INTERFACE

Jack Stort

Tulsa Public Utility Model Revisited, Part 3

Part 1 of this three-part series recounted the origins of the public utility model; Part 2 provided a much condensed "generic" description of the model's basic structure. In this final part we'll take a close look at the oldest of the public utility model systems – the Tulsa system, now in its seventh year of operation.

What we are interested in, or should be interested in, is the tendency of a system design, over time, toward increases or decreases in clinical performance, response-time performance, economic efficiency, and financial and political stability. It is, I believe, useless and misleading to consider any of these factors in isolation from the others, or without looking at long-range trends.

Almost any system design can be made to look good for a while. Given enough money, even silly system designs (and silly managers), can produce results. Cream skimmers allowed to milk the system's most profitable business can brag about apparent efficiency. BLS is cheap but no bargain. Higher subsidies finance lower rates and the illusion of efficiency. Useful comparisons require a complete look.

No system design is foolproof. Fools can ruin anything. Still, the challenge of the system architect is to produce a design that, in a variety of settings, and over a number of years, tends to be selfcorrecting and to generate better service, increased efficiency, and greater stability – both financial and political.

My friend, Phil Fixler, of the Reason Foundation, recently noted that there are places where, without any intervention by local government, private

Jack Stout, chairman of The Fourth Party, has been at the forefront of innovation in the design and implementation of EMS systems for the past dozen years.

If you have a question, a problem or a solution related to the public/private interface in prehospital care, address your letter to "Interface," jems, P.O. Box 1026, Solana Beach, CA 92075. ambulance monopolies have evolved to provide superb service at low cost. Granted. And Phil will have to admit that there have been occasional examples of efficient government-operated services. But a good system design makes superior results not only possible, but likely – something neither laissez-faire nor solicitation can do.

Through sheer force of will, or charisma, or personal sacrifice, or genius, or luck, even the worst system designs can be made to work – for a while. But the question must still be asked; are the results because of the design or in spite of it? With that question in mind, let's look at Tulsa.

Political Stability

Born in a political frying pan, the Tulsa system has withstood repeated attempts by powerful politicians to destroy it to advance their own political fortunes. Local physicians and members of the business community have never waivered in their informed support and defense of the system. In May of 1984, the mayor who had been the system's most dedicated enemy was replaced by a new mayor, Terry Young. Ironically, it was Terry Young, then a county commissioner, who first brought the public utility model concept to Tulsa eight years ago.

Quality of Service

At the start, the Tulsa system operated at the advanced life suppprt level. As new state standards allowed, and as local physicians developed confidence in field personnel, the system's clinical sophistication has steadily improved.

Today, Tulsa's crews meet both state and National Registry standards, plus additional standards set by local physicians. Every unit operates at the paramedic level, and by national comparison, Tulsa's medical protocols, onboard equipment and medications, as well as communications capabilities, are highly advanced.

Clinically, Tulsa has been keeping

pace. One of the first systems to use bretylium, Tulsa was also one of the first to use Nitronox.

Using computers to maintain medical information and physician instructions on patients with special problems is considered innovative in our industry. But Tulsa's computer-aided dispatch system has maintained such records for years (e.g. all known SIDS babies have files in the system), indexed by both name and street address. These medical records are automatically displayed on the terminal in the ambulance before the unit arrives at scene.



Photo credit: Steve Williamson

Tulsa's mobile data terminals (MDTs) allow field medics to receive visual displays of dispatch data as well as certain patient information. Changes in unit status are transmitted and logged by a push of a button.

The role of local emergency physicians, as structured within the system, combined with the system's own earned financial resources, has firmly established a tradition of clinical excellence and progress. The physicians know that the system has both the quality of personnel and the financial resources to acquire and utilize any new equipment item, new clinical procedure, or revised medical protocol. Clinically, the system can and does perform as directed by the physicians, because that is the reason the system exists.

Response-Time Performance

When the Tulsa system first went operational, system status management had not yet been developed as a formal concept. Neither had the concept of "average response time" been exposed as a statistical hiding place for deadly response-time deficiencies. So in the beginning, the Tulsa system pursued and attained average response-time standards using conventional deployment techniques.

