A Profile of James Dunford, MD, Recipient of the 2017 James O. Page/JEMS Leadership Award

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Jul 1, 2017

P&S graduate James Dunford, MD ’76, became the medical director of the San Diego Fire-Rescue Department in 1986 and the city of San Diego’s medical director in 1997. He also is the recent recipient of the 2017 James O. Page/JEMS Leadership Award. Photo courtesy James Dunford.

It would be easy to trip over the seemingly endless supply of plaques and awards possessed by James Dunford, MD, if they weren't so meticulously tucked away out of sight. The fact that the awards are hidden behind his well-organized desk isn't because their owner trivializes them. It's merely a testament to the disarming humility of this emergency physician.
Dunford isn't in it for the praise. He's on a tireless quest to fix a broken system. But talent like his can't hide behind a desk, which is why it's no surprise that he's the 2017 James O. Page/JEMS Leadership Award recipient.

Dunford passionately believes in helping some of society's most vulnerable patients who often pose the biggest financial burden on the healthcare system and subsequently drain taxpayer dollars.

Succinctly put, Dunford observed that "100% of what comes into the hospital is broken, and 90% of it didn't have to be."

It's from this belief that he's been instrumental in implementing several key projects for his city, including San Diego Project Heart Beat, the Resource Access Program (RAP), Project 25, and countless medical trials in coordination with such impressive medical institutions as National Institutes of Health (NIH), Resuscitation Outcomes Consortium (ROC), and the American Heart Association (AHA).

When asked why he chose medicine as a profession, Dunford responds like so many other gifted yet unassuming innovators who seem to stumble into their brilliance: He delivers a casual shrug and smile, saying it never really crossed his mind.

**Early Life**

Having lived in six different cities by the age of 15, Dunford developed resilience early on and quickly realized he wanted to surround himself with intelligent, like-minded individuals in his education.

The first to graduate from college in his family, he actually credits a friend for pushing him toward medicine. At the time, Dunford imagined applying his altruistic nature and academic curiosity to helping the planet through science. His friend challenged him to use his talents to save people and to leave the algae to others, and after receiving his first acceptance letter to medical school, Dunford began to recognize his ability to build a career in medicine.

He enrolled in Columbia University's medical school and distinctly remembers the moment in anatomy lab, when, after working on a cadaver for six weeks, its face was finally revealed—a sweet old woman with a pink bow in her hair. This planted the seed for his strong connection with his patients.

But it was one of the first weekends he put his white coat on that resonated most. He was observing in the ED when an elderly male trauma patient from a motor vehicle crash was rolled in. Asked to hold a catheter, he watched in horror as blood gushed from the patient's bladder, which had been ruptured by a severe pelvic fracture. After 15 seconds, he thought he might faint and excused himself.

At that moment, he recalled a story his dad, a pilot in World War II, once told him. After witnessing a dozen fellow pilots die in a plane accident when their parachutes didn't open
in time, Dunford's dad and other pilots were immediately ordered up in the air before they could let the fear of the situation cripple them. So Dunford decided to jump back in the saddle with his trauma patient.

He thought to himself, "Now I've got to decide whether I'm going to be a subjective college kid who's going to faint at the sight of blood or if I'm going to become the guy who fixes problems like this. The sooner I can get to that strategy, the better off I'll be."

Dunford was one of the six original physicians on San Diego Life Flight (1980-1986), the first civilian physician-staffed aeromedical program in the U.S. Photo courtesy of James Dunford.

Experiences like that, particularly during a year spent in the San Diego VA Healthcare System overseeing a staggering 100-person a day intake center with widespread acute illness, led Dunford to choose emergency medicine.

In 1980, Dunford was asked to join the first civilian aeromedical program in the country, Life Flight San Diego. Over the next 6 years he treated hundreds of acute trauma and medical field emergencies.

In 1988, he founded the University of California, San Diego (UCSD) emergency medicine training program and in 1990, Dunford was tapped to help San Diego Fire-Rescue Department (SDFD) add paramedics on fire engines in difficult-to-serve communities. He was a natural fit for this task because he was already advising SDFD on dispatch and use of automated external defibrillators (AEDs).

Spearheading initiatives to advance medical care is an observable trend in Dunford's career. He's tackled many EMS challenges, including implementation of the tremendously successful regional public access to defibrillation, ST-elevation myocardial infarction (STEMI) and stroke systems, identifying pitfalls to endotracheal intubation in traumatic brain injury through use of continuously recorded end-tidal CO2 (EtCO2) data and, more recently, promoting real-time EMS access to patient data through the regional health information exchange program.

Countless students sing his praises as professor emeritus of emergency medicine at the UCSD School of Medicine. But Dunford's real talent is seeing the big picture, which is exactly what you'd want in a city medical director, a position he's held in San Diego since its inception in 1997.

