

Ideas  
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Insight

# Best Practices

IN EMERGENCY SERVICES

## Quick Look

### Illinois Becomes 7th HeartRescue Partner

The University of Illinois Hospital and Health Service System recently became the seventh partner participating in the Medtronic Foundation's HeartRescue Project, which aims to improve cardiac arrest survival rates by 50 percent in their respective states. Other partners include the Universities of Arizona, Minnesota, Pennsylvania and Washington; Duke University; and American Medical Response, which is working to improve cardiac arrest survival rates in its practices nationwide.

Working with the University of Illinois on the Illinois HeartRescue Collaborative is the Chicago Fire Department, Chicago EMS and the Illinois Department of Public Health. With \$3.75 million in grants from the Medtronic Foundation to AMR and the University of Illinois, the collaborative will target both rural and urban Latino and African-American communities in the state.

"The disparities in SCA survival rates are both a major challenge and an opportunity for the people of Illinois," Terry Vanden Hoek, M.D., professor and chair of the Department of Emergency Medicine at the University of Illinois, who will serve as project lead, said in a news release. "We are poised to change those rates. We are looking forward to the impact we can make through our partnerships and with the timely support from the HeartRescue Project."

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## The Power of Community

Three new community paramedicine programs are poised to take off with federal Innovation grants.

*By Jenifer Goodwin*

*Editor's note: Community paramedicine has the potential to revolutionize how EMS is perceived, practiced and paid for. In part one of this two-part series, BP looks at three grants that have been awarded by the Centers for Medicare & Medicaid to test the concept. Next month we'll examine the progress and lessons learned from two of the pioneers in this area: Wake County, N.C., and Eagle County, Colo.*

In recent years, some of EMS's most forward-thinking leaders have worked tirelessly to develop a model of care that moves EMS away from solely responding to emergencies and into the realm of preventive care, public health and home health services. Calling the model *community paramedicine*, the goal is to position EMS as a partner in the wider health care community's efforts to deliver better care at lower costs.

Though many within EMS have embraced the community paramedicine concept and several communities have even managed to get community paramedicine programs off the ground, the model has been sorely lacking a key ingredient to its widespread adoption: a way to pay for it. With EMS largely dependent on fees per transport, there is no funding stream or mechanism in place to reimburse community paramedics for taking on roles such as giving flu shots, checking on patients recently discharged from the hospital or visiting the elderly at home to assess falls risk or medication compliance.

That may be about to change. This spring, the Centers for Medicare & Medicaid (CMS) Innovation Center announced more than \$13 million in grants to launch community paramedicine programs in communities in three states: Pagosa Springs, Colo.; Prosser, Wash.; and Reno/Sparks, Nev. To be sure, the grants involving EMS are but a small part of the nearly \$1 billion given to organizations that submitted plans for innovative programs that would improve care while lowering costs for

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## A Defining Moment for EMS

By Keith Griffiths, editor in chief

In the July issue, Skip Kirkwood, president of the National EMS Management Association (NEMSMA), penned a column titled, “What Is EMS, Anyway?” Some may think the whole discussion surrounding the definition of EMS is an academic exercise, but it has real value in terms of the industry’s basic identity (health care vs. public safety) and also how it is viewed by others, which has practical implications in terms of legislation and funding. (It’s interesting how EMS has sometimes been assumed to include care in hospitals, especially when grants are involved.)

A few months later, Skip put his money where his mouth is and worked with the NEMSMA board to develop a position paper outlining their take on what EMS is—and, just as important, what it isn’t. The effort was sparked by a definition of EMS issued by the National Association of EMS Officials (NASEMSO) and a robust discussion that touched on many of the key points raised by Skip in his original essay. NEMSMA’s definition substantially agreed with NASEMSO’s but was expanded and modified to read as what follows below.

What do you think? Did NEMSMA get it right?

To read NEMSMA’s other new position paper, “Educational Preparation for EMS Leaders,” visit [nemsma.org](http://nemsma.org).

### Definition of EMS

“Emergency Medical Services (EMS) is the integrated system of medical response established and designed to respond, assess, treat, and facilitate the disposition of victims of acute injury or illness and those in need of medically safe transportation. The EMS System includes the full spectrum of response from recognition of the emergency to access of the healthcare system, dispatch of an appropriate response, pre-arrival instructions, direct patient care by trained personnel, and appropriate transport or disposition. A provider participating in any component of this response system is practicing EMS. EMS also includes medical response provided in hazardous environments, rescue situations, disasters and mass casualties, mass gathering events, as well as interfacility transfer of patients and participation in community health activities.

EMS does not include the following:

- Care rendered by professionals within an established healthcare facility.
- Good Samaritan care: emergency care provided by someone regardless of their level of training and experience outside of an established and organized response and the individual is not receiving any type of compensation for care rendered.
- Basic first aid, CPR, and public access defibrillator use provided outside the established EMS system.
- Public health programs and home health care programs unaffiliated with the EMS system.

It should be noted that this definition is not intended to exclude any aspects of EMS not formally described (e.g., oversight, administration, education and research). In addition, EMS is an evolving discipline that is maturing as a partner in the healthcare system. As such, EMS must be flexible enough to accommodate new roles.

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## Hospitals Often not Notified of Incoming Stroke Patients

Stroke victims receive clot-busting medications more quickly when EMS notifies hospitals that such patients are on the way, but advance notification doesn't happen in one-third of cases.

UCLA researchers and colleagues examined 372,000 cases of ischemic stroke that occurred between 2003 and 2011. The patients were taken by EMS to one of nearly 1,600 hospitals participating in the American Heart Association/American Stroke Association's "Get With the Guidelines—Stroke" quality improvement program.

Hospitals were given advance notice in 67 percent of cases in 2011, up from 58 percent in 2003, according to the study, which was published online July 10 in *Circulation: Cardiovascular Quality & Outcomes*.

