A Tradition of Caring

The District of Columbia
Department of Health
Division of Emergency Medical Services
2012 Report

The Emergency Medical Services Division
Health Emergency Preparedness and Response Administration
District of Columbia Department of Health

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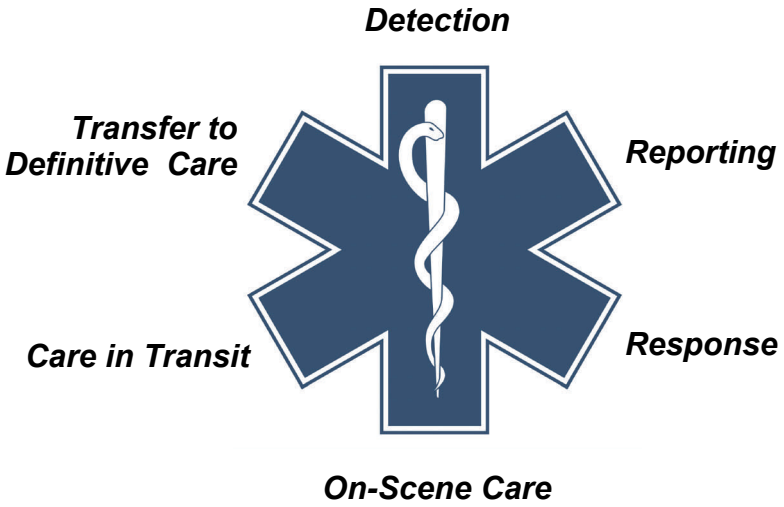
The Star of Life



The National Highway Traffic Safety Administration (NHTSA) created the Star of Life as a symbol that would represent this critical public service and be easily recognized by all. The serpent and staff in the symbol portray the staff of Asclepius, an ancient Greek physician deified as the god of medicine. Overall, the staff represents medicine and healing, with the skin-shedding serpent being indicative of renewal. The Star of Life has become synonymous with emergency medical care around the globe.

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EMS in the District of Columbia

The District of Columbia's Emergency Medical Services (EMS) system operates in a coordinated partnership among various organizations to provide high quality pre-hospital medical care to the residents, workers and visitors of the District of Columbia. The EMS system in the District includes:

- **Basic Life Support (BLS) Services**
  These services are provided by every EMS ambulance service in the District. These providers, certified as Emergency Medical Technicians (EMT), provide a number of life saving techniques.
- **Advanced Life Support (ALS) Services**
  These services are provided by several ambulance services and all of our helicopter services in the District. These providers, certified as Paramedics or EMT-Intermediates, can perform advanced, invasive procedures.
- **Fire Service Based EMS**
  In the District, 9-1-1 calls for emergency medical services are primarily responded to by the DC Fire & EMS Department. In addition to BLS and ALS ambulances, they incorporate EMT and Paramedic first responders.
- **University Based EMS**
  There are two university-based BLS providers; the Emergency Medical Response Group (EMeRG) at the George Washington University and Georgetown Emergency Response Medical System (GERMS) at Georgetown University.
- **Commercial EMS**
  There are several commercial ambulance services that provide both ALS and BLS services in the District. Their services are primarily used for inter-facility transports and special events.
- **Law Enforcement Air Medical Providers**
  Air medical evacuation services are provided in the District through a memorandum of understanding between the DC Department of Health and the United States Park Police. The Aviation Division, operating out of Anacostia Park, operates with paramedics who are also US Park Police officers.
- **EMS Educational Institutions**
  These centers provide both initial certification as well as on-going continuing education for our EMS providers. They keep our EMS providers up to date in the latest techniques and procedures.
- **Hospitals and Trauma Centers**
  Emergency patients are seen at the eight acute care hospitals. The District is has two trauma centers verified by the American College of Surgeons, (Children's National Medical Center and the MedSTAR Washington Hospital Center) as well as a regional burn center (MedSTAR Washington Hospital Center) . EMS also interacts with our other hospitals and specialty centers.
- **Advisory Groups**
  These organizations work hard to provide recommendations on the EMS system in the District and how it can be improved.

Division of EMS

Mission
The EMS Division is located within the Health Emergency Preparedness and Response Administration (HEPRA) of the DC Department of Health and is the regulatory oversight authority for all EMS activities in the District of Columbia. This authority was placed in the Department with the passage of The EMS Act of 2008. The Division provides leadership to a comprehensive emergency care system of cooperative partnerships, certifies all emergency medical service providers, designates trauma centers and establishes the District-wide trauma system. In addition, the EMS Division may exercise its authority to deny, suspend or revoke the licensure of an emergency medical service trainer or provider who fails to meet set standards.

