



THE PULSE

Spring 2012

<http://www.azdhs.gov/bems/pulse.htm>

Volume II, Issue 1

ARIZONA TRAUMA SYSTEM A MODEL FOR SOUTH KOREA

NEWSLETTER

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ADHS Resource Links:



[ADHS Home](#)



[Director's Blog](#)



Offering free telephone & Web-based services to help people quit tobacco

Fast Facts:

- 150,629 trauma records in ASTR (2005 - 2010); project 175,000 after Yr 2011 records validated.
- 135 complaint investigations in 2011 by BEMSTS.
- 1746 STEMI records during 2011.
- 1181 Out-of-Hospital Cardiac Arrest records in 2011.
- 17,707 EMT certifications in 2011 (4% decrease from 2010)
- AZ-PIERS reaches 16,000 ePCRs



By Bentley Bobrow, MD, Medical Director

We had the pleasure of meeting with a delegation of seven health officials from South Korea on February 28 to talk about Arizona's Trauma System. The Director General of Public Health Policy, Dr. Byung Guk Yang, MD, and his team of public health officials, trauma surgeons and emergency physicians met with Will Humble, ADHS Director, and our Emergency Medical Services and Trauma System team to discuss trauma system development and how Arizona's trauma system was established and measured. Arizona has gained a national reputation for our ability to assemble a statewide trauma system and for the quality and completeness of our trauma system data. When we began our quest to improve access to Arizona's system for rural communities just three years ago we had no Level IV Trauma Centers in Arizona. Remarkably we just recognized our 15th Level IV and a second provisional Level III Center in March. Will Humble says it best, "That's progress."

The Republic of Korea's Health Ministry has been charged to develop their national trauma system over the next five years. The South Korean trauma delegation wanted to visit Arizona and Southern California to view first hand our two systems as they embark on their quest to develop their national trauma system. We spent a lot of time with Dr. Yang and his team focusing on the importance of collecting solid hospital and prehospital care data for analyzing and developing an integrated trauma system.

Our overarching message to the Korean Delegation was, "Data is King." We explained that the Arizona State Trauma Registry (ASTR), now more than 150,000 records strong, is used for trauma center designations, evidence-based performance improvement, justifying local and statewide programs and policies, assisting in trauma research, and passing legislation. Our second message was, "Data must be reliable and standardized to be effective in structuring an Integrated EMS and Trauma System."

What do we mean by an "Integrated EMS and Trauma System"? National Highway Transportation Safety Administration (NHTSA) says that, "An integrated EMS and trauma system should, through a coordinated effort, provide a continuum of care while addressing specialized patient needs such as pediatrics, burns, and spinal cord injuries" (Trauma Agenda for the Future). Bringing home the message, Integration must include data from the prehospital- and hospital-based environments in order to paint a more complete picture of the continuum of trauma care. With the advent of the new Arizona Prehospital Information and EMS Registry System (AZ-PIERS), additional trauma data element capture will be facilitated, wetting the brush to paint that complete picture of Arizona's EMS and Trauma System.



FIRST RESPONDER WELLNESS - PREVENTION MATTERS



By Adrienne Udarbe, MS, RD – ADHS Bureau of Nutrition and Physical Activity

Heart disease is the leading cause of death in Arizona, accounting for 10,151 deaths and 66,106 hospitalizations in 2009. Of the 10,151 heart disease-related deaths, 7,372 (73%) were attributed to ischemic heart disease. Of the 66,106 heart disease-related hospitalizations, 27,716 (42%) were attributed to ischemic heart disease. First responders, like the general population are at risk for heart disease. This article discusses these risks and preventative resources of the Arizona Department of Health Services (ADHS) and other local/national resources.

The landmark 2007 National Institute for Occupational Safety and Health (NIOSH) Alert “Preventing Fire Fighter Fatalities Due to Heart Attacks and Other Sudden Cardiovascular Events,” stated “Sudden cardiac death represents the most common cause of a fire fighter fatality.” The 2007 Edition of the National Fire Protection Association (NFPA) 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments included consensus-based revisions to address cardiovascular and fitness issues. The U.S. Fire Administration’s Firefighter Fatalities in the United States in 2010 annual report indicated 57.5% of the 87 on-duty firefighter fatalities were from heart attack (higher than from trauma, crushed, asphyxiation, and other causes combined for that year).

The ADHS Vital Records (VR) for years 2009 through 2011 recorded 89 deaths from selected cardiovascular diseases where the occupation was EMT and Firefighter. Atherosclerotic heart/cardiovascular disease accounted for 58 (65%) of these deaths, of which 7 were persons ages 45-64 years and 51 were ages ≥ 65 years. Of the 89 deaths, 9 involved acute myocardial infarction, of which 1 was 18-24 years of age, 1 ages 25-44 years, 2 ages 45-64 years of age, and 6 ages ≥ 65 years. The VR data does not identify if the deaths occurred on or off duty. The ADHS SHARE Program has a goal for “Arizona to have the best survival rate from cardiac emergencies in the world.” This starts with the health of our own Arizona first responders. While firefighting and related work duties of first responders is strenuous, risk factors for cardiac related fatalities can be prevented by promoting regular physical activity and healthy eating while also creating an environment that supports these behaviors.