A second study by the same researchers in the *Journal of the American Heart Association* found that rates of hospital prenotification vary widely, ranging from 93 percent in Montana to 20 percent in the District of Columbia, and from 0 percent at some hospitals to 100 percent at others. "These results support the need for initiatives targeted at increasing EMS prenotification rates as a mechanism for improving quality of care and outcomes in stroke," the researchers write.

## Distance From Trauma Center Predicts Likelihood of Dying at Scene

The farther from a Level 1 or 2 trauma center that a crash occurs, the more likely victims will be coded as having died on scene, according to a NHTSA study released in March. Researchers analyzed national crash data from 2009 in the Fatality Analysis Reporting System.

Victims of crashes that occurred within a 45- to 60-minute "response time coverage area" of a trauma center were 13 percent more likely to be coded as "died at scene" than drivers who were 45 minutes or less from a trauma center; victims who were an hour or more from a trauma center were 23 percent more likely to die at the scene. Drivers who had a high blood alcohol concentration, who were ejected from the vehicle, whose vehicle rolled over, who crashed at night, or who crashed in areas where the speed limit was 55 mph or above were also more likely to die at the scene.

"The study reinforces the need to provide effective medical response and care in outlying areas," the researchers report.

## BLS Providers Use CPAP Properly

BLS-trained EMS providers know how and when to use a continuous positive airway pressure (CPAP) device as well as ALS providers, a Canadian study finds.

Researchers from Sunnybrook Centre for Prehospital Medicine in Toronto analyzed 300 consecutive cases in which CPAP was used by EMS in two regions of Ontario. Researchers wanted to know if providers with BLS training—who are not trained to intubate—could use CPAP properly. Researchers found no significant difference in the ability of BLS-trained providers to use CPAP safely and properly compared to ALS-trained providers.

The study was published online June 11 in *Prehospital Emergency Care*.

## Paramedics Struggle to Recognize Atypical Anaphylaxis

A survey of 3,500 paramedics found nearly all could recognize the signs of classic anaphylaxis, but only 3 percent identified an atypical presentation of the potentially fatal allergic reaction.

Researchers from the University of Missouri–Kansas City School of Medicine and colleagues got the idea for the survey after treating a patient who had a sudden onset of gastrointestinal complaints, including vomiting, diarrhea, abdominal pain, severe low blood pressure and loss of consciousness. The patient didn't have more typical signs of anaphylaxis such as itching, hives or swelling, and prehospital providers didn't recognize the symptoms as anaphylaxis.

In the survey, providers were asked how they would treat various scenarios that had nothing to do with anaphylaxis. The purpose was to blind them to the intent of the survey.

Nearly all respondents (98 percent) said they were "confident" in their ability to recognize anaphylaxis, yet even in a classic anaphylaxis scenario, only 46 percent correctly identified epinephrine as the initial medication of choice; 40 percent incorrectly chose diphenhydramine. Given an atypical anaphylaxis scenario, many paramedics misidentified it as an aortic aneurysm, appendicitis or food poisoning.


EMS providers were also confused about how and where to administer epinephrine. Fifty-eight percent chose the subcutaneous route; 61 percent chose the deltoid, "despite years of expert consensus showing that delivering epinephrine intramuscularly given in the thigh is the preferred method of epinephrine delivery," the researchers write. Only about 40 percent of respondents carried epinephrine autoinjectors in their vehicles. The study was published online June 19 in *Prehospital Emergency Care*.

## Racial Disparities in CPR, Defibrillation

Black cardiac arrest victims are less likely than whites to receive bystander CPR or shocks from an AED by a bystander or professional responder, research shows.

Researchers from the University of Pennsylvania Perelman School of Medicine analyzed 4,900 out-of-hospital cardiac arrests in Philadelphia between 2008 and 2012. About 34 percent of white patients were shocked by an AED, compared with 27 percent of blacks; bystanders performed CPR on 7.5 percent of whites, compared with 5.6 percent of blacks. Blacks were also less likely than whites to have regained a pulse before arrival at the hospital (14.7 percent vs. 17.1 percent).

The study was presented at a Society for Academic Emergency Medicine meeting held in Chicago in May.

In a separate study, researchers found that fewer patients who suffered cardiac arrest at night (between 8 p.m. and 8 a.m.) regained a pulse before hospital arrival. They were also less likely to receive bystander CPR and took longer to be transported to the hospital. Location of the victims at the time of the arrest (at home vs. in public) may explain the differences, researchers report. 

— Jenifer Goodwin, associate editor

## Is Your Organization Agile or Fragile?

### Part 6: How to assess and eliminate bureaucracy and non-value-added activities

By Jay Fitch, Ph.D.

Jim Collins, author of the best-selling *Good to Great*, talks about the importance of looking in the mirror and out the window. In his decades of research, he's found that great leaders look in the mirror when things go wrong and accept the blame themselves. They also look out the window for other people to credit when results are good.

When others besides the leader receive credit for the organization's success, innovation—rather than bureaucracy—flourishes. Is your organization's leadership encouraging new ideas and the risk associated with trying something different, or are they sowing the seeds of bureaucracy, allowing a "blame game" culture to squelch fresh perspectives?

