2002. Expenses grew faster than revenues and MAST relied on fund balance, additional city subsidy, and loan guarantees to make up the difference. The federal government started reducing Medicare reimbursement rates in April 2002. Reductions will continue to be phased in through 2007. These reductions contribute to MAST's poor financial outlook but do not explain why the financial condition had deteriorated by the end of fiscal year 2002.

There is no single explanation. The MAST Board has been aware of the worsening financial condition. MAST management has not adequately analyzed factors contributing to the organization's financial condition. MAST has not historically tracked collection rate by payer or type of service so we cannot tell whether changes in the composition of payers or services provided are associated with changes in collection rates. Collection rate has a significant impact on MAST's financial position. MAST has not analyzed what different services cost or whether fees cover the costs. Management told us that they do not know the operational costs because they do not operate the system, and they plan to learn what the system costs by running the system.

Service to other cities does not appear to significantly affect the system cost for Kansas City residents. MAST has not analyzed revenues and costs for service to other Missouri jurisdictions before 2001. MAST does not have formal, written agreements with the other Missouri jurisdictions it serves. Entering into formal agreements and systematically tracking service cost and revenue by jurisdiction would allow MAST to ensure that it is meeting its obligation to Kansas City residents.

We recommend the MAST Executive Director direct staff to analyze collection rates by payer, type of service, and jurisdiction; analyze the cost of different types of service, determine reasonable fees based on cost of service and expected collection rates; and determine the amount of city subsidy that will be required in the short and long term.

Management and the Board have made decisions based on misperceptions. Therefore the actions MAST is proposing are unlikely to solve the problems. We recognize that the economics of health care are complicated. Given increasing costs and changes in Medicare reimbursements, it is possible that MAST would be facing financial difficulty even if management had more objectively analyzed factors contributing to its financial decline. But more timely and objective analysis would have given the MAST Board and the City Council more time and better information to make decisions about the future of the emergency medical services system.

The immediate consequence of MAST's lack of financial viability is that the city will need to pay more for potentially lower quality service. The MAST Board voted to take over operations of the Kansas City ambulance service when the contract expires. Under city code, MAST may act as operations contractor for up to 12 months. However, management has expressed interest in operating the system for longer than 12 months and has not begun to prepare an RFP to secure a contractor. The change in service delivery raises financial and organizational concerns. Without a performance contract, the city will have less leverage to ensure compliance with the code, and changes in oversight have yet to be addressed.

The City Council established MAST in 1979 to provide the city's ambulance service following the public utility model. While MAST appears to have tacitly rejected the public utility model, the decision whether to change the service delivery model rests with the City Council. We recommend the Health Director provide the City Council with information necessary to evaluate options for providing ambulance service. In the meantime, the MAST Executive Director should begin to draft an RFP to secure an operations contractor.

We provided draft reports to the City Manager, Health Director, and MAST Executive Director for review and comment. Their responses are appended. Our comments regarding the MAST Executive Director's response to the audit are also appended. We appreciate the courtesy and cooperation of city, MAST, and EPI staff throughout the audit. The audit team for this project was Sue Polys, Joan Pu, Julia Talauliker, Vivien Zhi, Mike Eglinski, and Amanda Noble.

Mark Funkhouser
City Auditor

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Introduction

Objectives

We conducted this audit of MAST's financial condition pursuant to Article II, Section 13 of the Charter of Kansas City, Missouri, which establishes the Office of the City Auditor and outlines the City Auditor's primary duties.

A performance audit is an objective, systematic examination of evidence to independently assess the performance of a government organization, program, activity, or function in order to provide information to improve public accountability and facilitate decision-making.[1] We designed this audit to answer the following questions:

- Is MAST financially viable?
- If MAST is not financially viable, why not and what are the consequences?

Scope and Methodology

We evaluated MAST's financial condition over fiscal years 1997 through 2003 and tested explanations offered by stakeholders to explain deteriorating financial condition, including problems with:

- Billing information
- Collections
- Fee structure
- Governance practices
- Competition for the operations contract
- Performance expectations
- Services to other cities
- Size of fleet and maintenance practices
- Amount of Medicare and Medicaid reimbursements

[1] Comptroller General of the United States, *Government Auditing Standards* (Washington, DC: U.S. Government Printing Office, 1994), p. 14.

We conducted this audit in accordance with government auditing standards. Our audit methods included:

- Reviewing audited financial statements for MAST and its operations contractor for fiscal years 1997 through 2002.
- Reviewing KPMG's working papers for MAST's fiscal year 2002 audit.
- Reviewing MAST Board minutes from January 1998 through March 2003.
- Interviewing MAST Board members.
- Reviewing job descriptions, labor agreements, and other documents.
- Reviewing MAST's approved budgets for fiscal years 1999 through 2004.
- Reviewing legal and regulatory requirements.
- Reviewing the North American Association of Public Utility Model's report, *High Performance and EMS Market Study 2002*.
- Interviewing officials from EMS systems in Pinellas County, Florida, and Oklahoma City, Oklahoma.
- Interviewing staff from MAST, EPI, and the city's Health, Finance, Fire, and Law departments.
- Analyzing MAST dispatch data for calendar years 1999 through 2002.

No information was omitted from this report because it was deemed privileged or confidential.

Background

The City Council established the Metropolitan Ambulance Services Trust (MAST) in 1979 to provide the city's ambulance service following the public utility model (PUM). This model splits business operations from medical quality assurance to eliminate incentive to over- or under-serve

patients, while exclusive market rights for a single provider promote economies of scale.

MAST was established as a trust with the city as its sole beneficiary. The primary purpose of the trust is to assist the city to manage and oversee an emergency medical services system for city residents and to charge and collect fees. MAST is governed by a nine member board, with seven members appointed by the Mayor and the city's Finance Director and Health Director serving as ex officio, non-voting members. The trust indenture established the composition of the board: two elected Council members; two licensed physicians with full-time practice in emergency medicine; a person with experience in health care or public administration; a representative of the business community with background in finance and banking; and a licensed lawyer with background in legal aspects of the health care industry.

The City Council authorized MAST to incorporate as a not-for-profit organization in March 2003. Approval of termination of the trust is contingent on the corporation retaining the composition of the board, agreeing to transfer assets to the city if the corporation is dissolved, and providing that no agreement with any jurisdiction outside the city will reduce or otherwise adversely affect the level of services provided to city residents.

The city contracts with MAST for ambulance service. The city, through the Director of Health, contracts annually with MAST to provide ambulance service. MAST is required to comply with all sections of the city code. The city agreed to pay MAST $2.3 million in fiscal year 2003 for indigent health care services. The city also agreed to guarantee payment of loans up to $2 million.

Roles and Responsibilities Under the Public Utility Model

Chapter 34, Article IX of the Code of Ordinances defines and implements the public utility model for ambulance service. The code was revised in March 2001 to implement recommendations of our 2000 *Performance Audit: Emergency Medical Services System* and recommendations of the Mayor's EMS Special Study Committee. The changes included strengthening the role of the Health Director and better integrating first responders into the system. The Code of Ordinances requires advanced life support capabilities on all ambulances and establishes response time standards and license and permit requirements.

The code defines the roles and responsibilities of the major components of the system:

Health Director. The Director of Health is the primary regulator of the pre-hospital emergency medical services system, with the authority to promulgate regulations, standards, and rules necessary to implement the intent of the code.

Medical Director. The Medical Director is the primary source of day-to-day medical direction and clinical oversight of all elements of the pre-hospital emergency medical services system.

Fire Chief. The Fire Department serves as the primary first responder agency under the medical direction and medical control of the Director of Health.

MAST. MAST is responsible for overseeing and managing the ambulance service. The code requires MAST to contract for the supply of all labor and management services to operate its control center and ambulance operations. MAST is to procure a contractor through competitive bidding, requests for proposals, or through a negotiated process. MAST shall own or be the primary lessee of all major emergency equipment. Generally, MAST shall determine reasonable rates, and perform all billing and collection functions. MAST shall maintain its records and premises. MAST shall submit an annual report to the Health Director. MAST may act as operations contractor, not longer than one year, in the event of emergency or the absence of qualified bids or proposals at reasonable costs.

Emergency Physicians Advisory Board. EPAB is an advisory board of nine licensed physicians engaged in the full-time practice of emergency medicine. The Board serves to recommend ways to the Director of Health to promote high quality pre-hospital emergency care.

Emergency Medical Services Advisory Committee. EMSAC consists of 16 people appointed by the Mayor to represent the diverse interests of all people and areas of the city to advise the Director of Health on matters affecting the operation of the pre-hospital emergency medical services system.

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Findings and Recommendations

Summary

MAST is not financially viable without additional funding. MAST's financial position was weak throughout the period we reviewed and had deteriorated considerably by fiscal year 2002, before scheduled reductions in Medicare reimbursement rates took effect. Expenses grew faster than revenues and MAST relied on fund balance, additional city subsidy, and loan guarantees to make up the difference. The city budgeted $5.4 million for ambulance service and facility improvements in fiscal year 2004, about a 145 percent increase from fiscal year 2000. Most of the increase – $3.1 million – is funded through the public safety sales tax. Reductions in Medicare reimbursements, which started in April 2002, will continue to be phased-in through fiscal year 2007.

The MAST Board was aware of the worsening financial condition. MAST management has not adequately analyzed factors contributing to the organization's financial condition. Management and the Board have made decisions based on misperceptions. Therefore the actions MAST is proposing are unlikely to fix the problems.

We recognize that the economics of health care are complex. Given increasing costs and changes in Medicare reimbursements, it is possible that MAST would be facing financial difficulty even if management had more objectively analyzed factors contributing to its financial decline. But more timely and objective analysis would have given the MAST Board and the City Council more time and better information to make decisions about the future of the emergency medical services system.

The immediate consequence of MAST's precarious financial condition is that the city will need to pay more for potentially lower quality service. MAST management and the Board appear to have tacitly rejected the public utility model as implemented by ordinance. The MAST Board has voted to take over operation of the ambulance system. Management has expressed interest in operating the ambulance system beyond the 12 months allowed by current code in an emergency. The public utility model was designed to provide a high level of care quickly. Changes in the service-delivery model raise financial and organizational concerns.

The Council implemented the public utility model – the decision to change the service delivery model rests with the Council. The Council should be given sufficient time and information to make the decision through a deliberate process in an open, public forum.

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MAST Is Not Financially Viable Without Additional Funding

MAST is not financially viable and its financial position continues to weaken. Financial viability means that an organization is able to meet its financial and service obligations to creditors, employees, taxpayers, and other constituents as they become due, both currently and in the future.[2]

MAST's financial position has been weak. MAST expenses grew faster than revenues resulting in a cumulative shortfall from operations of $5 million between fiscal years 1997 and 2002. Operating margin – the percent of total operating revenue retained as income – has been negative since fiscal year 2000. Reserves of cash on hand dropped to 2 days in 2002 – the rule of thumb is to maintain 20-30 days. Current ratio dropped to 1.5 – meaning that MAST had liquid assets that could cover current liabilities 1.5 times. The rule of thumb is a current ratio of 2 or better. Revenue adjustments due to contractual allowances and bad debt constituted 46 percent of gross revenue in fiscal year 2002.[3] MAST relied on fund balance to meet obligations. (See Exhibit 1.)

Exhibit 1. MAST Financial Indicators, Fiscal Years 1997-2002

	1997	1998	1999	2000	2001	2002
Current ratio	2.3	2.3	2.7	2.2	2.1	1.5
Days cash on hand	59	90	94	36	14	2
Operating margin	(0.4%)	0.4%	0.4%	(6.2%)	(4.9%)	(11.9%)
Revenue adjustments of gross revenue	48%	43%	41%	44%	44%	46%
Net income (Millions)	$0.48	$0.61	$0.76	($1.63)	($1.22)	($3.99)
Fund balance - end of year (Millions)	$10.50	$11.37	$12.41	$11.06	$10.13	$6.46

Source: MAST audited financial statements for fiscal years 1997 through 2002.