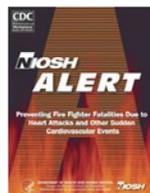
Risk factors for heart disease include diabetes, smoking, high cholesterol, high blood pressure, family history, poor nutrition, physical inactivity, and obesity. The ADHS recognizes the importance of wellness in the professional worksite environment for Fire/EMS personnel, as well their maintaining these same healthy habits while off duty. First responders spend a great deal of their day at work; therefore, worksite health promotion programs are a convenient option for assisting first responders in health and lifestyle areas that, if left unattended, affect their ability to care for others. The ADHS Bureau of Emergency Medical Services & Trauma Systems is introducing the ADHS Bureau of Nutrition and Physical Activity (BNPA) as a statewide resource to simplify the complex process of creating healthy work environments through the ADHS Healthy Arizona Worksites Initiative. Providing health and wellness information to personnel at the workplace demonstrates an organization’s concern for the well-being of its employees. The ADHS Healthy Arizona Worksites Initiative promotes a comprehensive approach to worksite wellness including health promotion and education, physical activity, healthy eating, and the supporting worksite environment. The BNPA has additional resources and technical assistance available including, but not limited to:

- Healthy, easy, and affordable recipes, whether cooking in the firehouse kitchen, or cooking for your family at home.
- Strategies for reducing sodium through our partnership in the National Salt Reduction Initiative.
- Opportunities to increase physical activity during the workday and at home.

The first step to reducing the sudden cardiac deaths of first responders is prevention and promoting a culture that encourages healthy lifestyles at work and at home. Some great wellness efforts are already in place in Arizona, such as the nationally recognized health and wellness program of Phoenix Fire Department and the Glendale Fire Department Health Center. The independently operated HeartFit For Duty Program (HFFD), initially affiliated with Mercy Gilbert Medical Center, has advanced Cardiac and Metabolic screenings, developed after the unfortunate heart attacks of valley firefighters. HFFD offers several low cost screenings for firefighters and their families. For more information contact Megan McCarthy at mccarthy1171@gmail.com.

Let’s work together for a healthier Arizona. Take care of yourself so you can take care of others. For more information on healthy eating and active living through ADHS visit: <http://www.azdhs.gov/healthyliving/index.htm>.

Additional Resources



AZ’s 2010 Trauma Registry identified the 15-19 Year-Old age group having the highest trauma rate for both males and females.

THE GOVERNOR'S OFFICE OF HIGHWAY SAFETY - A LEGACY OF PROGRESS



By Dr. David Harden, JD, NREMTB

The Arizona Governor's Office of Highway Safety (GOHS) is the lead agency in ensuring highway safety in Arizona. The GOHS is a cabinet agency that provides leadership by developing, promoting, and funding programs; influencing public and private policy; and increasing public awareness of highway safety. The GOHS, under the leadership of Alberto C. Gutier, GOHS Director, has accomplished several milestones by supporting effective projects and collaborating with state and local public health and safety agencies. Some of these milestones, contained in the State of Arizona Annual Performance Report FFY 2010, include:

- 15.35% decrease in fatalities per 100 million vehicle miles of travel (VMT) from 2008.
- 13.97% decrease in total traffic fatalities in 2009, the lowest number in almost 20 years;
- 16.41% decrease in alcohol-impaired fatalities, and a 5-year 41.60% decrease from 2005 to 2009;
- 27.25% decrease in speeding-related fatalities, and a 45.47% decrease over the last five years;
- Participated in the national Labor Day DUI crackdown, increasing DUI arrest by 38.23%;
- Continue working on developing and improving DUI Task Force Operations;
- Continue supporting rural emergency medical services providers with EMS equipment.

A major collaboration between the GOHS and the Arizona Department of Health Services/Bureau of EMS and Trauma System is to link crash data with Arizona State Trauma Registry (ASTR) data and the newly implemented Arizona Prehospital Information and EMS Registry System (AZ-PIERS). Linking such data will capture the full spectrum of emergent care of crash-related trauma patients, further the Highway Safety Plan (HSP), assist in evaluating the costs of crash-related injury incidents, and facilitate development of performance improvement measures and EMS/trauma treatment guidelines.