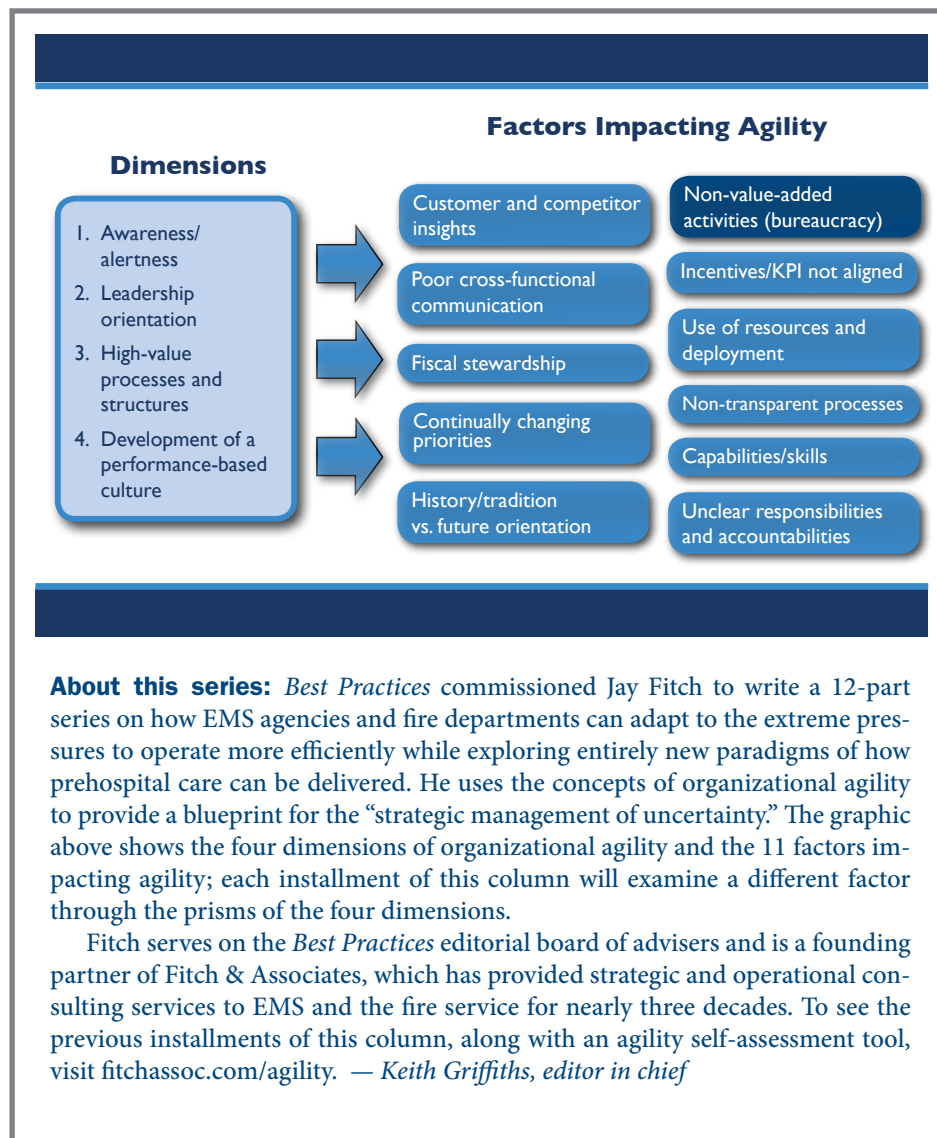
This month we'll assess the trap of bureaucratic, non-value-added activities through the four dimensions of organizational agility. Bureaucracy can sneak up on an organization incrementally, often under the guise of the need to standardize, control or be "fair." See how your agency measures up.

#### Awareness and alertness

Agile organizations are highly alert to bureaucracy, getting rid of the stupid

Bureaucratic cultures are kryptonite to agile organizations.

stuff and encouraging innovation. "There's no good reason—that's just the way we do it here" is a phrase that describes processes in fragile EMS organizations. As you read this, you



can probably think of three or four examples of non-value-added processes in your organization. If you are having trouble thinking of an example, one of my favorites is how EMS does scheduling and manages "call-offs."

In many cases, a written request is made, then another individual checks the records to make sure there is sufficient leave available to be granted. Then it's up to a supervisor to communicate that the leave is approved. Then someone else calls 10 to 12 people who don't want to take the shift. Eventu-

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## Bill Aims to Create EMS Jobs for Veterans

If a bill introduced in the House in March becomes law, the secretary of the Department of Health and Human Services (HHS) will be required to establish a program to encourage states to provide EMS jobs to recent veterans.

Under the Veteran Emergency Medical Technician Support Act, any state that proves it has a shortage of EMTs would be eligible for an HHS-awarded demonstration grant. The grants would allow states to streamline their EMS requirements and procedures for veterans who completed military EMT training while serving in the Armed Forces. This would enable some veterans to become eligible to meet state EMT certification, licensure and other requirements earlier than they might otherwise.

The bill authorized an appropriation of \$200,000 annually for this grant program for fiscal years 2013 through 2017. The funds would be used to determine the equivalencies between state requirements for the education, training and skill level of EMTs and those of military EMTs and to identify what methods, such as waivers for the veterans, could be used to meet state requirements.

The bill was referred to the House Subcommittee on Health in the Committee on Energy and Commerce. There is currently no similar bill in the Senate.

## D Block Grows Up

In accordance with the Middle Class Tax Relief and Job Creation Law passed in February 2012, which established the public safety portion of the broadcast spectrum, Acting Secretary of Commerce Rebecca Blank announced in August the members of the First Responder Network Authority (FirstNet) board of directors.

With the exception of the Department of Homeland Security secretary, the attorney general and the Office of Management and Budget director, who would be permanent members, the law requires that FirstNet (formerly known as the D Block) be run by a 15-person board selected by the commerce secretary. The law mandates that the board members have experience in public safety and broadband communications technology, and in building and operating commercial telecommunications networks or in financing them.

Samuel Ginn was named chairman of the FirstNet board and was referred to by the commerce secretary as a pioneer and leader in the wireless telecommunications industry. With more than 40 year of experience in the business, he was chairman and CEO of Pacific Telesis, chairman of AirTouch and the head of other related companies.

A full list of board members, with brief biographies, is at [commerce.gov/news/fact-sheets/2012/08/20/fact-sheet-first-responder-network-authority-firstnet](http://commerce.gov/news/fact-sheets/2012/08/20/fact-sheet-first-responder-network-authority-firstnet).

## Edging Closer to Public Safety Benefits Fix

Passed by the House in July, the Public Safety Officers' Benefits Improvements Act provides several new benefits to officers and their beneficiaries. Not only does the bill provide death

and education benefits to an expanded list of survivors, but it also extends benefits to people working in private, nonprofit EMS agencies and their families. (As it currently stands, the law provides benefits to volunteer firefighters and EMTs in private, nonprofit fire departments but not in private EMS agencies.)

