

CFSI/MASIMO EXCELLENCE IN FIRE SERVICE-BASED EMS AWARD

The CFSI/Masimo Excellence in Fire Service-Based EMS Awards Program recognizes fire departments for renewing their commitment to EMS through innovations and enhancements of their EMS systems. The awards program was designed to share these innovations and enhancements with other fire departments that are seeking ways to improve their own systems. CFSI is proud to be a co-sponsor of this program with Masimo, a global medical-device technology company that develops and manufactures innovative noninvasive patient monitoring devices.

CFSI launched the Excellence in Fire Service-Based EMS Awards Program in 2010. Since then, we have received a number of outstanding applications from fire departments across the nation that have developed new programs and enhanced existing programs to improve their EMS capabilities. What prompted the departments to take these actions vary like the regions in which they serve and types of departments they represent (career, volunteer combination). But the common thread that connects them is a shared willingness to do something innovative.

The following is a compendium of information on the EMS programs implemented by the award recipients between 2014 and 2017. The information is succinct to give you a general understanding about the programs. It contains contact information for each of the fire departments so you can learn more about particular programs.

If you have questions about the Excellence in Fire Service-Based EMS Awards Program, please contact the Congressional Fire Services Institute (CFSI) at 202-371-1277. CFSI is one of five national fire service organizations serving on the Steering Committee of the Fire Service-Based EMS Advocates (the other organizations include the International Association of Fire Chiefs, International Association of Fire Fighters, National Fire Protection Association, and National Volunteer Fire Council). The Advocates were established in 2006 to ensure that Congress and the Administration thoroughly understand the role of fire service-based EMS and to add clarity to national policy discussions regarding EMS issues.

(NOTE: The contact information for each department was taken from the applications; therefore, some of the information might be outdated. If so, contact the fire departments and ask for the deputies who have oversight of the departments' EMS programs.)

2017 Recipients

MONTGOMERY COUNTY, MARYLAND FIRE AND RESCUE SERVICE – Combination Department

Montgomery County Fire and Rescue Service established the Non-Emergency Intervention and Community Care Initiative. This program targets frequent utilizers of the 9-1-1 system and connects those patients to existing medical and social programs within their communities that are better able to meet their health care needs. Once the connection is made, fire department personnel still maintain access to the patient's progress.

The department has formed a number of partnerships with local hospitals, social programs and government agencies to ensure that patients receive appropriate levels of medical attention. Fire department personnel receive updates on patient progress and conduct meetings with partnering organizations in an ongoing effort to strengthen services to these patients. The results of this innovative program are conclusive: calls for service by frequent users has decreased by 55%.

- **Fire Department Contact:** EMS Battalion Chief Alan Butsch
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ORANGE COUNTY, FLORIDA, FIRE RESCUE DEPARTMENT

Orange County Fire Rescue Department developed two innovative programs that earned them the award: the Sepsis Alert Program and the Paramedic Preceptor Academy. Working closely with the Orange County Office of the Medical Director, Orange County Fire Rescue established this program to identify and initiate pre-hospital treatment for severe sepsis patients. The positive outcomes of this program include significant decreases in time to definitive care at the emergency department, reduction in ICU admits and reduced length of patient hospital stays.

The second program – the Paramedic Preceptor Academy – was developed to increase pass rates for the department’s new paramedics as well as improve training and continuing education opportunities identified through the department’s Quality Assurance process.

Both programs have produced positive results and serve as models for programs now being adopted by other fire departments within the state of Florida.

- **Fire Department Contact:** Deputy Chief James Bates
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2016 Recipients

KITTITAS VALLEY (WA) FIRE AND RESCUE – Combination Department

Located in central Washington, Kittitas Valley Fire and Rescue serves a base population of 28,000, including 10,000 students attending Central Washington University.

The Department recognized a need to address three challenges in its jurisdiction: chronic users of the 911 system, drug and alcohol-related incidences at Central Washington University, and a rise in call volume for lift-assistance at assisted living facilities.

To address chronic dependency on its 911 system, KVFD initiated a Community Paramedicine Program with the involvement of a network of community agencies. This program developed a system to provide alternative care options for those not in need of emergency medical care. Weekly meetings with the network of partnering agencies allow for assessing progress, thereby enhancing the effectiveness of the program.

The challenges at Central Washington University required the support of public health, law enforcement, and student housing. With their cooperation, KVFD implemented a new education program that provides information to students on the hazards of drug and alcohol abuse and information to student housing authorities and law enforcement on what indicators necessitate EMS involvement.

Kittitas Valley has a large number of assisted living care facilities in its jurisdiction. Responses to local assisted living facilities for non-injury lift assist constitutes 5% of KVFD’s call volume. To reduce the call volume for these non-emergencies, the department established a fee structure for responses and an educational campaign for the facilities.