Arizona's FY 2010 Performance Goals Year to Year % Change (2009 FARS)					
Category	Year				
	2006	2007	2008	2009	5-Yrs
Traffic Fatalities	9.67%	-17.17%	-12.42%	-13.97%	-31.55%
Alcohol-Impaired Driving Fatalities	6.40%	-15.54%	-22.26%	-16.41%	-41.6%
Speeding Related Fatalities	12.52%	-22.60%	-13.94%	-27.25%	-45.47%
Passenger Vehicle Occupant Fatalities (unrestrained)	15.52%	-19.19%	-12.93%	-27.27%	-40.89%
Young Drivers (Under 21 Years Old) Involved in Fatal Crashes	6.13%	-20.00%	-15.00%	-38.56%	-55.67%

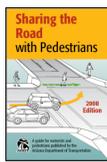
The GOHS 2011 HSP recorded \$203,297 in grant funding allocations to several public health and safety, EMS/fire-rescue agencies, of which 49% was allocated to Occupant Protection, 34% to EMS Support, and 17% to Extrication and Rescue Equipment.

The GOHS, in cooperation with law enforcement agencies statewide, will once again implement strategies to ensure our streets and highways are safe this year by continuing to enforce Arizona's DUI and Impaired Driving laws through high visibility enforcement campaigns and will continue to promote the use of sober designated drivers in these efforts.

For more information or to contact the Governor's Office of Highway Safety please contact Matt Derr, Deputy Director, or 602-255-3216, toll free 1-877-355-3216.



Motorcycle Manual



Pedestrian Safety



Bike Safety



AZ Police Science Journal



Crash Facts



Trauma & Highway Focus

AZ's 2010 Trauma Registry identified Falls as the highest rate of mechanism of injury for pediatric patients (≤ 14) and geriatric patients (> 65)

SHARE DISPATCH CPR PROGRAM



By Micah Panczyk

AZ DISPATCHER-ASSISTED CPR: MAXIMIZING SURVIVAL FROM SUDDEN CARDIAC ARREST

Program Overview

Sudden Cardiac Arrest (SCA) is a leading cause of death in America and major public health problem. A recent estimate put the number of annual EMS-assessed cardiac arrests at 380,000. The chance a victim survives is between 5-10%. An estimated 15 people suffer SCA in Arizona every day.

Emergency response is embodied in the "Chain of Survival," an orchestrated series of rescue actions proceeding from bystander CPR to early defibrillation, and swift transport to a cardiac center for standardized care until the patient is well enough to go home.

Bystander CPR represents a great but often-missed opportunity. It can double or triple a victim's chances of survival, but is only performed in about one-third of all SCA cases nationwide. Time is of the essence, as likelihood of survival falls by 7-10% each minute circulation is not restored. In just five minutes, likelihood of survival is half what it was at the moment of collapse.

The Save Hearts in Arizona Registry and Education program (SHARE, www.azshare.gov), a statewide effort designed to maximize survival, is partnering with 911 dispatch centers and Public Safety Answering Points (PSAP) to enhance the delivery of telephone-assisted CPR and save lives in Arizona communities.

SHARE – a joint venture embracing municipal fire and ambulance agencies, hospitals, ADHS, and UofA Sarver Heart Center – acts as a hub, providing services and resources helping 911 centers implement the latest guidelines from the American Heart Association.

This HIPAA-exempt effort has two central aims:

1. Engage partners in a continuous Quality Assurance (QA) initiative that measures and enhances the delivery of telephone CPR instructions.
2. Provide partners with standardized, confidential QA reports detailing process and outcome (e.g., number of calls where CPR instructions were given divided by number of calls where a QA evaluator identifies the need for CPR, number of calls where CPR instructions were given and the average time to the start of CPR, and other QA variables).

The QA reports shed light on strategies partners can use in their Quality Improvement (QI) efforts and provide a baseline from which gains can be measured. SHARE then makes available training and QI resources tailored to individual 911 center profile. Centers can thus launch long-term, sustainable programs suited to their needs and resources.

Integral to such programs are efforts to recognize call-takers and dispatchers for their life-saving work, and to connect them with the patients whose lives they help save. SHARE facilitates such connections by providing 911 centers with hospital outcome reports and survivor contact information, closing the loop that began with a bystander's call to 911.

Needs Statement

Public education and training campaigns are useful in elevating rates of bystander CPR, but it's difficult to create and maintain an effective citizen-rescue force. The chance a person actually witnesses an SCA is small, but dispatchers "witness" them all the time by virtue of their profession. Dispatchers are perfectly placed to improve survival – when properly trained, they can provide callers with just-in-time instructions and serve as force-multipliers.

Activities to Date

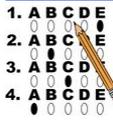
Last October, the Mesa Police and Fire Departments administered a SHARE-sponsored, 3-hour course to train dispatchers and call-takers in the art of telephone-assisted CPR. About 120 staffers were trained in techniques and protocol revisions advanced by the American Heart Association for CPR pre-arrival instructions. SHARE followed-up with evaluations of SCA calls received at the Center after revisions were put in place. Dramatic gains were seen in key variables, including a time reduction from call-receipt to start of CPR by almost one minute – which could lead to a 7-10% increase in SCA survivorship in the Center's service area.