[2] Robert Berne, *The Relationships Between Financial Reporting and the Measurement of Financial Condition,* (Norwalk, Conn.: Governmental Accounting Standards Board, 1992), p. vii.

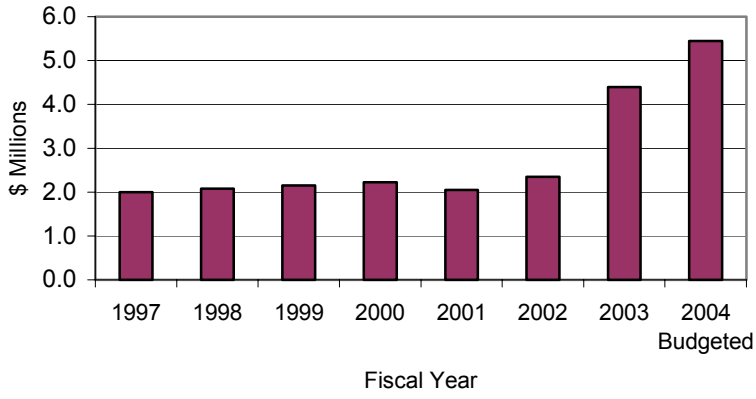
[3] Revenue adjustments as a percent of gross revenue measures the extent of adjustments in comparison to the amount of revenue generated. This ratio is calculated by summing contractual allowances and bad debt expense and dividing by gross revenue (including all sources of revenue generated by MAST). Contractual allowance refers to amounts uncollected due to agreements with third party payers such as Medicare and Medicaid. Bad debt expense refers to amounts uncollected because patients cannot or will not pay.

Financial outlook is poor. While MAST's financial position was bad in fiscal year 2002, conditions make it likely that it will continue to worsen. Reductions in Medicare reimbursements, which started in April 2002, will continue to be phased-in through fiscal year 2007. Prior to the change, Medicare reimbursed ambulance service on a reasonable cost basis. Now Medicare will pay based on the type of service provided. This means that in some instances Medicare will reimburse for basic life support (BLS) even when the responding ambulance is equipped with advanced life support (ALS) capability. During the phase-in period, the payment is based on a combination of the old and new payment methods. City code requires advanced life support capabilities on all ambulances, which increases flexibility of deployment. About 38 percent of MAST's billing in fiscal year 2002 was to Medicare.

MAST faces about a $0.9 million shortfall in fiscal year 2003 and estimates an additional shortfall of $1.2 million by the end of fiscal year 2004 despite increased city subsidies and loan guarantees. The cumulative shortfall from MAST operations would reach $7.3 million in fiscal year 2004. MAST expects to cover the loss by further drawing down fund balance and by increased city subsidy.

The city budgeted $5.4 million for ambulance service and facility improvements in fiscal year 2004, about a 145 percent increase in subsidy from fiscal year 2000. (See Exhibit 2.) The budgeted amount includes $3.1 million funded through the public safety sales tax to be used for capital improvements. The public safety sales tax is scheduled to expire in 2012. Without changes to operations or additional funding MAST will not be able to meet its service obligations in the near future.

Exhibit 2. City Subsidy to MAST, Fiscal Years 1997-2004



Source: City's financial management system (AFN).

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Misperceptions Affected MAST's Ability to Respond to the Financial Crisis

MAST management offered us several explanations for why the financial condition is poor including, loss of federal funds, inadequate billing information from the contractor, lack of competition that was exacerbated by the contractor's labor negotiations, and duplication and inefficiencies in the system. However, the data we examined do not support management's perceptions and explanations. Because management has not correctly identified the causes of the financial problems, their suggested solutions are unlikely to fix the problems and may expose the system to unnecessary risk.

Financial Crisis Began Before Reduction in Federal Funds

MAST management told us that reduction in federal money contributed to their budget crisis. We reviewed Board minutes from 1998 through 2003. MAST management often discussed the implications of reduced Medicare reimbursements with the Board when discussing financial condition. However, MAST's financial condition has deteriorated significantly since 1999 while Medicare reimbursement was not reduced until April 2002. Medicaid reimbursements are low, but increased somewhat over the period reviewed. Reduction in federal funds contributes to MAST's poor financial outlook but does not explain why the financial condition deteriorated before fiscal year 2002.

Reduction in Medicare reimbursement began in April 2002. The federal government started phasing-in reductions in Medicare reimbursement for ambulance transports in April 2002. Between 1997 and 2001, Medicare base reimbursement amounts for advanced life support (ALS) were increasing. The base reimbursement amount for non-emergency transports increased over 16 percent and for emergency transports increased about 7 percent. The base reimbursement rate was reduced in April 2002 and Medicare started phasing in lower payments for ambulance responses in which ALS care was not provided. (See Exhibit 3.)

Medicaid reimbursement has been low. The base reimbursement amount of Medicaid has been lower than the base amount reimbursed by Medicare. The amount did not change between 1997 and 2001, but increased about 7 percent for non-emergency transports and over 20 percent for emergency transports in 2002.

Exhibit 3. Medicare Base Reimbursement Amount in Missouri, 1997-2003

Year	Non Emergency - Specialized ALS	Percent Change	Emergency - Specialized ALS	Percent Change	Non Emergency - Not Specialized ALS	Percent Change	Emergency - Not Specialized ALS	Percent Change
1997	216.94		435.00					
1998	219.76	1.3%	440.66	1.3%				
1999	222.18	1.1%	445.51	1.1%				
2000	241.63	8.8%	454.42	2.0%				
2001	252.99	4.7%	466.69	2.7%				
2002	248.85	-1.6%	448.50	-3.9%	242.19		438.50	
2003	239.23	-3.9%	420.08	-6.3%	225.76	-6.8%	399.87	-8.8%
1997-2001		16.6%		7.3%				
2001-2003		-5.4%		-10.0%				

Source: MAST.

Lack of Billing Information Is Unlikely Cause of Financial Problems

MAST management and board members that we interviewed told us that EPI provides inadequate billing information, which contributes to low collections. However, MAST is unable to provide support that billing information is inadequate. It appears that the number of trip tickets with incomplete billing information is consistent with two other PUM systems. Under the contract, EPI is penalized for tickets with incomplete billing information unless they document that they have taken specific steps – a "diligent, thorough, and timely effort" – to try to obtain the information.

Contract defines required billing information and diligent effort. Under the contract between MAST and EPI, ambulance crews are required to collect information from the patient to facilitate the billing process. The contractor faces a penalty for uncollected information. The contractor can avoid penalty for failure to obtain the required information by completing all of the following steps:

- Contacting the hospital or care facility
- Contacting or attempting to contact the patient
- Referencing the telephone directory
- Referencing the zip code directory
- Referencing the Cole directory or the Polk directory

This process is referred to as diligent effort. MAST management told us that the number of diligent effort tickets is high.

Numbers of diligent effort tickets not compiled. Neither MAST nor EPI have compiled the number of trip tickets that are considered diligent effort over time. MAST began using a computer database in May 2002

to track completeness of tickets. Management did not analyze the information or report the number of diligent effort tickets until we asked for the information. After providing us with a list of 475 diligent effort tickets recorded in the database between May and December 2002, which is less than one percent of total transports, MAST management told us that the database is unreliable because the number is lower than they expected.

Billing information appears consistent with other systems. A sample of diligent effort tickets indicates that MAST has a similar number of diligent effort tickets as other EMS systems. We randomly sampled 35 days between May and December 2002 to count the total number of trip tickets and the number of diligent effort tickets. Among 6,760 trip tickets in Missouri, 72 were diligent effort tickets, about one percent of transports, which is consistent with two other EMS systems.[4] Officials from the PUM systems in Pinellas County, Florida, and Oklahoma City, Oklahoma, each told us that diligent effort were about one percent of total transports.

Salary Agreement Between EPI and Union Is Reasonable

MAST management and board members that we talked to said that salaries promised to the EMS union sabotaged the RFP process and resulted in a lack of bidders for an ambulance contractor. One company cited the labor cost as its reason for not submitting a proposal. However, salaries negotiated by EPI and Local 34, their EMT and paramedic union, are reasonable compared with the public safety salaries in the Kansas City metropolitan area and compared to systems with more than 50,000 calls per year. Salary increases were also a justified response to turnover reaching almost 40 percent.

Contract provides limited assurance of employment at comparable compensation in case of change in operator. The current contract between EPI and MAST provides EMT-drivers, paramedics, control center personnel, maintenance, and support staff working in the MAST system with an expectation of continued employment and comparable compensation if a new operator takes over. A new ambulance operator would have to meet the salaries of the previous contractor. EPI negotiated salary increases with its union during MAST's RFP process. One potential ambulance contractor cited the salary increase as their reason for not submitting a proposal on the operation, saying it

[4] We interviewed officials from Pinellas County, Florida, and Oklahoma City, Oklahoma, to ask about billing information and collection rates. These officials were part of the team that evaluated responses to MAST's RFP and MAST management requested that we talk to them.

wouldn't be able to provide a reasonable bid with those labor costs.[5] EPI officials told us that the increased pay was warranted because of its high turnover and the need to compete with other metropolitan ambulance services for employees.

Salary levels are competitive. The negotiated salaries are competitive with the salaries in 12 other Kansas City metropolitan ambulance operators and fire departments. We included comparison to fire departments that do not provide ambulance services because they recruit and hire paramedics and EMTs. The Journal of Emergency Medical Services (JEMS) 2002 salary survey shows union negotiated salaries in line with systems with more than 50,000 calls per year. The negotiated salaries are higher than the JEMS salary survey for the South Central region of the country, which includes Missouri and Kansas. (See Exhibit 4.) The negotiated union salaries increased starting pay for paramedics about 24 percent, EMTs about 25 percent, and system status controllers (SSCs) about 27 percent between fiscal years 2002 and 2005.[6] The time to reach the top of the scales was reduced from 15 years to 10 years.

Exhibit 4. Paramedic and Public Safety Salaries

Organization	Starting Pay	Top of Pay Range	Years to the Top
JEMS South Central 2002, average	$25,645	$36,990	NA
Independence Fire Department	$27,948	$40,716	5
Kansas City, Missouri, Fire Department	$29,232	$53,580	10
AMR Independence	$29,996	$44,994	Merit
Kansas City, Kansas, Fire Department	$30,816	$50,124	4
Belton Fire Department	$31,638	$42,398	7
Lee's Summit Fire Department	$32,671	$41,820	Merit
MAST (Local I-34 2003)	$33,719	$49,416	10
Johnson County Med-Act	$33,808	$58,182	Merit
Liberty Fire Department	$33,828	$47,364	Merit
Gladstone Public Safety	$33,889	$49,140	Merit
JEMS Call Volume > 50k, average 2002	$34,067	$55,445	NA
Overland Park Fire Department	$35,676	$57,672	5
North Kansas City Fire Department	$37,020	$49,632	7
Central Jackson County Fire Protection District	$42,717	$48,596	4

Sources: Agreement between International Association of Fire Fighters Local I-34 and Emergency Providers, Inc., July 1999; Journal of Emergency Medical Services 2002 Salary Survey; 2003 salary survey of KCMO metro ambulance organizations conducted by Local I-34; and 2003 salary survey conducted by Kansas City, Missouri, City Auditor's Office.

[5] Letter from William C. Pahl, Chief Executive Officer, South Central Region, American Medical Response to John Sharp, Executive Director, MAST. January 31, 2003.