As a result of these three initiatives, Kittitas Valley has reported a significant reduction in 911 system usage, a 40% reduction in drug and alcohol-related calls at CWU and a 54% drop in non-injury lift assist calls.

- **Fire Department Contact:** Deputy Chief Rich Elliott
- **Email address:** elliotttr@kvfi.org

OLATHE (KS) FIRE DEPARTMENT – Career Department

Located approximately 20 miles south of Kansas City, the Olathe (O-LAY-THE) Fire Department took action to address problems endemic to a large number of fire departments across the country: dispatching mismatched resources to EMS calls and providing transport to emergency rooms when the department could have used other care options.

At the core of their innovative solution is a Mobile Integrated Health Team that evaluates a patient's needs in the field and determines appropriate treatment procedures, thereby often avoiding unnecessary transports to emergency rooms. The MIH program aims to align community members with appropriate care services. The MIH team is certified in community paramedicine to help make the shift from emergent care to support of medical, emotional, social, practical needs of those who request or are referred for such services.

The innovation of the Mobile Integrated Health Team is in the letter "I" for integrated. Leveraging strong partnerships with a network of local government agencies, health organizations and other community partners, the Olathe Fire Department now has a number of options for its emergency response units besides a transport to an emergency room. And through data collection, the MIH team can monitor the progress of these patients and schedule follow-up visits for evaluations and continued treatment.

- **Fire Department Contact:** Chief Jeff DeGraffenreid
- **Email address:** jgdegraffenreid@olatheks.org

2015 Recipients

CARIBOU (ME) FIRE AND AMBULANCE DEPARTMENT – Volunteer Department

The Caribou (ME) Fire and Ambulance Department has a service coverage of 348 square miles, which includes 9 towns and a beautiful vast rural area featuring hunting, hiking and boating. In addition to emergency medical calls, the department is also responsible for transferring patients by both land and air to the trauma center, 175 miles away in Bangor, Maine. Staffing for local emergencies and patient transfers has been a challenge for the department in recent years due to decreases in funding.

Rather than accepting staff reductions due to budgetary constraints, the department implemented an aggressive strategy to demonstrate the needs and benefits of a properly staffed department to government officials and the local community residents. The initiative paid off. The expanded department now runs 3 five-person crews that include 15 paramedics. Career staff are augmented by volunteers, seven of whom have earned EMS licenses. As a result, the department has the team it needs to provide better care for the community.

Since the change, the Caribou Fire and Ambulance Department has experienced a 75% reduction in transfers previously common due to limited staff capabilities. In addition, the department has been able to place focus on health and safety. Now, at every fire scene, an ambulance provides firefighters rehab, including oxygen and carbon monoxide monitoring, thereby complying with NFPA 1584.

- **Fire Department Contact:** Chief Scott Susi
 - **Email address:** firechief@cariboumaine.org
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COUNTY OF HENRICO (VA) DIVISION OF FIRE – Combination Department

History tells us that fire service-based EMS in the community is closely connected to procedures and protocols used by the military to treat wounded soldiers on the battlefield. These protocols are constantly evolving to this day.

For over ten years, Henrico (HEN-RY-COE) Fire has been engaged with the military in cooperative training efforts to enhance their EMS capabilities. They have trained with the US Marine Corps' C-BIRF (Chemical-Biological-Incident Response) unit, enabling them to use caches of advanced equipment and hardware to train for large scale events. For the past 6 years, Henrico (HEN-RY-COE) has conducted drills with the U.S. Army's 911th Engineers. Drills include two, five-day courses at the Center for National Response in Gallagher, West Virginia involving large-scale props such as rail cars, subways, tunnels and collapsed concrete props.

Henrico (HEN-RY-COE) Fire is also enhancing its trauma care with training programs offered through the Tactical Combat Casualty Care Program and the Tactical Emergency Casualty Care Program, while working with the National Guard to understand how state resources can truly function as a civil support group in times of need by local first response agencies. By developing a local relationship with the Military and Department of Defense, Henrico Fire is using the latest in Military EMS Technology and Training to better serve their community.

- **Fire Department Contact:** **Captain Mark Cumashot**
 - **Email address:** **cum02@henrico.us**
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CITY OF SCOTTSDALE (AZ) FIRE DEPARTMENT – Career Department

Each year, the city of Scottsdale hosts the largest PGA event in the world: The Phoenix Open. In 2015, for one week, the population of Scottsdale doubled as 565,000 visitors attended the event. A gathering of this size can pose numerous challenges for any EMS system. At the top of the list is the identification and treatment of alcohol intoxication.

To address this challenge, the Scottsdale Fire Department established a fixed facility on site, focused on the identification and treatment of alcohol intoxication. The goal? Treat patients on-site if possible, and discharge them, avoiding transport to local emergency departments. Known as the Alternative Care Site, the facility is staffed to treat up to 20 patients. The department established protocols for evaluation, treatment and discharge, while all treatment decisions are guided by the fire department medical director.