He's playing the long game in affecting change in his medical community with programs that continue to inspire both nationally and internationally. He's not looking to just do something like lead the nation in public access defibrillation; he's looking to break the paradigm of healthcare.
In 2007, Dunford received the A Home for Every American national research award from the U.S. Interagency Council on Homelessness at the National Press Club for his study of the San Diego Serial Inebriate Program. Photo courtesy of James Dunford.

**Dollars & Sense**

Dunford has championed many programs in San Diego that redefine the healthcare system and connect vulnerable patients to the resources they need. The easiest way to justify these programs is to show the cost savings, which Dunford has been able to do time and again.

In 1996, Dunford observed the San Diego Police Department's (SDPD) program for homeless outreach. With the assistance of two police officers, he recognized a handful of individuals frequently using the city's services, both police and medical. This led to a simple study of 18 individuals which found that those 18 frequent flyers cost two hospitals and the community a total of $1.5 million.

When the mayor and police chief saw these costs, they were galvanized to recommit to problem-oriented policing. This gave birth to the Serial Inebriate Program (SIP), hoping to address the vexing issue of chronically intoxicated individuals who consume community resources.

"No one wants to put someone in jail for being drunk, but the consequences of some people's recidivism on society can be so catastrophic that we need a rehabilitation strategy to convince some folks to accept a meaningful treatment program or face consequences," says Dunford.

SIP was designed as a pilot program with Dunford, the cooperation of SDPD and a handful of key stakeholders, including the court, city attorney, public defender, jails, sobering center and an alcohol treatment provider. Together, this group decided they would propose an alternative to incarceration for individuals with recidivist alcohol abuse problems.

The SIP criteria were defined by sobering center personnel as any individual transported by police to the detox center six times in 30 days. Instead of spending the night sobering on a mat in the center, they'd have to spend the night in jail and explain their behavior to a judge.

After showing positive results for approximately 580 people, SIP gained national recognition, bringing much-needed science to homelessness research.
In 2007, SIP was awarded the Interagency Council on Homelessness Pursuit of Solutions Research Award in Washington, D.C.

The California Supreme Court also recognized the constitutionality of SIP in 2004 in People v. Thomas Kellogg. The court ruled that the act of being drunk in public can have such negative societal consequences that the state has a right to hold them responsible.

While working on combatting recidivist alcoholics in the community, Dunford was inspired to develop the Resource Access Program (RAP) in the late 1990s, to address the many other faces of frequent EMS use. He developed RAP because he saw a need to connect a different set of vulnerable patients to community resources. "People may be healthy, but they aren't health literate," says Dunford.

He admits this program's humble beginnings were conducted out of his office because he would get complaints from medics about running on the same patient 10 times. When Dunford finished his workday, he'd call the frequent flyers' doctors to try and determine what was happening. He quickly noticed physicians had very little knowledge of what their patients were doing. They didn't know that their diabetic patients were creating havoc for the city because their patients didn't share that information.

Dunford vividly remembers a moment at a private function when he was discussing a diabetic man whose low sugar episodes resulted in three separate encounters with SWAT teams. The internist with whom he was sharing the story had a sudden epiphany and said, "He's my patient!"

The doctor had no clue his poorly controlled diabetic patient was brandishing swords and threatening an entire neighborhood whenever his glucose got low, which confirmed Dunford's belief that he had zero ability to assume any patient leaving his ED would (or could) follow any of the discharge instructions they received.

Although he'd seen these patterns as an ED doctor, as a city medical director he saw how it impacted the whole city. All the programs he's started have been created with the idea of connecting the broken dots.

"Shouldn't society be able to get someone to a doctor's appointment? Whose job is that?" Dunford asks. He challenges that no matter the root cause-whether brain cancer or diabetes-patients won't get good care if they don't know about and have access to the existing community resources.

Another resource any community hoping to boost its cardiac survival rates is public access defibrillation (PAD). This need led to another trendsetting initiative: San Diego Project Heart Beat (SDPHB).
Full of Heart

Dunford explained it's no coincidence the Emergency Cardiovascular Care Update (ECCU) conference, hosted by the Citizen CPR Foundation, selects San Diego every five years as its venue to announce the AHA guideline releases. "They announce the guidelines in San Diego because we walk the talk here," says Dunford.

So in 2000, Dunford felt San Diego was the ideal place to create a PAD program. That year, he attended a preconference workshop at ECCU in which long-time friend and medical colleague Paul Pepe, MD, MPH, MACP, FACEP, FCCM, spoke of his involvement with Chicago's O'Hare Airport PAD project. At the time, only O'Hare and Windsor, Ontario, Canada, had preliminary results to report. Inspired by their early success stories and following the national trend set by the Clinton administration to introduce AEDs in airports, Dunford immediately thought, "We have to do this. This is something in our wheelhouse."

SDFD was one of the first fire departments in the nation to carry AEDs on their apparatus, after a local hospital paid the city a debt by purchasing AEDs in the early 1980s. Dunford approached SDFD Assistant Chief August Ghio at the time and pitched what would become SDPHB.