The EMS Division is dedicated to protecting the health, safety and welfare of the public, and helping to reduce death and disability. Through the continued development of an optimal system of emergency medical service instructors and providers, the result will be displayed in improved patient outcomes through delivery of the best pre-hospital treatment available.

Vision
The EMS Division strives to establish a unified, comprehensive and effective EMS system within the District of Columbia, ensuring that the District's EMS system is recognized as a leader in providing high quality patient care, that is a sought after role model to help other EMS systems attain the same level of quality care. The EMS Division will do this by:

- Promoting excellence through District-wide regulations.
- Promoting healthy communities and encouraging community support.
- Providing value-added information for emergency preparedness, public health, EMS research and strategic governance.
- Developing and managing an organized repository of information, standards and guidelines for EMS providers.

Duties

- Certifying and inspecting ambulances for proper supplies, equipment and drug control.
- Reviewing curriculum materials and course outlines for training sites and continuing education units.
- Monitoring the emergency medical service providers' skills and knowledge through the use of the National Registry cognitive and practical skills examinations.

EMS Ambulance Services

Certified Ambulances

The EMS Division inspected and certified a total of 189 ambulances in the District of Columbia. There were 152 certified for BLS level care, while the remaining 37 were certified at ALS care level .

All ambulance service providers are responsible for maintaining their ambulances in accordance with District regulations. The EMS Division performs an annual certification inspection of all ambulances to ensure they meet the requirements of the regulations. Additionally, unannounced inspections are performed throughout the year to verify the ambulances are maintained properly. In Fiscal Year (FY) 2012, 464 ambulance inspections were performed, exceeding our target of 450 inspections for the year.

EMS Response Services

There are 12 EMS response agencies certified in the District of Columbia, categorized as:

9-1-1 Public Service Providers

- DC Fire & Emergency Medical Services Department

College Based Emergency Ambulance Services

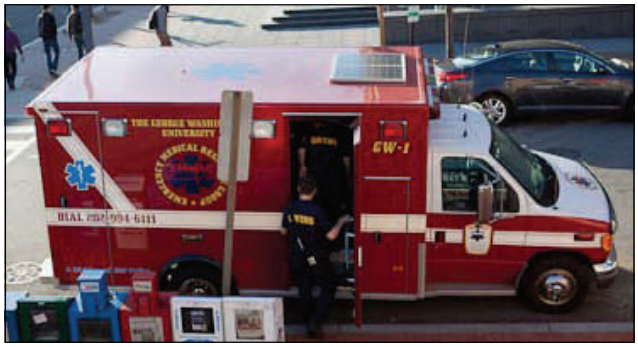
- GERMS (Georgetown Emergency Response Medical Service)
- EMeRG (Emergency Medical Response Group at George Washington University)

Hospital-Based Service Providers

- Children's Medical Transport Services (Ground ambulance)
- STAT MedEvac (Air ambulance service for Children's National Medical Center)
- MedSTAR Transport Services (Ground and Air ambulances for MedSTAR Washington Hospital Center)

Commercial Ambulance Service Providers

- All American Ambulance (AAA)
- American Medical Response (AMR)
- Butler Medical Transport
- LifeStar Response
- Team Critical Care (TCC)