Later, when Kansas City's more demanding geography combined with the eight-minute-maximum/90-percentminimum standard to force the discovery of formal system status management techniques, Tulsa immedi-

History & Projections



A computer-generated graph showing past and projected luture trends in run volumes. Code 1 represents life-threatening calls; Code 2 is non-life threatening; Code 3 is non-emergency.

ately borrowed from Kansas City to formalize its own system status management, and to achieve the clinically superior eight-minute maximum response time standard. (See "System Status Management," May, 1983 *jems.*) Tulsa wasn't the first system to employ formalized system status management and the eight-minute maximum response time standard, but it was the second.

Financial Trends

The year before the Tulsa system went operational, the city of Tulsa had subsidized the previous system to the tune of about \$400,000. So when I asked how much money the city would like to put into the new system, the answer was \$400,000 next year, declining to zero within five years. As we were arranging commercial financing of the system's equipment, the city decided to pay for the first batch of ambulances, so we could avoid setting initial rates to simultaneously retire the debt and fund replacement costs. We did, however, commercially finance \$620,000 in new communications equipment and software development.

Nearly seven years later the financial picture looks like this. The system requested no subsidy from the city in fiscal year (FY) 1984 (ending June 30, 1984), and has requested no subsidy for FY 1985. The audited financial statement of Tulsa's Emergency Medical Services Authority (EMSA) shows, as of June 30, 1984, that the value of EMSA's financial assets, property and equipment amounts to \$2,487,855. EMSA's current liabilities total \$665,789, with a longterm debt of \$203,943 – total liabilities of \$869,732. EMSA's net worth, therefore, has grown to \$1.6 million in less than seven years, while the city subsidy has declined to zero and both clinical and response-time performance has steadily and significantly improved.

Rates and Subscriptions

Today in Tulsa, you can buy nonemergency paramedic ambulance service for \$110, and the all-inclusive price of emergency paramedic service is \$320. And if those prices scare you, you can buy a subscription contract which will limit your total annual out-ofpocket cost of both emergency and nonemergency paramedic service to \$49 (\$40 if you were a previous subscriber).

As Alan Jameson has tried to teach us, rates go up as subsidy goes down, and a dollar of subsidy is worth about a dollar and a half in billed revenues. When adjustments are made to account for decline in subsidy, the increase in Tulsa's ambulance rates over the past seven years is less than the rate of inflation for the economy as a whole, and far less than the rate of inflation for the health care sector.

Look at it this way: If Tulsa taxpayers subsidized ambulance services at the same per capita level as do the taxpayers of Austin, Texas, EMSA could furnish Tulsa with "free" emergency and nonemergency paramedic service, and could pay each of its customers about \$50 for the pleasure of serving them.

Management

The "magic," if there is any, is not within the public utility model design. A good system design can only tend to attract and motivate qualified people and qualified organizations. Keep in mind that while EMSA employs a private contractor, EMSA is itself a governmental organization. But the system structure within which EMSA fits, and the type of people who sit on the EMSA board of trustees, have somehow caused EMSA to act far more like a successful private firm than a typical government agency. (Nearly half of Tulsans surveyed said they thought EMSA was a for-profit organization.)

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of computers – the evidence is everywhere.

Attend an EMSA meeting and you'll usually find catered refreshments graciously served by office staff. (EMSA's coffee budget is covered by the physicians, to avoid conflict with city policies.) Attend a meeting of the EMSA board of trustees. This is no EMS council meeting, but instead a business meeting of men and women who are themselves accustomed to private sector business protocol.

Examine the compensation package enjoyed by EMSA's executive director, Steve Williamson. Steve started with a salary of \$26,500, no car allowance, and a promise of no raise for at least 18 months – the trustees were interested in long-range results. Today, Steve's salary is \$45,750 with a \$3,000 car allowance, a 10 percent fully vested retirement plan, term life insurance

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twice his annual salary, health, dental, and long-term disability coverage, and liberal treatment of his "as approved" expense account. But that's not all.

The trustees are fully aware that Steve is one of the best prehospital care administrators around. The system's performance proves it. So the trustees recently approved an additional incentive compensation plan which could produce a yearly bonus of up to 25 percent of Steve's annual salary. Objective criteria are established relating to collections, public relations, cost containment and quality of service. The trustees decide the percentage of potential bonus earned, and the size of the potential bonus is equal to 25 percent of Steve's base pay. That's what I mean when I say that EMSA doesn't act much like your average government agency.