[6] Between fiscal years 1999 and 2002, starting salaries for EMTs increased about 6 percent and starting salaries for paramedics and SSCs increased about 3 percent.

Salary increases were a reasonable response to high turnover. EPI's turnover for paramedics and EMTs was high over the last several years in comparison to ICMA's turnover ratio for public safety employees, including EMS employees. Between 1997 and 2002, EPI's EMT turnover ranged from 23 percent to almost 40 percent. (See Exhibit 5.) During the same time, paramedic turnover ranged from 18 to 39 percent. The International City/County Management Association (ICMA)[7] reports an average turnover rate between 4.5 and 5.0 percent in 1999 through 2001, for public safety employees in jurisdictions with greater than 100,000 population.

Exhibit 5. EPI's Turnover Rates, Calendar Years 1997-2002

	1997	1998	1999	2000	2001	2002
EMT	39.8%	30.8%	35.3%	33.6%	22.6%	28.7%
Paramedic	38.8%	36.4%	26.9%	24.6%	17.7%	30.3%
SSC	0.0%	10.0%	15.0%	15.0%	10.0%	10.0%

Source: EPI provided counts of the number of people by position leaving full-time employment and number of authorized positions.

MAST management reversed course on labor agreement. Although MAST management told us that the labor agreement with EPI sabotaged the RFP process, they have now ratified essentially the same agreement with the union as they plan to take over operations starting July 1, 2003, and acknowledge that the new salaries make MAST more competitive with other public systems.

Management Changed Service Requirements But Did Not Formally Analyze Effects

While MAST management told us that the labor contract sabotaged competition for the service, MAST issued an RFP that changed service requirements, including shifting cost and risks to the contractor. MAST did not formally analyze the economic effects of the changes. Only one firm, EPI, submitted a proposal in response to the RFP and that proposal was for a price that MAST could not afford.

MAST management told us that they expected to receive proposals lower than current costs because they believe EPI is inefficient or profiting excessively. However, market data and EPI's financial statements do not allow us to draw this conclusion. MAST has not put the service up for bid since 1987.

[7] ICMA, a professional and educational organization of appointed local managers and administrators, maintains the ICMA Center for Performance Management. It assists approximately 120 city and county governments to share data on programs, benchmark their performance to comparable jurisdictions, and improvement services.

Changes in service requirements increase costs. Some of the changes MAST made to the service requirements would increase costs to the contractors. For example, some of the changes in the RFP that would affect contractor costs, and hence the price MAST would be expected to pay, include: eliminating maintenance incentives, removing the overload matrix, and removing diligent effort allowances. These and other changes increase costs or risk for a contractor. MAST should have expected the bids to reflect those higher costs.[8]

Exhibit 6. Examples of Economic Effects of Changes in Service

Change in Service	Effect Compared to the Current Contract
Maintenance incentive payments eliminated.	Eliminates payments MAST had been making to the contractor, reducing cash paid to the contractor.
Overload matrix removed.	Increases the chances a contractor would be penalized for failing to meet response time performance requirements. The effect is to increase risks borne by the contractor.
Diligent effort allowances eliminated.	Increases the likelihood that a contractor would be penalized for failing to collect adequate billing information.

Source: Comparison between 2003 RFP Version 12 and Negotiated Contract Version 13, March 28, 2001.

Management expected lower costs based on unsupported assumptions. MAST management told us that they did not formally analyze the cost and price implications of the changes because they believed the changes did not have any significant economic effect. MAST expected to get several proposals and expected the proposals to be for lower amounts, primarily because they perceived that EPI was inefficient or profiting excessively. However the data do not allow us to draw this conclusion. The 2002 Market Study shows that MAST's unit hour utilization – a measure of productivity – and cost per unit hour are close to the median of other systems.[9] MAST management points out that the contractor's cost per unit hour is higher than the median

[8] EPI cited a new labor contract, insurance cost increases, and changes in the proposed contract to explain the increased price (letter from Judson Palmer, President, Emergency Providers, Inc., to Deborah Jantsch, M.D., Chair, MAST Board, January 20, 2003).

[9] The study is based on data reported for 8 public utility model (PUM) systems and 8 high performance emergency medical services (HPEMS) systems. The PUM systems are: Fort Wayne, IN; Fort Worth, TX; Kansas City, MO; Oklahoma City, OK; Pinellas County, FL; Reno, NV; Richmond, VA; and Tulsa, OK. The HPEMS systems are: Clark County, WA; Davenport, IA; Lincoln, NE; Little Rock, AK; Mecklenburg County, NC; Monterey County, CA; Solano County, CA; and Province of Nova Scotia, Canada. All the systems share common characteristics including fractile response time measurement, all ALS staffing, medical dispatch triage, and exclusive markets for emergency and non-emergency transports.

contractor cost.[10] (See Exhibit 7.) EPI has not profited excessively. Their financial statements show that profit margin was negative in fiscal year 1997 and was about 4.5 percent in fiscal years 2001 and 2002. Their average profit margin between fiscal years 1997 and 2002 was 1.7 percent.

Exhibit 7. Cost Per Unit Hour In Public Utility Model EMS Systems

	Total	Contractor	Authority
Ft. Worth	$87.58	$68.69	$18.89
Richmond	88.89	64.00	24.89
Ft. Wayne	92.54	67.71	24.83
Tulsa	102.55	74.58	27.97
Kansas City	104.16	80.88	23.28
Oklahoma City	109.78	76.76	33.02
Reno	118.87	78.13	40.74
Pinellas County	120.84	85.91	34.93
Median	$103.36	$75.67	$26.43

Source: *High Performance and EMS: Market Study 2002.*

MAST managers should have evaluated the effects on expected price of the changes in the RFP. Analyzing the effect of the changes on contractors costs – and hence the price MAST would expect to pay – would have provided the Board with better information and would have provided useful information for negotiating with the proposer. Given the requirements of the RFP, MAST and the Board should have expected the proposed price to be higher.

Elimination of Duplication Will Not Provide Permanent Savings

MAST management told us that they plan to save $1.2 million by eliminating duplication in the system, and this is the primary strategy outlined in their draft transition plan.[11] Because MAST is only authorized by ordinance to serve as operator for up to one year, these cost savings will be temporary measures. If the change is intended to be permanent, the cost of oversight may be shifted to the city.

MAST management plans to eliminate about 8 positions and $624,000 in personnel costs by eliminating duplicate functions as they take over operations from EPI and thereby make the system more efficient. Besides duplication of upper management positions, our analysis of position descriptions for both EPI and MAST found minimal duplication of functions. MAST is currently responsible for contract oversight, scheduling of public education, and billing and collections. It is staffed

[10] Responsibilities may be divided differently between the contractor and authority in different systems, which would affect cost comparisons.

[11] *Draft Transition Plan for MAST Operated EMS System*, March 26, 2003, pp. 6-8.

for those functions. EPI as the operator of the system is staffed with clinical personnel (EMTs and paramedics), logistics and scheduling personnel, staff trainers, and fleet maintenance personnel. MAST has hired consultants at a cost of about $70,000 to provide experience in operating procedures, quality improvement, risk management, system status management, and command and control systems engineering for when it takes over operations July 2003.

Most of the personnel costs that MAST has identified as duplication exist because MAST and the operations contractor must exist as independent entities. Each fulfills a different role in the system. By taking over operations MAST will change its role from an oversight agency. If this role is temporary, the savings will also be temporary. If the role is intended to be longer term, the continued need for oversight may result in a shift of cost from MAST to a city department.

MAST's additional analysis of duplication has been very basic. MAST considered EPI's budget categories and concluded it will be able to eliminate about $618,000 from professional fees, entertainment, and insurance, based on category without specific knowledge of the line item expenditures.[12]

Grants Probably Will Not Cover the Shortfall

The City Council passed an ordinance allowing MAST to become a not-for-profit corporation. The ordinance is intended to allow MAST to become eligible for grants.[13] However, MAST does not expect to significantly increase revenue through grants in the future.

MAST does not expect grants as a significant revenue source. MAST's chief financial officer told us that he hopes to get some grant funding for public education and serving special population sections in the future. However, only $65,000 was budgeted for public education in fiscal year 2003.

Grants are a small portion of revenues for other EMS systems. Grants are not a significant portion of other EMS system's revenues. The management of EMS systems we interviewed told us that grants are for small amounts and not available for operations. Jerry Overton, president of the American Ambulance Association, told us that grants are rare for EMS systems.

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[12] Draft Estimated Savings, prepared by Jim Jones, Associate Director, MAST.
[13] Committee Substitute for Ordinance No. 030376.

MAST Management Needs to Do More Analysis

MAST management has not adequately analyzed the factors contributing to its financial crisis. MAST lacks historical data on collection rates by payer so it is not possible to determine whether a change in the mix of payers was associated with changes in collection rates. MAST does not track collection rates by type of service or the costs of different services so it is not possible to determine whether fee levels are adequate to cover costs or whether changes in the composition of services are associated with changes in collection rates. MAST's budgets have been unrealistic. Collection rates and collected revenue were lower than budgeted and expenses were higher than budgeted. Collection rates have a significant impact on MAST's financial condition.

MAST's analysis of services to other cities in 2001 and 2002 shows that service to other cities does not significantly affect the system cost for Kansas City residents. MAST cannot identify revenues and costs by cities before fiscal year 2001.

Improving Collection Rate Would Significantly Improve Financial Condition

Collection rate has a significant impact on MAST financial condition due to the magnitude of billing. MAST billed $40 million to patients in 2002 and has estimated its patient billings at $42.6 million in fiscal year 2003. However MAST has not historically tracked collection rate by payer or type of service so we can't tell whether changes in the composition of payers or services provided are associated with changes in collection rates.

MAST's collection rate has fluctuated and is expected to decline. MAST's collection rate fluctuated around 50 percent between fiscal year 1997 and 2002. The highest collection rate of 55.8 percent was in 1999. The collection rate declined to 50.4 percent in 2002. (See Exhibit 8.) MAST expects the collection rate to drop below 50 percent in 2004 as reductions in Medicare reimbursements continue to be phased-in through fiscal year 2007.

Exhibit 8. MAST Overall Collection Rates, Fiscal Years 1997-2004

Year	1997	1998	1999	2000	2001	2002	2003[14]	2004[15]
Collection rate	47.5%	53.0%	55.8%	52.6%	53.3%	50.4%	51.6%	48.9%

Sources: MAST financial statements for fiscal years 1997 through 2002; MAST Budget 2004.

[14] Estimated.

[15] Budgeted.

MAST has not historically tracked collections by payer. MAST revenues come from four different payer categories: Medicare, Medicaid, insurance providers, and private payers. MAST didn't regularly budget, track, or report collections information by payer to the Board prior to this fiscal year. MAST assembled limited information on collection rate by payer for 2002 and 2003.[16] Compared to other systems, MAST had a similar overall collection rate, but a higher collection rate for Medicare and lower for Medicaid, insurance, and private pay. (See Exhibit 9.)

Exhibit 9. MAST Estimated 2002 Collection Rate by Payer Compared to Other Systems

	MAST	Median of 8 Other Systems Reporting
Medicare	65.3%	58.8%
Medicaid	25.4%	29.3%
Insurance	71.9%	79.8%
Private Pay	13.8%	26.0%
Overall	~51%	~53%

Sources: Spreadsheet from MAST, March 2003; *High Performance and EMS Market Study 2002.*

MAST has not tracked collections by the type of service. MAST provides emergency and non-emergency transports, and treatment without transport, but does not track or report collections information by service type to the Board.

Without historical data, we cannot determine whether changes in the composition of payers or service are associated with changes in collection rates and what collection rate is feasible.