Special Events Service Providers

- Special Events Medical Services

EMS Incidents at a Glance

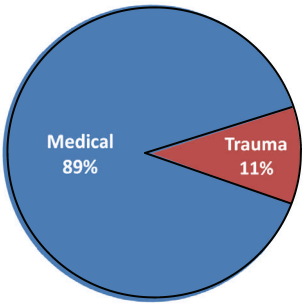
Total Number of EMS Incidents - 159,069

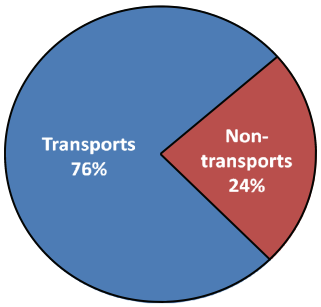
District Population - 632,323

US Census Bureau Statistics for the District of Columbia for 2012

Medical Incidents: 142,261

Trauma Incidents: 16,758





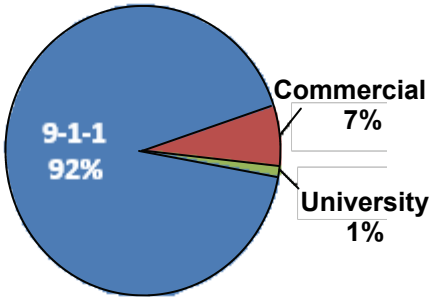
Transports: 120,262

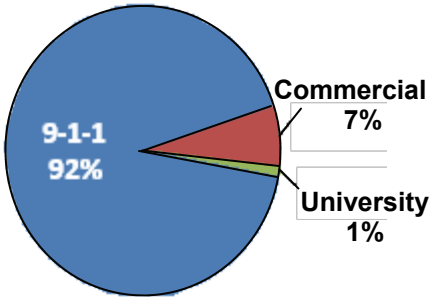
Non-transports: 37,924

9-1-1 Incidents: 146,490

Commercial Incidents: 10,765

University Incidents: 1,814





Total Number of Medical Incidents - 142,261

9-1-1: 130,944

Commercial: 10,035

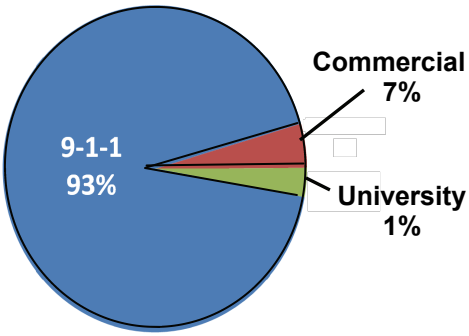
University: 1,282

Total Number of Trauma Incidents: 16,758

9-1-1: 15,546

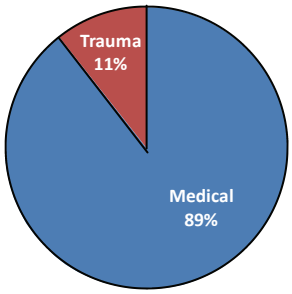
Commercial: 727

University: 485

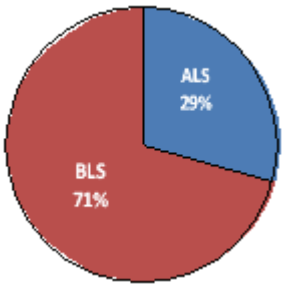


9-1-1 EMS Incidents

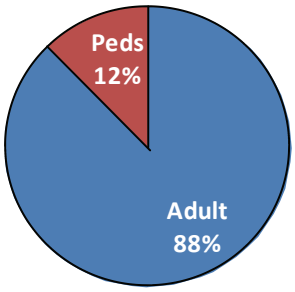
9-1-1 EMS Incidents	**146,490**
Medical Incidents	130,944
This includes incidents such as heart attack, stroke, & sick cases	
Trauma Incidents	15,546
This includes incidents such as motor vehicle accidents and falls	



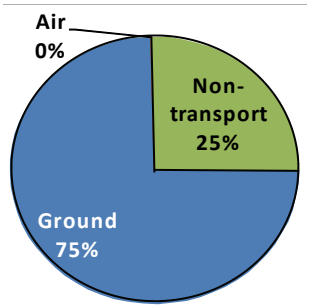
9-1-1 Transports	**109,021**
ALS Transports	32,091
Patients who receive advanced care such as IV lines & medications	
BLS Transports	76,990
Patients who only required basic care such as bandaging & splinting	



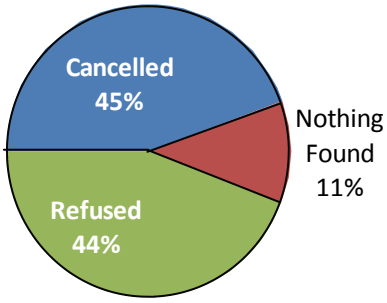
Adult Transports	115,662
Patients over 18 years of age	
Pediatric Transports	16,248
Patients under 18 years of age	



9-1-1 Outcomes	
Ground Transport	109,060
Patient was taken to the hospital by ground ambulance	
Air Transport	20
Patient was taken to the hospital by helicopter	
Non-Transport	37,089