SHARE held its first Dispatch Academy in December. About 65 people attended the day-long training, emphasizing the importance and means of recognizing SCA early in calls and providing prompt, appropriate CPR instructions ([SHARE CPR Dispatch](#)).

Program Evaluation

SHARE's success can be measured in the short-term by bystander CPR rates and time elapsed from call receipt to start of CPR, with the latter decreasing and the former increasing. These improvements translate to improved survival and neurological outcomes, the true long-term measure of the program's success.

ARIZONA'S 2011 NREMT TESTING RESULTS

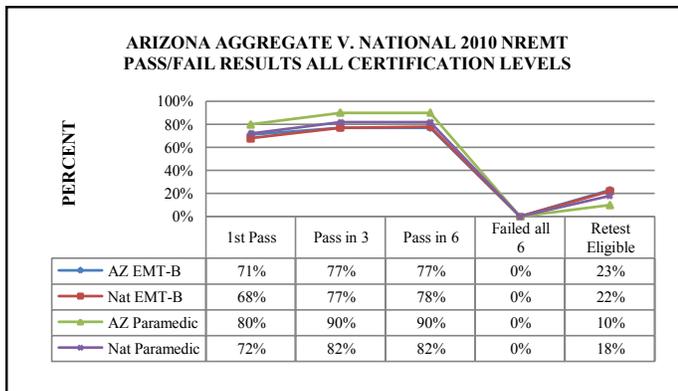


By Doug Crunk, BS, NREMT-P

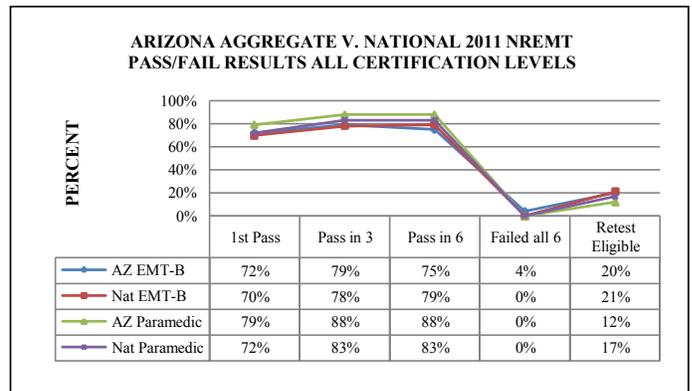
The 2011 National Registry of Emergency Medical Technicians (NREMT) test results for Arizona EMT-Basics and Paramedics demonstrate first time pass rates above the national aggregate. Arizona EMT-Basic and Paramedic respective pass on first attempt was 2% points and 7% points above the national aggregate, respectively.

Arizona EMT-Basic pass on first attempt results by EMS Regions are: Central 72% (same as AZ aggregate), Northern 73% (1% point above AZ aggregate), Southeastern 74% (2% points above AZ aggregate), and Western 66% (6% points below AZ aggregate). Arizona Paramedic pass on first attempt results by EMS Regions are: Central 79% (same as AZ aggregate), Northern 69% (10% points below AZ aggregate), Southeastern 87% (8% points above AZ aggregate), and Western 75% (4% point below AZ aggregate).

Graphs 1 and 2 depict Arizona Aggregate v. National NREMT pass/fail results for 2010 and 2011, respectively. A complete set of graphs of pass/fail results by different variables can be obtained from: [2010-2011 Arizona NREMT Pass/Fail Results](#).



Graph 1



Graph 2

STATUTORY COMMITTEES - 2012 REVISED CALENDAR

MEETING	TIME	DATES
State Trauma Advisory Board	9:00 AM	April 19, September 20
Medical Direction Commission	12:00 PM	April 19, September 20
Emergency Medical Services Council	10:30 AM	April 19, September 20
Trauma & EMS Performance Improvement (TEPI)	9:00 AM	May 24, November 15
Education Committee	10:30 AM	May 24, November 15
Protocols, Medications & Devices Committee	12:00 PM	May 24, November 15
Rules Committee	Moratorium	Rulemaking Moratorium

**All meeting are held in the 150 N. 18th Ave. Building 5th Floor conference room 540A.
The ADHS Rule Moratorium has been extended until June 30, 2012**



Statutory Committees

Conference Call Number: (1-888-757-2790; Code 666732)
I-Linc URL: <https://azdhsems.ilinc.com/register/xcpsxt>
You must register prior to the meeting to join the web conference session



Committee Bylaws

EMS REGIONAL COUNCILS UPDATES



CENTRAL EMERGENCY MEDICAL SYSTEM (AEMS) UPDATE

By: Peggy Baker, AEMS Executive Director

Arizona Emergency Medical Systems, Inc. (AEMS), a 501(c)(3) non-profit, is a community-based, volunteer organization dedicated to improving emergency medical services (EMS) and trauma care for the Central Arizona Region (Maricopa, Pinal, and Gila counties). This past fiscal year (2010-11) marked AEMS' 36th Anniversary in bringing together physicians, nurses, EMTs, paramedics, and hospital administrators to ensure emergency medical care is delivered in a coordinated manner that meets the public's needs.