The bill would also eliminate the \$5 million limit on the total annual payments to officers, providing that the death or disability benefits are not given in addition to payments under the September 11 Victims Compensation Fund of 2001.

The legislation passed the House and was sent to the Senate, which is considering its own bill, which differs slightly from the House bill. Both houses must agree on the same legislative language before the bill can be signed into law.


## Another Try to Save USFA

The U.S. Fire Administration (USFA) was saved from its Sept. 30 demise as Congress postponed budget decisions and extended funding through the end of the year as it left Washington to ready for the 2012 election. The USFA is among agencies and programs that could be cut to reduce spending levels.

Fire organizations are still scrambling to keep the agency in business. Several major fire service organizations joined together to endorse new legislation to keep the agency alive and express their gratitude to House sponsors of a new reauthorization bill introduced July 30.

The U.S. Fire Administration Reauthorization Act would extend congressional authorization for the USFA and authorize \$76,490,890 each year through fiscal year 2017. Though created in 1974 with a mandate to reduce the loss of life and property from fire, fire services praise the agency as a partner in preparing for all-hazards emergency response through training, education, and data collection and analysis.

The bill was referred to the House Committee on Science, Space, and Technology. A similar bill in the Senate would provide the same amount of funding to the agency as it reauthorizes it.

The letter from the fire service organizations is at [nvfc.org/files/documents/Legislative/12July\\_USFA\\_reauth\\_support\\_letter\\_house.pdf](http://nvfc.org/files/documents/Legislative/12July_USFA_reauth_support_letter_house.pdf). 

— Aimee J. Frank, contributing writer

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— Pinnacle 2011 attendee

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# Q&A with Patrick Smith

**President and CEO, Regional Emergency Medical Services Authority**

When Patrick Smith, president and CEO of REMSA, found out his agency had been awarded a three-year Centers for Medicare & Medicaid Services Healthcare Innovation Award worth nearly \$10 million, he and his staff celebrated. But as the news settled in, they realized just how much work was ahead. “This project has the potential to reshape the EMS industry and health care overall,” Smith says. “We have a responsibility to do this, and to do it correctly.”

Smith got his start as an EMT in 1973 while a college student in Minnesota. After graduating, he became a paramedic and soon began taking on supervisory roles for EMS agencies in Minnesota and Oregon. In 1980, he was hired by Jack Stout as assistant director of Metropolitan Ambulance Services Trust (MAST) in Kansas City. Stout is the architect of the public utility model/high-per-

formance EMS system; as a consultant for his firm, Smith helped establish other public utility model systems in Fort Wayne, Ind.; Pinellas County, Fla.; Fort Worth, Texas; and Little Rock, Ark.

Smith later worked as vice president of Eastern Ambulance in Syracuse, N.Y., before being hired in 1988 as vice president of Reno’s Medic Ambulance. Shortly after he relocated to Nevada, Medic Ambulance lost its bid to renew its contract. Smith was doing various consulting jobs when he heard about a job opening to lead the newly formed REMSA, a private nonprofit. In 1989, Smith took the helm at REMSA, which provides EMS to the 410,000 residents of Reno, Sparks and Washoe County.

Smith spoke with Best Practices about the Innovation grant and lessons learned after nearly 40 years in EMS.

## **Q What inspired you and your staff to apply for an Innovation grant?**

The Innovation grants were thrown out there to everyone across the country. CMS said, ‘Give us your proposals on how we might do things differently.’ The goals were for the programs to be innovative, to reduce overall costs and to be sustainable after the three-year grant period.

We have an amazing staff who participate in so many industry events, conferences and organizations. They came to me and said, ‘We’d like to take a look at this,’ and I said, ‘Go for it.’ All of us realized we have a unique situation here: We have representatives from three hospitals and the Washoe County District Board of Health on our board of directors. One of the hospitals, Renown Health, is also the biggest provider of private insurance in the area.

We believe having a unified system was one of the keys to us being awarded the grant. Any major significant change

is going to involve many partners in health care.

## **Q What are the main components of your project?**

One is allowing ambulances under a well-designed system to take lower-acuity patients to different settings or offer alternatives other than going to the emergency department. The second one is a good medical communications center, with very advanced protocols being used by nurses to help patients with non-acute problems get the right care at the right time. That won’t always mean ambulance response; it could be over-the-phone help. The third piece is enabling paramedics to target different patient populations that are in need.

We will work with the hospitals, long-term care facilities, and CMS medical home groups for chronically ill patients to identify these patients. The goal is to reduce transports to the emergency department, to reduce readmissions to the hospital and to improve

patients’ care and quality of life. It’s a systems approach with many partners that we have worked with for years.

## **Q How important do you think community paramedicine is to EMS moving forward?**

It’s critical. We have to change the way we provide prehospital health care. We have to change the types of services we provide—services that all of us, especially the aging boomers, need. We also have to provide better, more varied, affordable services that increase patient satisfaction and the care they get, all while reducing costs. Health care, and Medicare in particular, is running out of money.

And we have to do all of that to establish to the rest of health care that EMS really is the practice of medicine. Where health care is headed is that no one operates in isolation. You work with many partners and take a team approach. At REMSA, we’re already familiar with doing that.

**Q What will it take for community paramedicine to truly take hold?**

Medicare needs to reimburse EMS differently than it does today. We need to be reimbursed if we treat and don't transport, or if we treat and transport lower-acuity patients to a lower-acuity center, like urgent care, a mental health facility, a doctor's office or a detox center.

We made a case to CMS that if you do that, we believe you will see downstream cost savings. We will get patients to the right place for care. Right now, we are confined—we have to transport to an emergency department.

Changing this is something the industry has been working on for 25 years, and it looks like now it may finally be starting to happen.

**Q What are some of the key components of what's in the works for Reno?**

One is an alternate phone number to 911 for non-emergent medical issues, which patients could call to seek medical advice. That number will be staffed by nurses, and the whole community will be able to use this service. We think the callers can differentiate when they need to call 911 and when they don't. So callers might get advice over the phone; it also might mean scheduling an advanced practice community paramedic to come and see them. The problem is that in many communities, there might not be another choice.