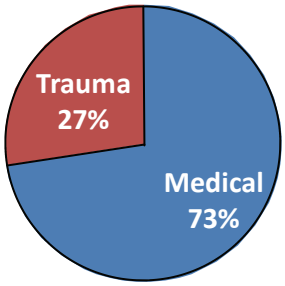


9-1-1 Non-Transports	**37,089**
Call was Cancelled	16,513
No Patient Found	4,157
Patient Refused Transport	16,419

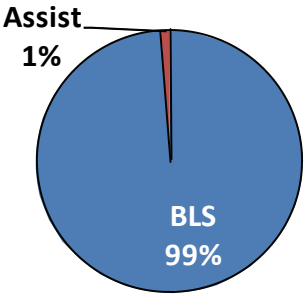


University EMS Incidents

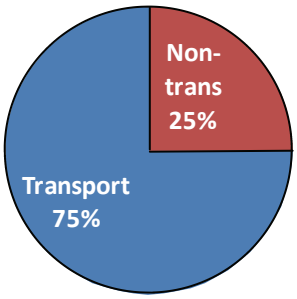
University EMS Incidents	**1,814**
Medical Incidents	1,282
Trauma Incidents	485



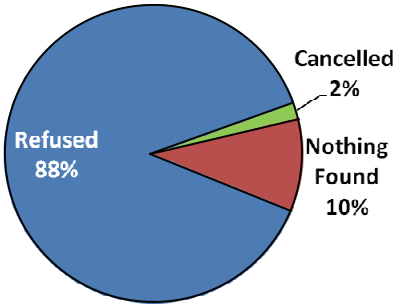
University Transports	**1,308**
BLS Transports	1,296
Assist with ALS Transports	12



University Outcomes	
Transports	1,308
Non-transports	435

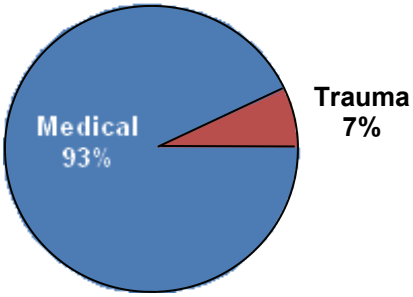


University Non-Transports	**435**
Call Cancelled	7
No Patient Found	44
Refused Transport	384

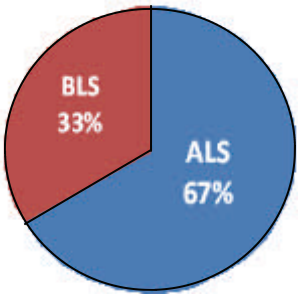


Commercial EMS Incidents

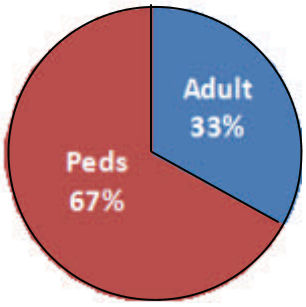
Requests for Service	**10,765**
Medical Incidents	10,035
Trauma Incidents	727



Transports	**9,933**
ALS Transports	6,612
BLS Transports	3,327

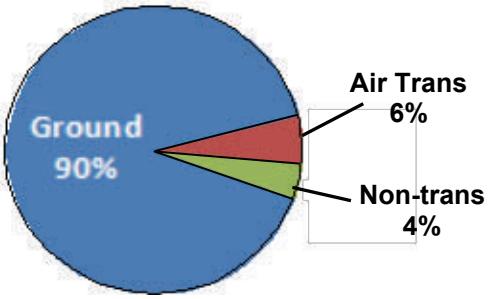


Adult Transports *Patients over 18 years of age*	3,281
Pediatric Transports *Patients under 18 years of age*	6,652



Outcomes

Ground Transport *Patient was taken to the hospital by ground ambulance*	9,340
Air Transport *Patient was taken to the hospital by helicopter*	593
Non-Transport *Patient was not taken to a hospital*	400



Comfort Care Order Program

The Comfort Care Order (CCO) program, allows patients diagnosed with specific medical conditions to express their wishes regarding end of life resuscitation in pre/post-hospital settings. Unless the order has been revoked, EMS personnel honors the rights of a CCO patient by not resuscitating, when responding to calls for cardiac or respiratory arrest. The District has not received any complaints of wrongful resuscitations.

	2010	2011	2012
CCO Forms Distributed	1660	3648	2563
CCO Forms Returned	52	234	740

In 2012, there was an increase in the number of CCO forms returned, this trend is expected to continue.