One of AEMS' primary responsibilities is to serve, on behalf of the State of Arizona, as a Regional EMS Coordinating System. AEMS coordinated numerous educational, planning, community outreach, and advocacy activities to enhance emergency medical and trauma care for the Central Arizona Region (CAR). Some examples include:

- The Functional Group meets six times annually, involving over 50 participants from all levels of EMS and trauma professions to promote education through presentations of Topical Focus (current issues), Agency/Hospital Profile and Program Sharing (CAR information); and Lunch-*n*-Learn.
- Under the chairmanship of Robert Londeree, MD, the Categorization Committee kept track of facility changes within the CAR. The inclusion of the North Peoria Emergency Center prompted the Committee to develop new criteria to formally include Satellite Emergency Centers as part of the Categorization process. AEMS continued collaborating with the Phoenix Stroke Initiative to identify and categorize Primary Stroke Centers, maintaining a strong Stroke System of Care in the CAR. Since the Initiative's inception, AEMS has categorized 16 Primary Stroke Centers, enhancing geographic distribution of Stroke Centers that help curtail long transports challenges.
- The **Red Book** continues to be an important resource for field EMS and trauma personnel – not only used by CAR healthcare professionals, but its content is often replicated by others statewide. The RED Book requires frequent updates and changes and its continued maintenance is essential.
- In March, AEMS coordinated and facilitated the ITLS Pediatric Training, emphasizing the understanding and responding to trauma in children. With assistance from the ADHS/Bureau of Women's and Children's Health, Injury Prevention and Child Fatality Review Section, 22 participants received scholarships to attend.
- In June, AEMS hosted the 11th Annual EMS Odyssey Conference in Phoenix, attended by 200 participants. The conference remains a premiere educational event for healthcare professionals statewide. With assistance from the ADHS/Bureau of Women's and Children's Health, Injury Prevention and Child Fatality Review Section, AEMS awarded CAR rural providers with 13 scholarships for staff to attend.
- AEMS' SE Sector Oversight Committee continued to take a lead role in the monitoring and reducing of the Transfer of Care (aka Hospital Diversion) issue. Our collaborative, voluntary work was met with much success in 2010-11, resulting in the reduction of hospital turnaround times for pre-hospital providers.

One key to AEMS' success as a Regional EMS Coordinating System and non-profit organization is the commitment of individuals who support our mission. This past fiscal year, AEMS' proudly logged over 2,695 volunteer hours (over one full time employee). Volunteers are invaluable to any non-profit organization. For additional information on AEMS, please visit their Website at: <http://www.aems.org/aems>.



NORTHERN ARIZONA EMERGENCY MEDICAL SERVICES (NAEMS) UPDATE

By: Paul Coe, President

The NAEMS Council met on March 2, 2012, and covered the following items:

- Members were urged to register all AEDs in their service areas;
- NAEMS has set aside additional money for training and equipment, and will conduct a screening process to award funds to EMS providers in the Region. Funds were available because administrative costs were lowered by utilizing volunteers;
- Funds were allocated to service Regional AEDs and, in one instance, to replace an AED;
- Funds were authorized to support EMT refresher and paramedic classes.

Completed and Up-coming Events in the NAEMS Region:

- EMSC Conference – The Second Annual Pediatric Conference was held on February 27, 2012, at the Prescott Resort. NAEMS utilized \$10,000 that had been allocated for the EMSC Conference. Some of the funds were used to defray registration costs for EMS providers to encourage attendance. This year's attendance was high and NAEMS will sponsor the conference again next year.
- A Master Trainer Program for the EPIC-TBI Initiative was held at Flagstaff Medical Center on March 26, 2012. Dr. Bobrow, Bruce Barnhart, and Amy Boise presented to course.
- EPIC-TBI Training will be held on April 20, 2012, during the Second Annual White Mountains Trauma Conference.
- The next NAEMS meeting will be on May 4, 2012, in Flagstaff.

For more information, contact NAEMS at gitti@naems.org or visit their website at: <http://www.naems.org/>

In 2010, Home & No Services (32.7%), Floor (28.49%), & ICU (18.55%) were the top 3 highest types of ED discharge dispositions.



SOUTHEASTERN ARIZONA EMERGENCY MEDICAL SERVICES COUNCIL (NAEMS) UPDATE

By: Taylor Payson, Executive Director

The Southeastern Arizona Emergency Medical Services Region (SAEMS) was originally established in 1973. Under new direction from the Arizona Department of Health Services and the Bureau of Emergency Services, SAEMS focuses its attention upon the emergency medical services of the population in southeastern Arizona. The regional council is responsible under state EMS Direction for provider grant funding, training opportunities, data collection and protocol development. It establishes quality assurance/improvement criteria and standards for monitoring and improving the performance and quality of emergency care needs.