After Ghio's initial excitement about the idea, others soon followed, including the AHA, the local firefighter's union, a city council member and the widow of an SCA victim, along with an AED vendor that contributed $100,000 to get the program off the ground.

In 2001, SDPHB's primary goal was to make AEDs as available as fire extinguishers, with an initial target of having 250 AEDs available publically in San Diego County by the Super Bowl in 2003. SDPHB surpassed its initial goal with 550 AEDs but now has more than 8,000 countywide.¹

The program and its success continue to grow, drawing the attention of other major metropolitan cities that look to emulate SDPHB. Perhaps most impressively, SDPHB boasts 153 saves, including three children. Because of that, the Sudden Cardiac Arrest Association and International Association of Fire Chiefs have given awards to SDPHB twice for their PAD program.

SDPHB Program Manager Maureen O'Connor appreciates Dunford's ability to bring together a community and all the key players to affect change in the healthcare system. She remembers his ability to see the "whole picture" even when she first met him as an SDFD EMT.

"Dr. Dunford would take the turnover from the paramedic and then turn his attention to me to see what my views were. No other doctor even cared to address me," says O'Connor. She credits Dunford with innate respect toward others, saying, "he truly cares about all people without bias."
In 2009, Dunford established the San Diego Resource Access Program (RAP) to address other (non-alcoholic) frequent users. RAP is a community paramedic-driven program enabled by advanced health information technology. In 2014, the Agency for Health Research and Quality selected RAP as a best practice on their Health Care Innovation Exchange website. Photo courtesy of Lizeth Romo.

The Fight Continues

There are many battles to be fought as an innovative EMS medical director, and Dunford is actively engaged in local and national battle lines. Locally, San Diego is involved in a California Health Workforce Pilot Project, administered by the California Office of Statewide Health Planning and Development and sponsored by California EMS Authority, that expands the scope of practice for paramedics to test the effectiveness of community paramedicine.²

The study was designed to test multiple community paramedicine concepts, including addressing the problem of frequent EMS users. Results indicate a "net savings of $45,607 per month ($1,754 per patient per month)" in San Diego alone for patients enrolled in the study.²

Data like this helps Dunford continue to fight for alternative healthcare options for vulnerable patients. San Diego uses Street Sense, a homegrown technological solution to aggregate patient data that shows real-time trends, such as number of calls a patient has had in a given time period and estimated costs associated with that patient's care. Community paramedicine and RAP are critical for fixing the problem of an overburdened healthcare system. "The RAP program is a microcosm of what we think needs to happen in the entire country, which is helping expensive, vulnerable people … to just get connected," says Dunford.

Connecting the broken pieces works. "Probably the most disappointing part of my career has been [the recognition] … that you couldn't get financially motivated people to see there was value in actually helping people like this. It wasn't until we did Project 25 [that we] finally convinced people of that."

Project 25 was a United Way-funded program that teamed law enforcement, EMS, and mental health to identify the top 25 users of San Diego's emergency services and provide them housing and intensive care. The program's aim was to reduce costs and improve health outcomes. After two years, costs dropped by more than $2 million.³

Another project that's top of mind for Dunford is identifying the biggest obstacles to promoting innovation and advancing EMS. Dunford partnered with Mount Sinai Health System's Associate Medical Director of Prehospital Care Kevin G. Munjal, MD, MPH, to
tackle these issues with a two-year grant awarded by the National Highway Traffic Safety Administration (NHTSA).

Dunford and Munjal have completed the Promoting Innovations in EMS project designed to be what Dunford calls "the prelude to the next EMS Agenda for the Future."

San Diego Project Heart Beat, the region's public access to defibrillation (PAD) program has been named the nation's best large PAD program. To date they've distributed more than 8,500 AEDs and saved 153 lives. Photo courtesy of James Dunford.

What's Next?

The role of the community paramedic, the EMS medical director and the industry of EMS itself will continue to evolve, and Dunford will contribute to this movement.

When asked what he enjoys doing in his "free time," he can only talk about a beloved 22-foot Catalina sailboat named "Sail La Vie" for a moment before he shifts gears to discussing delivering Grand Rounds in Seoul, South Korea, on the San Diego trauma system or consulting with a colleague in Saudi Arabia.

Dunford has become a defender of the citizen, refusing to see precious healthcare resources wasted when he believes we can handle these patients more effectively. He'd like to see his system evolve to a point where we have alternatives to transporting all patients to the hospital.

He'd also like to see connectivity in the community increase, with a heightened awareness of the resources available. Dunford also hopes to see traditional, hospital-based care for seniors become more effective at home.
"The motivation of everything I do comes from 35 years of seeing just how messed up the healthcare system is for vulnerable people," says Dunford.

He has no shortage of passion or ideas to improve the industry he so nobly serves. His is a career EMS providers will continue to follow as the James O. Page/JEMS Leadership Award is neither the first nor likely the last honor he will receive. The EMS community owes its gratitude to Dunford's college friend who inspired the path he's on. We're all just glad he picked people instead of algae.

References