We have to show we can save dollars. We have to measure and quantify what we do. If we can show we have improved the patients' care, experience and satisfaction while reducing costs, that will change Washington's mind about EMS funding and importance in health care. We are one of the smallest pieces in the great Medicare puzzle, but I believe we can have one of the most dramatic effects on improving care and reducing costs.

**Q What's the timing for getting this up and going?**

We've submitted an operational plan to Washington. They are reviewing it and we will get feedback. What we're finding is the people in Washington we're working with are partners with us, trying to figure this out to make it work. My sense is this is being watched at very high levels in Washington.

We have to have advanced community paramedics on the streets in six months. In six months, the ambulance piece—taking patients to lower-acuity settings—also has to go into effect. The nurse triage piece has to be in place in a year.

We are moving slowly. We will make sure that we do this very methodically, carefully and safely for the patients.

**Q What does the future hold for the high-performance model?**

I think with all of the changes happening in health care, high-performance systems will be the fastest ones to evolve. Over the years, they have been the leaders in EMS change and in research that pushes the boundaries. Health care is changing at light speed. The old models aren't going to work; those that can adapt very quickly will survive.

**Q You responded to the Hyatt Kansas City walkway collapse in 1981, which killed 114 people and injured 216. You also worked in the communications center the day of the air show crash in Reno in 2011. Were there lessons learned from the Hyatt disaster that have made response to mass-casualty incidents like the one in Reno better?**

There were many. When the walkway collapsed, providers in Kansas City had different ambulances, kept equipment in different places, and had supplies that varied from ambulance to ambulance. We set up triage on scene, but we had problems trying to find equipment—firefighters and police couldn't go into an ambulance and get what they needed.

Basically, what we learned is you need to have standardized vehicles and the same equipment in the same place so that everybody can find it. We also train everybody, and everybody we work with, on where the equipment is, so they're not rummaging through an ambulance trying to find something.

We also learned that it's important to practice, practice, practice MCI plans. We teach our responders that you don't wait for a supervisor or battalion chief to get on the scene. When you get to the scene of an MCI, everyone tries to pull you to take care of this person or that person. We train our medics to size up the scene, to determine ingress and egress, to think about safety and to figure out what resources they need so dispatch knows right away.

“Health care is changing at light speed. The old models aren't going to work; those that can adapt very quickly will survive.”

— Patrick Smith

**Q REMSA is a high-performance system. What does that mean?**

A high-performance system is one that has certain system design elements. High-performance systems have performance standards, and they are held accountable to those standards. They have external oversight, typically in checking that performance standards are being met; rate oversight; and sanctions for non-performance, such as being late on calls.

But the real key is these systems have the ability to be replaced if they chronically don't perform. High performance is the system design. It's not who does it—it can be public, private or third service.

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For an in-depth look at the REMSA grant, see our BP Interview with Patrick Smith on page 6 of this issue.

Medicare and Medicaid patients.

Nonetheless, EMS experts say the grants have the potential to transform the way health care is delivered in this country, and the role EMS plays in delivering that care. While several communities have experimented with community paramedicine programs, mainly getting by with local support—including Wake County, N.C., and Eagle County, Colo.—the CMS grants represent an unprecedented level of federal government support.

“I can’t identify any other major grant program that CMS has done that has EMS written into the grant guidance,” says Gary Wingrove, director of strategic affairs for Mayo Clinic Medical Transport and past-president of the National EMS Management Association. “It’s a huge deal for this industry to finally get some recognition that it’s actually part of the health system, and that it could play a role in improving patient care and cost containment.”

### Bold new ideas

The grants include:

- \$1.7 million to the Upper San Juan Health Service District in Pagosa Springs, Colo., to enable Pagosa Springs Medical Center and Pagosa Springs EMS to expand a wellness program in a largely poor, rural region, and to expand the use of telemedicine by EMS providers to help with remote diagnostics, particularly stroke. One goal is to save on the costs of transporting people by air if ground is acceptable, says Claire Bradshaw, the Medical Center’s director of development and marketing.
- \$1.5 million to the Prosser Public Hospital District, which serves a rural area in Washington state, to launch a program in which physicians can send a community paramedic to visit patients at home, providing in-home medical monitoring, follow-ups, basic labwork and patient education, with

the goal of reducing emergency room visits and readmissions. The area has high rates of obesity, diabetes, heart attack and stroke.

- \$9.9 million to REMSA (Regional Emergency Medical Services Authority), the nonprofit provider of ground and air ambulance services in Reno, Sparks and Washoe County, Nev. In partnership with Renown Medical Group, the University of Nevada-Reno School of Community Health Sciences, the Washoe County Health District and the State of Nevada Office of Emergency Medical Services, REMSA will develop a Community Health Early Intervention Team to help patients with lower-acuity and chronic conditions access an appropriate level of care. The goal is to reduce unnecessary ambulance responses, hospital admissions and readmissions while improving patient outcomes, says Patrick Smith, REMSA president and CEO.

All of the programs include bold new ideas that, if successful, may pave the way for a new role for EMS in health care, Wingrove says. And the REMSA grant, says Smith, includes a provision that could be revolutionary for the EMS industry.

A central component of the REMSA plan is to be able to direct or take patients to destinations other than the emergency room, such as an urgent care, mental health facility or detox center. That makes sense for patients and for the health care system, Smith says. But because of the

way CMS pays for services, taking patients to alternative destinations doesn’t necessarily make sense for EMS, which could face a loss in revenue. “That will financially destabilize our system, and CMS understands that,” Smith says. “We have to stay revenue-neutral to maintain the EMS safety net.”

So as part of the grant, REMSA has received preliminary approval for a waiver from CMS, in which REMSA could get paid to treat patients on scene and not transport them, or to transport patients to alternative destinations. The details have yet to be hashed out, including what procedures would qualify as treating on scene, Smith says. But the way it will probably work is that REMSA would be able to bill CMS its usual transport rate for these other services.