SAEMS 2012 MASTER MEETING SCHEDULE (Revised 12.21. 2011)	
Group	Meeting Dates
SAEMS Council	Apr 17; Jun 19; Oct 16
E.M.S Medical Directors	May 16; Sep 19; Dec 19
Regional Trauma Committee	Apr 2; July 16; Oct 1
SAEMS Provider Agency Committee	Second Wed each month
Base Hospital Mangers	Apr 18; Jun 20; Jul 18; Aug 15; Oct 17; Nov 21
PDR	Second Tue each month
AZ BEMS PMD	May (TBD); Nov (TBD)
Air Medical 2012	May 17; Sep 13; Dec 20
Cochise County EMS Council	Every fourth Wed each month
Pima County EMS Council	Sep 13; Nov 15
Santa Cruz EMS Council	May 1; Jul 3; Sep 4; Nov 6

Chuck Kramer Memorial Scholarship Fund

Kick-Off EMS Week Conference May 19, 2012 Brochure

For more information on SAEMS contact Taylor Payson at: tpayson@saems.net or visit the Website at: <http://www.saems.net>



WESTERN ARIZONA COUNCIL OF EMERGENCY MEDICAL SERVICES (WACEMS) UPDATE

By: Rod Reed, President

During 2011 the Western Arizona Council of Emergency Medical Services (WACEMS) continued to support EMS throughout the region. Due to the reductions in funding, the WACEMS decided to concentrate efforts on sponsoring continuing education, and put together a process to provide EMT and Paramedic refresher course at a greatly reduced price for its regional members. These refreshers are available for the Western Region's EMT's for \$25 and Paramedics for \$50.

In May, WACEMS attended the Resuscitation Academy in Seattle along with members from other Arizona regions. Travel costs for this training were paid by the University of Arizona in return for bringing the information back to Arizona. Last October the WACEMS fulfilled that commitment by hosting the Western Region Resuscitation Academy and bringing education about the best practices in Out-of-Hospital Cardiac Arrest (OHCA) resuscitation to the Western Region. This all-day class was free and included lunch!

WACEMS representatives traveled to Glendale to attend the kick-off for the EPIC-Traumatic Brain Injury study. Trainers from the Western Region have attended the EPIC-TBI training sessions and are currently setting up regional training sessions and working on protocol changes.

WACEMS supported La Paz Regional Medical Center in their application to become a designated Critical Access Hospital.

Planning is underway for an upcoming regionally sponsored Basic Designated Infection Control Officer class in Yuma. Class dates are May 3 and 4, 2012. More information on the class will be available on the WACEMS website www.wacems.org, or you can call (928) 246-4208. The class will be taught by Infection Control/Emerging Concepts (visit their website for more information at www.ic-ec.com).

For additional information on WACEMS, please contact Rod Reed, President, at Rod.Reed@wacems.org.

ARIZONA POISON & DRUG INFORMATION CENTER



By Dr. David Harden, JD, NREMTB

The Arizona Poison and Drug Information Center (APDIC) has operated as a public health service since 1955, and was formally established by the State Legislature in April 1980. The APDIC is located in Tucson at the University of Arizona and administratively directed by the College of Pharmacy and serves the citizens of Arizona by providing: accessible poison and medication-related emergency treatment advice, referral assistance, and comprehensive information on poisons and toxins, poison prevention and the safe and proper use of medications. The APDIC is certified by the American Association of Poison Control Centers (AAPCC). Currently, the APDIC operates with 30% of necessary funding coming from the State, 10% from the Federal Government, 10% from private contracts, and the remainder from the College of Pharmacy.

The APDIC includes an array of specialists and experts handling more than 150 calls per day, and include: clinical pharmacists and certified poison information specialists, clinical and medical toxicologists, genetic counselors, emergency medicine and pediatrics physicians, educator for community outreach, and pharmacologists. The APDIC answers 70,000 calls annually, of which 20% are from physicians, nurses, and pharmacists asking questions about medications, exposures to toxic substances, and encounters with venomous desert creatures.

The majority of callers to the APDIC (70%) successfully manage their situation at home, without seeking additional care. Sometimes callers don't recognize that they have a situation that needs medical care, and APDIC poison specialists direct callers to the appropriate level of medical care. A recent study determined the costs of emergency care to patients with conditions similar to those managed by the APDIC. The study found that 70% of callers with these conditions would use emergency department services if the poison hotline was not available. Based on that, the APDIC determined every call to the poison hotline saves approximately \$226 in unnecessary healthcare costs.

Poison specialists at the APDIC recognize an emergency situation, often before symptoms alarm the caller. They know which hospitals have special services, such as pediatric ICUs, and direct patients to the closest place to get the right care. Poison specialists also advise EMTs and paramedics about what to do en route to the emergency department.

As part of a major university, the APDIC is a vital partner in research, especially studies related to venomous creatures. A current project with the UA VIPER* Institute supplies the only available antivenom for scorpion stings to hospitals throughout Arizona. More than 1,200 patients, most of them young children, have avoided long hospitalizations because of this research.