MAST Should Analyze System Fees and Costs to Improve Financial Condition

MAST has not analyzed what different services cost or whether fees cover the costs. Management told us that they do not know the operational costs because they do not operate the system, and they plan to learn what the system costs by running the system.[17]

Total system costs are high, but productivity is similar to other systems. MAST had twice as many scheduled unit hours as the median of other systems included in the 2002 Market Study. While unit hour

[16] We were unable to reconcile the collection rate by payer spreadsheet prepared by MAST's chief financial officer in March 2003 for fiscal year 2002 to the audited financial statements. The spreadsheet did not account for about $2.2 million in revenue.

[17] *Draft Transition Plan for MAST Operated EMS System*, March 26, 2003, p. 1.

utilization and cost per unit hour were close to the medians of the other systems, the cost per transport was about 13 percent higher and the cost per capita was about 69 percent higher than the medians of the other systems. MAST's fleet size is also about twice as large as the median of the other systems. This means that MAST has more ambulances on the street and proportionally fewer transports. (See Exhibit 10.)

Exhibit 10. Market Study Indicators 2002

Indicator	Median	MAST
Service area (square miles)	433	433
Population	375,000	588,000
Emergency (911) transports		
Total	24,548	52,137
Per square mile	60	120
Per 10,000 population	560	887
Reported fleet size (PUM)	31	64
Annual scheduled unit hours (PUM)	116,397	240,240
Cost per unit hour (PUM)	$103.36	$104.16
Unit hour utilization (PUM)	0.33	0.32
Total system cost (PUM)	$11,560,041	$25,022,937
Total system cost per capita (PUM)	$25.14	$42.56
Cost per patient transported (PUM)	$287.61	$323.71
Percent of responses without transport	23%	25%

Source: *High Performance and EMS: Market Study 2002.*

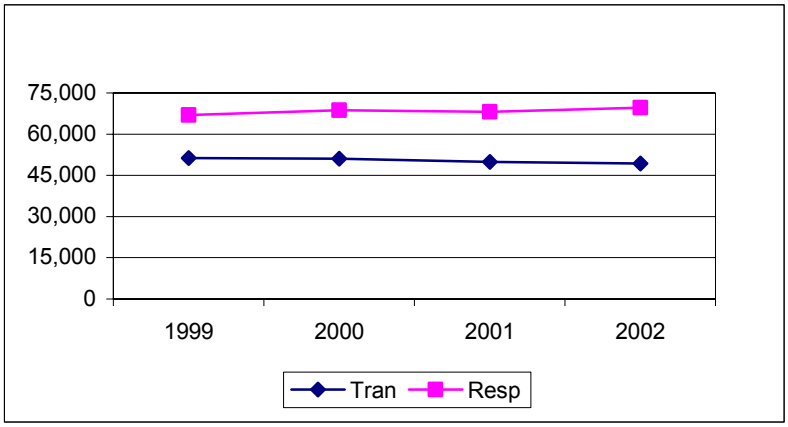
The number of transports has declined. Transports as a percent of total responses have declined. In 1999 about 80 percent of responses resulted in patient transport. In 2002, 76 percent of responses resulted in patient transport. While emergency responses increased about 4 percent over the four years, non-emergency responses declined about 15 percent.

Emergency responses have increased while transports decreased. While emergency responses increased about 4 percent between 1999 and 2002, emergency transports dropped by about 4 percent. (See Exhibit 11.) Compared to other systems in the Market Study, MAST's responses resulting in refusal or no transport was slightly higher than the median. MAST charges a fee for treatment without transport, but the fee has increased at a lower rate than the fees for transports. MAST does not track the collection rate for treatment without transfer.

Non-emergency responses and transports have decreased. Non-emergency responses dropped about 15 percent and non-emergency transports dropped about 13 percent. (See Exhibit 12.) Non-emergency transports have declined since MAST started its Wheelchair Van Service in May 2000 and expanded its hours of operation in 2001. The Wheelchair Van Service was intended to reduce medically unnecessary

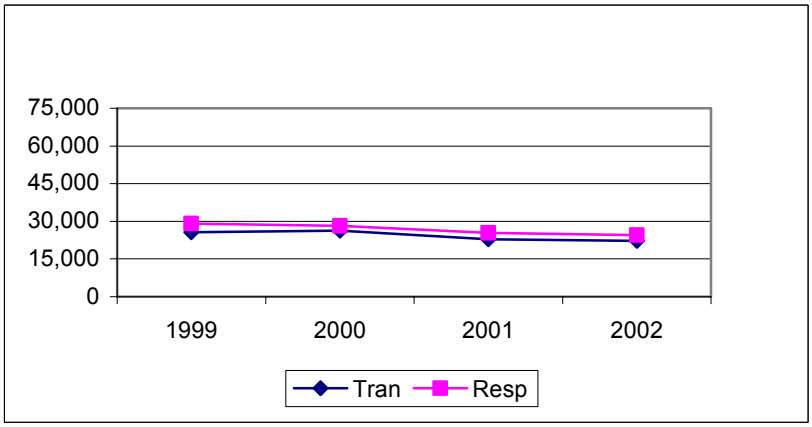
trips, reducing uncollectible amounts. However, overall collection rates have not improved.

Exhibit 11. Emergency Responses and Transports, 1999-2002



Source: MAST CAD.

Exhibit 12. Non-Emergency Responses and Transports, 1999-2002



Source: MAST CAD.

Stand-by coverage and public education require crew time but do not result in transports. While the number of hours for stand-by and public education account for a relatively small percentage of system hours, they are usually covered through overtime, which increases the overall system cost. In addition, EPI told us that six additional ambulances are needed to provide for stand-by coverage and public education. Fees for stand-by coverage have not increased and could be too low. MAST does not charge fees for public education.

Time spent at stand-by events has increased, public education hours were reduced. Ambulances are spending more time standing by at special events. The City Council amended the emergency medical services section of the code in 2001 to require special events coverage for some types of events. However, while MAST has exclusive rights to

provide ambulance transport services, it does not have exclusive market rights to provide stand-by coverage. The number of crew hours spent on public education fluctuated, but was reduced in 2002. (See Exhibit 13.)

Exhibit 13. Crew Time Spent on Public Education and Stand-By Events (Hours:Minutes)

	1999	2000	2001	2002
Public Education	594:26	800:03	1,061:59	821:50
P.R. (Public Relations)	293:38	30:41	24:25	28:07
Caring For Kids	849:32	744:28	763:51	350:26
Subtotal-Public Education	1,737:36	1,575:13	1,850:16	1,200:22
Wizards Stand-By	44:11	104:58	83:41	76:51
Stand-By (Other)	2,195:55	2,704:39	3,982:30	3,700:43
Royals Stand-By	454:33	466:01	455:50	452:47
Chiefs Stand-By	184:52	234:05	213:49	207:33
School Sports Stand-By	112:49	234:48	246:29	282:29
Subtotal-Stand-By	2,992:20	3,744:31	4,982:20	4,720:23
Total	4,729:56	5,319:44	6,832:36	5,920:45

Source: MAST CAD.

Fees for stand-by have not increased and are below the average cost per unit hour estimated in the Market Study. Fees for stand-by at special events are $80 an hour or less and have not increased. MAST has different agreements with the Royals, Chiefs, and Kansas Speedway. MAST told us that they charge $70 per hour for stand-by at city-sponsored events. They charge the Chiefs $400 per game. They charge the Royals $320 per regular game, $390 for special events and $500 for a double-header. They charge the Kansas Speedway $65 per hour. MAST told us that since they must compete with other organizations to provide stand-by coverage, they need to keep the fee competitive. The current contract provides up to 3,425 annual standby hours as part of the base payment. The charge for an additional unit hour is $54.50 with at least 72 hours notice and $76.30 if MAST provides less than 72 hours notice. The actual cost to the system is higher than the direct price because it includes overhead. If fee revenues do not cover the total cost of providing service, including overhead, stand-by coverage is a net loss to the system.

Fees are not based on analysis of cost. MAST told us that fees are adjusted based on change in the consumer price index or are based on market considerations. Fees for emergency transports in the city have increased about 24 percent and fees for unscheduled non-emergency transports have increased about 25 percent between fiscal years 1998 and 2004. (See Exhibit 14.) The average annual increase was 3 to 4 percent. Fiscal year 2000 was the first year MAST charged Missouri jurisdictions outside the city a different rate. At the end of fiscal year 2003, MAST began to charge Kansas residents for treatment without transport. Fees for treatment without transport increased about 17 percent.

Exhibit 14. MAST Fees, Fiscal Years 1998 and 2004

	FY 1998		FY 2004	
Rates	MO	KS	KCMO/ Non-KCMO	KS
Emergency Base Rate ALS	$473.00	$493.00	$585/$605	$605.00
Non-Scheduled Non-Emergency	$268.00	$288.00	$335/$345	$345.00
Scheduled Non-Emergency	$242.00	$262.00	$310/$325	$325.00
Local Mileage (Per Mile)	$5.10	$5.10	$6.70	$6.70
Treatment No Transport	$150.00	$0	$175.00	$175.00
Non-Scheduled Long Distance Transports	$268.00	$288.00	$335.00	$345.00
Scheduled Long Distance Transports	$242.00	$262.00	$310.00	$325.00
Long Distance Mileage (Per Mile)	$4.60	$4.60	$6.20	$6.20
Special Events (Per Hour)	$80.00	$80.00	$80.00	$80.00
Oxygen	$37.50	$37.50	$47.00	$47.00

Sources: MAST Fee Schedules.

Management asserts they do not know operation costs. MAST management told us they don't know the true cost of providing ambulance service because they don't know EPI's costs and think EPI is inefficient. However, under the public utility model, a contractor's costs are controlled by MAST through competitive bidding or an RFP process, market studies, or negotiation. The contractor's price, rather than cost, should be the focus of MAST under the public utility model.

The MAST Executive Director should direct staff to analyze collection rates by payer, type of service, and jurisdiction; analyze the cost of different types of service; determine reasonable fees based on cost of service and expected collection rates; and determine the amount of city subsidy that will be required in the short and long term. Analysis should be accurate and include as much historical data as possible. Cost analysis should be provided to the Board regularly to support decision-making.

Budgets Have Been Unrealistic

MAST's budgets have been unrealistic and MAST enacted a bonus plan that rewarded employees while failing to meet overall collection goals.

MAST budgets have been overly optimistic. Collection rates and net ambulance service revenue were lower than budgeted and expenses were higher than budgeted. Budgeted collection rates for 2000 through 2002 have been between 2.9 and 8 percent higher than actual collection rates.[18] Actual ambulance service revenue, net of contractual allowances and bad

[18] We calculated collection rate by dividing revenue net of contractual allowances and bad debt by gross ambulance service revenue reported in audited financial statements.

debt, was less than budgeted in those same years with a variance between -6.2 and -11.5 percent. Expenses, net of bad debt, were higher than budgeted for 1999 to 2002 with variances between 1.5 and 10.0 percent. These overly optimistic budgets have masked the extent of deteriorating financial condition and perhaps delayed corrective action.

Employees were given performance bonuses while the organization did not meet its goal. MAST employees received substantial bonuses for collections, while the actual collection rate was below the budgeted collection rate. MAST non-exempt employees earned an average of $23,978 each in collection bonuses in fiscal year 2002, for a total of $743,325. The overall budgeted collection rate was 53.3 percent; however the actual collection rate that MAST achieved was 50.4 percent. While proportionally the total of bonuses is not a significant amount of money, it reflects a lack of analysis by management. The goals for receiving collection bonuses should have led to MAST achieving its budgeted collection goal.