“For the first time in my career, CMS has said, ‘We will pay you to do this other stuff,’” Smith says. “After God knows how much lobbying, it’s finally about to occur. It’s a game changer.”

### Unexpected winners

With so much riding on the outcome, Wingrove admits to being somewhat surprised at which organizations were chosen by CMS to receive the grants. As chair of the International Roundtable on Community Paramedicine, Wingrove is a long-time champion of community paramedicine and has worked with leaders from around the globe promoting the concept. Meanwhile, his nonprofit organization, the North Central EMS Institute, is a national leader in developing a curriculum

Though many within EMS have embraced the community paramedicine concept and several communities have even managed to get community paramedicine programs off the ground, the model has been sorely lacking a key ingredient to its widespread adoption: a way to pay for it.



to train community paramedics.

North Central EMS Institute applied for an Innovation grant but did not receive one. The funding would have launched community paramedicine programs involving 16 organizations in nine states, he says. Several of those programs were counting on federal money to enable them to move ahead and are now in limbo.

Despite his disappointment, Wingrove says he will support the programs that received grants in whatever way possible, as much is riding on their success. For instance, it's likely that private insurers will be closely watching how the new community paramedicine programs perform. If they can show success in containing costs without sacrificing quality, insurers may move toward funding EMS activities beyond transporting patients. "We can't afford to have a failure," he says. "We are at that point in the evolution of community paramedicine where a well-publicized failure may turn everything upside down."

No one was more surprised at being chosen than some of the winners. According to CMS, more than 3,000 organizations had applied for the grants, and 107 were given out. "We knew it was extremely competitive," says Pagosa Springs' Bradshaw. "We have no doubt that we are going to be scrutinized. That said, we've had great support from CMS in implementing this grant."

Among Pagosa Springs' plans: expanding an early detection/wellness program in which members of the community pay \$45 per month for preventive services such as blood pressure and cholesterol screenings, monthly health education classes, exercise classes and dietary support meetings. As a relatively poor area, many couldn't afford the monthly fee, Bradshaw says. So one of the goals is to offer the wellness program, which now has 400 participants, free of charge to some 1,500 low-income residents, helping them lose weight, eat better, manage chronic conditions and get preventive screenings.

Another aspect of the project is expanding the use of telemedicine by EMS, connecting providers with primary care

doctors, doctors at their local hospital or specialists at Swedish Medical Center in Denver, a Level 1 trauma center. EMS providers will also make house calls, handling follow-up for patients recently released from the hospital, or checking on patients with chronic diseases and perhaps using telemedicine to contact docs as needed.

In the process of hammering out the details and implementing the plan, CMS has provided assistance, including technical support and guidance from doctors and a program evaluator.

"It's not like they've thrown this money out there and said, 'Ok, you said you could do it, now do it. You'd better perform,'" Bradshaw says. "They've been helping us with tech support. They've put us in touch with medical professionals and other consultants to make sure we are asking the right questions and setting up our program in a way that will make it

Experts say the grants have the potential to transform the way health care is delivered in this country, and the role EMS plays in delivering that care.

more likely to succeed."

The process includes weekly meetings with a program officer to fine-tune their operations plan, including timelines, which then has to be approved. "They are helping us navigate the best strategies and pathways and have asked us to identify barriers," Bradshaw says. "CMS is our partner in this."

**Community paramedicine taking hold**  
While the grants are certainly big news, community paramedicine is advancing on other fronts as well. The Agency for Healthcare Research and Policy recently awarded the North Central EMS Institute a grant to host a national consensus conference on community paramedicine in conjunction with its partners, the Joint Committee on Rural Emergency Care,

the National Association of State EMS Officials and the National Organization of State Offices of Rural Health.

Held in Atlanta at the beginning of October, the conference brought together stakeholders for presentations and to discuss how community paramedicine should be regulated and other policy issues, which will eventually be published in a policy paper, Wingrove says.

In March, the North Central EMS Institute also published the latest version of a community paramedicine curriculum, which is provided free of charge to accredited community colleges or universities that work in conjunction with EMS organizations to train paramedics to become community paramedics. There are currently more than 100 paramedics nationwide taking the course, Wingrove says.

One of the keys to the curriculum is that it doesn't change the paramedic scope of practice—it's just used in different ways, Wingrove says. For example, medics learn to give vaccines rather than dealing with acute issues. The curriculum includes 150 hours of didactic instruction about primary care and public health and 150 hours of clinical time.

Another advance: On July 1, Minnesota became the first state to institute a law authorizing Medical Assistance (the state's Medicaid program) to reimburse community paramedics for services such as chronic disease monitoring, medication compliance and immunizations. These services are covered for individuals who frequently use emergency rooms, or for whom the provision of community paramedic service would prevent admission to, or allow discharge from, a nursing facility or prevent readmission.

Observers say that taken together, the grants signal that community paramedicine is indeed an idea whose time has come. "I don't think it's a fad anymore," Wingrove says. "Community paramedicine is here to stay." **BP**

*Jenifer Goodwin is Best Practices' associate editor.*

## Q Can you recall a mistake you made that you learned something valuable from?


The greatest mistake I made was when I was young, early in my career. I basically was implementing things that, while it helped the employees, I did too fast, without enough input and buy-in. The employees said, 'That's it. We've had enough.' And they unionized. They didn't like the pace of the change.

What I learned from that is it's not what you do, it's how you do it. And I've taken that lesson and have not made that mistake again. It was a hard lesson. Now, I spend the time asking my staff, 'What do you think about this? How do we make this better?'

I spend a lot of time listening to employees. We can't do everything they want, but we do a whole bunch. I tell them, 'If you have a good idea, let me know.' And we let the employee run with the idea. We have so many programs in our organization that didn't come from the top down; they came from the bottom up.

## Q Can you tell us about some of them?

Our Point of Impact Child Safety Program is one. We got manufacturers to donate car seats or sell them to us at a reduced rate. Volunteers from the community go through a course on how to properly install car seats. We set up checkpoints and parents can come and we will check their car seat to make sure it's not recalled and it's safely installed. Or, if you don't have one and you can't buy one, you get a free car seat for your kid. The hospitals got involved with us; if you don't have a car seat and you have a newborn, they will give you one.