Physician Orders for Scope of Treatment (POST)

A significant amount of research has been performed on the development of a POST (Physician Orders for Scope of Treatment) program. A fully implemented POST program allows these patients to determine the level of care they will receive. They select the amount of comfort care order that they desire.

A POST program significantly expands the number and levels of medical treatments that the patient may desire to have performed. While the current comfort care order simply looks at whether CPR is to be performed, the POST program looks at the level of interventions to be performed, if antibiotics are to be administered, if artificial administration of nutrition is to be performed, and if so, at what level.

The second area that is significantly different will be the range of healthcare providers who can honor a POST order. The current Comfort Care Order only applies to EMS providers, while a POST program would apply across the health care spectrum. This will include the hospitals, the skilled nursing facilities, hospice, dialysis centers and others, as well as the EMS provider. All could recognize the single POST order as a legitimate physician order allowing for improved continuity of care for the patient. As the program greatly expands in scope on many fronts from the current DNR order, there will need to be input from our various healthcare providers as well as the public and the council.

The next steps involve the development of a working group to draft the necessary legislation to allow such a program to be implemented. To allow the program to provide continuity of care across the broad spectrum of health care groups (EMS, Hospice, Skilled Nursing Facilities, Hospitals, Physician Offices, etc), a coalition will be needed to ensure that all viewpoints are heard and accounted for.

EMS Education

EMS Educational Institutions

The EMS educational institutions within the District of Columbia provide high-quality educational programs for our EMS providers. These institutions are required to follow the guidelines of the National Educational Standards for EMS certification as published by the National Highway Transportation Safety Administration (NHTSA). They also are required to meet the District standards for educational institutions, as well as the requirements of the NREMT. There are currently seven certified EMS Educational Institutions in the District of Columbia who meet these standards:

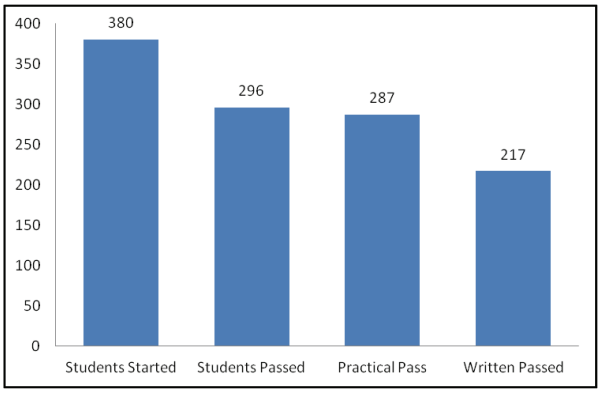
- DC Fire & EMS Department
- East Coast EMS Higher Development Academy
- Georgetown University
- George Washington University Emergency Health Services Program
- National Institute for Emergency Medical Services
- Washington Hospital Center EMS Education
- Westlink Career Institute

Updates in EMS Education Requirements

The National Education Standards have replaced the older National Standard Curriculum (NSC). All EMS providers who were taught based on the older NSC are going to be updated on the new standards over the next several years. These individuals will be required to attend a transition course in order to maintain their NREMT certification. The District is following the transition timetable as published by the NREMT.

EMT Certification Courses

In the District there were a total of 13 EMT certification courses conducted during 2012. A total of 380 students started these courses, with 296 students ultimately passing their course. These students had earned the opportunity to challenge to National Registry EMT exam, which consists of a computer-based cognitive exam and a psychomotor skills exam. Of these students who successfully completed their course and challenged the exams, 287 successfully passed the psychomotor exam, with 217 ultimately passing both the cognitive and psychomotor exam, thereby obtaining NREMT certification and becoming eligible for District certification.



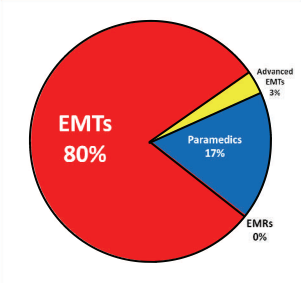
EMS Certification

District of Columbia Certified Providers

The District of Columbia has a dedicated group of EMS providers who administer pre-hospital healthcare services on a daily basis. In 2009 the District of Columbia raised its certification standards by requiring all EMS providers to obtain NREMT certification for both initial certification and certification renewal. Today every single DC certified EMS provider has obtained their NREMT certification.