Management reported to the MAST Board finance committee that the bonus plan would be revised so that writing off accounts inappropriately won't make it easier to receive bonuses.[19]

The Board needs to hold management accountable. Board minutes show that the MAST Board was aware of the deteriorating financial situation. The Board reviews financial information on a monthly, quarterly, and annual basis. Individual board members asked questions and expressed concerns about MAST's financial state but the Board has not acted as a body to hold management accountable for not meeting goals.

Good governance practices for boards and commissions call for the Board to set policy for management and hold the executive responsible for achieving these organizational goals. Management performance should be assessed in terms of that achievement.

Service to Other Cities Does Not Significantly Increase System Cost

MAST's analysis shows that revenue from the majority of other cities covered the cost per transport in fiscal years 2001 and 2002. The majority of transports originating from those municipalities generate revenue. MAST cannot identify revenues and costs by city before fiscal year 2001.

[19] MAST Finance Committee minutes, April 12, 2002.

Revenues from service to most other cities cover the cost of transport. MAST serves many smaller jurisdictions in the area through formal or informal agreements. MAST has contracts with the Unified Government of Wyandotte County and Kansas City, Kansas, and Edwardsville, Kansas. MAST serves fifteen small jurisdictions based on "verbal or handshake agreements."[20] MAST also provides mutual aid to Gladstone, Grandview, Independence, North Kansas City, Raytown, and other smaller jurisdictions in Missouri and Kansas. The majority of transports originating from those municipalities bring enough revenue to cover the cost of service. Service to Kansas City, Kansas; North Kansas City and five other jurisdictions in Missouri showed small losses in fiscal year 2001.[21] North Kansas City, Riverside, Grandview, and four other jurisdictions showed small losses in fiscal year 2002.[22]

Majority of transports are for Kansas City residents. More than 70 percent of total transports in 2002 originated in Kansas City, Missouri, while about 21 percent originated in Kansas City, Kansas, Edwardsville, and other mutual aid cities in Kansas. About 5.7 percent of transports originated in Missouri jurisdictions outside the city – with 4.3 percent mutual aid and 1.4 percent transports based on verbal agreements.

System costs wouldn't be reduced by eliminating services to other Missouri jurisdictions. Providing service to the other Missouri municipalities in the area does not significantly increase the cost of the system. If MAST stopped serving other municipalities in the area for which it does not have formal agreements, the operating costs would not be reduced. EPI staff told us that the number of shifts would not be reduced because the call volume from those communities is low and the places are not too geographically dispersed. As long as the calls bring in revenue, serving other cities helps the system. The total amount billed for these services was about $2.2 million.

System costs would be reduced by eliminating services to cities in Kansas, but the net change would be small. MAST spreads fixed costs by serving a larger population base. However, different legal, regulatory,

[20] These jurisdictions are: Avondale, Farley, Ferrelview, Houston Lake, Lake Waukomis, Northmoor, Oaks, Oakview, Oakwood, Oakwood Park, Parkville, Platte Woods, Riverside, unincorporated Southern Platte County, and Weatherby Lake.

[21] Service to Kansas City, Kansas, resulted in a loss of $123,838; service to Riverside resulted in a loss of $12,452, service to North Kansas City resulted in a loss of $93,417; losses for Ferrelview, Houston Lake, Northmoor, and Oaks were less than $1,000 each.

[22] Service to North Kansas City resulted in a loss of $138,425; service to Riverside resulted in a loss of $33,458; service to Grandview resulted in a loss of $17,771, service to Independence resulted in a loss of $3,729; losses for Ferrelview, Houston Lake, and Northmoor were less than $1,000 each.

and contractual requirements in Kansas reduce the ability to take advantage of economies of scale. The Unified Government agreed to pay up to $133,788 to partially compensate for reduction in Medicare reimbursements and agreed to fee increases and a fee for treatment without transport in fiscal year 2004.

Board members were unaware that MAST does not have formal agreements with all of the jurisdictions in their service area. MAST should enter into formal written agreements with all of the jurisdictions it serves and systematically track service costs, revenues, and collection rates by jurisdiction to ensure that it is meeting its obligation to Kansas City residents.

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Changes in Service Delivery Raise Financial and Organizational Concerns

The immediate consequence of MAST's lack of financial viability is that the city will pay more money for potentially lower quality service. The MAST Board voted to take over operations of the Kansas City ambulance service when the contract expires. Under city code, MAST may act as operations contractor for up to 12 months. However, management has expressed interest in operating the system for longer than 12 months and has not begun to prepare an RFP to secure a contractor.

The change in service delivery raises concerns. MAST does not have experience operating a system and has not addressed how changes in the oversight role will be handled. Without a performance contract, MAST and the city will have less leverage to ensure compliance with standards.

MAST Management and Board Believe the City's Model of Ambulance Service Delivery Should Be Changed

The MAST Board voted to take over operations of the Kansas City ambulance service when the contract with EPI expires June 30, 2003. Under city code, MAST may act as operations contractor for up to 12 months in the event of emergency in which the public health and safety are threatened by the inadequate performance of an existing operations contractor, or by the absence of qualified bids or proposals at reasonable costs for performing the required services. However, management has expressed interest in operating the system for longer than 12 months.

During interviews with us, MAST management repeatedly indicated their interest in running the system for longer than a 12-month period. The Executive Director told us that the PUM model works better on

paper than in reality. He said that he thought a "unified system" would work better because they can eliminate duplication and get better billing information. Management has not begun working on a new RFP or planned to address competition issues.

MAST had considered taking over operations before the RFP process and sought approval to form a subsidiary to respond to the RFP. The Board adopted a resolution in July 2002 to allow a MAST subsidiary to submit a proposal but later dropped the idea to avoid discouraging proposers.

Management removed the rationale for the PUM from RFP. The sample contract MAST management provided with the RFP did not include the section that describes the rationale for the public utility model. The deletion removed the statement "Ensures that MAST will remain an objective oversight agency, rather than become an in-house provider of the very services it was created to oversee," which was included in the prior contract.

Board is backing away from PUM. Although the Board never made an explicit policy decision to drop the PUM, several board members perceive that the PUM, as implemented by ordinance, does not work. Board members we interviewed said that the PUM is too expensive and it is unrealistic to separate quality from cost. They also said that the PUM doesn't provide enough incentives for the operator to collect billing information.

Change in Service Delivery Model Carries Risks

Although MAST believes that it will be cheaper for them to run the system, there are risks associated with their taking over ambulance operations. MAST has not indicated how it plans to address these risks.

While MAST management states that some of its personnel have experience running an ambulance system, MAST as an agency does not have experience operating the system and the experience of individuals is not recent. MAST has hired consultants to assist with operations.

MAST is currently structured as an oversight agency. MAST has not addressed how changes in the oversight role will be handled when it restructures. Without a performance contract, the city will have less leverage to ensure compliance with standards. Oversight may need to be reduced while MAST temporarily operates the ambulance service due to emergency.

MAST has never had a direct relationship with the workforce. The changed relationship with labor adds risk, especially if MAST employees, the EMS union and other city employee unions perceive differences in their working conditions, compensation, and benefits.

Prior Work Supported Model

The City Auditor's Office and the Emergency Medical Services Special Study Committee reviewed the city's emergency medical services system in 1999 and 2000. Both reports supported the public utility model and made recommendations to strengthen and clarify the model. The City Council passed Ordinance 010200 in March 2001, which implemented recommendations.

Our audit found that the emergency medical services system was designed to be accessible and deliver a high level of care quickly.[23] Most roles were well-defined and accountability mechanisms were in place. We recommended changes to better integrate first responders into the system.

The decision whether to change the service-delivery model rests with the City Council. The City Council should be provided sufficient time and information to make the decision in an open, public forum. The Health Director should provide the City Council with information necessary to evaluate options for providing ambulance service. In the meantime, MAST management should prepare an RFP to secure an operations contractor within 12 months as required by ordinance. Management should analyze proposed changes to determine the effects on expected price and provide this information to the Board.

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[23] *Performance Audit: Emergency Medical Services System,* Office of the City Auditor, Kansas City, Missouri, January 2000.

Recommendations

1. The Health Director should provide the City Council with information necessary to evaluate options for providing ambulance service and help develop a structured process to facilitate decision making.

2. The MAST Executive Director should direct staff to:
    a) Analyze collection rates by payer, type of service, and jurisdiction.
    b) Analyze cost of different types of services.
    c) Determine reasonable fees based on cost of service and expected collection rate.
    d) Determine the amount of city subsidy required in the short-term and long-term.

3. The MAST Executive Director should prepare an RFP to secure an operations contractor within 12 months to comply with city ordinance.

4. The MAST Executive Director should prepare formal, written agreements for MAST to enter into with each jurisdiction it serves.

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Appendix A

Health Director's Response

Inter-Departmental Communication

DATE: June 17, 2003

TO: Mark Funkhouser, City Auditor

FROM: Rex Archer, M.D., MPH, Health Director

SUBJECT: Response to MAST Draft Audit

I have reviewed the draft report of MAST's financial viability and concur with recommendation 1: *The Health Director should provide the City Council with information necessary to evaluate options for providing ambulance service and help develop a structured process to facilitate decision making.*

There have been several changes to the EMS system since July 2000 when the EMS Special Study Committee submitted its report on the system's design, structure and recommended improvements, i.e., a significant increase of emergency medical technicians in the Fire Department, changes in the Medicare reimbursement system and the assumption of ambulance service operations by MAST effective July 1. Given these changes it is timely to re-evaluate the EMS system.

Two issues need to be considered in pursuing this re-evaluation:

1) The re-evaluation of the system may have tight time constraints in order for recommendations to improve the system be included in the request for proposals for prehospital emergency services.

2) Ordinance 010200 states that EMSAC's role is " . . . to advise the Director of Health on matters affecting the operation of the prehospital emergency medical services system."

Thank you for the opportunity to respond to this audit. If you have any questions, please feel free to contact me at 513-6252.

cc: Wayne Cauthen
LaTrisha Underhill

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Appendix B

Metropolitan Ambulance Services Trust Executive Director's Response

Note: The City Auditor's comments regarding the MAST Executive Director's response can be found in Appendix C.

MAST Response to Audit

MAST management appreciates the recommendations of the Auditor's Office to improve MAST's operations and the courtesy of the Auditor's staff

In addition to specifically responding to the findings and recommendations set forth in the audit, MAST management feels it is necessary to describe the process, which resulted in MAST making the decision to directly operate the ambulance service.

Section 34-366 of the Kansas City, Missouri Code of Ordinances (the "Ordinance") vests MAST with the authority to find an operations contractor to carry out ambulance operations. In securing an operations contractor, the Ordinance provides that MAST shall determine whether competitive bidding, requests for proposals or a negotiated process is more likely to ensure better service for lower cost. Since 1988, MAST has contracted with Emergency Providers, Inc. ("EPI") for the provision of ambulance services. The present agreement between MAST and EPI expires on June 30, 2003.

On July 25, 2002, the MAST Board of Trustees determined that accepting proposals from other contractors would facilitate the provision of better service for lower costs. Accordingly, in September 2002, MAST began giving notice through advertisements in national publications that it was accepting proposals to provide ambulance and wheelchair van services for the time period following June 30, 2003. The RFP was distributed to potential contractors beginning October 1, 2002. The criteria and standards set forth in the RFP released by MAST were modeled after a RFP released by Pinellas County, also a public utility model ("PUM"), located in Clearwater, Florida. Pinellas County received three responses to its RFP including proposals from American Medical Response ("AMR"), Rural/Metro Ambulance ("Rural/Metro") and Paramedics Plus.