Our staff has spearheaded programs to teach CPR and put AEDs in the community. Our staff was involved with changing state law to relieve concerns about liability involving AEDs. They started a ski helmet program for kids and adults that provides helmets at discounted rates. And they came up with the idea for a ski patrol program. 

— Jenifer Goodwin, associate editor

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*"Best Practices collects all the good ideas I don't have time to track down."*

*Best Practices* reader

ally someone is found to take the shift.

Let's look at another example from outside of EMS. I recently had an outpatient EKG, and it quickly became apparent that their processes were very bureaucratic. After signing in, there was registration and insurance verification before the EKG could be taken. They demanded a copy of my insurance card despite my telling them I was paying cash.

Multiple stations were required to complete registration. I had to wait for the second registration person to finish another client's paperwork. Then I was sent to outpatient cardiology, only to wait for the paperwork to be transmitted the 25 feet around the corner from registration. Once it arrived, there was an additional wait for a room to open up to take the EKG. Moving into the room, I waited for a technician to run the EKG. They wanted me to wait for the cardiologist to read the EKG before I left.

A typical EKG takes less than five minutes. When the entire process takes 60 minutes, 55 of those minutes are non-value-added, as are all the additional steps by the patient and staff.


Agile organizations identify, eliminate or simplify non-value-added steps. This mindset is often a breakthrough in thinking for many EMS groups. Currently, the accepted wisdom is that everything we do in EMS is value-added because it is "how we do it." However, 95 percent of typical activity in any process is non-value-added. EMS can experience significant productivity gains and have happier customers by identifying and creatively chipping away at those non-value-added steps.

Would you wait 30 minutes for a hamburger at a fast-food restaurant? Of course not. Most well-run fast-food chains have already eliminated a significant portion of non-value-added steps from their food service processes. That's why you get your meal in a few minutes.

## Development of a performance-based culture

Your agency's culture may seem innocuous, but bureaucratic cultures are kryptonite to agile organizations. And, unlike in the Superman comic strip, there is more to be done than simply removing the kryptonite in order to get more value.

Culture shapes the way the work gets done and how people think. The culture of a fragile organization reinforces bureaucracy and mediocrity. In contrast, an agile organization develops an environment in which everyone is empowered and expected to ask, *Does this process create value?*

Agile organizations are constantly looking for ways to manage and reduce the resources and costs associated with non-value-added activities. More important, they habitually innovate, adjust quickly to new business conditions and seize emerging opportunities before competitors do. Agile organizations perform efficiently today while continuing to explore new sources of value for tomorrow. 

## Mapping AEDs in Minnesota

As we've discussed in previous issues, a major hurdle in increasing bystander use of public access defibrillators is that there is no comprehensive list identifying where the nation's estimated 1 million AEDs are located. Various groups are trying different strategies to address that, including a contest run by University of Pennsylvania researchers that challenged members of the public to locate as many devices as they could for the chance to win \$10,000.

The folks at Allina Medical Transportation in St. Paul, Minn., are tackling the issue another way. They're working with Atrus Inc., a Boca Raton, Fla.-based company, which has created the Atrus National AED Registry and AED Link. Through the registry, AED owners can register their devices for free and receive notifications about necessary AED maintenance. Through AED Link, EMS agencies and communications centers can also link their CAD systems to the registry, enabling dispatchers to immediately view locations of public access defibrillators. Launched in 2006, the Atrus registry has information on nearly 13,000 AEDs, and that number is growing daily, says Elliot Fisch, Atrus co-founder and CEO.

In addition to alerting dispatchers about the location of nearby AEDs, AED Link has other features designed to make sure the devices are actually used. For instance, once an AED is listed with the registry, Atrus sends notifications about upcoming expirations of batteries and electrode pads to AED owners. AED owners can also supply contact information on employees who are trained and willing to use the devices. When a cardiac arrest occurs, AED Link automatically notifies workplace "responders" via text or phone call so they can get the AED to the patient quickly.

"When 911 centers get cardiac arrest calls, AED Link automatically looks to see if a device has been registered within 1,200 feet of the patient, and then displays on a screen the location of the device to a 911 calltaker," Fisch says. "The system also sends a text message or cell phone call to an individual or individuals who have agreed to consider bringing the device to sudden cardiac arrest victims."

Still, there are challenges. About 400 AEDs are listed with the registry in central Minnesota, far fewer than are out there, says Charles Lick, M.D., Allina's medical director. Allina has placed 2,000 AEDs in the community through a program called Heart Safe, but the process of identifying the AEDs and getting them registered is time-consuming, he adds. (To register, AED owners are asked to supply information about the location of the device, the manufacturer, serial number and expiration dates.)

Frustratingly, Allina has had at least two cardiac arrest calls in which AED Link notified 911 calltakers that an AED was nearby—but the arrest happened after hours, and the devices were inaccessible behind locked doors, Lick says.

Although registering AEDs is free to device owners, 911 centers have to pay for AED Link. The cost to a 911 center covering a city of about 500,000 would be approximately \$45,000 for three years, Fisch says. That fee pays for an annual subscription linking the CAD system to the registry. The link is web-based—no

need to install software—and is set up so that it's running continuously on a flatscreen in the dispatch center. There are no extra steps for dispatchers.

Allina Medical Transportation, which implemented AED Link in January, is not paying for use of the system during the first two years of operations, Fisch says. Other EMS systems using AED Link include Regina Health Region in Saskatchewan, Canada; Collier County EMS in Florida; and Contra Costa Health Services in California.

Fisch is asking EMS to get involved in building the registry by encouraging businesses to register their AEDs. For more information, visit [nationalaedregistry.com](http://nationalaedregistry.com).