In 2012, the District had 2,498 certified EMS Providers, which included:

- Emergency Medical Technicians (EMT's) 1992
- Advanced EMT 2
- EMT-Intermediates 74
- Paramedics 430



National Registry of Emergency Medical Technicians (NREMT)

The NREMT is the nationally recognized certification and testing body for EMS providers. Students who successfully complete their course of study are eligible for NREMT certification, which is a requirement for certification in the District.

Continuing Education

In order to maintain their certification, EMS providers are required to attend continuing education and refresher courses. The number of hours for each certification level is set by the NREMT.

In the District, a total of 76 refresher courses for EMTs and Paramedics were held involving 1053 students. Additionally, 26 continuing medical education courses were held for 293 students.

In addition to the courses held in the District, EMS providers can attend continuing education courses in other jurisdictions as well as through on-line sources. Students who are attending college may also have some of their college courses credited towards their continuing education requirements.

District EMS Advisory Committee

The Emergency Medical Service Advisory Committee (EMSAC) was reseated on January 20th 2012. The committee is comprised of 17 members that encompass a mix of community leadership, hospitals and government entities. Of the 17 members of the committee, 11 are allowed to vote on committee issues.

The role of EMSAC is to provide advice on best practices in EMS across the country which is used in establishing performance goals for EMS in DC. By law the EMSAC shall advise the Mayor, the Chief and Medical Director of Fire and Emergency Medical Services Department, the Director of Department of Health, the Director of Department of Mental Health and the Director of Homeland Security Emergency Management Agency regarding issues related to emergency medical services in the District.

The EMSAC shall perform the following six functions;

1) Advice on best practices in EMS across the US to assist in establishing performance goals for EMS in DC.
2) Recommend standards or revisions to existing standards to be applied to the delivery of emergency medical services in accordance with the appropriate District, federal and regional statutes, rules, regulations and jurisdictional agreements.
3) Advise on the development of a program of public information and education with respect to emergency medical services.
4) Advise on the development of an emergency medical service data collection system for the District, and on the categorization of facilities and services.
5) Advise on the coordination of District emergency medical services with those EMS activities and projects organized through the Metropolitan Washington Council of Governments.
6) Provide biennial comments on the operations of emergency medical services in the District.

The committee will also undertake other duties as assigned by the Mayor.

EMS is a critical component of the delivery of a wide range of medical services in the District. It's role should never be underscored or downplayed in the delivery of essential emergency medical services to those who need emergency medical care in the District. Nowhere else is such a wide range of needs being met, whether it is in the arena of care for residents, visitors, a presidential detail or caring for a sick child.

This committee is presently focused on the areas of workforce development and community outreach and education. The EMSAC strongly supports the development of a program of public information and education with respect to emergency medical services. We will work in tandem with our community partners, hospitals and government agencies to assist in developing effective messaging on what is an emergency and when to dial 9-1-1.

EMS for Children

The EMS for Children (EMSC) program in the District of Columbia is housed within the Center for Prehospital Pediatrics now known as the "Center for Prehospital Pediatric Emergency Research" (CPPER) in the Division of Emergency Medicine and Trauma Services at Children's National Medical Center (CNMC). CNMC was the recipient of the first state partnership grant on behalf of the District of Columbia in 1998.

The EMSC State Partnership Program aims to assess pediatric EMS system capacity, including measures of training maintenance and development of EMSC permanence in the municipal public health infrastructure.

In order to do so, the program has undertaken the task of establishing and maintaining nine distinct data elements. They include:

- Assuring the availability of pediatric offline medical direction (written protocols) and pediatric equipment on ambulances;
- Creating a pediatric medical emergencies hospital recognition system;
- Adopting pediatric interfacility transfer guidelines and agreements;
- Adopting pediatric continuing education requirements prior to the recertification of EMS providers;
- Engaging the EMSC Advisory Committee to assure the integration of pediatric components into EMS systems;
- Supporting the EMS Board and ensure the mandatory inclusion of pediatric representation;
- Design and engage collaborative partnerships to create a pediatric special needs registry; and
- Integrating all EMSC priorities into mandate.