The APDIC has partnered with University of Arizona-affiliated hospitals to restart a Toxicology Fellowship training program for medical doctors. Training is also provided to: Doctor of Pharmacy students, medical residents, Emergency Medicine residents in the military, Nurses, and Paramedics. The APDIC conducts statewide poison prevention outreach, training educators in poison prevention, and partners in education with other injury-prevention organizations.

For additional information, visit the [APDIC website](#) or on [Facebook](#). For more information on staying safe visit the APDIC [POISONology](#) website.

All information and hyperlinks in this article were obtained from the Arizona Poison and Drug Information Center's public website.



Education & Outreach



Pets and Poison



Safe at Home



Plants

Overall, 84.08% of all 2010 State Trauma Registry records were unintentional injuries, with a case fatality rate of 2.1%.

BANNER GOOD SAMARITAN POISON & DRUG INFORMATION CENTER



By Sharyn Welch RN, CSPI, Managing Director, and Donna Stevens, RN, CSPI,
Banner Good Samaritan Poison & Drug Information Center

Banner Good Samaritan Poison and Drug Information Center (Poison Control) is designated by the State of Arizona to serve all of the residents and health care professionals of Maricopa County in managing and preventing incidents of unintentional and intentional poisonings, envenomations, and adverse medication reactions. Educating the public and health professionals in poison prevention and treatment is essential.

Poison Control is a free service operating 24 hours a day, 7 days a week, 365 days a year, with telephone lines staffed by specialized nurses and poison information providers trained in toxicology. Staff has access to many toxicology resources such as Poisindex[®], a comprehensive database that helps guide the treatment and management of poisonings. Six Board Certified Medical Toxicologists are available for consultation with staff and health care providers. One full-time Community Educator is on staff as well.

In 2011, Poison Control received 98,567 calls; 48,000 were human exposures and 50,000 were information calls (information about drugs, scorpions, environmental toxins, etc). Three-fourths (73%) of all exposures were managed without the need for a healthcare facility visit. Eighty-seven percent (87%) of exposure calls concerning children 0-5 years of age were managed at home without the need for an emergency department visit.

Poison Control has a direct phone line to Phoenix Fire Dispatch and a Mobile Computer Terminal (MCT) in their facility. In the event Poison Control determines that fire/paramedics need to assess a poisoning exposure, Poison Control can access this direct line and send help immediately. Registered Nurses, who are Specialists in Poison Information, remain on the line until fire/paramedics arrive, and provide fire/paramedics with pertinent information and treatment recommendations. When Poison Control determines a patient needs to go to an emergency department (ED), a Specialist in Poison Information will call the hospital ED and speak directly to a healthcare provider to offer treatment recommendations and advise what adverse effects the substance can cause. Poison Control follows the patient until a known outcome is obtained from the exposure whether in a healthcare facility or at home.

In 2011, Poison Control received 7,800 calls (16%) from healthcare facilities, of which 82% were unintentional exposures and 14% were intentional-suicide or abuse. Fire departments calls are received in a variety of ways: 911 patch from the fire dispatcher to help determine if paramedics need to respond; calls from fire/paramedics en route to an exposure requesting drug/substance information and recommendations; and calls from Poison Control to request fire/paramedics respond to assist with assessment and/or transport of patient.

Poison Control received 1,815 exposure calls from fire dispatch in 2011, of which 348 (19%) were referred to a health care facility. This means more than 80% of fire dispatch calls to Poison Control were managed at home without needing to dispatch EMS to the scene.

Millions of dollars are saved annually in unnecessary medical expenses for the residents of Maricopa County due to the combined efforts of Poison Control and local fire departments.

Public and Professional education is available by Poison Control's Community Educator and Medical Professionals. Poison prevention materials are also available. Information can be accessed through the [Banner Good Samaritan Poison and Drug Information Center](#) website. The Poison Control's 24/7 Toll-Free number is 1 (800) 222-1222.

For great information and articles about poison centers and other related topics, visit the American Association of Poison Control Centers at: www.aapcc.org.



[Prevention Tips](#)



[Desert Critters](#)



[AAPCC](#)

EPIC-TBI PROGRAM ACCELERATING INTO HIGH GEAR



By Dana Gayer, EPIC Program Coordinator

Each year, an estimated 1.7 million people sustain a Traumatic Brain Injury (TBI) annually, of which: 52,000 die, 275,000 are hospitalized, and 1.365 million (nearly 80%) are treated and released from an emergency department. TBI is a contributing factor to a third (30.5%) of all injury-related deaths in the United States ([CDC/National Center for Injury Prevention and Control](#)).

The Excellence in Prehospital Injury Care (EPIC) Program is a public health initiative funded by the State of Arizona and the National Institute of Health (NIH), and collaboratively performed by the University of Arizona and the Arizona Department of Health Services. EPIC is designed to improve the quality of patient care for traumatic brain injury by dramatically increasing the number of severe TBI victims who survive with good neurologic outcome by thoroughly implementing the national EMS TBI guidelines.