## EMS Urged to Connect Homeless Vets With Services

The U.S. Department of Veterans Affairs is asking EMS providers to help connect the nation's estimated 67,000 homeless veterans with resources and services available to them. Via the VA's Homeless Veterans Initiative—which aims to eliminate veteran homelessness by 2015—EMS providers can order brochures, wallet cards, hats, bandanas and other merchandise at no charge. They are urged to give out these materials, which include the toll-free phone number for the National Call Center for Homeless Veterans, to homeless vets they encounter.

Visit [va.gov/homeless/materials\\_center.asp#giveaway](http://va.gov/homeless/materials_center.asp#giveaway) for more information, or send an e-mail to [VAHomeless\\_Veteran\\_Outreach@va.gov](mailto:VAHomeless_Veteran_Outreach@va.gov).

## Two Honored With Pinnacle EMS Leadership Awards

Fitch & Associates has named Tom Judge and Norris W. Croom III as winners of Pinnacle Leadership Awards.

Judge, executive director of LifeFlight of Maine, was honored with the Pinnacle Exemplary Leadership Award, given in recognition of an EMS community leader's efforts in advancing out-of-hospital care and transport. "Mr. Judge has an unbelievable litany of activities, achievements and works in progress," says Fitch & Associates partner Christine Zalar.

"Passion for the patient has always been a driver for the tireless hours Tom spends serving his program, foundation and state at the national level, and internationally on EMS and air medical related projects," she adds. "His feverish drive for improving the system—all the moving parts—is contagious."

Similar honors went to the winner of the Pinnacle Emerging Leadership Award, Norris W. Croom III, deputy chief of the Castle Rock (Colo.) Fire and Rescue Department. "Chief Croom is being honored for tirelessly promoting teamwork, collaboration and cooperation among emergency responders regardless of organization type or affiliation," says Jay Fitch, Ph.D., committee member and founder of Fitch & Associates.

"The nature of emergency response is unpredictable, complicated and highly stressful, often creating conflict among emergency organizations," Fitch says. "It was Chief Croom's simple yet profound philosophy of 'Can't we all just get along?' that ultimately led the committee to choose him."

Both awards were presented at the Pinnacle EMS Leadership Forum in Colorado Springs in July. 

— Jenifer Goodwin, associate editor

## A Defining Moment

Continued from page 2

NEMSMA further defines the following additional elements that comprise EMS:

*Paramedic Service* is the deployment of vehicles, equipment and personnel that respond to requests for EMS within a community. Paramedic service may be provided by governmental and/or non-governmental agencies and may include transport and non-transport components. This definition is intended to conform to internationally adopted usage of the term paramedic which includes basic and advanced life support response and transport by EMTs (international equivalent: primary care paramedic), AEMTs (intermediate care paramedic) and paramedics (advanced care paramedic).

*Emergency Medical Dispatch* refers to the elements of the EMS system that receive requests for service, provide medical instructions to callers, dispatch resources and serve as controllers of deployed resources.

*Ambulance Service* is defined as the provision of ground or air ambulance transportation in conjunction with emergency response or interfacility medical transportation.

*Medical First Response* is defined as the provision of EMS response that arrives on scene in a manner that does not have capability to transport (on foot, bicycle, Segway, automobile, fire apparatus etc.). The intent of medical first response is to provide rapid lifesaving interventions for patients who require immediate medical attention and to provide additional resources on an EMS scene when needed. Medical first response may be provided by one or more organizations in the context of an EMS system.”

— Adopted by NEMSMA, July 13, 2012. 

## On Power and Powerlessness

By John Becknell

During the past five years, many of the people who have participated in the EMS Leadership Academy hosted by my colleagues and me have spoken about the difficulty they have in effecting change. They talk about how tough it is to change boards, bosses, organizational culture, bylaws, problem employees, community apathy and the ever-inadequate funding system. In the process, we’ve discovered an underlying issue of power—or, perhaps more accurately, powerlessness. Interestingly, when we begin to talk about the pursuit of power, people become uneasy.

Leadership scholar Rosabeth Kanter describes power as “America’s last dirty word.” She writes, “It is easier to talk about money—and much easier to talk about sex—than it is to talk about power. People who have it deny it; people who want it do not want to appear to hunger for it; and people who engage in its machinations do so secretly.”

Power is often associated with dominance, control and oppression; the powerful are often portrayed as tyrants, egotists and bullies. The pursuit and use of power is often viewed as “playing politics,” yet we also idealistically believe that the best leaders make change happen solely through effort and ability, not by an exercise of power.


When EMS people are asked to list the desirable characteristics of admired leaders, “powerful” is never mentioned. Power may be viewed as antithetical to EMS—a calling and industry of helpers, rescuers and compassionate fixers. I wonder if this negative view of power could be why the industry continues to self-identify as a redheaded stepchild and exhibit an abundance of powerlessness?

Yet power is neither positive nor negative. In the physical world, electricity (a power source) can cause great harm, as in a lightning strike, but that does not keep us from using electricity for good. In the social world, power has been defined as the possibility to influence others. Power is the ability to mobilize resources (both material and human) to get things done. Think of it as clout: Power is needed to obtain resources, change direction, deal with challenges and open doors. This clout is exercised through the capacity to influence, convince and persuade. It often uses knowledge, information, charisma, stories, relationships and position to get things done.

Like electricity, the use of social power can best be seen in the results. When power is used inappropriately, there is fear and tyranny. When it is used appropriately and for the common good, there is accomplishment. When things are getting done, the power is on.

Consider powerlessness. How does that feel? And even more, does the resulting victimhood of being powerless eventually gain the sympathies of the powerful and get us what we need? EMS history would suggest not. In our personal lives, our organizations and our larger industry, we may benefit from some reflection on power.

A good place to start is simply to ask some personal questions about power. When it comes to making an impact on the things you care about most, are you powerful? What is your experience with powerlessness? Would others view you as powerful? What are the sources of your power? How could you expand your power? These questions may be uncomfortable, but the development of power begins with our thinking.

Finally, real power does not reside in position and title. Rather, it is the result of a careful cultivation of influence, respect, relationships, knowledge and the ability to tell compelling stories and get cooperation from others. What might change in our organizations and industry if we developed more power? 

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