On November 6, 2002, MAST held a mandatory pre-conference for all interested proposers. Representatives of five potential contractors, including AMR, Rural/Metro and Paramedics Plus, attended the conference and were able to submit requests for interpretations and suggested changes to the RFP. MAST revised the RFP and attached contract to incorporate many suggestions made by the proposers. However, on January 13, 2003, the deadline to submit proposals, only EPI submitted a proposal. Two of the national companies that attended the pre-conference, AMR and Paramedics Plus, informed MAST that they decided not to submit proposals because of the labor costs in the then recently approved contract between EPI and Local I-34 of the IAFF that were required to be assumed by a new contractor.

The RFP Evaluation Committee consisted of four local members: the Chair of the MAST Board of Trustees, the City Director of Finance who is an ex officio member of the MAST Board, the City EMS Medical Director and the MAST Patient Services Manager. Additionally, two individuals from other PUM systems served on the Committee: the Director of EMS and Fire Administration for Pinellas County and the Senior Vice President for the Emergency Medical Services Authority, the PUM that serves Oklahoma City, Tulsa and surrounding municipalities.

The Committee objectively evaluated EPI's proposal in a two-part process. First, the Committee evaluated the quality of services set forth in the proposal. After the qualitative evaluation of the proposal was complete, the Committee opened EPI's price proposal, which was submitted separately in a sealed envelope. EPI's proposal included no new services, as compared to the current contract, except to employ additional persons to check the billing information included on trip reports as paramedics ended their shifts. The cost associated with the proposal, however, was $32,736,764.34 for the first year of service, over $12 million more than the current approximate annual contract cost of $20,517,560.00, an increase of approximately 60%.

Aware that only one proposal had been submitted, on January 30, 2003, the MAST Board adopted a resolution to enter into negotiations with EPI to contract for ambulance services. During these negotiations, MAST removed all provisions that EPI indicated increased the cost of the contract. EPI then submitted a proposal in the amount of $25,787,904.30 that did not include wheelchair van services and that was still over $5 million higher than the current annual contract cost (including wheelchair van services). On February 27, 2003, the MAST Board adopted a resolution to continue to negotiate with EPI. The resolution authorized the Executive Director of MAST to offer a contract to EPI for an annual price of $22,869,136.00 not including wheelchair van services. On March 24, 2003, EPI rejected this offer and made no further offers to MAST, standing by its last offer of $25,787,904.30. On March 27, 2003, the MAST Board formally rejected EPI's proposal.

MAST believes it can operate the ambulance system for approximately $21,205,000.00 annually, over $4.5 million less than EPI's final proposal. Based on the circumstances and limited options available, the MAST Board decided to authorize temporarily operating the ambulance system, as expressly permitted by the Ordinance. The Board felt that direct operations of the system would allow MAST to more accurately determine the true costs associated with running the system. Once a greater appreciation of those costs is achieved, and in accordance with the City Ordinance, MAST intends on releasing another RFP to secure an operations contractor.

FINDINGS & RESPONSES:

MAST's financial position has been weak**.**

MAST management agrees with this finding.

Financial outlook is poor.

MAST management agrees with this finding.

Financial crisis began before reduction in federal funds**.**

The audit repeatedly states that the reduction in Medicare reimbursement did not start until April 2002 when phasing in the new Medicare fee schedule began.

Although the new Medicare fee schedule is the cause of the most significant reductions in Medicare revenue for MAST, reductions in Medicare revenue began in 1999 when Medicare ceased paying for non-emergency ambulance transports originating at a health care facility unless a doctor signed a Physician

Certification Statement that the transport was medically necessary. Many doctors refused to sign such statements, but City dispatching protocols still required MAST to respond to such requests.

See Comment 1 Page 51

This new Medicare policy prevented MAST from billing Medicare for approximately $48,000 in services per month from when it was implemented by MAST's Medicare carrier in September 1999 through January 2000. The amount of time it takes to request and process Certification Statements also forced MAST to add another fulltime staff member just to handle these duties.

Regulatory relief was provided effective January 31, 2000, when other healthcare practitioners, such as physician assistants, were allowed to sign the Certification Statements, and ambulance providers were allowed to bill Medicare if they submitted proof they attempted to obtain the Statements. MAST, however, still had to respond to such requests even though no authorized personnel at the healthcare facility would certify the ambulance transport was medically necessary.

In early 200l the City Director of Health, upon recommendation of the Emergency Physicians Advisory Board, approved a new non-emergency dispatching protocol. It allowed MAST to dispatch a wheelchair van instead of an ambulance to a health care facility when no authorized party would certify that an ambulance was medically necessary and nothing contraindicated use of a wheelchair van.

After conducting extensive educational efforts with area hospitals and nursing homes, MAST implemented this policy on May 1, 2001. Although MAST is still unable to collect for a significant number of such wheelchair van transports, its monetary losses for such transports are much less than the losses incurred when such persons were required to be transported by ambulance.

Reduction in Medicare reimbursement began in April 2002.

MAST management's response incorporates the comments immediately above.

As a point of further clarification regarding the negative financial impact of the new Medicare fee schedule, for fiscal year 2002-2003, 54.7% of MAST's Missouri transports of Medicare patients only qualified for basic life support (BLS) reimbursement, which is lower than advanced life support reimbursement. For that fiscal year, 89.4% of MAST's Missouri non-emergency transports of Medicare patients only qualified for the lower BLS reimbursement. For that same period, 26.2% of MAST's Missouri emergency transports of Medicare patients only qualified for the lower BLS reimbursement. Prior to implementation of the new fee schedule, since all of MAST's ambulances are always staffed and equipped to provide ALS services, MAST would have received ALS reimbursement for all these transports.

See Comment 2 Page 51

Medicaid reimbursement has been low.

MAST management agrees, but this finding greatly understates the significance of low Medicaid reimbursement rates. In fact, Missouri Medicaid rates are among the lowest in the nation and often go for years without being adjusted. The last increase before the one in 2002, for instance, took effect on July 1, 1997.

Furthermore, the 2002 increase for emergency transports only averaged about 10%, not 20%, since for emergency transports with no specialized services rendered (which represent about half of all emergency transports billed to Medicaid) the reimbursement rates were not increased at all.

Lack of billing information is unlikely cause of financial problems.

The Auditor's Office minimizes the adverse effect of inadequate billing information by focusing solely on the number of trip reports for which EPI never provides the information necessary to process a bill, even though EPI claims to have made a diligent effort to obtain such information. This is just the tip of the iceberg.

The real problem is the large number of trip reports that are initially submitted to MAST with inadequate billing information, not the relatively small number of "diligent effort tickets" for which adequate billing information is never obtained.

See Comment 3 Page 51

For example, in April 2003, 1,151 trip reports out of 4,691 submitted by EPI to MAST for the Missouri service area lacked the required patient information. This represented approximately 24.5% of April's trip reports. While MAST acknowledges it is sometimes difficult to obtain required billing information for emergency calls, 158 of these were non-emergency transports for which required billing information should always be obtained. EPI has failed to consistently provide this necessary billing information to MAST, despite MAST's repeated requests for correction of this chronic billing problem.

This widespread lack of adequate billing information takes inordinate amounts of MAST's staff time to obtain this information that could usually be obtained much more easily at the time of the transport and delays MAST's billing, which negatively impacts both cash flow and collections.

Contract defines required billing information and diligent effort.

MAST management agrees with this finding.

Number of diligent effort tickets not compiled.

MAST management does not agree with this finding. The Auditor's Office admits that MAST has used a computer database since May 2002 to track the completeness of tickets. The Auditor's Office simply focuses too narrowly on the relatively small number of trip reports for which adequate billing information is never obtained by EPI, rather than on the much larger number of trip reports, including many non-emergency trip reports, which are initially submitted with inadequate billing information.

See Comment 4 Page 52

Billing information appears consistent with other systems.

Again, the focus on tickets for which adequate billing information is never obtained is much too narrow. The focus should be on the number of trip reports that are initially submitted with inadequate billing information.

Salary agreement between EPI and union is reasonable.

MAST management agrees the salaries and benefits in the labor contract between EPI and Local I-34 of the IAFF are reasonable to attract and retain the highest quality EMS personnel in the Kansas City metropolitan area (where EMS wages paid by fire departments and other public ambulance services are higher than in many other localities). However, MAST management maintains that the size and timing of the wage increases granted by EPI to Local I-34 were designed to discourage other proposals and had exactly that effect.

See Comment 5 Page 52

Even though wage increases were justified, increasing wages 15-20% all at once instead of phasing them in more gradually, given the known financial challenges of both MAST and the City, seems irresponsible at best. Further, the wages did not go into effect until April 1, 2003, obligating EPI for only three months before the expiration of its current contract with MAST.

EPI has never informed MAST management that its annual turnover among its field crews approached 40%. Turnover rates that high signify a serious operational problem. If turnover actually was that high, MAST management would never have recommended retaining EPI as the operations contractor for MAST for 2001-2003.

See Comment 6 Page 53

Contract provides limited assurances of employment at comparable compensation in case of change in operator.

Although this finding mentions that American Medical Response stated it did not submit a proposal because of the wages contained in the union contract, it ignores the fact that another potential operations contractor, Paramedics Plus, also declined to submit a proposal for the same reason. Its Chief Operating Officer described the union contract to MAST officials as EPI swallowing "a poison pill".

Salary levels are competitive.

MAST management agrees with this finding.

Salary increases were a reasonable response to high turnover.

As stated earlier, MAST management believes that if the annual employee turnover rates reported by EPI to the Auditor's Office are accurate, such unacceptably high turnover, which was never reported to MAST, would have been reason enough not to recommend continuing to utilize EPI as the operations contractor for the MAST system.

MAST management reversed course on labor agreement.

MAST management still maintains the magnitude of the wage increases, the lack of a phase-in period, and the timing of when they were offered and when the wage increases became effective would lead a reasonable person to reach the same conclusion as the Chief Operating Officer of Paramedics Plus, that they were "a poison pill".

MAST management does agree that they certainly make MAST competitive with other area fire departments and public agencies that employ EMS personnel and should allow the MAST system to attract and retain the brightest and the best.

Management changed service requirements but did not formally analyze effects.

See Comment 7
Page 53

MAST management disagrees with this finding. MAST had all the historical data necessary to determine with reasonable certainty the effect of these changes and submitted its analysis of them to the Auditor's Office.

See Comment 8
Page 54

Furthermore, although the finding claims that market data does not indicate that EPI is inefficient, the 2002 Market Study done for the North American Association of Public Utility Models shows that EPI's cost per transport is higher than the contractor cost for all but one of the other seven public utility model ambulance systems studied. MAST's cost per transport (not counting contractor cost) by contrast was lower than all but two of the other seven systems studied.

Changes in service requirements increase costs.

See Comment 9
Page 54

MAST management acknowledges these changes would result in a relatively nominal increase in contractor cost. However, MAST management maintains that such slight increases in cost would be more than offset by the savings MAST would realize by eliminating current contractual ambulance maintenance incentive payments that MAST management believes are excessive and large amounts of staff time spent in tracking down billing information that could have been captured much easier at the time of patient transport.

Management expected lower costs based on unsupported assumptions.

MAST management has supplied its analysis to the Auditor's Office. The analysis supports the statement that the changes did not have any significant economic effect.

The fact that the 2002 Market Study showed that EPI's unit hour utilization was close to the median of other systems simply shows how busy EPI's field crews are, not how efficient the company is overall. MAST management believes overall efficiency also should be measured by contractor cost per transport, which showed EPI's cost per transport is $38.59 higher than the median of contractor costs in all eight systems studied. Furthermore, EPI's cost per transport is only $.60 less than the highest contractor cost in all eight systems.

Elimination of Duplication will not provide permanent savings.

MAST management generally agrees with this finding.

Grants probably will not cover the shortfall.