But neither does Metro, the system's operations contractor, act much like a typical private ambulance company. Metro employs some of the industry's best paramedics, operations managers, and one of the three or four best maintenance managers in the business. (See "Ambulance Maintenance," January 1985 *jems.*) The shop is spotless; all maintenance records are automated. They can break down costs any way you like. Aircraft maintenance programs have nothing on Metro's Tulsa operations.

EMSA's dispatch center looks like they're running a shot of the space shuttle. The control center was fully automated years ago and remains the most sophisticated in the industry.

Of EMSA's financial management, billing, and data processing systems, the Rand Corporation said, in a July 1984 report ("Exploring benefit-based finance for local government services: Must user charges harm the disadvantaged?) edited by Anthony Pascal, "Even when cities do attempt to recover costs for EMS, they typically do not include all the costs of providing the service. The costs most typically excluded are departmental overhead, general city administration and overhead, and fixed asset replacement. Only one service contacted, Tulsa, appears to include all of these costs as well as the costs of bad debt losses . . . Tulsa also has the most efficient billing system . . . '

The way EMSA markets its subscription program is right up there with the folks at Acadian. In fact, Tulsa's subscription program data base, combined with the system's professionally done public awareness survey, is helping to fine-tune future subscription campaigns. When Tulsa innovates, others borrow. When others innovate, Tulsa usually borrows and improves.

Taken separately, these facts may



merely seem interesting. Almost any system does some things right. But when one finds so much happening in one place, over an extended period of time, and without the aid of a "high capacity tax dollar injection system," it may not be a fluke. Three observations: first, excellence is almost routine in the Tulsa system; second, excellence is being achieved within the context of extraordinary efficiency and without tax support in an industry where subsidy is thought to be essential; and third and most significant, the general trend in recent years shows no signs of sagging momentum. In fact, the system's increasing financial and political stability seem to have institutionalized progress as an organizational way of life.

What's wrong? Frankly, not much. I wish the Tulsa system would expand to handle multiple jurisdictions – the economies of scale could be greatly improved. (There are signs that the system may soon begin limited regional expansion.)

I wish paramedic wages could be increased. But professional paramedics still share a national job market with BLS personnel and volunteers who work without pay. No one prehospital care system can, by itself, change that fact.

Tulsa's ambulance ordinance is in many ways out of date. Ordinances developed for the younger public utility model systems are better in a variety of ways, and I wish Tulsa would review and update its ordinance.

The Role of Competition

The most important change I'd like to see in the Tulsa system is a change that would be beneficial to all public utility model systems. The public utility model relies upon fair and objective price competition among qualified firms to select the initial operations contractor. Partially for reasons related to the uncertainty of antitrust laws, additional bid processes are required at regular intervals - needed or not. And that's the problem.

A bid process is a traumatic event, especially for field personnel and middle managers. Bid competition is a management tool. Its ultimate purpose is to attract and contract a qualified firm at a fair price. But if a system is already



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being served by a clearly qualified contractor delivering clinical and responsetime performance well above the minimum contract requirements, and if mutually acceptable renewal prices can be negotiated and shown to reflect low levels of inflation, then the purpose of the bid process can be achieved without the expense and trauma of bid competition, and without risk of replacing a superb and experienced contractor with a less well known entity.

The power to grant exemption from bid competition is itself a valuable form of contract "consideration." In the hands of a skilled negotiator, this power can sometimes produce a lower price than would a bid process. Assuming antitrust issues can be resolved, I recommend allowing EMSA and its sister organizations around the country the option of granting negotiated extensions, provided the overseeing physicians agree that service to date has been well above minimum contract requirements, and providing contract price adjustments fall within reasonable inflation guidelines.

In this manner, the tool of bid competition can be employed when needed when service is less than superb or when cost increases approach national inflation levels. And when the tool of competition is not needed, the option of going to bid can still be used as a powerful negotiating device. It is critical to retain the power to conduct bid competition when the need should arise, to maintain "lame duck" provisions and other performance security measures to allow a smooth contract transition, and to demonstrate that a less-than-excellent contractor can be replaced easily and quickly. But potential competition, if that potential is real, may prove as powerful as actual competition in the context of renegotiation - and without the trauma to the workforce.

Making the Public Utility Model Obsolete

Last month we showed that the public utility model is mainly a way of replacing competition at the retail level with a far more effective form of competition at the "wholesale" level, while allowing the system's customer base to be geographically isolated so that "coverage" can be economically maintained. (Medical services and transportation are provided to individuals, but coverage must be furnished to a geographically defined area.)