At the conclusion of the tournament, the stakeholders meet to review the performance of the Alternative Care Site and consider future enhancements. The Scottsdale Fire Department has recognized many benefits of the site that go beyond the services provided at the golf tournament. In addition to improved staff safety, the development of the Alternative Care Site has helped to forge stronger relationships with other agencies, hospital partners and stakeholders. At the same time, site itself has enabled department personnel to sharpen their skills and improve quality of care, thus reinforcing the department's mission: "We Care For You".

- **Fire Department Contact:** **Division Chief John Whitney**
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2014 Recipients

MEMPHIS (TN) FIRE DEPARTMENT – Career Department

The Memphis Fire Department is the largest EMS system in the state of Tennessee and the mid-south, and operates one of the most progressive EMS systems in the United States. The department received the award for its aggressive cardiac care program which has improved patient care and survival rates during sudden cardiac events.

With grant funding from the Assisi Foundation, the department was able to furnish all 35 of its front-line ambulances with LUCAS mechanical CPR devices. By implementing this life-saving measure, Memphis Fire Department increased their Return of Spontaneous Circulation rates for full arrest victims. In just one year, these rates increased from 21% to 32%. The LUCAS device was utilized on 114 full arrests, with ROSC transpiring in 37 of those cases. In 2013, MFD personnel performed CPR on a total of 1,134 patients with ROSC occurring in 348 of those cases. Sudden cardiac arrest victims in Memphis now have a much greater chance at survival due to these innovative changes.

Additionally, the Memphis Fire Department now is the only non-university or non-college in the State of Tennessee authorized to educate paramedics. The department conducts EMT classes and numerous continuing education programs.

- **Fire Department Contact:** Deputy Chief Dale Locke
 - **Email address:** (901)636-5680
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HOWARD COUNTY (MD) DEPARTMENT OF FIRE AND RESCUE – Combination Department

Howard County Department of Fire and Rescue serves a large area exceeding 262 square miles including both suburban and rural communities. With such a diverse population, the department has strived to establish a comprehensive and innovative program that will improve cardiac care for their residents. The elements of the program include the following:

- Established a partnership with Howard County General Hospital on a STEMI Program which has resulted in minimized heart damage for patients who experience STEMI. The partnership program created an advanced education and feedback system which has reduced DTB times to 72 minutes, and increased accuracy of identifying STEMI patients to over 85%.
- Made an aggressive effort to improve neurologically intact survival for patients experiencing out-of-hospital sudden cardiac arrest by sending a team of 15 personnel to the Resuscitation Academy in Seattle. This team then developed the CARES program which travels to first stations to ensure all staff members are proficient in high-performance CPR. Through the implementation of the CARES program, the neurologically intact survival rate has been increased to over 53%.
- Developed the “Community Hands-Only CPR program”. The program has been supported by local organizations including the Howard County General Hospital, the Howard County Public Library System, Howard Community College, and the Howard County Public School System. As part of the program, the department purchased manikins for local schools and has provided “train-the-trainer” instruction for teachers to train all students. This program now has been mandated into the school system’s curriculum and serves as a graduation requirement for both 6th and 9th grades.
- Implemented the use of Glidescope Video Laryngoscope to reduce interruptions in CPR for sudden cardiac arrest patient. As a result, the overall success rate for video laryngoscopy was 87.1% and in 69% of the studied cases there was no pause in compressions for intubation attempts.

Through these and other innovations, Howard County has improved community awareness, patient care, survival rates, and the ongoing quality of life for those survivors in their county.

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CULLMAN COUNTY ASSOCIATION OF VOLUNTEER FIRE DEPARTMENTS – Volunteer Department

The state of Alabama was suffering from an all too often confluence of challenges: a high percentage of rural populations, a shrinking number of hospital facilities, extended ALS response times, and a first responder community with significant variabilities in capacity, ranging from highly trained EMS personnel to those with little or no recent medical training.

With this in mind, the association introduced an Emergency Medical Responder (EMR) education and licensing program. Administered through the State of Alabama Department of Public Health and Office of EMS and Trauma, the training incorporates stretcher operations and how to successfully work within the local responder/ALS provider framework.

While the national standard for the EMR program specifies a minimum of 45 education hours, the Cullman County program requires 60 hours of a combination of classroom instruction and hands-on psychomotor skills development and testing. Upon successful completion of the program, the Alabama Department of Public Health will grant state licensure, and students may also sit for the National Registry Exam.

This training program has resulted in 49 State Licensed EMRs, with many more successfully completing the course. The program has evolved from its start in Cullman County and now is spreading across the state in order to serve those in need.

- **Fire Department Contact:** **Jeff Byars, Officer, Cullman County Association of Volunteer Fire Departments**
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