MAST management agrees with this finding. However, converting MAST from a public trust (which is not recognized in Missouri law) to a not-for-profit corporation was still an appropriate decision.

MAST does not expect grants as a significant revenue source.

MAST management agrees with this finding.

Grants are a small portion of revenues for other EMS systems.

MAST management agrees with this finding.

Improving collection rate would significantly improve financial condition.

MAST management agrees with this finding.

MAST's collection rate has fluctuated and is expected to decline.

MAST management generally agrees with this finding.

MAST has not historically tracked collections by payer**.**

MAST management agrees with this finding. MAST has done this periodically, but not regularly, in the past and began doing this quarterly in fiscal year 2003-2004.

MAST has not tracked collections by the type of service.

MAST management agrees with this finding. MAST began doing this quarterly in fiscal year 2003-2004.

MAST should analyze system fees and costs to improve financial condition.

MAST management agrees with this finding. MAST's contract with EPI does not require EPI to report its costs for providing various services to MAST. Operating the system directly will allow MAST to establish a benchmark for those costs.

Total system costs are high, but productivity is similar to other systems.

See Comment 10 Page 55

MAST management generally agrees with this finding. However, in analyzing efficiency, the 2002 Market Study showed that of the eight public utility model ambulance services studied, EPI's cost per transport was the second highest, EPI's cost per capita was the second highest and EPI's cost per unit hour was the second highest. All of these are key measures of efficiency.

Additionally, the fact that MAST's fleet is much larger that the other systems studied is primarily due to the fact that the population of our service area is also larger and has a higher number of transports per square mile and per 10,000 population.

The number of transports has declined.

MAST management agrees with this finding. The decline in non-emergency transports has been due primarily to the fact that MAST has been able to shift many non-emergency transports that did not require an ambulance to its wheelchair van service.

Emergency responses have increased while transports decreased**.**

MAST management agrees with this finding.

Non-emergency response and transports have decreased.

MAST management agrees with this finding. The failure of MAST's overall collection rate to improve is due primarily to the continued decrease in Medicare reimbursement as the new Medicare fee schedule is phased in.

Stand-by coverage and public education require crew time but do not result in transports.

See Comment 11 Page 55

Providing standby ambulance coverage at major events and providing public education are key components of a high quality ambulance system. While fees for standby coverage have not generally increased in recent years in order to remain competitive with other providers, the fees still more than cover EPI's charges and are higher than those charged by competing providers. MAST intends to fund much of its public education costs in the future largely through corporate donations, partnerships and grants.

Time spent at stand-by events has increased, public education hours were reduced.

MAST management agrees with this finding.

Fees for stand-by have not increased and are below the average cost per unit hour estimated in the Market Study.

See Comment 12
Page 55

Although the standard hourly charge for standby coverage has not recently increased, MAST has annually increased certain standby rates for major customers that have been traditionally discounted, including the Chiefs, Royals and Kansas Speedway. Rates more than cover EPI's charges and are higher than those charged by competing area providers and most other public utility models.

MAST management has repeatedly advised City officials that granting exclusive market rights to MAST to provide stand-by coverage in the City would assure citizens of high quality EMS coverage while minimizing the need for increased City subsidies for MAST. Currently, some competing ambulance providers have contracted to provide standby coverage at major events in the City even though they are legally prohibited from transporting patients from such events.

Fees are not based on analysis of cost.

MAST management agrees with this finding. Fiscal year 2002-2003 was the first year MAST charged a treatment without transport fee in Kansas because MAST's prior contract with the Unified Government of Wyandotte County/Kansas City Kansas prohibited such a charge.

Management asserts they do not know operation costs.

MAST management does not know EPI's cost of providing specific services, and EPI is not required to report such costs to MAST.

See Comment 13
Page 55

Budgets have been unrealistic.

This finding is repeated in more detail in the next two findings where MAST's responses can be found.

MAST budgets have been overly optimistic.

See Comment 14
Page 56

MAST management generally agrees with this finding. However, MAST management disagrees with the finding that actual collected revenue, net of contractual allowances and bad debt, was less than budgeted by 6.2% to 11.5% during fiscal years 1999-2000 through 2001-2002. MAST's Financial Officer maintains actual collected revenue, net of contractual allowances and bad debt, for those fiscal years ranged from 6.0% to 0.3% over budget.

The failure to more accurately project collection rates was primarily due to the assumption that wheelchair van transports would increase in volume much more rapidly than they did and decrease the number of non-emergency ambulance

transports that are not medically necessary more rapidly than they did. Third party payers will not cover non-emergency ambulance transports that are not medically necessary.

Employees were given performance bonuses while the organization did not meet its goal.

MAST management generally agrees with this finding, and the performance bonus plan for fiscal year 2002-2003 was revised accordingly.

The Board needs to hold management accountable.

This finding mirrors several others in the audit that imply that with good governance and good management, MAST's financial difficulties would have been avoided. The truth is that the drastic cuts in Medicare coverage and reimbursement, the continued low reimbursement rates by Medicaid and the large percentage of medically indigent patients served by MAST, coupled with higher labor rates and insurance costs are simply too massive to makeup through increased efficiencies. The only way to offset financial factors of this magnitude is to drastically reduce personnel costs, which would significantly lengthen ambulance response times.

See Comment 15
Page 56

The Board made a conscious decision to attempt to preserve the quality of the present service and ask the City for an increased subsidy to offset these factors that are largely beyond the control of any ambulance provider. Even with the increased subsidy requested, the City's cost per capita for ambulance service will be far below the national average.

Service to other cities does not significantly increase system cost.

MAST management agrees with this finding.

Revenues from service to most other cities cover the cost of transport.

MAST management generally agrees with this finding. However, data shows that revenue from transports originating in Riverside do not cover the costs of those operations, and MAST has requested a subsidy to cover those losses and intends to pursue this issue.

Management also believes that Gladstone, Grandview and Raytown appear to chronically under staff their ambulance services and routinely call on MAST to provide mutual aid, thus, in effect, subsidizing their systems. Management feels it would be beneficial to explore agreements with these jurisdictions to assure that mutual aid MAST provides does not place an undue financial or operational burden on MAST.

Majority of transports are for Kansas City residents.

MAST management agrees with this finding.

System costs wouldn't be reduced by eliminating services to other Missouri jurisdictions.

MAST management agrees with this finding.

System costs would be reduced by eliminating services to cities in Kansas, but the net change would be small.

MAST management agrees with this finding.

MAST management and Board believe the city's model of ambulance service delivery should be changed.

MAST management strongly disagrees with this finding as worded. However, management acknowledges that some modifications of the model are likely to improve efficiency and merit serious consideration by the City.

See Comment 16 Page 56

Allowing the ambulance authority to operate the system directly in the absence of qualified bids or proposals at reasonable cost is allowed in all public utility model ambulance services and has been done before by MAST. Two other public utility model ambulance services, Little Rock and Reno, now operate their services directly or through a subsidiary.

Management repeatedly told the Auditor's Office that it would abide by the City ordinance requirement that limits MAST to operate the system for 12 months. Management did explain it would prefer to directly operate the system for at least a year before seeking other proposals to operate the system. This would allow MAST and the City to carefully analyze the actual costs of operating the system, avoid causing unrest for the system's workforce who could be faced with having a third employer within 12 months, and allow MAST to pick the best time to issue an RFP for another operations contractor to maximize competition.

Management believes the last RFP issued by MAST, which was modeled after the RFP used by the Pinellas County, Florida, public utility model, could be reissued with a relatively small number of modifications, and that this process would not take more than a few months.

See Comment 17 Page 56

Management felt the section of MAST's current contract with EPI that spelled out the rationale for the public utility model was more appropriate for an article or essay on the public utility model of providing ambulance service than as a clause in a contract. Its removal had absolutely no effect on the rights and responsibilities of MAST and the contractor, which were spelled out in detail in other sections of the contract and its attachments.

Board is backing away from PUM.

MAST management disagrees with this finding and believes it is based on an overly restrictive concept of what constitutes a public utility model ambulance service. Suggesting that the City consider certain modifications to the City's

See Comment 18 Page 57

model of ambulance service delivery designed to improve efficiency and patient care is a responsibility of the Board. Exercising that responsibility should be welcomed, not criticized.

MAST management believes the key components of the public utility model of providing ambulance service are independent medical oversight and regular testing of market conditions to assure that service is being provided in an efficient manner through competitive bidding, requests for proposals or surveys of market conditions.

As of July 1, 2003, three of the eight traditional public utility model ambulance services will be providing ambulance service directly or through a subsidiary. Having a separate for-profit ambulance contractor is no longer considered a necessary component of a high performance ambulance system that provides high quality clinical care at the lowest possible cost.

This was one factor that led the former National Association of Public Utility Models to broaden its definition of acceptable members and to change its name to the Coalition of Advanced Emergency Medical Systems.

Change in service delivery model carries risks.

While no change is totally without risk, almost without exception the same men and women that are providing excellent patient care to City residents today will be providing that same level of care when MAST begins direct operation of the system.

The MAST Associate Director who will be in overall change of operations has eight years of experience as an ambulance service operations manager prior to his eight years with MAST. He holds a Masters Degree and is a graduate of the American Ambulance Association's Ambulance Service Management Program.

The new Director of Operations is the present Operations Manager for EPI who has 18 years of supervisory experience in the MAST system.

The new Communications Manager has six years of experience as a System Status Controller in the MAST system, was Project Manager for the computer aided dispatching upgrade and holds a Bachelors Degree.

All other management positions have been filled by the persons now in those or similar positions or by other persons with extensive experience in the MAST system.

MAST management has already agreed to supply the City Health Department with direct data from MAST's computer aided dispatching system to assure that the City's EMS Medical Director's Office can easily monitor response times with no possibility of such times being inappropriately altered as has occurred in the past.

Management has publicly committed to making its first priority the improvement of response times to life-threatening emergencies in the Northland portion of the City where EPI frequently has failed to meet contractual response time standards for life-threatening emergencies.

Prior work supported model.

MAST management agrees with this finding.

RECOMMENDATIONS & RESPONSES:

The MAST Executive Director should direct staff to:

Analyze collection rates by payer, type of service, and jurisdiction.

(a) Analyze cost of different types of services.

(b) Determine reasonable fees based on cost of service and expected collection rate.

(c) Determine the amount of city subsidy required in the short-term and long-term.

MAST management has analyzed collection rates by jurisdiction since fiscal year 2000-2001 and reported those rates to the Board of Trustees. It is already in the process of analyzing collection rates by payer and type of service.

Operating the system directly will allow MAST to analyze the cost of different types of service. Data necessary for such an analysis has not been available to MAST in the past, and the ambulance operations contractor did not furnish such data to MAST.

Regardless of the fees MAST charges, Medicare and Medicaid reimbursement rates are determined solely by federal and state regulations and are not affected by MAST's charges. A significant percent of MAST's patients are medically indigent, and are often unable to pay even the smallest charges, let alone higher charges.

MAST management also agrees that it should do its best to project the amount of City subsidy for indigent health care MAST will need in the future and has done so for this fiscal year. However, projections for future fiscal years necessarily become more speculative since so much of MAST's revenue is dependent on Medicare and Medicaid reimbursement rates that fluctuate. MAST, however, can determine the amount of city subsidy required in the short-term and long-term based upon the Medicare and Medicaid reimbursement rates for 2003.

See Comment 19
Page 57

The MAST Executive Director should prepare an RFP to secure an operations contractor within 12 months to comply with city ordinance.

MAST management understands the obligations imposed upon MAST by the City ordinance. Although MAST management would ideally prefer to operate the system for 12 months before reissuing an RFP in order to accurately determine the actual costs of operating the system, MAST management intends on complying with all City ordinances in a timely manner.