The public utility model requires a great deal of knowledge, understanding, and expertise on the part of local government, and where local populations are small (i.e. under about 130,000 pop.), the model requires cooperation among several neighboring units of government





– a rare and fragile thing indeed. For these reasons, I do not believe the public utility model will ever furnish a universal alternative to America's smorgasbord of superb and deadly, efficient and wasteful, public and private, too large and too small, over-funded and under-funded prehospital care systems. Only a few communities have what it takes to successfuly manage change of this magnitude and complexity.

For those who can handle it, the public utility model is there. It hasn't happened yet, but no doubt some community will eventually install a public utility model system, underestimate the powerful forces at work in such a system, and reap clinical or financial disaster, or both.

But if we keep in mind that what we are trying to do is, in effect, establish a group purchasing program whereby all the people in a geographic area of sufficient population combine their purchasing power, and use that power intelligently to secure top quality ambulance service at a reasonable price, then it is clear that the public utility model is nothing more than an attempt to allow local government to do a job that could be more efficiently and more effectively accomplished by either state government or by a consortium of public and private third party payors.

It is obvious that it would be far more practical to establish a single agency of EMSA's expertise in each state than to establish an agency of equal sophistication in every unit of local government. It is perhaps even more obvious that, if most of the third party payers furnishing coverage in an area were to form a group purchasing organization for the purpose of collectively purchasing ambulance services, including geographic coverage, for their respective clients, it would be possible to offer a

In the Industry

Collins Industries, Inc., manufacturer of Collins Emergency Vehicles, has acquired ambulance manufacturer Wheeled Coach Industries, Inc., of Orlando, Florida through a combination stock purchase and merger. The merger went into effect March 4, 1985, according to Collins president and chairman, Don L. Collins.

To Collins Industries, the merger represents a significant expansion of its Emergency Service Vehicles Division which already manufactures a complete line of ambulances and medical support vehicles. Both Collins and Wheeled Coach will continue to market their ambulances through their existing dealer networks.

Hale Fire Pump Company, long a leader in serving the firefighting industry, has unveiled a new corporate logo that reflects the new, diversified nature of its product line. Last year, Hale acquired the Hurst "Jaws of Life" line of rescue tools.



The old logo, which depicted water spouting from a fire pump, did not graphically relate to the new line or other lines which serves such diverse markets as construction, forestry, industry and government.

The Missouri Division of Health has awarded a statewide EMS management contract to **J. Fitch and Associates**, **Inc.** The contract involves the development of state and local funding options for providing emergency medical services in Missouri. The contract also calls for the development and pilot testing of leadership programs for local ambulance managers and for the staff at the state Bureau of EMS; compilation of a management manual for ambulance services; and, an orientation program for local governing boards of ambulance services and districts.

Edward C. Moser has been appointed as director of marketing for **Life Support Products**, **Inc.** of Irvine, California. The appointment, announced by Robert A. Hovee, president, will also include marketing responsibilities for BP Medical Systems of Irvine, a company recently merged with Life Support Products. Mr. Moser has 15 years of experience as a

"In the Industry" is a new column dedicated to keeping readers up to date with the business end of EMS companies and people. Send corporate announcements to "In the Industry," jems, P.O. Box 1026, Solana Beach, CA 92075. respiratory therapist, with teaching assignments at Ohio State University and various hospitals and educational systems throughout the country. His most recent position was instructor at San Diego California College for Respiratory Therapy.

Richard T. Gralton, a 26-year veteran of General Electric's executive ranks, has been elected to the newly created position of chairman and chief executive officer of **Pioneer Medical Systems**. Prior to joining Pioneer Medical Systems, Gralton was president of Columbia Data Products, a computer equipment manufacturer in Columbia, Maryland. Gralton will oversee Pioneer Medical Systems' expansion in the consumer field of electronic home health care products.

Richard Magner, lead pilot for the Life Flight program at Baptist Hospital in Pensacola, Florida, received the 1984 MBB Golden Hour Award at the Helicopter Association International (HAI) 37th Annual Awards Banquet in New Orleans on January 19. The award was bestowed on Magner for his outstanding contributions and dedication to the medevac operations at Baptist Hospital.