The EPIC Team has accelerated into high gear with the statewide 4-hour Master Training (train-the-trainer) sessions, a major strategy in training all EMS providers in Arizona. Four Master Training (MT) sessions were completed in February and March (Central & North Phoenix; and Southern & Northern Arizona, respectively).

The MT sessions are designed to train and work with key educators in the various EMS systems (urban, suburban and rural) and equip them with the necessary skills, knowledge, and resources to train groups of people within their agency and local community. A small team of trainers cannot personally train the entire 18,000 EMS personnel in Arizona, so partnerships with agencies use train-the-trainer sessions to train as many EMS personnel as possible in the shortest amount of time. **The EPIC team's goal to have all of Arizona's EMS agency personnel trained this summer.**

Below are the currently scheduled MTs for April and May 2012:

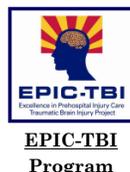
- April 11: AirEvac Services EPIC Informational & Master Trainers Session (Closed to outside agencies)
- April 16: Southern Arizona EPIC Master Trainers Session, Tucson
- May 9: West Phoenix EPIC Master Trainers Session, Goodyear

While the MT course is 4 hours, we may have modules that can be added if it would help to have more Continuing Education Units (CEUs). We will be providing CEU certifications at the end of the successfully completed sessions for all train the trainers.

Additional types of trainings will be provided by the EPIC team, including Provider Trainings and Informational Sessions. Such sessions will be provided on an as-needed basis or based on individual agency needs. The EPIC team emphasizes they are here to meet agency needs by being *flexible*, because while all EMS agencies have the same purpose, a cookie-cutter approach to training and program assistance will not work.

The EPIC Program's Master Trainer approach is making both headlines and progress in the effort to improve the emergency medical care and outcomes of head injury patients, as described in March 9, 2012, article ([azcentral.com](#)).

For questions or further information on the EPIC-TBI Program, please visit the [EPIC-TBI Program website](#), or contact Dana Gayer, EPIC Program Coordinator, at (902) 827-2321 or danagayer@email.arizona.edu.



THE BUREAU OF EMS AND TRAUMA SYSTEM OFFICES

BEMSTS WEBSITE: <http://www.azdhs.gov/bems/index.htm>

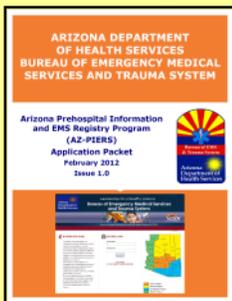


FOR YOUR INFORMATION

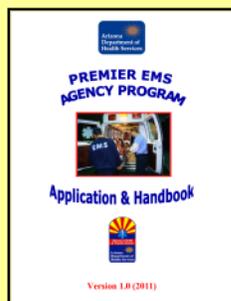
FACTSHEETS & RESOURCES:

- [Seasonal Factsheets](#)
- [Governor's Office of Highway Safety Factsheets](#)
- [PULSE Newsletter Issues](#)

AZ-PIERS



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THE PULSE NEWSLETTER:

The PULSE Newsletter is published by the Data and Quality Assurance (DQA) Section of the Bureau of EMS and Trauma System. To be added to or stay on The PULSE Newsletter mailing list send your email address to David Harden hardend@azdhs.gov.

Suggestions on article topics are welcome and can be submitted to David Harden at: hardend@azdhs.gov.

RESOURCES

RELATED WEBSITES:

[Governor's Office of Highway Safety](#)
[Arizona Ambulance Association \(AzAA\)](#)
[American Ambulance Association \(AAA\)](#)
[American College of Surgeon \(ACS\)](#)
[Arizona Department of Health Services](#)
[Arizona Public Health Association \(AZPHA\)](#)
[Federal Emergency Management Agency \(FEMA\)](#)
[National Association of State EMS Officials \(NASEMSO\)](#)
[National Highway Traffic Safety Administration \(NHTSA\)](#)
[National Registry of Emergency Medical Technicians \(NREMT\)](#)
[National SAFE KIDS Campaign](#)

ADHS PROGRAMS:

[ADHS Home Page](#)
[Bureau of Public Health Emergency Preparedness](#)
[Save Hearts in Arizona Registry and Education \(SHARE\)](#)
[EMS for Children](#)
[Bureau of Nutrition & Physical Activity](#)
[ADHS Native American Liaison](#)
[Arizona Immunization Program](#)

EMS REGIONAL COUNCILS:

[Arizona Emergency Medical Systems \(AEMS\)](#)
[Northern Arizona Emergency Medical \(Systems NAEMS\)](#)
[Southeastern Arizona EMS Council \(SAEMS\)](#)
[Western Arizona Council of EMS \(WACEMS\)](#)

USEFUL TOOLS:

[AZ Guidelines for Field Triage Pocket-Card](#)