MAST management is concerned that, currently, this is not an ideal time to reissue an RFP to secure an operations contractor for the MAST system. MAST management believes that reissuing an RFP at this time could result in no proposals or a very limited number of proposals, while causing serious unrest for the workforce. MAST management would like the opportunity to obtain an accurate reflection of costs and to better understand the system prior to soliciting proposals from potential future operation contractors. This would allow the proposals to be judged against a more accurate benchmark.

Until another RFP is issued, an impartial market study could be conducted of all major high performance ambulance systems in the country to assure City officials and citizens they are receiving high quality ambulance service at the lowest possible cost.

The MAST Executive Director should prepare formal, written agreements for MAST to enter into with each jurisdiction it serves.

MAST management completely agrees with this recommendation and has in place such agreements with the Kansas jurisdictions it serves. Past efforts to secure such agreements with the other Missouri jurisdictions MAST serves have not been successful, but this recommendation will assist MAST's efforts to obtain such agreements by underscoring their importance to the City.

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Appendix C

City Auditor's Comments Regarding the Metropolitan Ambulance Services Trust's Response

This appendix is the City Auditor's written comments on the response by the Metropolitan Ambulance Services Trust. The numbers listed for each comment refer to specific passages in the Metropolitan Ambulance Services Trust's response (Appendix B).

Comment 1

Based on the data MAST provided in its response to the audit, the change in Medicare's limits on coverage rule for ambulance services does not explain the magnitude of losses MAST incurred in fiscal years 2000, 2001, and 2002. Since MAST has not tracked collections by payer and type of service, MAST does not know the effect of the rule change on its revenue. MAST states that between September 1999 and January 2000, the new Medicare policy prevented MAST from billing Medicare for $48,000 per month, a total of $240,000 over the five-month period. MAST's loss from operations in fiscal year 2000 was $1.6 million. MAST states that the situation improved in 2000 and 2001; MAST's losses in fiscal years 2001 and 2002 were $1.2 and $4.0 million, respectively.

While MAST states that they were unable to bill Medicare for a portion of non-emergency transports after the rule change in 1999, the percentages of billings to Medicare and private individuals were unchanged. Did MAST bill individuals for transports not covered by Medicare or third party insurance?

Comment 2

We agree that the new Medicare fee schedule affected MAST's financial position in fiscal year 2003 and contributes to the poor financial outlook. However, our point is that MAST's financial position was already weak when changes in the Medicare fee schedule took effect in April of 2002. MAST had a cumulative shortfall from operations of $5 million at the end of April 2002. Reserves of cash on hand dropped to 2 days by fiscal year 2002 – the rule of thumb is to maintain 20-30 days. Current ratio dropped to 1.5 – meaning that MAST had liquid assets that could cover current liabilities 1.5 times. MAST could not secure a line of credit without a loan guarantee from the city by the end of fiscal year 2002.

Comment 3

MAST management now asserts that real problem with billing information is the number of trip tickets initially submitted that are incomplete. However, MAST's contract establishes the data collection process, which provides for initial submission of incomplete data.

Under the contract, EPI is required to submit initial data within two business days after the date of service. MAST is required to return tickets that do not contain all essential data elements or contain illegible data. EPI is required to either return the completed and corrected trip information, which MAST can then use to bill, or EPI must perform and document diligent effort to obtain the information. If EPI does not do either of these two things within two business days then MAST shall fine EPI. Based on the process established in the contract, if billing data are inadequate, there would be either a high number of diligent effort tickets or a high number of fines. Neither is the case.

If MAST believed that the initial submission of incomplete data was a widespread, chronic problem affecting their cash flow and collection rate, they should have addressed the problem in their contract. They did not. The sample contract appended to the RFP removed the diligent effort provision from the contract and increased the fine amount, but did not change the provisions allowing an initial submission of incomplete trip data and correction following MAST's review.

Comment 4

MAST management disagrees with our conclusion that they had not compiled the number of diligent effort tickets. MAST started recording incomplete trip tickets in a database in May 2002, well after MAST's financial condition had started to deteriorate. When we requested the number of diligent effort tickets in May 2003, MAST management generated a list from the database, but told us the data couldn't be right because it did not support their belief that EPI had submitted a large number of diligent effort tickets. We conclude that MAST management did start to record diligent effort tickets in a database but had not done any substantive compiling, analysis, or reporting of the data until we requested it.

Comment 5

MAST management holds the contradictory views that (1) wage increases were justified and the salaries and benefits agreed to were reasonable for this market; and (2) the wage agreement was irresponsible. The agreement cannot be both reasonable and irresponsible.

MAST management questions the timing of the increases and the motivation of the contractor. MAST states that the salary increase should have been phased in. If MAST believes that the increases should

have been phased in, it is contradictory to also state that the agreement is reasonable. MAST management also questions the timing of the increase because the agreement was negotiated during the RFP process. EPI's 1999 labor agreement was in effect through June 30, 2002. EPI would likely have been negotiating a labor agreement even if MAST had not decided to release an RFP.

Comment 6

MAST management questions the accuracy of the turnover rates we report and states that such high turnover would have been reason enough not to recommend continuing to use EPI as the operations contractor. We calculated the turnover rates based on personnel reports that EPI provided. MAST's contract for ambulance service did not require EPI to report turnover. If turnover is an important criterion, MAST should have identified it as such and monitored turnover rates.

Comment 7

MAST management told us May 9, 2003, that they did not analyze the effects of the changes to the RFP because the changes did not have a significant economic effect. At a pre-proposal conference on November 6, 2002, MAST management said "there is very little difference in the actual requirements in the existing contract and the attached contract."

MAST gave us an undated analysis on May 30, 2003, that they did after the fact and in response to the audit. They did not analyze the effects of the changes when they made the changes last summer.

MAST's after the fact analysis addresses some but not all of the proposed changes to the contract. For example, MAST management changed requirements related to insurance and payments for replacing lost, stolen, or damaged equipment. We expect those changes to have economic effects, but MAST did not analyze those changes.

Given that MAST managers changed service requirements, including shifting costs from MAST to the contractor, they should have expected higher prices. MAST managers should have analyzed the effects of the changes before issuing the RFP rather than analyzing them in response to our audit.

Comment 8

The market study is designed to allow comparisons of systems not contractors. The study has two objectives: to provide outcomes to compare systems, and to establish a framework for system research.

We focused on system costs per unit hour because we do not know how responsibilities are divided in different systems and how comparable the systems are in other ways. Unit hours – which are essentially an ambulance on the street with trained staff for an hour – are the basic determinant of cost. Unit hours are what the system buys. The cost of a unit hour in Kansas City is about one dollar more than the median. Cost per unit hour in Kansas City is $104, the median is $103.

We concluded that the market study and EPI's financial statements do not support MAST management's conclusions that EPI is inefficient or profiting excessively. The market study is fairly rough – we don't conclude that EPI is efficient, but we don't conclude that EPI is inefficient.

Comment 9

MAST management asserts that the costs of the changes in service requirements are less than the savings that would be realized by eliminating maintenance incentives and the time spent "tracking down billing information that could have been captured much easier at the time of patient transport." However, MAST management's analysis of the changes to the service requirements – completed in response to the audit – does not address several changes to the service requirements. If MAST management hasn't systematically identified and analyzed the costs of service changes, how can they know that savings will offset those costs?

MAST management asserts that EPI provided inadequate billing information. Under the contract with EPI there are three types of billing information:

- Inadequate (MAST shall fine the contractor $250 for each ticket).
- Inadequate but the contractor made a diligent effort (MAST can't bill and can't fine the contractor).
- Adequate (MAST can bill for the service).

MAST rarely fined the contractor for inadequate tickets. Diligent effort tickets represent about one percent of transports, which is consistent with two other EMS systems we contacted.

In absence of credible evidence to the contrary, the low number of fines and diligent effort tickets, implies that either most tickets provided by the contractor are adequate or that MAST management has failed to enforce the contract provisions.

MAST management hasn't supported their assertions with data, yet they base conclusions on those assertions.

Comment 10

Again, cost per unit hour is a more accurate measure of efficiency, especially since MAST has taken actions to reduce the number of transports and increase the number of stand-by hours, which increase the cost per transport.

Comment 11

Even if stand-by fees more than cover EPI's charges for additional stand-by hours, fees should cover MAST's overhead, which includes some portion of administrative and fleet costs.

MAST charges $80 per hour for stand-by events and charges lower rates for certain events, such as Chiefs and Royals games. The 2002 Market Study reports that the MAST's average cost per unit hour is $104. We state in the report that fees for stand-by coverage could be too low, and recommend that MAST should analyze the costs of providing services and determine reasonable fees based on the analyses.

Comment 12

We asked MAST management to provide us with the annual agreements with the Chiefs, Royals, and Kansas Speedway. MAST management agreed to provide them, but as of June 26, 2003, hadn't provided any of them.

If stand-by fees aren't set to recover a portion of MAST's overhead, increasing the number of stand-by hours would not minimize the needed city subsidy. MAST management should analyze costs – including overhead – to determine whether fees are reasonable.

Comment 13

EPI's cost of providing specific services is irrelevant. Payments to EPI are a component of the total cost that MAST should have analyzed, but did not. The problem is not a lack of information but a lack of analysis.

Comment 14

We used data from MAST's audited financial statements to calculate collection rates and net ambulance service revenue. MAST based its calculations of collected revenue on cash receipts from patients and collectors. Since we did not audit cash payments from patient reports we used the most reliable source of data available to us.

Comment 15

We do not imply that MAST's financial difficulties could necessarily have been avoided. We state in the transmittal letter and on page 5 of the report that given increasing costs and changes in Medicare reimbursements, it is possible that MAST would be facing financial difficulty even if management had more objectively analyzed factors contributing to its financial decline. But more timely and objective analysis would have given the MAST Board and the City Council more time and better information to make decisions about the future of the emergency medical services system.

Comment 16

We do not understand how MAST management can "acknowledge that some modifications of the model are likely to improve efficiency and merit serious consideration by the City" and strongly disagree with the statement that MAST management believes the city's model of ambulance service delivery should be changed.

Comment 17

MAST allowed for seven months from advertising to concluding contract negotiations last year. Before issuing an RFP, management would have to develop it and the Board would approve it. After completing contract negotiations, the Board would have to approve a new contract and there might be a transition process as a new contractor prepared to provide service.

Under city code, MAST may operate the system for up to one year. In that context, the time necessary to develop an RFP, seek proposals, evaluate proposals, negotiate a contract, and approve a contract will represent a significant portion of that one year.

Comment 18

City code identifies separation of billing from operations and competitive procurement as key components of the public utility model.

(Sec 34-362 Definitions). *Public utility model* means that strategy for the organization, financing, management and regulation of ambulance transport service operation which employs the use of a single level of advanced life support capability for the conduct of all emergency and non-emergency service within a geographical area, including mechanisms of payment which neutralize the "fee-for-service incentive" to over-serve or under-serve any given patient or geographic area, optimum economics of scale to spread fixed costs of sophisticated ambulance service operations over a wider range of production, competitive procurement of facilities management services from a qualified private firm, financing strategies which minimize or allow minimization of local tax subsidy, ownership or direct control of all major systems hardware by the public sector, and other features intended to promote clinical excellence, reliable response time performance, disaster readiness, long range stability of service and cost containment.

The Board has not yet requested the City Council consider modifications to the model. On page 27 we recommend that the Health Director provide the City Council with information necessary to evaluate options for providing ambulance service and help develop a structured process to facilitate decision making. We are confident that the Council will welcome the Board's input in an open public forum.

Comment 19

Medicare rates have not fluctuated much over the last seven years; Medicare's new payment schedule, phased in over five years, is known and published by the U.S. Department of Health and Human Services.

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