MBB sponsors the annual-award that is given to an emergency medical services helicopter pilot who has distinguished himself by performing above and beyond the already high EMS standards, and who has made an outstanding contribution to a specific emergency. HAI is the professional trade association of commercial helicopter operators, manufacturers and suppliers, dedicated to the advancement of the helicopter as a safe, effective mode of transport.

Clinical Data, **Inc.**, the largest provider of ambulatory ECG recordings and services in the U.S., has announced the creation of two new corporate positions: vice president of finance and corporate planning and vice president of operations.

Linda E. Saris, formerly the company's treasurer and chief financial officer, has been named vice president of finance and corporate marketing. Chet Andrews has been appointed vice president of operations. Andrews, who as vice president of marketing has managed the company's continued on page 65

Psychological Screening of EMT Applicants

The Psychological Resources test battery consists of five well validated psychological test instruments which provide a substantial amount of information about the applicant's fitness for EMT work. At \$50.00 per case, an agency head or his representative receives a detailed but easy to read report describing the applicant's strengths, weaknesses, intelligence, and psychological fitness for the position. Rapid turnaround and on site administration by agency personnel permit the use of our services in most hiring situations. This battery has withstood federal court supervision and meets EEOC guidelines.

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sufficiently large and geographically defined customer base to attract aggressive competition from the most qualified ambulance firms.

In practice, this group purchasing by third party payors would have to be conducted under the supervision of state regulation. New state legislation could resolve the antitrust uncertainties, and state supervision could ensure the quality of services available to uninsured residents of the area, as well as regulate the fee-for-service and subscription rates charged uninsured residents.

What does the future hold? Will the public utility model be made obsolete by more effective forms of licensure and market allocation at the state level, or by joint purchasing consortiums of third party payors? Will our industry and its regulators some day realize that, in this business, the customer base must be geographically defined in a way that

"We have raised public expectations to nearly impossible levels."

retail competition can never achieve? Or will the trend toward socialized prehospital care resume, creating increasingly lucrative cream skimming opportunities for the nonemergency BLS provider?

Don't ask me, I just work here.

Personal Footnotes

Several years after finishing my work in Tulsa, I was introduced to Dr. John Sacra, then chairman of Tulsa's Emergency Physicians Foundation. Dr. Sacra began working with the Tulsa system after I left town, and we had never met. I remember he put his hand on my shoulder and smiled as we walked down an emergency department corridor. "Well Jack," he said, "you built us a pretty good system. There are some problems, but we're working those out."

"Dr. Sacra," I replied, "that is the system." And it is. No organizational design can eliminate problems. On the contrary, problems seem more glaring, more embarrassing, more irritating in a well-organized system. That's why problems are more apt to get solved in a good system.

Change of this magnitude is very irritating to the social structure within which the change is taking place. Turf problems among affected departments and agencies run rampant. Egos, including my own, get trampled. In the 20 to 30 months it takes to get the system off the ground (and that's at warp speed), nerves get worn and friendships strained. The new system is born into a world that is already tired of having it around.

Most of the time, I feel lucky to get the system up at all. Then the race against time begins. Will the infant system solve its biggest problems before its enemies can kill it? Will the drain on working capital slow and reverse itself as planned? The new system is fragile, uncoordinated, and vulnerable. There are no traditions, no "standard procedures" to make little things routine so that big things get the attention. Everything requires attention.

The system's designers and builders leave, and permanent staff takes over. At best we leave the bare skeleton of a system structure. We have raised public expectations to nearly impossible levels, made some friends for the system, and usually some potent enemies. We leave a thousand loose ends. If permanent staff doesn't come to hate us, it's a miracle.

But Tulsa has shown us that the public utility model does furnish a framework within which amazing results are possible – not inevitable, just possible. True, Tulsa enjoys an uncommon concentration of talent. An extremely sophisticated medical community, a board of volunteer trustees capable of managing almost any sort of business, one of our industry's most experienced and innovative private providers (Metro was doing telemetry before you could get an FCC license to do it), and as I've said, Steve Williamson may be the best there is.

Clearly, such a combination of talent could make almost any kind of system work. But it was the system structure that caused this talent to be assembled, and it is the system structure that focuses all this talent upon meeting the needs of patients. Even so, there are no organizational designs so well conceived that sucess is inevitable, and that includes the public utility model.

Author's note: Special thanks to Steve Williamson, EMSA's executive director, for photos, figures and and financial information on the Tulsa system.