The District of Columbia EMSC program just achieved 100% participation in the National Pediatric Readiness Project. This multi-phase quality improvement initiative ensures that all U.S. emergency departments (ED) have the essential guidelines and resources in place to provide effective emergency care to children. The primary purpose of this project is three-fold:

1) To establish a composite baseline of the nation's capacity to provide care to children in the ED;
2) To create a foundation for EDs to engage in an ongoing quality improvement process that includes implementing the Guidelines for the Care of Children in the Emergency Department; and
3) To establish a benchmark that measures an ED's improvement over time.

The first phase of this project will be a national assessment of ED readiness to care for children.

Cardiac Arrest Events

The American Heart Association reports that Sudden Cardiac Arrest (SCA) is the leading cause of death in the United States. In SCA, there is an abrupt loss of heart function. It is estimated that there are 300,000 cases of out of hospital SCA assessed by EMS in the United States, yet only 8% survive. It is estimated that about 70% of Americans will feel helpless to act during a cardiac emergency because they either do not know how to administer CPR or their training has significantly lapsed. Only 32% of cardiac arrest victims get CPR from a bystander.

This alarming statistic could hit close to home, because home is exactly where 88% of cardiac arrests occur. Statistically speaking, if called on to administer CPR in an emergency, the life you save is likely to be someone at home: a child, a spouse, a parent or a friend. African-Americans are almost twice as likely to experience cardiac arrest at home, work or in another public location than Caucasians, and their survival rates are twice as poor as for Caucasians.

In the District of Columbia there were 612 instances of sudden cardiac arrest that occurred outside of a hospital during 2012. That is an average of nearly two per day. Yet with all of these events, only 59 of the victims, less than 10%, had CPR performed by a bystander before the arrival of the EMTs and Paramedics on the fire engine and the ambulance. As our data shows, out-of-hospital sudden cardiac arrests are quite common, and they can happen to anyone at any time.

To improve the survival rate, two things need occur; Rapid initiation of Cardio-Pulmonary Resuscitation (CPR) and the application of an Automated External Defibrillator (AED) to the victim. The American Heart Association is endorsing a new CPR technique, “Hands Only CPR.” Using this technique you simply call 9-1-1 and then push hard and fast on the center of the victim’s chest. Recent studies have shown that Hands Only CPR can significantly improve a victims chance of survival.

Hands Only CPR

If you witness someone collapse unexpectedly, follow these steps:

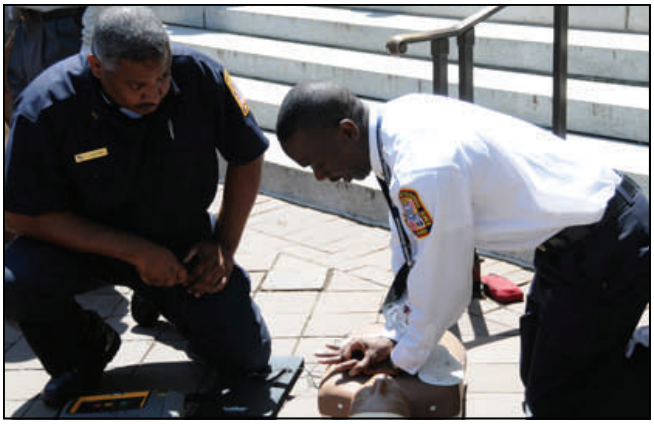
1. Shake the person and shout, "Are you OK?" If the person is unresponsive and not breathing, or breathing abnormally (struggling to breathe, gasping or snoring), direct someone to call 9-1-1 or make the call yourself.

2. Position the patient with their back on the floor. Place the heel of one hand on the center of the chest (between the nipples) and the heel of the other hand on top of the first. Lock your elbows, place your shoulders vertically above your hands and use the weight of your upper body to "fall" downward, compressing the chest 2-inches deep. Lift your hands slightly each time to allow chest wall to recoil. Compress the chest at a rate of about one hundred times per minute (slightly faster than one compression per second). When you tire, take turns with others until paramedics arrive.

3. If an automated external defibrillator (AED) is available, turn it on and follow the AED's voice instructions. If no AED is available, continue chest compressions with as few interruptions as possible.

Important:
Struggling to breathe or gasping is not a sign of recovery! Initiate and continue chest compressions even if patient gasps.

Note: For cases of near drowning, drug overdose or unresponsiveness of young children (age 8 or under), follow conventional CPR (2 mouth-to-mouth ventilations followed by 30 chest compressions). However, even in those cases, Compression-Only CPR is better than doing nothing. To learn conventional CPR, a formal training class is recommended.



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